

# Cleco | Tame the Line

## PRODUCT CATALOG

Assembly, Material Removal,  
Drilling & Riveting Tools



**HERMES**  
TOOLS

# CONTENTS

## 04 - Assembly Tools

|   |     |
|---|-----|
| Cordless Electric Nutrunners .....      | 8   |
| Corded Electric Nutrunners .....        | 28  |
| Pneumatic Nutrunners/Screwdrivers ..... | 40  |
| Fixtured Spindles .....                 | 58  |
| Controllers & Software .....            | 92  |
| Impact Wrenches .....                   | 106 |
| Pulse Tools .....                       | 110 |
| Torque Wrenches .....                   | 120 |
| Air Motors.....                         | 126 |
| Accessories.....                        | 148 |



## 157 - Drilling & Riveting

|  |     |
|--|-----|
| Hand Drilling Countersinking & Spotfacing..... | 156 |
| Riveting .....                                 | 198 |

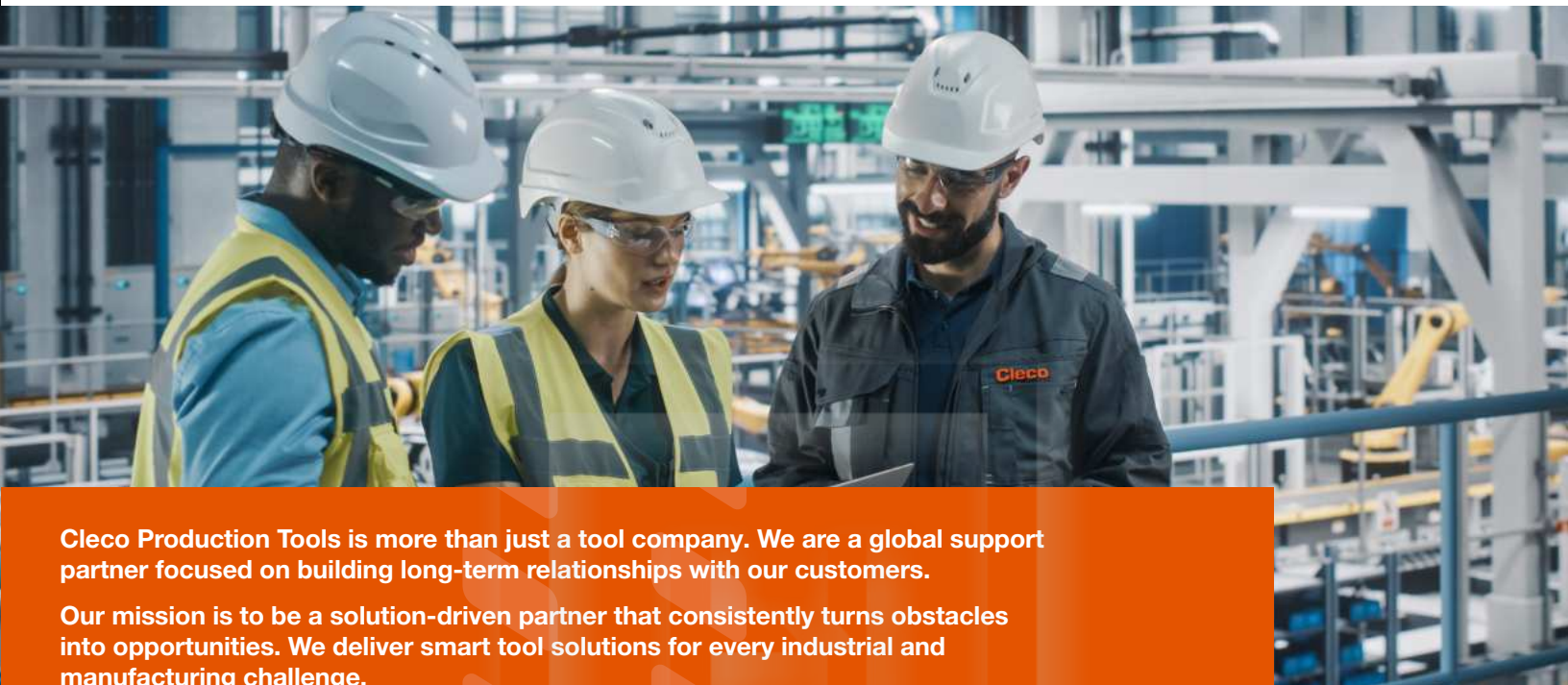


## 189 - Material Removal

|                          |     |
|--------------------------|-----|
| Grinders .....           | 210 |
| Sanders & Polishers..... | 244 |
| Specialty Tools .....    | 258 |
| Accessories.....         | 278 |



# Ready with solutions that make your line more accurate, connected, productive and safe.



**Cleco Production Tools is more than just a tool company. We are a global support partner focused on building long-term relationships with our customers.**

**Our mission is to be a solution-driven partner that consistently turns obstacles into opportunities. We deliver smart tool solutions for every industrial and manufacturing challenge.**

Cleco offers fit-for-purpose, integrated tool solutions to keep your assembly line running smoothly. Our production tool solutions help improve productivity, control quality and maintain safety. Since 1894, Cleco has delivered value to many of the world's leading manufacturers in a variety of industries, including Automotive/Motor Vehicle Industry, Agriculture & Lawn Equipment, Heavy Truck & Trailer, Large Appliance, Aerospace and more.

## North America

### Detroit, Michigan

2630 Superior Court  
Auburn Hills, MI 48236  
United States  
1 (248) 391-3700

### Lexington, South Carolina

670 Industrial Drive  
Lexington, SC 29072  
United States  
1 (800) 845-5629  
1 (803) 951-7510

### Queretaro, Mexico

Vialidad Del Pueblito 103  
Parque Industrial  
Querétaro, QRO 76220  
Mexico  
52 (442) 211 3800

## South America

Mississauga, Canada  
7631 Bath Road  
Mississauga L4T 3T1  
Canada  
(866) 691-6212

### Sao Paulo, Brazil

Avenida Liberdade 4055  
Iporanga-Sorocaba  
Sao Paulo 18087-170  
Brazil  
55 15 3238 3870

## Europe

### Westhausen, Germany

Industriestraße 1  
73463 Westhausen  
Germany  
49 (0) 73 63 81 0

## Asia Pacific

### Shanghai, China

No. 177 Bibo Road  
201, Area C  
Pu Dong New Area,  
Shanghai  
China 201203 P.R.C.  
86 21 60880320

### Albury, Australia

519 Nurigong Street, Albury  
NSW 2640  
Australia  
61 2 6058 0300

## Pune, India

Gala No. 1, Plot No. 5 S. No.  
234, 235 & 245  
Indialand Global Industrial  
Taluka-Mulsi, Phase I  
Hinjawadi, Pune 411057  
Maharashtra  
India  
91 020 66761111

## Tokyo, Japan

Korin-Kaikan 5F  
3-6-23 Shibakoen  
Minato-Ku, Tokyo 105-0011  
Japan  
81-3-6450-1840

## Seoul, Korea

#1503, Hibrand Living Bldg.  
215 Yangjae-dong  
Seocho-gu, Seoul 137-924  
Korea  
82-2-2155-0250

# Cleco

---

## ASSEMBLY TOOLS



**Cleco** | Tame the Line

SHOWN: CELLCLUTCH



# ASSEMBLY TOOLS

## COUNT ON **CLECO CORDLESS ASSEMBLY TOOLS** WHEN MOBILITY IS ESSENTIAL.

Cleco cordless assembly tools are designed for maximum mobility. Cleco offers the ability to run up to 16 cordless assembly tools from one global controller, a savings of up to 50% over traditional systems. Cleco Cordless nutrunners have been designed to provide wireless connectivity in manufacturing environments. The flexibility of a wireless tool in safety critical applications can greatly improve operator productivity.



## THE SMARTEST TOOL FOR THE **TOUGHEST ENVIRONMENT.**

The new CellCore™ cordless assembly tools are smart, durable and designed to withstand the toughest environments. The lightweight ergonomic design reduces operator fatigue while delivering state-of-the-art power, weight and balance. A large user interface makes it quick and easy to program rundowns on the tool without a controller. CellCore puts you in control with cordless assembly tools that are easy to handle, and hard to break.

## CLECO'S LIVEWIRE™ 2 TOOLS ARE **STRONGER, LIGHTER, AND LONG LASTING.**

LiveWire™ 2 tools perform up to 1700 rundowns on a single battery charge and can run up to 500,000 cycles between maintenance. The second generation of LiveWire 2 tools is lighter than the original, has a compact design, and still maintains the same operator-friendly interface and precision performance you've come to know from Cleco.



# CellClutch®

Simplicity and intelligence merge with our newest innovation in cordless tools. CellClutch delivers torque control for functional joints, programmable with up to seven stages to prevent cross thread errors, has RPM speed control and provides repeatability and fastening accuracy during the assembly tightening process.

## Quick Tool Installation

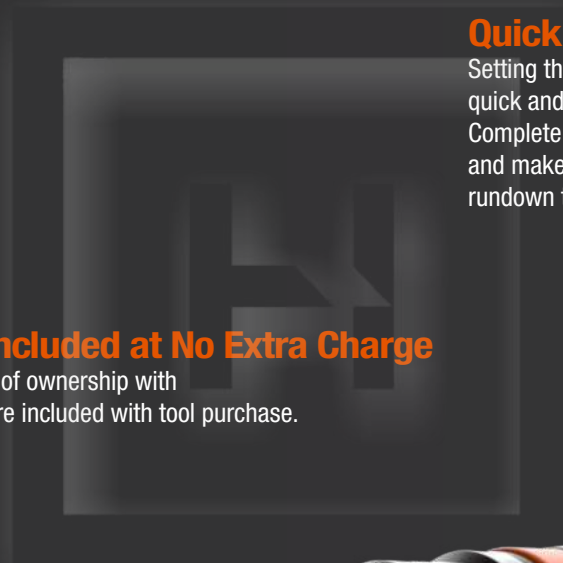
Setting the preferred torque is a quick and easy 3-step process: Complete a rundown, read the torque and make adjustments, complete another rundown to verify required torque is met.

## Software Included at No Extra Charge

Reduce total cost of ownership with CellClutch software included with tool purchase.

## Improved Visibility

Built-in LED worklight illuminates the work surface to reduce strain.



Powered by the Milwaukee® M18 Red Lithium battery platform and available in WiFi/Bluetooth connected versions, Cleco tools can seamlessly communicate with the Cleco mPro™ line of controllers using both WiFi (2.4 & 5 GHz) and Bluetooth v4.2 (Low Energy and BR/EDR wireless communication) in a single convenient tool. With CellClutch, tool intelligence has never been so simple.



### Accuracy

CM > 1.67 within a +/- 10% tolerance range

### Speed Control

Easily change the tool's RPM settings to meet the required application requirements.

### Ergonomic

Lightweight, cordless design eliminates the need for bulky cords and hoses.

### Connected Advantage\*

WiFi (2.4 & 5 GHz) and Bluetooth v4.2 (Low Energy and BR/EDR wireless communication) connected for easy-to-program setting adjustments, live reporting, traceability, and batch counting through the mPro controller platform.

\* Available in Connected version only, mPro controller sold separately.

\*Bluetooth is a registered trademark owned by Bluetooth SIG, Inc.

## CellClutch Connect - Cordless Electric - Pistol

**CellClutch® Cordless Assembly Tools deliver simple, programmable torque control to your line.**

- Reduced Operator Error - Pre-set torque, “ok” “not ok” green and red lights make tool operation simple.
- Eliminate cross threads and errors during rundowns with programmable speeds and strategies.
- Eliminate Over Torque Damage - Contactless electronic switch shuts off tightening rotation when set torque is reached.
- Reliable Single Battery Platform - Milwaukee® M18 Red Lithium battery can be used across the entire Cleco cordless range to reduce complexity and costs in your plant.
- WiFi (2.4 & 5 GHz) and Bluetooth v4.2 (Low Energy and BR/EDR) wireless communication for easy-to-program setting adjustments, live reporting, traceability, and batch counting through the mPro controller platform.
- \*Available in Connected version only, mPro Controller sold separately
- \*Bluetooth is a registered trademark owned by Bluetooth SIG, Inc.
- Speed Control - Easily change the tool's RPM settings to meet the required application requirements.
- Ergonomic - Lightweight, cordless design eliminates the need for bulky cords and hoses.
- Improved Visibility - Built-in LED worklight illuminates the work surface to reduce strain.
- Software Included At No Extra Charge - Reduce total cost of ownership with CellClutch software included with tool purchase.
- Accuracy – CM 1.67 within a +/- 10% tolerance range



| Model       | Torque Range |        |           |           | Free Speed (rpm) | Weight |     |
|-------------|--------------|--------|-----------|-----------|------------------|--------|-----|
|             | Min Nm       | Max Nm | Min Ft Lb | Max Ft Lb |                  | Lb     | kg  |
| CLBPW04Q-00 | 1.1          | 4.0    | 0.8       | 2.9       | 1500 r/min       | 2.4    | 1.1 |
| CLBPW04Q-CN | 1.1          | 4.0    | 0.8       | 2.9       | 1500 r/min       | 2.4    | 1.1 |
| CLBPW04Q-EU | 1.1          | 4.0    | 0.8       | 2.9       | 1500 r/min       | 2.4    | 1.1 |
| CLBPW04Q-NA | 1.1          | 4.0    | 0.8       | 2.9       | 1500 r/min       | 2.4    | 1.1 |
| CLBPW08Q-00 | 2.1          | 8.0    | 1.5       | 5.9       | 985 r/min        | 2.4    | 1.1 |
| CLBPW08Q-CN | 2.1          | 8.0    | 1.5       | 5.9       | 985 r/min        | 2.4    | 1.1 |
| CLBPW08Q-EU | 2.1          | 8.0    | 1.5       | 5.9       | 985 r/min        | 2.4    | 1.1 |
| CLBPW08Q-NA | 2.1          | 8.0    | 1.5       | 5.9       | 985 r/min        | 2.4    | 1.1 |
| CLBPW12Q-00 | 3.2          | 12.0   | 2.4       | 8.8       | 700 r/min        | 2.4    | 1.1 |
| CLBPW12Q-CN | 3.2          | 12.0   | 2.4       | 8.8       | 700 r/min        | 2.4    | 1.1 |
| CLBPW12Q-EU | 3.2          | 12.0   | 2.4       | 8.8       | 700 r/min        | 2.4    | 1.1 |
| CLBPW12Q-NA | 3.2          | 12.0   | 2.4       | 8.8       | 700 r/min        | 2.4    | 1.1 |

Note: Connected tools are region-specific. To avoid Wi-Fi or connectivity issues, make sure to order the correct model number for the region where the tool will be used.

NA=North America, EU=Europe, CH=China; 00=Rest of World



## CellClutch Connect- Cordless Electric - Right Angle

**CellClutch® Cordless Assembly Tools deliver simple, programmable torque control to your line.**



- Reduced Operator Error - Pre-set torque, “ok” “not ok” green and red lights make tool operation simple.
- Eliminate cross threads and errors during rundowns with programmable speeds and strategies.
- Eliminate Over Torque Damage - Contactless electronic switch shuts off tightening rotation when set torque is reached.
- Reliable Single Battery Platform - Milwaukee® M18 Red Lithium battery can be used across the entire Cleco cordless range to reduce complexity and costs in your plant.
- Quick Tool Installation - Setting the preferred torque is a quick and easy 3-step process: Complete a rundown, read the torque and make adjustments, complete another rundown to verify required torque is met.
- WiFi (2.4 & 5 GHz) and Bluetooth v4.2 (Low Energy and BR/EDR) wireless communication for easy-to-program setting adjustments, live reporting, traceability, and batch counting through the mPro controller platform.
- \*Available in Connected version only, mPro Controller sold separately
- \*Bluetooth is a registered trademark owned by Bluetooth SIG, Inc.
- Speed Control - Easily change the tool's RPM settings to meet the required application requirements.
- Ergonomic - Lightweight, cordless design eliminates the need for bulky cords and hoses.
- Improved Visibility - Built-in LED worklight illuminates the work surface to reduce strain.
- Software Included At No Extra Charge - Reduce total cost of ownership with CellClutch software included with tool purchase.
- Accuracy – CM 1.67 within a +/- 10% tolerance range

| Model       | Torque Range |        |           |           | Free Speed (rpm) | Weight |     |
|-------------|--------------|--------|-----------|-----------|------------------|--------|-----|
|             | Min Nm       | Max Nm | Min Ft Lb | Max Ft Lb |                  | Lb     | kg  |
| CLBAW203-CN |              |        |           |           |                  |        |     |
| CLBAW303-CN |              |        |           |           |                  |        |     |
| CLBAW653-00 | 15.9         |        | 11.7      | 47.9      | 115 r/min        | 4.3    | 2.0 |
| CLBAW083-00 | 2.2          | 8      | 1.6       | 5.9       | 915 r/min        | 3.3    | 1.5 |
| CLBAW083-CN | 2.2          | 8      | 1.6       | 5.9       | 915 r/min        | 3.3    | 1.5 |
| CLBAW083-EU | 2.2          | 8      | 1.6       | 5.9       | 915 r/min        | 3.3    | 1.5 |
| CLBAW083-NA | 2.2          | 8      | 1.6       | 5.9       | 915 r/min        | 3.3    | 1.5 |
| CLBAW123-00 | 3.3          | 12     | 2.4       | 8.8       | 650 r/min        | 3.3    | 1.5 |
| CLBAW123-CN | 3.3          | 12     | 2.4       | 8.8       | 650 r/min        | 3.3    | 1.5 |
| CLBAW123-EU | 3.3          | 12     | 2.4       | 8.8       | 650 r/min        | 3.3    | 1.5 |
| CLBAW123-NA | 3.3          | 12     | 2.4       | 8.8       | 650 r/min        | 3.3    | 1.5 |
| CLBAW203-00 | 8.3          | 21     | 6.1       | 15.5      | 360 r/min        | 3.9    | 1.8 |
| CLBAW203-EU | 8.3          | 21     | 6.1       | 15.5      | 360 r/min        | 3.9    | 1.8 |
| CLBAW203-NA | 8.3          | 21     | 6.1       | 15.5      | 360 r/min        | 3.9    | 1.8 |
| CLBAW303-00 | 8.3          | 30     | 6.1       | 22.1      | 255 r/min        | 3.9    | 1.8 |
| CLBAW303-EU | 8.3          | 30     | 6.1       | 22.1      | 255 r/min        | 3.9    | 1.8 |
| CLBAW303-NA | 8.3          | 30     | 6.1       | 22.1      | 255 r/min        | 3.9    | 1.8 |
| CLBAW403-00 | 15.1         | 41     | 11.1      | 30.2      | 185 r/min        | 4.1    | 1.9 |
| CLBAW403-CN | 15.1         | 41     | 11.1      | 30.2      | 185 r/min        | 4.1    | 1.9 |
| CLBAW403-EU | 15.1         | 41     | 11.1      | 30.2      | 185 r/min        | 4.1    | 1.9 |
| CLBAW403-NA | 15.1         | 41     | 11.1      | 30.2      | 185 r/min        | 4.1    | 1.9 |
| CLBAW653-CN | 15.9         | 65     | 11.7      | 47.9      | 115 r/min        | 4.3    | 2   |
| CLBAW653-EU | 15.9         | 65     | 11.7      | 47.9      | 115 r/min        | 4.3    | 2   |
| CLBAW653-NA | 15.9         | 65     | 11.7      | 47.9      | 115 r/min        | 4.3    | 2   |

Note: Connected tools are region-specific. To avoid Wi-Fi or connectivity issues, make sure to order the correct model number for the region where the tool will be used.

NA=North America, EU=Europe, CH=China; 00=Rest of World

## CellClutch - Cordless Electric - Pistol

**CellClutch® Cordless Assembly Tools deliver simple, programmable torque control to your line.**

- Reduced Operator Error - Pre-set torque, “ok” “not ok” green and red lights make tool operation simple.
- Eliminate cross threads and errors during rundowns with programmable speeds and strategies.
- Eliminate Over Torque Damage - Contactless electronic switch shuts off tightening rotation when set torque is reached.
- Reliable Single Battery Platform - Milwaukee® M18 Red Lithium battery can be used across the entire Cleco cordless range to reduce complexity and costs in your plant.
- Quick Tool Installation - Setting the preferred torque is a quick and easy 3-step process: Complete a rundown, read the torque and make adjustments, complete another rundown to verify required torque is met.
- Speed Control - Easily change the tool's RPM settings to meet the required application requirements.
- Ergonomic - Lightweight, cordless design eliminates the need for bulky cords and hoses.
- Improved Visibility - Built-in LED worklight illuminates the work surface to reduce strain.
- Software Included At No Extra Charge - Reduce total cost of ownership with CellClutch software included with tool purchase.
- Accuracy – CM 1.67 within a +/- 10% tolerance range



| Model   | Torque Range |        |           |           | Free Speed (rpm) | Weight |     |
|---------|--------------|--------|-----------|-----------|------------------|--------|-----|
|         | Min Nm       | Max Nm | Min Ft Lb | Max Ft Lb |                  | Lb     | kg  |
| CLBP04Q | 1.1          | 4.0    | 0.8       | 2.9       | 1500 r/min       | 2.4    | 1.1 |
| CLBP08Q | 2.1          | 8.0    | 1.5       | 5.9       | 985 r/min        | 2.4    | 1.1 |
| CLBP12Q | 3.2          | 12.0   | 2.4       | 8.8       | 700 r/min        | 2.4    | 1.1 |

## CellClutch - Cordless Electric - Right Angle

**CellClutch® Cordless Assembly Tools deliver simple, programmable torque control to your line.**

- Reduced Operator Error - Pre-set torque, “ok” “not ok” green and red lights make tool operation simple.
- Eliminate cross threads and errors during rundowns with programmable speeds and strategies.
- Eliminate Over Torque Damage - Contactless electronic switch shuts off tightening rotation when set torque is reached.
- Reliable Single Battery Platform - Milwaukee® M18 Red Lithium battery can be used across the entire Cleco cordless range to reduce complexity and costs in your plant.
- Quick Tool Installation - Setting the preferred torque is a quick and easy 3-step process: Complete a rundown, read the torque and make adjustments, complete another rundown to verify required torque is met.
- Speed Control - Easily change the tool's RPM settings to meet the required application requirements.
- Ergonomic - Lightweight, cordless design eliminates the need for bulky cords and hoses.
- Improved Visibility - Built-in LED worklight illuminates the work surface to reduce strain.
- Software Included At No Extra Charge - Reduce total cost of ownership with CellClutch software included with tool purchase.
- Accuracy – CM 1.67 within a +/- 10% tolerance range



| Model   | Torque Range |        |           |           | Free Speed (rpm) | Weight |     |
|---------|--------------|--------|-----------|-----------|------------------|--------|-----|
|         | Min Nm       | Max Nm | Min Ft Lb | Max Ft Lb |                  | Lb     | kg  |
| CLBA083 | 2.2          | 8      | 1.6       | 5.9       | 915 r/min        | 3.3    | 1.5 |
| CLBA123 | 3.3          | 12     | 2.4       | 8.8       | 650 r/min        | 3.3    | 1.5 |
| CLBA203 | 8.3          | 21     | 6.1       | 15.5      | 360 r/min        | 3.9    | 1.8 |
| CLBA303 | 8.3          | 30     | 6.1       | 22.1      | 255 r/min        | 3.9    | 1.8 |
| CLBA403 | 15.1         | 41     | 11.1      | 30.2      | 185 r/min        | 4.1    | 1.9 |
| CLBA653 | 15.9         | 65     | 11.7      | 47.9      | 115 r/min        | 4.3    | 2   |

# Introducing:

# CellTek™

## Cordless Assembly Tools

### Safety/Accuracy

Repeatability of 2.0 cm/cmK @ +/- 7% accuracy for safety critical joints

## FEEL THE FUTURE OF CONNECTIVITY

Cleco's new CellTek™ Cordless Assembly Tools bring superior connectivity, with the most reliable real-time synchronization with manufacturing and engineering systems. Designed to ensure safety-critical assembly with best-in-class accuracy, they are also the fastest cordless assembly tools in its class.



### Multi-Color LED

Work light for secondary "ok/not ok" operator feedback while also illuminating your workpiece



Designed to enable the **Smart Factory of Tomorrow**, Cleco introduces the **most advanced cordless nutrunner, CellTek.**



**Connectivity** - The most reliable real-time synchronization with manufacturing and engineering systems



**Speed** - Improve your production time with the fastest cordless assembly tools in its class



**Ergonomic** - Sleek and lightweight for the ultimate in comfort and balance



**Accurate** - Ensures safety-critical assembly with best-in-class accuracy and repeatability

FEEL THE FUTURE OF CONNECTIVITY 



### Decreased Takt Times

Patented motor technology allows increased speeds over other battery platforms



### Stay Alive Function

Prevents reboot during battery change, gaining time and efficiency



### Flexible

Easily connects over Wifi (2.4 & 5.0 GHz) or Bluetooth 4.0



## CellTek - Cordless Electric - Pistol

Designed to ensure safety-critical assembly with best-in-class accuracy, they are also the fastest cordless assembly tools in its class.



- Connectivity - The most reliable realtime synchronization with manufacturing and engineering systems
- Speed - Improve your production time with the fastest cordless assembly tools in its class
- Ergonomic - Sleek and lightweight for the ultimate in comfort and balance
- Accurate - Ensures safety-critical assembly with best-in-class accuracy and repeatability

| Model    | Torque Range |        |              |              | Free Speed<br>(rpm) | Weight |      | Output Drive      |
|----------|--------------|--------|--------------|--------------|---------------------|--------|------|-------------------|
|          | Min Nm       | Max Nm | Min Ft<br>Lb | Max Ft<br>Lb |                     | Lb     | kg   |                   |
| CTBPW05Q | 1.1          | 4.9    | 0.8          | 3.6          | 3525 r/min          | 2.0    | 0.90 | 1/4" Quick Change |
| CTBPW10Q | 2.4          | 10.0   | 1.8          | 7.4          | 1600 r/min          | 2.1    | 0.95 | 1/4" Quick Change |
| CTBPW15Q | 3.4          | 14.4   | 2.5          | 10.6         | 1125 r/min          | 2.1    | 0.95 | 1/4" Quick Change |

Values do not include battery.  
2ah Battery weighs 0.43kg. 5ah Battery weighs 0.72kg.

## CellTek - Cordless Electric - Right Angle

Designed to ensure safety-critical assembly with best-in-class accuracy, they are also the fastest cordless assembly tools in its class.

- Connectivity - The most reliable realtime synchronization with manufacturing and engineering systems
- Speed - Improve your production time with the fastest cordless assembly tools in its class
- Ergonomic - Sleek and lightweight for the ultimate in comfort and balance
- Accurate - Ensures safety-critical assembly with best-in-class accuracy and repeatability



| Model    | Torque Range |        |           |           | Free Speed (rpm) | Weight |      | Output Drive      |
|----------|--------------|--------|-----------|-----------|------------------|--------|------|-------------------|
|          | Min Nm       | Max Nm | Min Ft Lb | Max Ft Lb |                  | Lb     | kg   |                   |
| CTBAW153 | 3.6          | 15.0   | 2.7       | 11.1      | 1025 r/min       | 3.1    | 1.40 | 3/8" Square Drive |
| CTBAW213 | 5.2          | 21.0   | 3.8       | 15.5      | 735 r/min        | 3.1    | 1.40 | 3/8" Square Drive |
| CTBAW273 | 6.8          | 27.0   | 5.0       | 19.9      | 560 r/min        | 3.1    | 1.40 | 3/8" Square Drive |
| CTBAW383 | 10.0         | 38.0   | 7.4       | 28.0      | 395 r/min        | 3.4    | 1.55 | 3/8" Square Drive |
| CTBAW503 | 13.0         | 50.0   | 9.6       | 36.9      | 285 r/min        | 3.5    | 1.60 | 3/8" Square Drive |
| CTBAW653 | 17.0         | 65.0   | 12.5      | 47.9      | 220 r/min        | 3.7    | 1.70 | 3/8" Square Drive |

Values do not include battery.  
2ah Battery weighs 0.43kg. 5ah Battery weighs 0.72kg.

## CellCore™ puts you in control with cordless assembly tools that are **easy to handle**, and **hard to break**.

Cleco's new CellCore™ Cordless Assembly Tools are smart, durable and designed to withstand the toughest environments. The lightweight ergonomic design reduces operator fatigue while delivering state-of-the-art power, weight and balance. A large user interface makes it quick and easy to program rundowns on the tool without a controller.



**Durable** - Assembly line tough  
(Drop tested up to 5 feet)



**Reliable** - Increases uptime with 500k cycles between maintenance



**Ergonomic** - Reduces operator fatigue while delivering state-of-the-art power and intelligence



**Easy to Use** - Large user interface allows easy on-the-tool programming without a controller

**EASY TO HANDLE. HARD TO BREAK.**



### **CellCore is the most versatile, easy-to-use cordless tool in the industry.**

Users can program up to 10 rundown strategies, called “FastApps”, directly on the tool in standalone mode. Users can also pair CellCore tools with Cleco's new mPro200 controller. By pairing the devices, users can easily capture data in real time and program advanced rundowns within a much more compact footprint.



## THE SMARTEST TOOL FOR THE TOUGHEST ENVIRONMENT



### CellCore High Torque



**FastApps** - Program up to 10 applications directly on the tool or connect to a controller for maximum functionality

**Versatile** - 40-2000Nm range allowing more flexibility in your tool

**Reliable** - Norbar® torque multiplier provides proven accuracy and quality

**Access** - 360° rotating head and handle for maximum accessibility

**ALL  
NEW**

## CellCore - Cordless Electric - Pistol

**Assembly line tough, designed for Quality Critical Applications and programming on the tool**

- Durable - Assembly line tough (Drop tested up to 5 feet!)
- Reliable - Increases uptime with 500k cycles between maintenance
- Ergonomic - Reduces operator fatigue while delivering state-of-the-art power and intelligence
- Easy to Use - Large user interface allows easy on-the-tool programming without a controller

| Model    | Torque Range |        |           |           | Free Speed (rpm) | Weight |      | Output Drive      |
|----------|--------------|--------|-----------|-----------|------------------|--------|------|-------------------|
|          | Min Nm       | Max Nm | Min Ft Lb | Max Ft Lb |                  | Lb     | kg   |                   |
| CCBPW04Q | 1.2          | 4      | 0.9       | 2.9       | 2480 r/min       | 2.16   | 0.98 | 1/4" Quick Change |
| CCBPW123 | 3.6          | 12     | 2.7       | 8.8       | 800 r/min        | 2.32   | 1.05 | 3/8" Square Drive |
| CCBPW12Q | 3.6          | 12     | 2.7       | 8.8       | 800 r/min        | 2.32   | 1.05 | 1/4" Quick Change |
| CCBPW223 | 6.6          | 22     | 4.9       | 16.2      | 430 r/min        | 2.32   | 1.05 | 3/8" Square Drive |
| CCBPW22Q | 6.6          | 22     | 4.9       | 16.2      | 430 r/min        | 2.32   | 1.05 | 1/4" Quick Change |

Values do not include battery.  
2ah Battery weighs 0.43kg. 5ah Battery weighs 0.72kg.



## CellCore - Cordless Electric - Right Angle

**Assembly line tough, designed for Quality Critical Applications and programming on the tool**

- Durable - Assembly line tough (Drop tested up to 5 feet)
- Reliable - Increases uptime with 500k cycles between maintenance
- Ergonomic - Reduces operator fatigue while delivering state-of-the-art power and intelligence
- Easy to Use - Large user interface allows easy on-the-tool programming without a controller

| Model    | Torque Range |        |           |           | Free Speed (rpm) | Weight |      | Output Drive                      |
|----------|--------------|--------|-----------|-----------|------------------|--------|------|-----------------------------------|
|          | Min Nm       | Max Nm | Min Ft Lb | Max Ft Lb |                  | Lb     | kg   |                                   |
| CCBAW153 | 4.5          | 15     | 3.3       | 11.0      | 570 r/min        | 3.75   | 1.70 | 3/8" Square Drive - Pin Detent    |
| CCBAW15B | 4.5          | 15     | 3.3       | 11.0      | 570 r/min        | 3.75   | 1.70 | 3/8" Square Drive - Ball Retainer |
| CCBAW253 | 7.5          | 25     | 5.5       | 18.4      | 305 r/min        | 3.75   | 1.70 | 3/8" Square Drive - Pin Detent    |
| CCBAW25B | 7.5          | 25     | 5.5       | 18.4      | 305 r/min        | 3.75   | 1.70 | 3/8" Square Drive - Ball Retainer |
| CCBAW353 | 10.5         | 35     | 7.7       | 25.8      | 255 r/min        | 4.3    | 1.95 | 3/8" Square Drive - Pin Detent    |
| CCBAW35B | 10.5         | 35     | 7.7       | 25.8      | 255 r/min        | 4.3    | 1.95 | 3/8" Square Drive - Ball Retainer |
| CCBAW503 | 15           | 50     | 11.1      | 36.8      | 165 r/min        | 4.41   | 2.00 | 3/8" Square Drive - Pin Detent    |
| CCBAW50B | 15           | 50     | 11.1      | 36.8      | 165 r/min        | 4.41   | 2.00 | 3/8" Square Drive - Ball Retainer |

Values do not include battery.  
2ah Battery weighs 0.43kg.  
5ah Battery weighs 0.72kg.



## CellCore – Cordless Electric – High Torque

Assembly line tough, designed for High Torque Applications and programming on the tool

- FastApps – Program up to 10 applications directly on the tool or connect to a controller for maximum functionality
- Versatile – 40-2000 Nm range allowing more flexibility in your tool
- Reliable – Norbar® torque multiplier provides proven accuracy and quality
- Access – 360° rotating head and handle for maximum accessibility



| Model         | Torque Range |        |           |           | Free Speed (rpm) | Weight |      | Output Drive      |
|---------------|--------------|--------|-----------|-----------|------------------|--------|------|-------------------|
|               | Min Nm       | Max Nm | Min Ft Lb | Max Ft Lb |                  | Lb     | kg   |                   |
| CCBPWN200D6   | 39           | 195    | 29.5      | 143.8     | 42 r/min         | 7.41   | 3.36 | 3/4" Square Drive |
| CCBAWN225NB6  | 45           | 225    | 33.2      | 166       | 34 r/min         | 10.3   | 4.7  | 3/4" Square Drive |
| CCBPWN500D6   | 119          | 500    | 87.8      | 368.8     | 14 r/min         | 7.41   | 3.36 | 3/4" Square Drive |
| CCBAWN750NB6  | 154          | 750    | 113.6     | 553.2     | 11 r/min         | 11.0   | 5.0  | 3/4" Square Drive |
| CCBAWN1000NB6 | 200          | 1000   | 147.5     | 737.6     | 7 r/min          | 11.0   | 5.0  | 3/4" Square Drive |
| CCBPWN1000D6  | 214          | 1000   | 157.8     | 737.6     | 8 r/min          | 14.73  | 6.68 | 3/4" Square Drive |
| CCBPWN1350D8  | 293          | 1350   | 216       | 995.7     | 6 r/min          | 14.73  | 6.68 | 1" Square Drive   |
| CCBPWN2000D8  | 436          | 2000   | 321.6     | 1475      | 4 r/min          | 14.73  | 6.68 | 1" Square Drive   |

Values do not include battery.  
 2ah Battery weighs 0.43kg.  
 5ah Battery weighs 0.72kg.

## Batteries

### Batteries for Cordless Tools

- Smart Lithium-Ion Battery pack for the complete Cleco Cordless product line
- 2.0 Ah 18V and 5.0 Ah 18V options

| Model       | Description                       |
|-------------|-----------------------------------|
| T50-1000497 | 18V, 2.0Ah Battery (.43kg/.94lb)  |
| T50-1000498 | 18V, 5.0Ah Battery (.72kg/1.60lb) |



## Chargers

### Chargers for Batteries

- Battery Charger for 18V batteries

| Model       | Description                              |
|-------------|--|
| T50-1000499 | 18V Rapid Charger (110V NA)              |
| T50-1000500 | 18V 6-Bay Sequential Charger (110V NA)   |
| T50-1000506 | 18V Rapid Charger (220V EMEA)            |
| T50-1000507 | 18V Charger (Brazil)                     |
| T50-1000508 | 18V 6-Bay Sequential Charger (220V EMEA) |
| T50-1000543 | 18V Charger (Argentina)                  |
| T50-1000544 | 18V Rapid Charger (UK)                   |
| T50-1000545 | 18V Rapid Charger (PRC)                  |
| T50-1000546 | 18V Rapid Charger (JP)                   |
| T50-1000547 | 18V 6-Bay Sequential Charger (UK)        |



## CellCore Protective Tool Covers

### Protective Scratch Covers for Cellcore

- CellCore clear PVC protective covers protect your tool and your workpiece
- CellCore Pistol cover protects the tool body, screen and buttons; Right Angle cover protects the nutrunner head

| Model       |
|-------------|
| T50-1000656 |
| T50-1000657 |
| T50-1000658 |
| T50-1000659 |
| T50-1000660 |





## CellClutch Pistol ID rings

- Color identification ring for Cleco CellClutch pistol tool
- Sold in pack of five (5)



| Model                                     |
|---|
| CellClutch Pistol ID Ring 5 Pack - Black  |
| CellClutch Pistol ID Ring 5 Pack - Blue   |
| CellClutch Pistol ID Ring 5 Pack - Green  |
| CellClutch Pistol ID Ring 5 Pack - Grey   |
| CellClutch Pistol ID Ring 5 Pack - Red    |
| CellClutch Pistol ID Ring 5 Pack - Yellow |

## CellClutch Right Angle ID Rings

- Color identification ring for Cleco CellClutch right angle tool
- Sold in pack of five (5)

| Model                                 |
|---------------------------------------|
| CellClutch RA ID Ring 5 Pack - Black  |
| CellClutch RA ID Ring 5 Pack - Blue   |
| CellClutch RA ID Ring 5 Pack - Green  |
| CellClutch RA ID Ring 5 Pack - Grey   |
| CellClutch RA ID Ring 5 Pack - Red    |
| CellClutch RA ID Ring 5 Pack - Yellow |

## Torque Analyzer

**Up to 68Nm/50 ftlbs use with Electric, Pneumatic Clutch Stall and Pulse and Manual Electronic and Click Torque Wrenches**

- Choice of measurement modes including track, peak, pulse, and click
- Memory for 999 date- and time-stamped readings for complete traceability
- 3-color LED indication of torque measurement status
- Easy-to-operate for fast and accurate torque readings and assembly tool auditing
- Automatically switches to highest voltage power source (main/USB/battery)
- Clear, easy-to-read white OLED screen for basic torque data readings and alerts



| Model   | Description   | Torque Range Max |    |
|---------|---|------------------|----|
|         |   | Ft Lb            | Nm |
| CJK38   | Dynamic Joint Kit for use with 68Nm Stationary Transducer | 50               | 68 |
| CST6838 | 68 Nm Stationary Transducer                               | 50               | 68 |
| CTA0414 | 0.4-4 Nm Torque Analyzer                                  | 3                | 4  |
| CTA3038 | 3.0-30Nm Torque Analyzer                                  | 22               | 30 |

## LiveWire 2 - 17 Series - Cordless Electric - Pistol

Lightweight pistol tool designed for safety critical applications

- Accurate - Designed for safety critical applications with a CM/CMK of 2.0 at +/- 7% accuracy
- Economical - Save money, time and space by pairing up to 16 tools to just one Mpro Controller
- Ergonomic - Reduce operator fatigue with lighter, ergonomic tools
- Reliable - Increase uptime with 500k cycles between maintenance periods
- Interchangeable - Decrease downtime by swapping tools quickly on the assembly line with the LiveWire memory chip



Pistol grip nutrunner nomen

| 17   | B                        | P | Y | P                      | B                            | XX | Q   | L               |
|--|--------------------------|---|---|------------------------|------------------------------|----|---|-----------------|
| Motor<br>17  | Supply<br>B - Batt./PM48 |   |   |                        | Input Voltage<br>B - 26-48 V |    |   | L - Lightweight |
| Tool Version<br>P - Pistol Grip                        |                          |   |   | P - Expansion Platform |                              |    | Type of Output Drive<br>Q - Quick-change                              |                 |
| Data Transfer<br>Y - WLAN: Dual band<br>2.4 GHz, 5 GHz |                          |   |   |                        |                              |    | Max. Torque (Nm)<br>05 - 5 Nm<br>07 - 7 Nm<br>09 - 9 Nm<br>13 - 13 Nm |                 |

| Model       | Torque Range |        |           |           | Free Speed  |             | Length<br>In (26V) | Weight |      | Output Drive      |
|-------------|--------------|--------|-----------|-----------|-------------|-------------|--------------------|--------|------|-------------------|
|             | Min Nm       | Max Nm | Min Ft Lb | Max Ft Lb | r/min (26V) | r/min (44V) |                    | Lb     | kg   |                   |
| 17BPYPB05QL | 3.0          | 5.0    | 2.2       | 3.7       | 1639        | 2428        | 8.4                | 2.8    | 1.26 | 1/4" Quick Change |
| 17BPYPB07QL | 3.0          | 7.0    | 2.2       | 5.2       | 1161        | 1721        | 8.4                | 2.77   | 1.26 | 1/4" Quick Change |
| 17BPYPB09QL | 3.0          | 9.0    | 2.2       | 6.6       | 887         | 1314        | 8.4                | 2.8    | 1.26 | 1/4" Quick Change |
| 17BPYPB13QL | 3.0          | 13.0   | 2.2       | 9.6       | 629         | 931         | 8.4                | 2.77   | 1.26 | 1/4" Quick Change |

General:

All tools must be used with an approved Cleco tightening controller or suitable PC software.

Battery weights: 26 V Li-Ion 1.1lbs. (0.50kg), 44 V Li-Ion 1.9 lbs. (0.85kg).

The 44 V battery is 19mm/.705" shorter than the 26V battery.

Extra Equipment:

Scanner, sockets, batteries, and chargers must be ordered separately.

## LiveWire 2 - 47 Series - Cordless Electric - Right Angle

Lightweight Right angle tool designed for safety critical applications

- Accurate - Designed for safety critical applications with a CM/CMK of 2.0 at +/- 7% accuracy
- Economical - Save money, time and space by pairing up to 16 tools to just one Mpro Controller
- Ergonomic - Reduce operator fatigue with lighter, ergonomic tools
- Reliable - Increase uptime with 500k cycles between maintenance periods
- Interchangeable - Decrease downtime by swapping tools quickly on the assembly line with the LiveWire memory chip



| 47   | B                        | A | Y | P                                     | B                      | XX | XXX | X   | L                                    |
|--|--------------------------|---|---|---------------------------------------|------------------------|----|-----|---|--------------------------------------|
| Motor<br>47  | Supply<br>B - Batt./PM48 |   |   |                                       | Version<br>B - 26-48 V |    |     | Output Drive Size<br>P3 - 3/8" Sq. dr.<br>spiral geared<br>P4 - 1/2" Sq. dr.<br>spiral geared | Tool Series<br>L - LiveWire 2 Series |
| Version<br>A - Right angle                             |                          |   |   | Peripherals<br>P - Expansion platform |                        |    |     | Output Drive Locking<br>- Pin locking<br>B - Ball locking                                     |                                      |
| Data Transfer<br>Y - WLAN: Dual band<br>2.4 GHz, 5 GHz |                          |   |   |                                       |                        |    |     | Max. Torque Nm<br>15 - 15 Nm<br>21 - 21 Nm<br>28 - 28 Nm                                      |                                      |

| Model        | Torque Range |        |           |           | Free Speed  |             | Length<br>In (26V) | Weight |      | Output Drive      |
|--------------|--------------|--------|-----------|-----------|-------------|-------------|--------------------|--------|------|-------------------|
|              | Min Nm       | Max Nm | Min Ft Lb | Max Ft Lb | r/min (26V) | r/min (44V) |                    | Lb     | kg   |                   |
| 47BAYPB15P3L | 5.5          | 15     | 4.06      | 11.1      | 487         | 891         | 22.9               | 4.03   | 1.83 | 3/8" Square Drive |
| 47BAYPB21P3L | 8            | 21     | 5.9       | 15.5      | 370         | 680         | 22.9               | 4.03   | 1.83 | 3/8" Square Drive |
| 47BAYPB28P3L | 10           | 28     | 7.4       | 20.7      | 264         | 482         | 22.9               | 4.03   | 1.83 | 3/8" Square Drive |
| 47BAYPB35P3L | 12           | 35     | 8.9       | 25.8      | 255         | 446         | 23.0               | 4.14   | 1.88 | 3/8" Square Drive |
| 47BAYPB48P3L | 18           | 48     | 13.3      | 35.4      | 181         | 316         | 23.5               | 4.34   | 1.97 | 3/8" Square Drive |
| 47BAYPB65P4L | 15           | 65     | 11.1      | 47.9      | 135         | 236         | 23.54              | 4.56   | 2.07 | 3/8" Square Drive |

General:

All tools must be used with an approved Cleco tightening controller or suitable PC software.

Battery weights: 26 V Li-Ion 1.1lbs. (0.50kg), 44 V Li-Ion 1.9 lbs. (0.85kg). The 44 V battery is 19mm/.705" shorter than the 26V battery.

Extra Equipment:

Scanner, sockets, batteries, and chargers must be ordered separately.

## High Torque LiveWire - 47 Series - Cordless Electric - Right Angle - Nutrunner

Right angle tool designed for safety critical applications

- Accurate - Designed for safety critical applications with a CM/CMK of 2.0 at +/- 7% accuracy
- Economical - Save money, time and space by pairing up to 16 tools to just one Mpro Controller
- Reliable - Increase uptime with 500k cycles between maintenance periods
- Interchangeable - Decrease downtime by swapping tools quickly on the assembly line with the LiveWire memory chip



Right angle nutrunner nomenclature

| 47                  | B      | A | X | X | B                      | XX | XXX               | X                    |
|---------------------|--------|---|---|---|------------------------|----|-------------------|----------------------|
| Motor               | Supply |   |   |   | Input Voltage          |    | Output Drive Size | Output Drive Locking |
| 47 - B - Batt/PM48  |        |   |   |   | B - 26-48 V            |    | P3 - 3/8" Sq. dr. | - Pin locking        |
| Tool Version        |        |   |   |   | Peripherals            |    | P4 - 1/2" Sq. dr. | B - Ball locking     |
| A - Right angle     |        |   |   |   | S - Barcode scanner    |    |                   |                      |
| Data Transfer       |        |   |   |   | - None                 |    |                   |                      |
| Y - WLAN: Dual band |        |   |   |   | P - Expansion platform |    |                   |                      |
|                     |        |   |   |   |                        |    | Max. Torque (Nm)  |                      |
|                     |        |   |   |   |                        |    | 15 - 15 Nm        | 48 - 48 Nm           |
|                     |        |   |   |   |                        |    | 21 - 21 Nm        | 70 - 70 Nm           |
|                     |        |   |   |   |                        |    | 28 - 28 Nm        | 90 - 90 Nm           |
|                     |        |   |   |   |                        |    | 35 - 35 Nm        |                      |

| Model       | Torque Range |        |           |           | Free Speed  |             | Length<br>In (26V) | Weight |      | Output Drive      |
|-------------|--------------|--------|-----------|-----------|-------------|-------------|--------------------|--------|------|-------------------|
|             | Min Nm       | Max Nm | Min Ft Lb | Max Ft Lb | r/min (26V) | r/min (44V) |                    | Lb     | kg   |                   |
| 47BAYPB70P4 | 24           | 70     | 17.7      | 51.7      | 123         | 216         | 27.2               | 9.2    | 4.18 | 1/2" Square Drive |
| 47BAYPB90P4 | 40           | 90     | 29.5      | 66.4      | 80          | 140         | 27.2               | 9.2    | 4.18 | 1/2" Square Drive |

**General:**

All tools must be used with an approved Cleco tightening controller or suitable PC software.

Battery weights: 26 V Li-Ion 1.1lbs. (0.50kg), 44 V Li-Ion 1.9 lbs. (0.85kg).

The 44 V battery is 19mm/.705" shorter than the 26V battery.

Extra Equipment: Scanner, sockets, batteries, and chargers must be ordered separately.

## LiveWire - 47 Series - Cordless Electric - Inline

Inline tool designed for safety critical applications

- Accurate - Designed for safety critical applications with a CM/CMK of 2.0 at +/- 7% accuracy
- Economical - Save money, time and space by pairing up to 16 tools to just one Mpro Controller
- Reliable - Increase uptime with 500k cycles between maintenance periods
- Interchangeable - Decrease downtime by swapping tools quickly on the assembly line with the LiveWire memory chip



| 47                  | B      | S | Y | B | XX | X                    |
|---------------------|--------|---|---|---|----|----------------------|
| Motor               | Supply |   |   |   |    | Type of Output Drive |
| 47 - B - Batt/PM48  |        |   |   |   |    | D3 - Square 3/8"     |
| Tool Version        |        |   |   |   |    | D4 - Square 1/2"     |
| S - Straight        |        |   |   |   |    | Max. Torque (Nm)     |
| Data Transfer       |        |   |   |   |    | 10 - 10 Nm           |
| Y - WLAN: Dual band |        |   |   |   |    | 15 - 15 Nm           |
| 2.4 GHz, 5 GHz      |        |   |   |   |    | 30 - 30 Nm           |
|                     |        |   |   |   |    | 45 - 45 Nm           |
|                     |        |   |   |   |    | 60 - 60 Nm           |
|                     |        |   |   |   |    | Input Voltage        |
|                     |        |   |   |   |    | B - 26-48 V          |

| Model      | Torque Range |        |           |           | Free Speed  |             | Length<br>In (26V) | Weight |      | Output Drive      |
|------------|--------------|--------|-----------|-----------|-------------|-------------|--------------------|--------|------|-------------------|
|            | Min Nm       | Max Nm | Min Ft Lb | Max Ft Lb | r/min (26V) | r/min (44V) |                    | Lb     | kg   |                   |
| 47BSYB10D3 | 3            | 10     | 2.2       | 8.1       | 750         | 1375        | 20.3               | 3.9    | 1.80 | 3/8" Square Drive |
| 47BSYB15D3 | 5            | 15     | 3.6       | 11.8      | 570         | 1050        | 20.5               | 3.9    | 1.80 | 3/8" Square Drive |
| 47BSYB30D3 | 10           | 30     | 7.3       | 23.6      | 275         | 485         | 20.7               | 3.9    | 1.80 | 3/8" Square Drive |
| 47BSYB45D3 | 15           | 45     | 11        | 33.1      | 205         | 355         | 23.2               | 5.9    | 2.70 | 3/8" Square Drive |
| 47BSYB60D4 | 21           | 60     | 15.4      | 44.2      | 145         | 250         | 23.3               | 6.1    | 2.80 | 1/2" Square Drive |

**General:**

All tools must be used with an approved Cleco tightening controller or suitable PC software.

Battery weights: 26 V Li-Ion 1.1lbs. (0.50kg), 44 V Li-Ion 1.9 lbs. (0.85kg).

The 44 V battery is 19mm/.705" shorter than the 26V battery.

Extra Equipment:

Scanner, sockets, batteries, and chargers must be ordered separately.

### Crowfoot tool designed for hard to reach, safety critical applications



- |   |   |  |   |                              |                                      |    |                       |  |                                      |   |
|---|---|--|---|------------------------------|--------------------------------------|----|-----------------------|--|--------------------------------------|---|
| 47  | B | C  | X | X                            | B                                    | XX | CS                    | XX   | X                                    | X |
| Motor<br>47 B - Batt.(PM48)                           |   | Supply                                   |   | Input Voltage<br>B - 20-48 V |                                      |    | Head<br>CS - Crowfoot |  | Type of Output Drive<br>1 - Thru hex |   |
| Tool Version<br>C - Crowfoot nutrunner                |   | Options<br>S - Barcode scanner<br>- None |   |                              | Head Version<br>C1 - 15°<br>C3 - 30° |    |                       | Extensions<br>0 - Flush 4 - 1/2" 6 - 3/4"  |                                      |   |
| Data Transfer<br>Y - WAN: Dual band<br>2.4 GHz, 5 GHz |   |  |   |                              |                                      |    |                       | Socket Sizes<br>EA - 1/4" MA - 7 mm MF - 12 mm<br>EC - 3/8" MB - 8 mm (5/16)" MG - 13 mm<br>EE - 1/2" MC - 9 mm MH - 14 mm<br>EF - 9/16" MD - 10 mm MI - 15 mm<br>ME - 11 mm (7/16)" |                                      |   |

**General:**  
All tools must be used with an approved Cleco tightening controller or suitable PC software.  
Battery weights: 26 V Li-Ion 1.1lbs. (0.50kg), 44 V Li-Ion 1.9 lbs. (0.85kg).  
The 44 V battery is 19mm/.705" shorter than the 26V battery.  
Extra Equipment: Scanner, sockets, batteries, and chargers must be ordered separately.

**Tubenut tool designed for safety critical applications such as brake line fittings and fuel line assembly**



- | Tube nomenclature     |                    |                    |                      |                      |   |    | Socket identifier |    |                                      |   |  |
|-----------------------|--------------------|--------------------|----------------------|----------------------|---|----|-------------------|----|--------------------------------------|---|--|
| 47                    | B                  | T                  | X                    | X                    | X | XX | KSX               | XX | X                                    | X |  |
| Motor                 |                    | Supply             |                      | Input Voltage        |   |    | Head Size         |    | Type of Output Drive                 |   |  |
| B = Dual PMM          |                    |                    |                      | B = 20-45 V          |   |    | KS2 - 12          |    | 0 - Parallel thru hole               |   |  |
|                       |                    |                    |                      |                      |   |    | KS3 - 10          |    | 1 - thru hole                        |   |  |
|                       |                    |                    |                      |                      |   |    | KS4 - 14          |    | 2 - Double thru hole                 |   |  |
| T = Tube nomenclature |                    | Options            |                      | S = Standard scanner |   |    |                   |    | 8 - Parallel double thru hole        |   |  |
| X = Data Transfer     |                    | - None             |                      |                      |   |    |                   |    | Extensions                           |   |  |
| Y = WAA45 Dual level  |                    |                    |                      | Max. Torque (Nm)     |   |    |                   |    | 0 - Flange 4 - 1/2"                  |   |  |
| 2.4 GHz, 6 GHz        |                    |                    |                      | T2 - 30 Nm           |   |    |                   |    | 2 - 1/4" 6 - 3/4"                    |   |  |
|                       |                    |                    |                      | T3 - 90 Nm           |   |    |                   |    | Max. Max. Socket Sizes               |   |  |
|                       |                    |                    |                      | T4 - 40 Nm           |   |    |                   |    | NG, EE 12 thread version             |   |  |
|                       |                    |                    |                      |                      |   |    |                   |    | NM, 3/4" 1/2 thread version          |   |  |
|                       |                    |                    |                      |                      |   |    |                   |    | NU, 1 1/16" 14 thread version        |   |  |
|                       |                    |                    |                      |                      |   |    |                   |    | OD, 1/2 (approx) All thread versions |   |  |
| Socket Sizes          |                    |                    |                      |                      |   |    |                   |    |                                      |   |  |
| EA - 1/4"             | MS - 5 mm          | MH - 14 mm         | MP - 22 mm           |                      |   |    |                   |    |                                      |   |  |
| EE - 8/16             | MO - 6 mm          | MI - 16 mm         | MO - 28 mm           |                      |   |    |                   |    |                                      |   |  |
| EF - 1/2              | MA - 7 mm          | MJ - 15 mm (3/16") | ME - 19 mm (3/4")    |                      |   |    |                   |    |                                      |   |  |
| EE - 9/16             | MB - 8 mm (5/16")  | ML - 17 mm         | MS - 25 mm           |                      |   |    |                   |    |                                      |   |  |
| EH - 1 1/16           | MO - 10 mm         | MK - 18 mm         | MT - 36 mm           |                      |   |    |                   |    |                                      |   |  |
| EL - 1 3/16           | ME - 11 mm (7/16") | MM - 19 mm (3/4")  | MU - 27 mm (1 1/16") |                      |   |    |                   |    |                                      |   |  |
| EK - 7/8              | MF - 12 mm         | MM - 20 mm         |                      |                      |   |    |                   |    |                                      |   |  |
| EL - 1                | MG - 13 mm         | MO - 21 mm         |                      |                      |   |    |                   |    |                                      |   |  |

General:  
All tools must be used with an approved Cleco tightening controller or suitable PC software.  
Battery weights: 26 V Li-Ion 1.1lbs. (0.50kg), 44 V Li-Ion 1.9 lbs. (0.85kg).  
The 44 V battery is 19mm/.705" shorter than the 26V battery.  
Extra Equipment: Scanner, sockets, batteries, and chargers must be ordered separately.

## Barcode Scanner for Platform & LiveWire 2 Tools

- Traceability - Link your rundown results to a serial number or VIN directly from the tool
- Compact - Eliminate external barcode scanners on the line

| Model    | Description   |
|----------|---|
| 937240PT | Barcode Scanner Class 2 for LiveWire 2 and Platform tools |
| 943045PT | 2-D LED lightbar, green, IEC 60825: Class 2               |
| 962034PT | 2-D Laser crosshair, IEC 60825: Class 2                   |



## Gyroscope for Platform & LiveWire 2 Tools

- Accurate - Eliminate operator influence and improve your CP/CPK by using an added gyroscope on the tool
- Compact - Gyroscope module is added directly to the top of the tool in a small package

| Model    |
|----------|
| 942039PT |



## LiveWire 44V Li-ion Battery

- 2.0 Ah High capacity battery
- Up to 83% faster vs. 26 V battery
- Charge level indicator on battery
- Automatic and manual deep sleep mode
- LCD Display indicating battery charge level and total charge cycles
- Single tab, one-hand removal

| Model    | Weight |      | Width | Depth |
|----------|--------|------|-------|-------|
|          | Lb     | kg   |       |       |
| 961102PT | 2.2    | 1.01 | 81    | 153   |



## LiveWire Batteries & Chargers

| Model    | Weight (kg) | Width | Depth |
|----------|-------------|-------|-------|
|          | kg          |       |       |
| 961101PT | 0.69        | 81    | 122   |





## LiveWire Battery Chargers

- Battery charger for 26V, 44V and dual charger
- Dual charger auto sensing 26V/44V technology
- 1 hour charge time
- Power and status LEDs

| Model    | Weight (kg) | Width | Depth |
|----------|-------------|-------|-------|
|          | kg          | mm    | mm    |
| 935391   |             | 130   | 210   |
| 962085PT | 0.82        | 130   | 210   |



## Vmax PM48/PM48-LAN Power Module

- Provides a constant power source with speeds matching that of the 44 V battery
- Auto sensing input - (85 - 275 VAC)
- Power and status LEDs
- Electronic circuit protection

## Vmax Tool Cable

| Model    | Weight |      | Width |     | Depth |     | Length |     |
|----------|--------|------|-------|-----|-------|-----|--------|-----|
|          | Lb     | kg   | in    | mm  | in    | mm  | in     | mm  |
| 961350PT | 6.8    | 3.10 | 9.4   | 240 | 5.9   | 150 | 4.7    | 120 |



## 2.4-5GHz Dual Band Access Point - NA

### LiveWire Dual Band Access Points

- Industrial access point with up to 300 mbps speed on both 2.4 and 5.0 GHz
- Dual band allows great flexibility in a plant

| Model    |
|----------|
| 544249PT |
| 961390   |
| 961453PT |

Radio Range: 30-50 meters (XBEE 30 meters max.) IEEE 802.11 a/b/g (depending on tool)  
 Max Tools: 16 (Contact Regional Support Center for requirements greater than 10)



## Protective Tool Covers

- Scratch and impact covers protect your tool and your workpiece



### Model

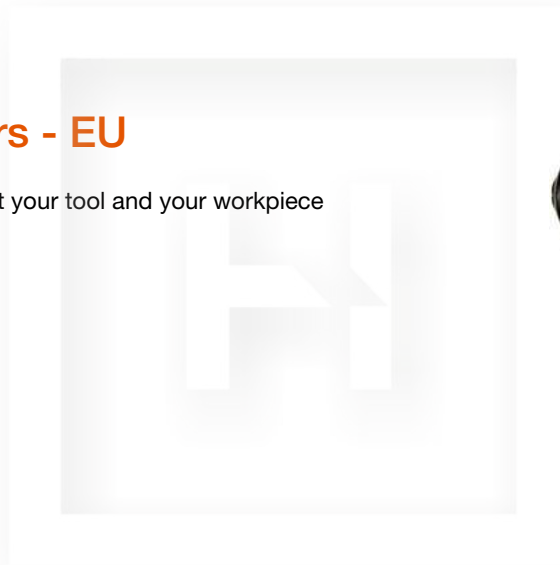
936424PT  
936489PT  
937210PT  
937704PT  
937706PT  
937708PT  
937711PT

## Protective Tool Covers - EU

- Scratch and impact covers protect your tool and your workpiece

### Model

936382  
936383  
936384  
936385PT  
936386PT  
936387



## LiveWire Tool Holders & Controller Pairing Cords

- Tool holders with and without IRDA controller pairing devices built in

| Model  | Description  | Length | Length |
|--------|--|--------|--------|
|        |  | ft     | m      |
| 935144 | Tool holder for pistol grip tools incl. IrDA             |        |        |
| 935170 | Infrared interface with cable                            | 3.3    | 1      |
| 935290 | Tool holder for right angle tools up to 50 Nm incl. IrDA |        |        |
| 935395 | Tool holder for right angle tools up to 50 Nm            |        |        |
| 935396 | Tool holder for pistol grip tools                        |        |        |
| 935998 | Tool holder for right angle tools from 70 Nm             |        |        |
| 935999 | Tool holder for right angle tools from 70 Nm incl. IrDA  |        |        |



# Tightening solutions for every application.



## CLECO NEOTEK - 1 MILLION **ACCURATE, REPEATABLE, MAINTENANCE-FREE** CYCLES.

Engineered to last also means engineered to perform. Precision-hardened and ground spiral cut bevel and pinion gears equals zero preventative maintenance for 1 million cycles.

By providing class-leading repeatability of 2.0 Cm/Cmk @  $\pm 7\%$ , NeoTek™ is not only maintenance free, but worry free. The 1,000,000th rundown will be as secure as the first.





## Cleco Corded Electric Nutrunners - the next generation of **smart tool solutions**.

Our corded electric assembly tools offer increased productivity, improved quality, and reduced downtime with real-time, data driven results for those assembly applications in which safety is critical.

### **Cost-effective solutions** for safety-critical applications.

Cleco 30-70 series corded assembly tools are driven by a maintenance-free brushless motor. This motor technology coupled with our high-resolution resolved offers full range control for safety critical joints. The 30-70 series tools offer industry-proven gear trains for outstanding, durable performance.

Cleco 30-70 series nutrunners provide a unique modular assembly design for ease of repair. The on-board intelligent memory chip records tool set-up values and counts cycles for maintenance scheduling to prevent costly production downtime.



### **Workstation control** with **global integration**.

The Cleco Hybrid Controller features a large touchscreen with an intuitive software interface that supports industry standard protocols, fieldbus communication, and the ability to manage up to 16 tools, cordless and corded.

Programming can be done directly from the controller or via a remote network connection, and the configurable architecture allows easy integration with your MES system.

Cost effectiveness is increased by simplifying system installation and decreasing complex process modifications.

## NeoTek - 30 and 50 Series - Corded Electric - Transducer Control (0.9-84Nm) - Pistol

Ergonomic grip and light weight reduces operator fatigue to increase productivity.

- 1 Million Cycles Maintenance Free
- Repeatability & Accuracy with 2.0 Cm/Cmk at +/- 7%
- Configurable LED light rings
- Tactile & Audible Operator Feedback
- Programmable Multi-function Buttons



| Model       | Torque Range |        |           |           | Weight |      | Length | Side to Center |
|-------------|--------------|--------|-----------|-----------|--------|------|--------|----------------|
|             | Min Nm       | Max Nm | Min Ft Lb | Max Ft Lb | Lb     | kg   | in     | in             |
| 30EPN05BD2  | 0.9          | 4.7    | 0.66      | 3.47      | 2.05   | 0.93 | 7.76   | 0.64           |
| 30EPN05BDQ  | 0.9          | 4.7    | 0.66      | 3.47      | 2.01   | 0.91 | 8.27   | 0.64           |
| 30EPN12EAQ  | 3.9          | 11.6   | 2.88      | 8.56      | 2.20   | 1.00 | 9.02   | 0.64           |
| 30EPN12FA3  | 3.9          | 11.6   | 2.88      | 8.56      | 2.16   | 0.98 | 8.43   | 0.64           |
| 30EPN19FB3  | 3.9          | 19.0   | 2.88      | 14.01     | 2.20   | 1.00 | 8.43   | 0.64           |
| 30EPN26FB3  | 5.1          | 26.0   | 3.76      | 19.18     | 2.20   | 1.00 | 8.43   | 0.64           |
| 50EPN28FD3  | 5.6          | 28.0   | 4.13      | 20.65     | 3.48   | 1.58 | 10.08  | 0.64           |
| 50EPN43GD3  | 9.0          | 43.0   | 6.64      | 31.72     | 3.64   | 1.65 | 10.24  | 0.74           |
| 50EPN65HD4  | 14.0         | 66.0   | 10.33     | 48.68     | 4.72   | 2.14 | 11.34  | 0.87           |
| 50EPN85JD4  | 17.0         | 84.0   | 12.54     | 61.96     | 4.89   | 2.22 | 11.89  | 0.87           |
| 50EPN125KD4 | 25.0         | 123.0  | 18.44     | 90.72     | 5.78   | 2.62 | 12.32  | 1.10           |

## NeoTek - 30 and 50 Series - Corded Electric - Transducer Control - Right Angle (1.3-205 Nm)

1 million cycles maintenance free and customizable features to fit any application. Light weight and ergonomic design for applications up to 205 Nm.

- Engineered to provide 1 million cycles maintenance-free
- Repeatability & accuracy of 2.0 Cm/Cmk at +/- 7%
- 1.3 Nm to 205Nm Torque range
- 3/8, 1/2" and 3/4" square output drive
- Configurable LED light ring



| Model       | Torque Range |        |           |           | Weight |      | Length | Side to Center | Head Height |
|-------------|--------------|--------|-----------|-----------|--------|------|--------|----------------|-------------|
|             | Min Nm       | Max Nm | Min Ft Lb | Max Ft Lb | Lb     | kg   | in     | in             | in          |
| 30EAN06EA3  | 1.3          | 6      | .9        | 4.4       | 2.5    | 1.13 | 14.96  | .48            | 1.42        |
| 30EAN12EA3  | 2.6          | 12     | 1.9       | 8.8       | 2.5    | 1.14 | 14.96  | .48            | 1.42        |
| 30EAN21FA3  | 4.4          | 21     | 3.2       | 15.4      | 2.9    | 1.32 | 16.06  | .65            | 1.58        |
| 30EAN28FA3  | 5.7          | 28     | 4.2       | 20.6      | 2.9    | 1.32 | 16.06  | .65            | 1.58        |
| 50EAN30FA3  | 6.0          | 30     | 4.4       | 22.1      | 3.5    | 1.60 | 17.68  | .65            | 1.58        |
| 50EAN39GA3  | 8.0          | 39     | 5.9       | 28.7      | 3.9    | 1.77 | 18.19  | .66            | 1.76        |
| 50EAN59HA3  | 12           | 59     | 8.8       | 43.5      | 4.3    | 1.94 | 18.27  | .75            | 2.02        |
| 50EAN80JA4  | 16           | 80     | 11.8      | 59.0      | 4.8    | 2.17 | 18.62  | .90            | 1.91        |
| 50EAN110KA4 | 22           | 109    | 16.2      | 80.3      | 6.5    | 2.76 | 19.41  | 1.00           | 2.37        |
| 50EAN150KB4 | 32           | 150    | 23.6      | 110.6     | 8.3    | 3.75 | 22.01  | 1.03           | 2.54        |
| 50EAN205NA6 | 41           | 205    | 30.2      | 151.2     | 8.7    | 3.93 | 22.13  | 1.16           | 2.44        |



## NeoTek - 30 and 50 Series Corded Electric - Transducer Control - Inline (.9-84Nm)

High speed and accuracy for applications up to 26 Nm. Mounts easily with machined splines and locknut.

- 1 Million Cycles Maintenance Free
- Repeatability & Accuracy with 2.0 Cm/Cmk at +/- 7%
- Configurable LED light rings
- Tactile & Audible Operator Feedback
- Programmable Multi-function Buttons



| Model       | Torque Range |        |           |           | Weight |      | Length | Side to Center |
|-------------|--------------|--------|-----------|-----------|--------|------|--------|----------------|
|             | Min Nm       | Max Nm | Min Ft Lb | Max Ft Lb | Lb     | kg   | in     | in             |
| 30ESN05BD2  | 0.9          | 4.7    | 0.66      | 3.47      | 2.12   | 0.96 | 13.27  | 0.64           |
| 30ESN05BDQ  | 0.9          | 4.7    | 0.66      | 3.47      | 2.12   | 0.96 | 13.46  | 0.64           |
| 30ESN12EAQ  | 3.9          | 11.6   | 2.88      | 8.56      | 2.34   | 1.06 | 14.21  | 0.64           |
| 30ESN12FA3  | 3.9          | 11.6   | 2.88      | 8.56      | 2.34   | 1.06 | 14.05  | 0.64           |
| 30ESN19FB3  | 3.9          | 19.0   | 2.88      | 14.01     | 2.34   | 1.06 | 14.05  | 0.64           |
| 30ESN26FC3  | 5.1          | 26.0   | 3.76      | 19.18     | 2.34   | 1.06 | 14.05  | 0.64           |
| 50ESN28FD3  | 5.6          | 28.0   | 4.13      | 20.65     | 2.98   | 1.35 | 15.70  | 0.64           |
| 50ESN43GD3  | 9.0          | 43.0   | 6.64      | 31.72     | 3.64   | 1.65 | 15.86  | 0.74           |
| 50ESN65HD4  | 14.0         | 66.0   | 10.33     | 48.68     | 4.19   | 1.90 | 17.12  | 0.86           |
| 50ESN85JD4  | 17.0         | 84.0   | 12.54     | 61.96     | 4.41   | 2.00 | 17.67  | 0.86           |
| 50ESN125KD4 | 25.0         | 123.0  | 18.44     | 90.72     | 5.29   | 2.40 | 18.11  | 1.10           |

## NeoTek - 70 Series - Corded Electric - Transducer Control - (23-4000 Nm) Inline and Right Angle

**Durability and unsurpassed RPM for high torque applications up to 4000 Nm**

- Repeatability & Accuracy with 2.0 Cm/Cmk at +/- 7%
- Configurable LED light rings
- Flexible high torque solutions
- 60% speed increase over current legacy series tools



| Model           | Torque Range |        |           |           | Weight |       | Length | Side to Center |
|-----------------|--------------|--------|-----------|-----------|--------|-------|--------|----------------|
|                 | Min Nm       | Max Nm | Min Ft Lb | Max Ft Lb | Lb     | kg    | in     | in             |
| 70ESN95ND6      | 23.0         | 93.0   | 16.96     | 68.59     | 11.46  | 5.20  | 22.28  | 1.30           |
| 70ESN130ND6     | 31.0         | 124.0  | 22.86     | 91.46     | 11.46  | 5.20  | 22.28  | 1.30           |
| 70EAN155NA6     | 39.0         | 156.0  | 28.76     | 115.06    | 14.33  | 6.50  | 25.07  | 1.16           |
| 70ESN185ND6     | 46.0         | 184.0  | 33.9      | 135.7     | 11.46  | 5.20  | 22.28  | 1.30           |
| 70EAN205NA6     | 52.0         | 205.0  | 38.35     | 151.20    | 14.33  | 6.50  | 25.07  | 1.16           |
| 70EAN240PA6     | 60.0         | 239.0  | 44.25     | 176.28    | 15.43  | 7.00  | 25.78  | 1.49           |
| 70ESN245ND6     | 61           | 245.0  | 45.73     | 180.70    | 11.46  | 5.20  | 22.28  | 1.30           |
| 70EAN350PA6     | 88.0         | 350.0  | 64.91     | 258.15    | 15.43  | 7.00  | 25.78  | 1.49           |
| 70ESN355SD8     | 89.0         | 354.0  | 65.6      | 261.0     | 16.76  | 7.60  | 24.01  | 1.49           |
| 70ESN475SD8     | 118.0        | 473.0  | 87.03     | 348.87    | 16.76  | 7.60  | 24.01  | 1.49           |
| 70EAN600SA8T    | 125.0        | 600.0  | 92        | 443       | 23.9   | 10.8  | 26.50  | 2.10           |
| 70ESN700SD8     | 175.0        | 700.0  | 129.07    | 516.29    | 16.76  | 7.60  | 24.01  | 1.49           |
| 70EAN800TA8MT   | 200.0        | 800.0  | 148       | 590       | 25.5   | 11.6  | 25.90  | 1.60           |
| 70ESN850SD8     | 213.0        | 850.0  | 157.10    | 626.93    | 16.76  | 7.60  | 24.01  | 1.49           |
| 70EAN1500TA8MT  | 375.0        | 1500.0 | 277       | 1106      | 25.5   | 11.6  | 25.90  | 1.60           |
| 70ESN1500TA8T   | 425.0        | 1500.0 | 313.0     | 1106      | 19.2   | 8.70  | 24.40  | 1.60           |
| 70EAN2000TB8MT  | 500.0        | 2000.0 | 369       | 1475      | 32.4   | 14.7  | 26.60  | 2.30           |
| 70ESN2000TA8T   | 775.0        | 2000.0 | 572.0     | 1475      | 19.2   | 8.70  | 24.40  | 1.60           |
| 70EAN4000UA12MT | 1250.0       | 4000.0 | 922       | 2950      | 41.6   | 18.8  | 26.60  | 2.30           |
| 70ESN4000UA12MT | 1250.0       | 4000.0 | 922.0     | 2950      | 28.3   | 12.80 | 24.20  | 2.3            |

Note: 70 Series Tools require a 220/230 power supply to the controller

## NeoTek - 30 Series - Corded Electric - Transducer Control - Retractable Spindle (2.6-30 Nm)

- For fixtured applications to ensure bolt engagement
- Configurable LED light rings
- Programmable multi-function buttons
- Brushless Motor
- Transducer Control



| Model       | Torque Range |        |           |           | Weight |      | Length | Side to Center |
|-------------|--------------|--------|-----------|-----------|--------|------|--------|----------------|
|             | Min Nm       | Max Nm | Min Ft Lb | Max Ft Lb | Lb     | kg   | in     | in             |
| 30EAR12S131 | 2.6          | 12.1   | 1.9       | 8.9       | 3.61   | 1.64 | 16.2   | 0.54           |
| 30EAR25S131 | 5.4          | 25.0   | 4.0       | 18.4      | 4.01   | 1.82 | 16.2   | 0.54           |
| 30EAR30S131 | 7.0          | 30.0   | 5.2       | 22.1      | 4.01   | 1.82 | 16.2   | 0.54           |

## NeoTek - 50 Series - Corded Electric - Transducer Control - Retractable Spindle (8-235 Nm)

<STEPREF A="ATT17711" O="SG\_738750" OT="Product" VC="EN-US All USA" VO="735745" W="Main" />

- For fixtured applications to ensure bolt engagement
- Configurable LED light rings
- Programmable multi-function buttons
- Brushless Motor
- Transducer Control



| Model        | Torque Range |        |           |           | Weight |      | Length | Side to Center |
|--------------|--------------|--------|-----------|-----------|--------|------|--------|----------------|
|              | Min Nm       | Max Nm | Min Ft Lb | Max Ft Lb | Lb     | kg   | in     | in             |
| 50EAR39S231  | 8.0          | 39.0   | 5.9       | 28.8      | 5.00   | 2.20 | 19.0   | 0.69           |
| 50EAR55S231  | 12.0         | 55.0   | 8.9       | 40.6      | 5.38   | 2.37 | 19.0   | 0.69           |
| 50EAR56S341  | 11.0         | 56.0   | 8.1       | 41.3      | 5.60   | 2.51 | 20.2   | 0.67           |
| 50EAR85S341  | 17.0         | 84.0   | 12.5      | 62.0      | 5.98   | 2.68 | 20.2   | 0.87           |
| 50EAR100S341 | 20.0         | 100.0  | 14.8      | 73.8      | 6.48   | 2.91 | 20.2   | 0.87           |
| 50EAR165S461 | 33.0         | 165.0  | 24.3      | 121.7     | 7.68   | 6.81 | 21.7   | 1.06           |
| 50EAR235S461 | 49.0         | 235.0  | 36.1      | 173.3     | 8.67   | 8.46 | 22.3   | 1.06           |

## NeoTek - 30 Series - Corded Electric - Transducer Control Flush Socket (2.6-30 Nm)

- For low clearance applications
- Configurable LED light rings
- Programmable multi-function buttons
- Brushless Motor
- Transducer Control



| Model     | Torque Range |        |           |           | Weight |      | Length | Side to Center |
|-----------|--------------|--------|-----------|-----------|--------|------|--------|----------------|
|           | Min Nm       | Max Nm | Min Ft Lb | Max Ft Lb | Lb     | kg   | in     | in             |
| 30EFN12F1 | 2.6          | 12.1   | 1.9       | 8.9       | 3.61   | 1.64 | 16.2   | 0.54           |
| 30EFN25F1 | 5.4          | 25.0   | 4.0       | 18.4      | 4.01   | 1.82 | 16.2   | 0.54           |
| 30EFN30F1 | 8.0          | 30.0   | 5.9       | 22.1      | 4.01   | 1.82 | 16.2   | 0.54           |

## NeoTek - 50 Series - Corded Electric - Transducer Control Flush Socket (8-235 Nm)

- For low clearance applications
- Configurable LED light rings
- Programmable multi-function buttons
- Brushless Motor
- Transducer Control



| Model      | Torque Range |        |           |           | Weight |      | Length | Side to Center |
|------------|--------------|--------|-----------|-----------|--------|------|--------|----------------|
|            | Min Nm       | Max Nm | Min Ft Lb | Max Ft Lb | Lb     | kg   | in     | in             |
| 50EFN39F2  | 8.0          | 39.0   | 5.9       | 28.8      | 6.00   | 2.70 | 19.0   | 0.69           |
| 50EFN55F2  | 12.0         | 55.0   | 8.9       | 40.6      | 6.38   | 2.87 | 19.0   | 0.69           |
| 50EFN56F3  | 11.0         | 56.0   | 8.1       | 41.3      | 5.60   | 2.51 | 20.2   | 0.88           |
| 50EFN85F3  | 17.0         | 84.0   | 12.5      | 62.0      | 5.98   | 2.68 | 20.2   | 0.88           |
| 50EFN100F3 | 20.0         | 100.0  | 14.8      | 73.8      | 6.48   | 2.91 | 20.2   | 0.88           |
| 50EFN165F4 | 33.0         | 165.0  | 24.3      | 121.7     | 7.68   | 3.49 | 21.7   | 1.06           |
| 50EFN235F4 | 49.0         | 235.0  | 36.1      | 173.3     | 9.87   | 4.48 | 22.3   | 1.06           |

## NeoTek - 50 Series - Corded Electric - Transducer Control Tubenut (7.6-40 Nm)

- For fluid line applications
- Configurable LED light rings
- Programmable multi-function buttons
- Brushless Motor
- Transducer Control

| Model     | Torque Range |        |           |           | Weight |      | Length |
|-----------|--------------|--------|-----------|-----------|--------|------|--------|
|           | Min Nm       | Max Nm | Min Ft Lb | Max Ft Lb | Lb     | kg   | in     |
| 50ETN20T2 | 7.6          | 20.0   | 5.6       | 14.8      | 4.13   | 1.90 | 18.4   |
| 50ETN30T3 | 11.0         | 30.0   | 8.1       | 22.1      | 4.23   | 1.90 | 18.0   |
| 50ETN40T4 | 14.0         | 40.0   | 10.3      | 29.5      | 5.03   | 2.20 | 19.0   |



## NeoTek - 50 Series - Corded Electric - Transducer Control Hold-n-Drive (11-235 Nm)

- For specialized frame and suspension applications
- Configurable LED light rings
- Programmable multi-function buttons
- Brushless Motor
- Transducer Control

| Model     | Torque Range |        |           |           | Weight |      | Length | Side to Center |
|-----------|--------------|--------|-----------|-----------|--------|------|--------|----------------|
|           | Min Nm       | Max Nm | Min Ft Lb | Max Ft Lb | Lb     | kg   | in     | in             |
| 50EHN56H  | 11.0         | 56.0   | 8.1       | 41.3      | 7.50   | 3.37 | 20.3   | 1.06           |
| 50EHN85H  | 17.0         | 84.0   | 12.5      | 62.0      | 7.88   | 3.54 | 20.3   | 1.06           |
| 50EHN100H | 20.0         | 100.0  | 14.8      | 73.8      | 7.08   | 3.20 | 20.3   | 1.06           |
| 50EHN165H | 33.0         | 165.0  | 24.3      | 121.7     | 6.48   | 2.95 | 21.7   | 1.06           |
| 50EHN235H | 49.0         | 235.0  | 36.1      | 173.3     | 8.67   | 3.94 | 22.3   | 1.06           |



## NeoTek - 50 Series - Corded Electric - Transducer Control Crowfoot (8-30 Nm)

- For hard to reach areas with limited access
- Configurable LED light rings
- Programmable multi-function buttons
- Brushless Motor
- Transducer Control

| Model     | Torque Range |        |           |           | Weight |      | Length | Side to Center |
|-----------|--------------|--------|-----------|-----------|--------|------|--------|----------------|
|           | Min Nm       | Max Nm | Min Ft Lb | Max Ft Lb | Lb     | kg   | in     | in             |
| 50ECN30C1 | 8.0          | 30.0   | 5.9       | 22.1      | 4.73   | 1.90 | 20.7   | 0.63           |
| 50ECN30C3 | 8.0          | 30.0   | 5.9       | 22.1      | 4.73   | 1.90 | 20.4   | 0.63           |





## NeoTek Tool Cable

- Use to connect a 30/50/70 Series tool to an mPro400GCD-P controller.
- Designed for maximum life.
- Quarter-Turn connection.
- Ultra-tight 30mm bend radius.
- Cycle counter memory.

| Model      | Description                | Weight |      | Length |    |
|------------|----------------------------|--------|------|--------|----|
|            |                            | Lb     | kg   | ft     | m  |
| 961560-030 | 3 Meter NeoTek Tool Cable  | 1.7    | 0.79 | 9.8    | 3  |
| 961560-060 | 6 Meter NeoTek Tool Cable  | 2.7    | 1.23 | 19.7   | 6  |
| 961560-080 | 8 Meter NeoTek Tool Cable  | 3.4    | 1.52 | 26.2   | 8  |
| 961560-100 | 10 Meter NeoTek Tool Cable | 3.9    | 1.81 | 32.8   | 10 |



## NeoTek Tool Extension Cables

- Used in applications requiring cable lengths greater than 10 meters.

| Model      | Description                     | Weight |      | Length |    |
|------------|---------------------------------|--------|------|--------|----|
|            |                                 | Lb     | kg   | ft     | m  |
| 961923-050 | 5 Meter NeoTek Extension Cable  | 3.9    | 1.79 | 16.5   | 5  |
| 961923-100 | 10 Meter NeoTek Extension Cable | 7.4    | 3.34 | 32.9   | 10 |
| 961923-150 | 15 Meter NeoTek Extension Cable | 10.8   | 4.89 | 49.2   | 15 |
| 961923-200 | 20 Meter NeoTek Extension Cable | 14.2   | 6.44 | 65.6   | 20 |
| 961923-250 | 25 Meter NeoTek Extension Cable | 17.6   | 7.99 | 82     | 25 |



## Tool Cable Adaptor

- Used to connect 67 series tools as well as older 17/47 Series corded tools to an mPro400GCD controller
- Allows easy upgrade to newest controller technology

| Model    | Description                               |
|----------|---|
| 961789PT | Y-Cable Adapter for 17/47/67 Series tools |



## NeoTek Locking Ring

| Model    |
|----------|
| 943527PT |

## NeoTek Camera Scanner

- Scans 1D and 2D barcodes
- Scan images from paper documents as well as screens and monitors
- Camera technology eliminates traditional laser barcode scanners

| Model       | Description                                   |
|-------------|---|
| 937731PT    | For 30/50 Series Right Angle and Inline Tools |
| 942391PT    | For 70 Series Right Angle and Inline Tools    |
| T55-3000018 | For 30 Series Pistol Tools                    |
| T55-3000019 | For 50 Series Pistol Tools                    |



## NeoTek Tool Light

- Ultra-bright LEDs
- Fully programmable
- High, medium, and low intensity light beam

| Model    | Description                                   |
|----------|---|
| 943455PT | For 30/50 Series Right Angle and Inline Tools |
| 943462PT | For 30/50 Series Right Angle and Inline Tools |
| 943464PT | For 70 Series Right Angle and Inline Tools    |



## NeoTek Gyroscope

**The Gyroscope module allows angle correction for hand-held tightening equipment without support.**

- Up to now, angle controlled tightening strategies have required a reaction arm to avoid a change of the reference angle during a rundown.
- This support is no longer required due to the corrective function of the gyroscope module. the potential influence of an operator to the absolute angle is compensated by the module.

| Model       | Description  |
|-------------|--|
| 942396PT    | For 30/50 Series Right Angle and Inline Tools 30Nm |
| 943684PT    | For 50 Series Right Angle and Inline Tools         |
| 943685PT    | For 70 Series Right Angle and Inline Tools         |
| T55-3000020 | For 30 Series Pistol                               |
| T55-3000021 | For 50 Series Pistol                               |



## NeoTek Reaction bar

- Improved operator safety
- Keeps hands away from assembly
- One hand operation

| Model       | Description   |
|-------------|---|
| 201034      | For 70ESN95ND6/70ESN130ND6/70ESN185ND6/70ESN245ND6  |
| 301934PT    | For 30ESN12EAQ/30ESN12FA3/30EPN12EAQ/30EPN12FA3   |
| 46036202    | For 70ESN355SD8/70ESN475SD8/70ESN700SD8/700ESN850SD8  |
| 48047128    | For 50ESN65HD4/50ESN85JD4/50ESN125KD4/50EPN65HD4/50EPN85JD4/50EPN125KD4                     |
| 542127      | For 30ESN19FB3/30ESN26FC3/50ESN28FD3/50ESN43GD3/30EPN19FB3/30EPN26FC3/50EPN28FD3/50EPN43GD3 |
| T50-3000064 | For 50EAN59HA3  |
| T50-3000065 | For 50EAN80JA4  |
| T50-3000066 | For 50EAN110KA4   |
| T50-3000067 | For 50EAN150KB4   |
| T50-3000068 | For 50EAN205NA6   |

## NeoTek Suspension Bail

- For use with spring balancer
- Improved operator ergonomics

| Model       | Description  |
|-------------|--|
| T50-3000048 | 30/50 Series Fixed Suspension Bail (excl. pistols)         |
| T50-3000060 | 30/50 Series Fixed Offset Suspension Bail (excl. pistols)  |
| T50-3000061 | 30/50 Series Swivel Offset Suspension Bail (excl. pistols) |
| T50-3000063 | 30/50 Series Swivel Suspension Bail (excl. pistols)        |



## NeoTek Body Extension

- For hard to reach applications.
- Reduces reaction force to the operator.

| Model       | Description                 |
|-------------|-----------------------------|
| T50-3000069 | For 50EAN110KA4             |
| T50-3000070 | For 50EAN150KB4/50EAN205NA6 |
| T50-3000071 | For 50EAN80JA4              |
| T50-3000072 | For 50EAN59HA3              |

## Suspension Bail

- For use with spring balancer
- Improved operator ergonomics

| Model    | Description  |
|----------|--|
| 1110909  | 18/48 Series suspension bail (excl. pistols)                                     |
| 942045PT | Standard tool suspension bail for LiveWire 2 L Series                            |
| 942185PT | Rotating suspension bail for LiveWire 2 L Series                                 |
| S387983  | Rotating suspension bail for right angle nutrunner (not for LiveWire 2 L Series) |



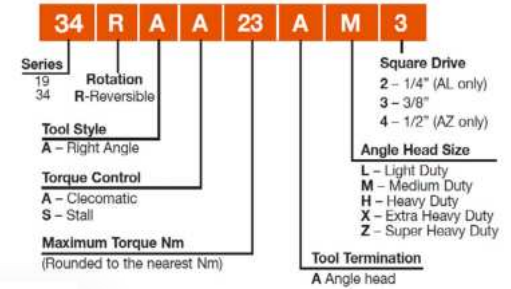
## 19 Series - Angle Nutrunner - Clutch Shut-Off Lever Start - Collar Reverse

0.3 - 8.3 ftlbs / 0.5 - 11.3Nm



- Durable Clecomatic Clutch delivers best-in-class torque repeatability and long calibration cycle
- Lightweight, ergonomic and durable handle designed with operator in mind
- Engineered to suit a wide range of applications, from high volume assembly to aerospace
- Grip material tested to withstand a range of industrial chemicals

### Model Number Example



| Model      | Torque Range |        |           |           | Free Speed | Length | Weight |      | Head Height | Side to Center | Air Consumption | Air Inlet Size |
|------------|--------------|--------|-----------|-----------|------------|--------|--------|------|-------------|----------------|-----------------|----------------|
|            | Min Nm       | Max Nm | Min Ft Lb | Max Ft Lb | r/min      | in     | Lb     | kg   | in          | in             | Scfm            | in             |
| 19RAA02AM2 | 0.5          | 2.1    | 0.3       | 1.5       | 2400       | 11.9   | 1.7    | 0.77 | 1.06        | 0.360          | 11              | 1/8            |
| 19RAA02AH2 | 0.5          | 2.4    | 0.3       | 1.7       | 2100       | 12.5   | 1.81   | 0.82 | 1.19        | 0.50           | 11              | 1/8            |
| 19RAA02AH3 | 0.5          | 2.4    | 0.3       | 1.7       | 2100       | 12.5   | 1.81   | 0.82 | 1.19        | 0.50           | 11              | 1/8            |
| 19RAA03AM2 | 0.6          | 3.1    | 0.4       | 2.2       | 1650       | 12.2   | 1.81   | 0.82 | 1.06        | 0.360          | 11              | 1/8            |
| 19RAA03AH2 | 0.7          | 3.4    | 0.5       | 2.5       | 1450       | 12.7   | 1.81   | 0.82 | 1.19        | 0.50           | 11              | 1/8            |
| 19RAA03AH3 | 0.7          | 3.4    | 0.5       | 2.5       | 1450       | 12.7   | 1.81   | 0.82 | 1.19        | 0.50           | 11              | 1/8            |
| 19RAA04AM2 | 1.4          | 4.7    | 1         | 3.4       | 950        | 12     | 1.7    | 0.77 | 1.06        | 0.360          | 11              | 1/8            |
| 19RAA05AM2 | 1.4          | 5.7    | 1         | 4.2       | 570        | 12.4   | 1.81   | 0.82 | 1.06        | 0.360          | 11              | 1/8            |
| 19RAA06AH2 | 1.5          | 6      | 1.1       | 4.4       | 850        | 12.5   | 1.81   | 0.82 | 1.19        | 0.50           | 11              | 1/8            |
| 19RAA06AH3 | 1.5          | 6      | 1.1       | 4.4       | 850        | 12.5   | 1.81   | 0.82 | 1.19        | 0.50           | 11              | 1/8            |
| 19RAA07AH2 | 1.5          | 6.8    | 1.1       | 5         | 500        | 12.9   | 1.9    | 0.86 | 1.19        | 0.50           | 11              | 1/8            |
| 19RAA07AH3 | 1.5          | 6.8    | 1.1       | 5         | 500        | 12.9   | 1.9    | 0.86 | 1.19        | 0.50           | 11              | 1/8            |
| 19RAA09AH2 | 2.0          | 8.5    | 1.4       | 6.2       | 500        | 12.9   | 1.9    | 0.86 | 1.19        | 0.50           | 11              | 1/8            |
| 19RAA09AH3 | 2.0          | 8.5    | 1.4       | 6.2       | 500        | 12.9   | 1.9    | 0.86 | 1.19        | 0.50           | 11              | 1/8            |
| 19RAA11AH2 | 2.5          | 11.3   | 1.8       | 8.3       | 340        | 12.3   | 2.09   | 0.95 | 1.19        | 0.50           | 11              | 1/8            |
| 19RAA11AH3 | 2.5          | 11.3   | 1.8       | 8.3       | 340        | 12.3   | 2.09   | 0.95 | 1.19        | 0.50           | 11              | 1/8            |
| 19RAA12AH2 | 2.5          | 11.3   | 1.8       | 8.3       | 200        | 12.9   | 1.9    | 0.86 | 1.19        | 0.50           | 11              | 1/8            |
| 19RAA12AH3 | 2.5          | 11.3   | 1.8       | 8.3       | 200        | 12.9   | 1.9    | 0.86 | 1.19        | 0.50           | 11              | 1/8            |

Tool performance rated at 90 psi (620kPa) air pressure.

Standard Equipment:

Manual and all torque springs required to meet indicated torque specification



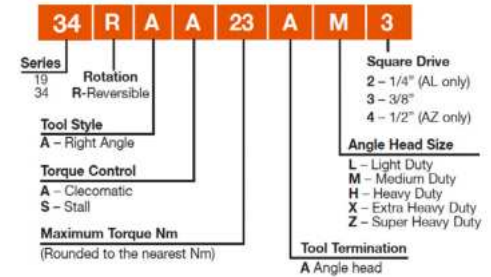
## 34 Series - Angle Nutrunner - Clutch Shut-Off Lever Start - Collar Reverse

4 - 55 ftlbs / 8 - 75 Nm

- Lightweight, ergonomic, and easy to service
- Indexable angle head for added versatility
- Durable Clecomatic Clutch delivers best-in-class torque repeatability and long calibration cycle
- Heavy-duty Cleco motor is the industry standard for reliability
- Oil-less blades reduce oil mist in work area



Model Number Example



| Model      | Torque Range |        |           |           | Free Speed<br>r/min | Length<br>in | Weight |      | Head Height<br>in | Side to Center<br>in | Air Consumption<br>Scfm | Air Inlet Size<br>in |
|------------|--------------|--------|-----------|-----------|---------------------|--------------|--------|------|-------------------|----------------------|-------------------------|----------------------|
|            | Min Nm       | Max Nm | Min Ft Lb | Max Ft Lb |                     |              | Lb     | kg   |                   |                      |                         |                      |
| 34RAA08AL3 | 5.4          | 8.1    | 4.0       | 6.0       | 2060                | 14.5         | 2.69   | 1.22 | 1.08              | 0.47                 | 0.96                    | 3/8                  |
| 34RAA11AL3 | 6.8          | 10.8   | 5.0       | 8.0       | 1675                | 14.5         | 2.69   | 1.22 | 1.08              | 0.47                 | 0.96                    | 3/8                  |
| 34RAA15AM3 | 9.5          | 14.9   | 7.0       | 11.0      | 1185                | 14.6         | 2.9    | 1.3  | 1.16              | 0.52                 | 0.96                    | 3/8                  |
| 34RAA26AH3 | 13.6         | 25.8   | 10.0      | 19.0      | 710                 | 15.4         | 3.2    | 1.45 | 1.22              | 0.57                 | 0.96                    | 3/8                  |
| 34RAA28AH3 | 13.6         | 27.1   | 10.0      | 20.0      | 580                 | 15.4         | 3.31   | 1.50 | 1.16              | 0.52                 | 0.96                    | 3/8                  |
| 34RAA33AX3 | 16.3         | 32.5   | 12.0      | 24.0      | 545                 | 15.5         | 3.51   | 1.59 | 1.36              | 0.67                 | 0.96                    | 3/8                  |
| 34RAA37AX3 | 19           | 36.6   | 14.0      | 27.0      | 480                 | 15.6         | 3.4    | 1.54 | 1.36              | 0.67                 | 0.96                    | 3/8                  |
| 34RAA47AX3 | 23.0         | 47.0   | 17.0      | 35.0      | 385                 | 15.6         | 3.4    | 1.54 | 1.36              | 0.67                 | 0.96                    | 3/8                  |
| 34RAA68AZ3 | 34.0         | 68.0   | 25.0      | 50        | 255                 | 16.2         | 3.7    | 1.68 | 1.60              | 0.7                  | 0.96                    | 3/8                  |
| 34RAA68AZ4 | 34.0         | 68.0   | 25.0      | 50        | 255                 | 16.2         | 3.7    | 1.77 | 1.60              | 0.7                  | 0.96                    | 3/8                  |
| 34RAA75AZ3 | 38.0         | 75.0   | 28.0      | 55        | 155                 | 17           | 3.9    | 1.77 | 1.60              | 0.7                  | 0.96                    | 3/8                  |
| 34RAA75AZ4 | 38.0         | 75.0   | 28.0      | 55        | 155                 | 17           | 3.9    | 1.77 | 1.60              | 0.7                  | 0.96                    | 3/8                  |

General: Tool performance rated at 90 psi (620kPa) air pressure.

Standard Equipment:

Operating instructions & service manual

Suspension ball

Clutch adjustment tool

Optional Equipment:

Service wrench: 201898

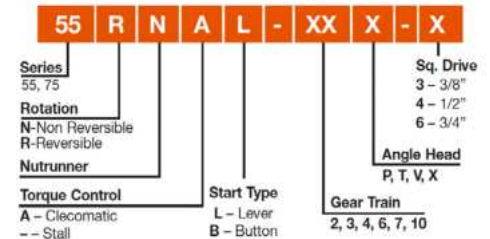
## 55/75 Series - Angle Nutrunner - Clutch Shut-Off Lever Start - Collar Reverse

26 - 305 ftls / 35 - 410 Nm

- Heavy-duty Cleco motor is the industry standard for reliability
- Durable Clecomatic Clutch delivers best-in-class torque repeatability and long calibration cycle
- Planetary gears designed for tool speed changes with minimal parts service and replacement
- Heavy-duty spindle bearings and splined retractable spindles reduces friction, improves torque repeatability, and prolongs life.
- External Torque Adjustment
- Rotating Exhaust Deflector



55 & 75 Model Number Example



| Model       | Torque Range |        |           |           | Free Speed | Length | Weight |      | Head Height | Side to Center | Air Consumption | Air Inlet Size |
|-------------|--------------|--------|-----------|-----------|------------|--------|--------|------|-------------|----------------|-----------------|----------------|
|             | Min Nm       | Max Nm | Min Ft Lb | Max Ft Lb | r/min      | in     | Lb     | kg   | in          | in             | Scfm            | in             |
| 55RNAL-4P-4 | 35.0         | 73.0   | 26.0      | 54.0      | 330        | 19.1   | 7.4    | 3.35 | 1.63        | 0.72           | 55              | 1/2            |
| 55RNAL-4T-4 | 39.0         | 87.0   | 29.0      | 64.0      | 280        | 19.3   | 7.8    | 3.52 | 1.97        | 0.88           | 55              | 1/2            |
| 55RNAL-3P-4 | 49.0         | 108.0  | 36.0      | 80.0      | 220        | 19.1   | 7.4    | 3.35 | 1.63        | 0.72           | 55              | 1/2            |
| 55RNAL-3T-4 | 58.0         | 129.0  | 43.0      | 95.0      | 190        | 19.3   | 7.8    | 3.52 | 1.97        | 0.88           | 55              | 1/2            |
| 55RNAL-2T-4 | 68.0         | 170.0  | 50.0      | 125.0     | 140        | 19.3   | 7.8    | 3.52 | 1.97        | 0.88           | 55              | 1/2            |
| 75RNAL-3V-4 | 95.0         | 190.0  | 70.0      | 140.0     | 175        | 21.9   | 13.2   | 6.01 | 2.50        | 1.09           | 70              | 1/2            |
| 75RNAL-2V-4 | 122.0        | 255.0  | 90.0      | 190.0     | 130        | 21.9   | 13.2   | 6.01 | 2.50        | 1.09           | 70              | 1/2            |
| 75RNAL-3X-6 | 150.0        | 305.0  | 110.0     | 225.0     | 110        | 22.6   | 15     | 6.80 | 2.75        | 1.44           | 70              | 1/2            |
| 75RNAL-2X-6 | 203.0        | 410.0  | 150.0     | 305.0     | 80         | 22.6   | 15     | 6.80 | 2.75        | 1.44           | 70              | 1/2            |

General:  
Tool performance data measured at 6.2 bar inlet air pressure at the air inlet tube.  
Standard Equipment:  
Operation and maintenance instructions  
Torque reaction mounting plate (75 series)  
All torque springs necessary to achieve the stated torque.

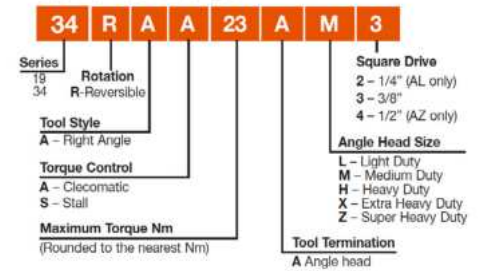
## 19 Series - Angle Nutrunner - Stall - Lever Start - Collar Reverse

Up to 4.6 ftlbs / 6.2 Nm

- Designed for soft-draw applications
- Torque can be adjusted by adjusting air pressure
- Compact angle head for tight access
- Lightweight, ergonomic, and easy to service



Model Number Example



| Model      | Torque Range<br>Max (nm) | Torque Range<br>Max (ft/lb) | Free<br>Speed | Length | Weight |      | Head<br>Height | Side to<br>Center | Air Consumption | Air Inlet<br>Size |
|------------|--------------------------|-----------------------------|---------------|--------|--------|------|----------------|-------------------|-----------------|-------------------|
|            | Max Nm                   | Max Ft Lb                   | r/min         | in     | Lb     | kg   | in             | in                | Scfm            | in                |
| 19RAS03AM2 | 3.2                      | 2.3                         | 1700          | 11.4   | 1.3    | 0.59 | 1.06           | 0.36              | 11              | 1/8               |
| 19RAS05AM2 | 5.2                      | 3.8                         | 850           | 10.6   | 1.19   | 0.54 | 1.06           | 0.36              | 11              | 1/8               |
| 19RAS06AH3 | 6.2                      | 4.6                         | 880           | 11     | 1.3    | 0.59 | 1.19           | 0.5               | 11              | 1/8               |

General: Tool performance rated at 90 psi (620kPa) air pressure.  
Standard Equipment:  
Operating instructions & service manual  
Suspension bail

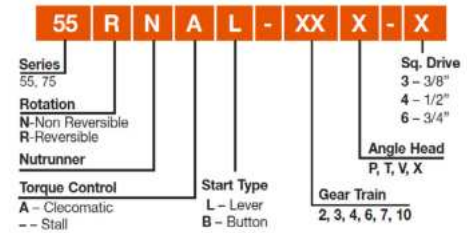
## 55/75 Series - Angle Nutrunner - Stall - Lever Start - Collar Reverse

Up to 325 ftlbs / 440 Nm

- Engineered for performance, durability, mounting versatility, and serviceability
- Torque can be adjusted by adjusting air pressure
- Heavy duty motor, gearing and angle head for long life
- Tool can be reversed if required
- Torque reaction plate supplied with 75 series



55 & 75 Model Number Example



| Model      | Torque Range Max (nm) | Torque Range Max (ft/lb) | Free Speed | Length | Weight |      | Head Height | Side to Center | Air Consumption | Air Inlet Size |
|------------|-----------------------|--------------------------|------------|--------|--------|------|-------------|----------------|-----------------|----------------|
|            | Max Nm                | Max Ft Lb                | r/min      | in     | Lb     | kg   | in          | in             | Scfm            | in             |
| 55RNL-7T-4 | 55.6                  | 41.0                     | 490        | 16.1   | 6.1    | 2.78 | 1.63        | 0.72           | 55              | 1/2            |
| 55RNL-4T-4 | 92.0                  | 68.0                     | 290        | 16.7   | 6.5    | 2.95 | 1.63        | 0.72           | 55              | 1/2            |
| 55RNL-3T-4 | 135.0                 | 100                      | 195        | 16.7   | 6.5    | 2.95 | 1.63        | 0.72           | 55              | 1/2            |
| 75RNL-4V-4 | 142.0                 | 105.0                    | 280        | 19.4   | 11.4   | 5.16 | 11.4        | 1.09           | 70              | 1/2            |
| 55RNL-2T-4 | 176.0                 | 130                      | 145        | 16.7   | 6.5    | 2.95 | 1.63        | 0.72           | 55              | 1/2            |
| 75RNL-3V-4 | 210.0                 | 155.0                    | 190        | 19.4   | 11.4   | 5.16 | 11.4        | 1.09           | 70              | 1/2            |
| 75RNL-2V-4 | 278.0                 | 205.0                    | 140        | 19.4   | 11.4   | 5.16 | 2.50        | 1.09           | 70              | 1/2            |
| 75RNL-3X-6 | 330.0                 | 245.0                    | 120        | 20.1   | 13.1   | 5.95 | 2.75        | 1.44           | 70              | 1/2            |
| 75RNL-2X-6 | 440.0                 | 325.0                    | 90         | 20.1   | 13.1   | 5.95 | 2.75        | 1.44           | 70              | 1/2            |

**GENERAL:**

Tool performance data measured at 6.2 bar inlet air pressure at the air inlet tube.

**STANDARD EQUIPMENT:**

Operation and maintenance instructions  
Torque reaction mounting plate (75 series)

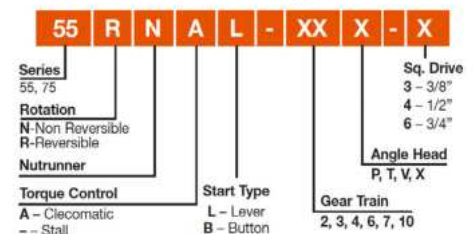
## 55 Series - Angle Nutrunner - Stall - Lever Start - Non-reversible

Up to 140 ftlbs / 190 Nm

- Engineered for performance, durability, mounting versatility, and serviceability
- Torque can be adjusted by adjusting air pressure
- Heavy duty motor, gearing and angle head for long life
- Non reversible prevents accidental operation of tool in reverse



55 & 75 Model Number Example



| Model     | Torque Range Max (nm) | Torque Range Max (ft/lb) | Free Speed | Length | Weight |      | Head Height | Side to Center | Air Consumption | Air Inlet Size |
|-----------|-----------------------|--------------------------|------------|--------|--------|------|-------------|----------------|-----------------|----------------|
|           | Max Nm                | Max Ft Lb                | r/min      | in     | Lb     | kg   | in          | in             | Scfm            | in             |
| 55NL-3T-4 | 149.0                 | 110.0                    | 290        | 16.7   | 6.4    | 2.89 | 1.97        | 0.88           | 55              | 1/2            |
| 55NL-2T-4 | 190.0                 | 140                      | 210        | 16.7   | 6.4    | 2.89 | 1.97        | 0.88           | 55              | 1/2            |

**General:**

Tool performance data measured at 6.2 bar inlet air pressure at the air inlet tube.

**STANDARD EQUIPMENT:**

Operation and maintenance instructions

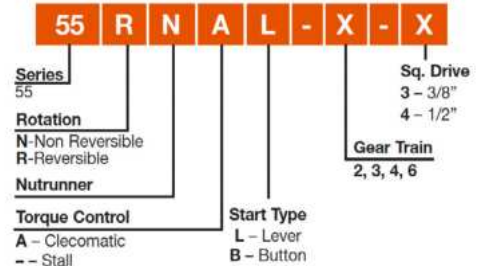
## 55 Series - Inline Reaction Bar Nutrunner - Lever Start - Collar Reverse

25 - 67 ftls / 34 - 91Nm - Use with Torque Reaction

- Engineered for performance, durability, mounting versatility, and serviceability
- Durable Clecomatic shut off clutch delivers best in class torque repeatability
- Heavy duty motor, gearing and clutch for long life
- Torque reaction bar supplied with tool



55 Model Number Example



| Model      | Torque Range |        |           |           | Free Speed | Length | Weight |      | Air Consumption | Air Inlet Size |
|------------|--------------|--------|-----------|-----------|------------|--------|--------|------|-----------------|----------------|
|            | Min Nm       | Max Nm | Min Ft Lb | Max Ft Lb | r/min      | in     | Lb     | kg   | Scfm            | in             |
| 55RNAL-3-4 | 34.0         | 69.0   | 25.0      | 51.0      | 370        | 16.1   | 6.5    | 2.95 | 55              | 1/2            |
| 55RNAL-2-4 | 46.0         | 91.0   | 30.0      | 67.0      | 270        | 16.1   | 6.5    | 2.95 | 55              | 1/2            |

General: Tool performance rated at 90 psi (620kPa) air pressure  
Standard Equipment:  
Operating instructions & service manual  
Aluminum Torque Reaction Bar 869769

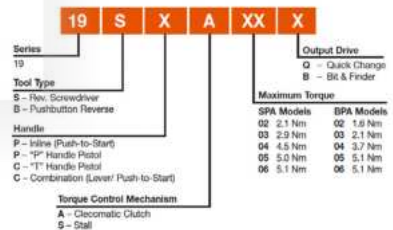
## 19 Series - Inline - Push-to-Start - Push Button Reverse

0.3 - 3.7ftlbs / 0.6 - 5.1Nm

- Durable Clecomatic Clutch delivers best-in-class torque repeatability and long calibration cycle
- Lightweight, ergonomic and durable handle designed with operator in mind
- Engineered to suit a wide range of applications, from high volume assembly to aerospace
- Grip material tested to withstand a range of industrial chemicals



Cleco 19 Series Inline



| Model    | Torque Range |        |           |           | Free Speed | Length | Weight |      | Air Consumption | Air Inlet Size |
|----------|--------------|--------|-----------|-----------|------------|--------|--------|------|-----------------|----------------|
|          | Min Nm       | Max Nm | Min Ft Lb | Max Ft Lb | r/min      | in     | Lb     | kg   | Scfm            | in             |
| 19BPA02Q | 0.6          | 2.1    | 0.3       | 1.6       | 2300       | 9.3    | 1.41   | 0.64 | 11              | 1/8            |
| 19BPA03Q | 0.6          | 2.9    | 0.3       | 2.2       | 1600       | 9.3    | 1.41   | 0.64 | 11              | 1/8            |
| 19BPA04Q | 1.1          | 4.5    | 0.3       | 3.3       | 920        | 9.1    | 1.3    | 0.59 | 11              | 1/8            |
| 19BPA05Q | 1.1          | 5.1    | 0.3       | 3.7       | 560        | 9.5    | 1.5    | 0.68 | 11              | 1/8            |
| 19BPA06Q | 1.1          | 5.1    | 0.3       | 3.7       | 220        | 9.5    | 1.5    | 0.68 | 11              | 1/8            |

General: 90 psi (620kPa) required for maximum rated torque.  
Standard Equipment:  
Operating instructions & service manual  
Suspension ball  
All torque springs required to meet indicated torque.

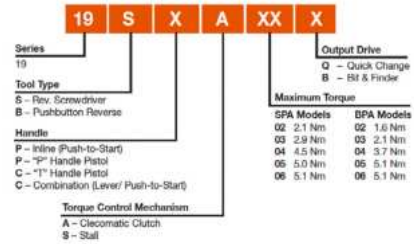
## 19 Series - Inline - Push-to-Start - Collar Reverse

0.3 - 3.7ftlbs / 0.6 - 5.1Nm

- Durable Clecomatic Clutch delivers best-in-class torque repeatability and long calibration cycle
- Lightweight, ergonomic and durable handle designed with operator in mind
- Engineered to suit a wide range of applications, from high volume assembly to aerospace
- Grip material tested to withstand a range of industrial chemicals



Cleco 19 Series Inline



| Model    | Torque Range |        |           |           | Free Speed<br>r/min | Length<br>in | Weight |      | Air Consumption<br>Scfm | Air Inlet Size<br>in |
|----------|--------------|--------|-----------|-----------|---------------------|--------------|--------|------|-------------------------|----------------------|
|          | Min Nm       | Max Nm | Min Ft Lb | Max Ft Lb |                     |              | Lb     | kg   |                         |                      |
| 19SPA02Q | 0.6          | 2.1    | 0.3       | 1.6       | 2800                | 9.1          | 1.41   | 0.64 | 11                      | 1/8                  |
| 19SPA03Q | 0.6          | 2.9    | 0.3       | 2.2       | 1900                | 9.3          | 1.41   | 0.64 | 11                      | 1/8                  |
| 19SPA04Q | 1.1          | 4.5    | 0.3       | 3.3       | 1100                | 9.1          | 1.3    | 0.59 | 11                      | 1/8                  |
| 19SPA05Q | 1.1          | 5.1    | 0.3       | 3.7       | 660                 | 9.5          | 1.5    | 0.68 | 11                      | 1/8                  |
| 19SPA06Q | 1.1          | 5.1    | 0.3       | 3.7       | 260                 | 9.5          | 1.5    | 0.68 | 11                      | 1/8                  |

General: 90 psi (620kPa) required for maximum rated torque.  
Standard Equipment:  
Operating instructions & service manual  
Suspension bail  
All torque springs required to meet indicated torque.

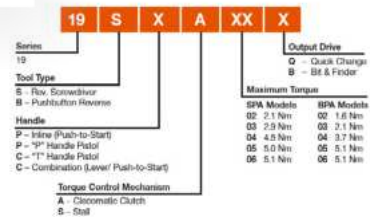
## 19 Series - Inline - Push and Lever Start - Collar Reverse

0.3 - 3.7ftlbs / 0.6 - 5.1Nm

- Durable Clecomatic Clutch delivers best-in-class torque repeatability and long calibration cycle
- Lightweight, ergonomic and durable handle designed with operator in mind
- Engineered to suit a wide range of applications, from high volume assembly to aerospace
- Grip material tested to withstand a range of industrial chemicals



Cleco 19 Series Inline



| Model    | Torque Range |        |           |           | Free Speed<br>r/min | Length<br>in | Weight |      | Air Consumption<br>Scfm | Air Inlet Size<br>in |
|----------|--------------|--------|-----------|-----------|---------------------|--------------|--------|------|-------------------------|----------------------|
|          | Min Nm       | Max Nm | Min Ft Lb | Max Ft Lb |                     |              | Lb     | kg   |                         |                      |
| 19SCA02Q | 0.6          | 2.1    | 0.3       | 1.6       | 2800                | 9.8          | 1.5    | 0.68 | 11                      | 1/8                  |
| 19SCA03Q | 0.6          | 2.9    | 0.3       | 2.2       | 1900                | 10           | 1.5    | 0.68 | 11                      | 1/8                  |
| 19SCA04Q | 1.1          | 4.5    | 0.33      | 3.3       | 1100                | 9.8          | 1.5    | 0.68 | 11                      | 1/8                  |
| 19SCA05Q | 1.1          | 5.1    | 0.3       | 3.7       | 660                 | 10.2         | 1.61   | 0.73 | 11                      | 1/8                  |
| 19SCA06Q | 1.1          | 5.1    | 0.3       | 3.7       | 260                 | 10.2         | 1.61   | 0.73 | 11                      | 1/8                  |

General: 90 psi (620kPa) required for maximum rated torque.  
Standard Equipment:  
Operating instructions & service manual  
Suspension bail  
All torque springs required to meet indicated torque.  
Lever Push-to-Start models include kit to convert to lever only. (301409)



## 8 Series - Inline - Push-to-Start - Push Button Reverse

0.5 - 6.2 ftlbs / 0.8 - 8.5 Nm

- Compact design increases productivity, saves weight, and is easy to integrate into any assembly environment
- Dependable Clecomatic clutch delivers consistent torque accuracy and repeatability
- Cleco motor is the industry standard for durability
- Easy to repair and maintain, with high parts interchangeability to other Cleco products



| Model     | Torque Range |        |           |           | Free Speed | Length | Weight |      | Side to Center | Air Consumption |  | Air Inlet Size |
|-----------|--------------|--------|-----------|-----------|------------|--------|--------|------|----------------|-----------------|--|----------------|
|           | Min Nm       | Max Nm | Min Ft Lb | Max Ft Lb | r/min      | in     | Lb     | kg   | in             | Scfm            |  | in             |
| 8RSA-40BQ | 0.8          | 2.8    | 0.5       | 2         | 3200       | 8.9    | 2.12   | 0.96 | 0.77           | 19.1            |  | 1/4            |
| 8RSA-30BQ | 0.8          | 3.4    | 0.5       | 2.5       | 2500       | 8.9    | 2.12   | 0.96 | 0.77           | 19.1            |  | 1/4            |
| 8RSA-20BQ | 0.8          | 4.5    | 0.5       | 3.3       | 1800       | 8.9    | 2.12   | 0.96 | 0.77           | 19.1            |  | 1/4            |
| 8RSA-10BQ | 0.8          | 7.3    | 0.5       | 5.3       | 800        | 9.6    | 2.38   | 1.08 | 0.77           | 19.1            |  | 1/4            |
| 8RSA-5BQ  | 0.8          | 8.5    | 0.5       | 6.2       | 400        | 9.6    | 2.38   | 1.08 | 0.77           | 19.1            |  | 1/4            |
| 8RSA-7BQ  | 0.8          | 8.5    | 0.5       | 6.2       | 550        | 9.6    | 2.38   | 1.08 | 0.77           | 19.1            |  | 1/4            |

General: 90 psi (620kPa) required for maximum rated torque.  
 Standard Equipment:  
 Operating instructions & service manual  
 Suspension bail.  
 All torque springs required to meet indicated torque.

## 88 Series - Inline - Push and Lever Start - Push Button Reverse

1.2 - 13.2 ftlbs / 1.7 - 18Nm

- Compact design increases productivity, saves weight, and is easy to integrate into any assembly environment
- Dependable Clecomatic clutch delivers consistent torque accuracy and repeatability
- Cleco motor is the industry standard for durability
- Easy to repair and maintain, with high parts interchangeability to other Cleco products
- 5C-3 3/8" Square or 5CQ 1/4" Quick Release Output



| Model       | Torque Range |        |           |           | Free Speed<br>r/min | Length<br>in | Weight |      | Air Consumption<br>Scfm | Air Inlet Size<br>in |
|-------------|--------------|--------|-----------|-----------|---------------------|--------------|--------|------|-------------------------|----------------------|
|             | Min Nm       | Max Nm | Min Ft Lb | Max Ft Lb |                     |              | Lb     | kg   |                         |                      |
| 88RSAL-5C-3 | 1.7          | 18     | 1.2       | 13.2      | 400                 | 11.1         | 3.11   | 1.41 | 19.1                    | 1/4                  |
| 88RSAL-5CQ  | 1.7          | 18     | 1.2       | 13.2      | 400                 | 11.1         | 3.11   | 1.41 | 19.1                    | 1/4                  |

General: 90 psi (620kPa) required for maximum rated torque.

Weight does not include side handle.

Standard Equipment:

Operating instructions & service manual

Suspension bail

Side handle 861006.

All torque springs required to meet indicated torque

## 88 Series - Inline - Push-to-Start - Push Button Reverse

1.2 - 13.2 ftlbs / 1.7 - 18Nm

- Compact design increases productivity, saves weight, and is easy to integrate into any assembly environment
- Dependable Clecomatic clutch delivers consistent torque accuracy and repeatability
- Cleco motor is the industry standard for durability
- Easy to repair and maintain, with high parts interchangeability to other Cleco products
- C-3 3/8" Square or CQ 1/4" Quick Release Output



| Model      | Torque Range |        |           |           | Free Speed | Length | Weight |      | Side to Center | Air Consumption | Air Inlet Size |
|------------|--------------|--------|-----------|-----------|------------|--------|--------|------|----------------|-----------------|----------------|
|            | Min Nm       | Max Nm | Min Ft Lb | Max Ft Lb | r/min      | in     | Lb     | kg   | in             | Scfm            | in             |
| 88RSA-7C-3 | 1.7          | 10     | 1.2       | 7.3       | 550        | 9.5    | 2.62   | 1.19 | 0.77           | 19.1            | 1/4            |
| 88RSA-7CQ  | 1.7          | 10     | 1.2       | 7.3       | 550        | 9.5    | 2.62   | 1.19 | 0.77           | 19.1            | 1/4            |
| 88RSA-5C-3 | 1.7          | 18     | 1.2       | 13.2      | 400        | 9.5    | 2.62   | 1.19 | 0.77           | 19.1            | 1/4            |
| 88RSA-5CQ  | 1.7          | 18     | 1.2       | 13.2      | 400        | 9.5    | 2.62   | 1.19 | 0.77           | 19.1            | 1/4            |

General: 90 psi (620kPa) required for maximum rated torque.

Weight does not include side handle.

Standard Equipment:

Operating instructions & service manual

Suspension bail

Side handle 861006 on models above 8 ft lbs torque cap.

All torque springs required to meet indicated torque.

## 19 Series - Pistol Grip - "T" Handle - Push and Trigger Start

0.4 - 6.5 ftlbs / 0.6 - 8.9 Nm

- Durable Clecomatic Clutch delivers best-in-class torque repeatability and long calibration cycle
- 2 grip sizes available for added versatility
- Reverse lever can be rotated to accommodate left-or-right-handed operators
- Engineered to suit a wide range of applications, from high volume assembly to aerospace
- T Handle balanced for high volume assembly cell and line production of machine screws



| Model    | Torque Range |        |           |           | Free Speed<br>r/min | Length<br>in | Weight |      | Air Consumption<br>Scfm | Air Inlet Size<br>in |
|----------|--------------|--------|-----------|-----------|---------------------|--------------|--------|------|-------------------------|----------------------|
|          | Min Nm       | Max Nm | Min Ft Lb | Max Ft Lb |                     |              | Lb     | kg   |                         |                      |
| 19TCA02Q | 0.6          | 2.1    | 0.4       | 1.5       | 2800                | 8            | 1.43   | 0.65 | 11                      | 1/4                  |
| 19TCA03Q | 0.6          | 2.9    | 0.4       | 2.1       | 1900                | 8.2          | 1.54   | 0.70 | 11                      | 1/4                  |
| 19TCA04Q | 1.1          | 4.5    | 0.8       | 3.3       | 1100                | 8            | 1.54   | 0.70 | 11                      | 1/4                  |
| 19TCA05Q | 1.1          | 5.1    | 0.8       | 3.7       | 660                 | 8.4          | 1.54   | 0.70 | 11                      | 1/4                  |
| 19TCA06Q | 1.1          | 5.1    | 0.8       | 3.7       | 260                 | 8.4          | 1.54   | 0.70 | 11                      | 1/4                  |
| 19TCA07Q | 1.7          | 6.8    | 1.2       | 5         | 660                 | 8.4          | 1.54   | 0.70 | 11                      | 1/4                  |
| 19TCA09Q | 1.7          | 8.9    | 1.2       | 6.5       | 470                 | 9.3          | 1.72   | 0.78 | 11                      | 1/4                  |

General: 90 psi (620kPa) required for maximum rated torque.  
Standard Equipment:  
Operating instructions & service manual  
Suspension bail  
All torque springs required to meet indicated torque.

## 19 Series - Pistol Grip - "T" Handle - Trigger Start

Up to 0.4 - 10.8 ftlbs / 0.6 - 14.7 Nm

- Durable Clecomatic Clutch delivers best-in-class torque repeatability and long calibration cycle
- 2 grip sizes available for added versatility
- Reverse lever can be rotated to accommodate left-or-right-handed operators
- Engineered to suit a wide range of applications, from high volume assembly to aerospace



| Model    | Torque Range |        |           |           | Free Speed<br>r/min | Length<br>in | Weight |      | Air Consumption<br>Scfm | Air Inlet Size<br>in |
|----------|--------------|--------|-----------|-----------|---------------------|--------------|--------|------|-------------------------|----------------------|
|          | Min Nm       | Max Nm | Min Ft Lb | Max Ft Lb |                     |              | Lb     | kg   |                         |                      |
| 19TTA02Q | 0.6          | 2.1    | 0.4       | 1.5       | 2800                | 7.9          | 1.43   | 0.65 | 11                      | 1/4                  |
| 19TTA03Q | 0.6          | 2.9    | 0.4       | 2.1       | 1900                | 8.1          | 1.54   | 0.70 | 11                      | 1/4                  |
| 19TTA04Q | 1.1          | 4.5    | 0.8       | 3.3       | 1100                | 7.9          | 1.54   | 0.70 | 11                      | 1/4                  |
| 19TTA05Q | 1.1          | 5.1    | 0.8       | 3.7       | 660                 | 8.3          | 1.54   | 0.70 | 11                      | 1/4                  |
| 19TTA06Q | 1.1          | 5.1    | 0.8       | 3.7       | 260                 | 8.3          | 1.54   | 0.70 | 11                      | 1/4                  |
| 19TTA07Q | 1.7          | 6.8    | 1.2       | 5         | 660                 | 8.3          | 1.54   | 0.70 | 11                      | 1/4                  |
| 19TTA09Q | 1.7          | 8.9    | 1.2       | 6.5       | 470                 | 9.3          | 1.72   | 0.78 | 11                      | 1/4                  |
| 19TTA15Q | 5.1          | 14.7   | 3.7       | 10.8      | 260                 | 9.6          | 1.94   | 0.88 | 11                      | 1/4                  |

General: 90 psi (620kPa) required for maximum rated torque.  
Standard Equipment:  
Operating instructions & service manual  
Suspension bail  
All torque springs required to meet indicated torque.

## 19 Series - Pistol Grip - “P” Handle - Push and Trigger Start

0.4 - 6.5 ftlbs / 0.6 - 8.9 Nm



- Durable Clecomatic Clutch delivers best-in-class torque repeatability and long calibration cycle
- 2 grip sizes available for added versatility
- Reverse lever can be rotated to accommodate left-or-right-handed operators
- Engineered to suit a wide range of applications, from high volume assembly to aerospace
- P Handle shaped so force can be applied for prevailing torque

| Model    | Torque Range |        |           |           | Free Speed | Length | Weight |      | Air Consumption |  | Air Inlet Size |
|----------|--------------|--------|-----------|-----------|------------|--------|--------|------|-----------------|--|----------------|
|          | Min Nm       | Max Nm | Min Ft Lb | Max Ft Lb | r/min      | in     | Lb     | kg   | Scfm            |  | in             |
| 19PCA02Q | 0.6          | 2.1    | 0.4       | 1.5       | 2800       | 8.1    | 1.43   | 0.65 | 11              |  | 1/4            |
| 19PCA03Q | 0.6          | 2.9    | 0.4       | 2.1       | 1900       | 8.3    | 1.5    | 0.68 | 11              |  | 1/4            |
| 19PCA04Q | 1.1          | 4.5    | 0.8       | 3.3       | 1100       | 8.1    | 1.41   | 0.64 | 11              |  | 1/4            |
| 19PCA05Q | 1.1          | 5.1    | 0.8       | 3.7       | 660        | 8.5    | 1.5    | 0.68 | 11              |  | 1/4            |
| 19PCA06Q | 1.1          | 5.1    | 0.8       | 3.7       | 260        | 8.5    | 1.5    | 0.68 | 11              |  | 1/4            |
| 19PCA07Q | 1.7          | 6.8    | 1.2       | 5         | 660        | 8.5    | 1.5    | 0.68 | 11              |  | 1/4            |
| 19PCA09Q | 1.7          | 8.9    | 1.2       | 6.5       | 470        | 9.8    | 1.65   | 0.75 | 11              |  | 1/4            |

General: Tool performance rated at 90 psi (620kPa) air pressure.

Standard Equipment:

Operating instructions & service manual

Suspension bail

All torque springs required to meet indicated torque specification

## 19 Series - Pistol Grip - “P” Handle - Trigger Start

0.4 - 10.8 ftlbs / 0.6 - 14.7 Nm



- Durable Clecomatic Clutch delivers best-in-class torque repeatability and long calibration cycle
- 2 grip sizes available for added versatility
- P Handle shaped so force can be applied for prevailing torque fasteners
- Reverse lever can be rotated to accommodate left-or-right-handed operators
- Engineered to suit a wide range of applications, from high volume assembly to aerospace

| Model    | Torque Range |        |           |           | Free Speed | Length | Weight |      | Air Consumption |  | Air Inlet Size |
|----------|--------------|--------|-----------|-----------|------------|--------|--------|------|-----------------|--|----------------|
|          | Min Nm       | Max Nm | Min Ft Lb | Max Ft Lb | r/min      | in     | Lb     | kg   | Scfm            |  | in             |
| 19PTA02Q | 0.6          | 2.1    | 0.4       | 1.5       | 2800       | 8      | 1.41   | 0.64 | 11              |  | 1/4            |
| 19PTA03Q | 0.6          | 2.9    | 0.4       | 2.1       | 1900       | 8.2    | 1.5    | 0.68 | 11              |  | 1/4            |
| 19PTA04Q | 1.1          | 4.5    | 0.8       | 3.3       | 1100       | 8      | 1.41   | 0.64 | 11              |  | 1/4            |
| 19PTA05Q | 1.1          | 5.1    | 0.8       | 3.7       | 660        | 8.4    | 1.5    | 0.68 | 11              |  | 1/4            |
| 19PTA06Q | 1.1          | 5.1    | 0.8       | 3.7       | 260        | 8.4    | 1.5    | 0.68 | 11              |  | 1/4            |
| 19PTA07Q | 1.7          | 6.8    | 1.2       | 5         | 660        | 8.4    | 1.5    | 0.68 | 11              |  | 1/4            |
| 19PTA09Q | 1.7          | 8.9    | 1.2       | 6.5       | 470        | 9.8    | 1.65   | 0.75 | 11              |  | 1/4            |
| 19PTA15Q | 5.1          | 14.7   | 3.7       | 10.8      | 260        | 9.7    | 1.92   | 0.87 | 11              |  | 1/4            |

General: Tool performance rated at 90 psi (620kPa) air pressure.

Standard Equipment:

Operating instructions & service manual

Suspension bail

Side handle on 19PTA15Q.

All torque springs required to meet indicated torque specification



## 19 Series - Pistol Grip - Stall - “T” Handle - Trigger Start

Up to 3.7 ftlbs / 5.1 Nm

- 1/4” hex quick change drive
- Trigger Start
- T Handle balanced for high volume assembly cell and line production of machine screws
- 2 interchangeable soft-touch grip sizes
- Adjustable reverse lever for true one-hand left or right operation



| Model    | Torque Range Max (nm) | Torque Range Max (ft/lb) | Free Speed | Length | Weight |      | Air Consumption | Air Inlet Size |
|----------|-----------------------|--------------------------|------------|--------|--------|------|-----------------|----------------|
|          | Max Nm                | Max Ft Lb                | r/min      | in     | Lb     | kg   | Scfm            | in             |
| 19TTS02Q | 2.1                   | 1.5                      | 2800       | 5.8    | 1.19   | 0.54 | 11              | 1/4            |
| 19TTS03Q | 2.9                   | 2.1                      | 1900       | 6.1    | 1.19   | 0.54 | 11              | 1/4            |
| 19TTS04Q | 4.5                   | 3.3                      | 1100       | 5.8    | 1.19   | 0.54 | 11              | 1/4            |
| 19TTS05Q | 5.1                   | 3.7                      | 660        | 6.1    | 1.19   | 0.54 | 11              | 1/4            |

General: Tool performance rated at 90 psi (620kPa).  
 Standard Equipment:  
 Operating instructions & service manual  
 Suspension bail

## 19 Series - Pistol Grip - Stall - “P” Handle - Trigger Start

Up to 3.7 ftlbs / 5.1 Nm

- 1/4” hex quick change drive
- Trigger Start
- P Handle shaped so force can be applied for prevailing torque fasteners
- 2 interchangeable soft-touch grip sizes
- Adjustable reverse lever for true one-hand left or right operation



| Model    | Torque Range Max (nm) | Torque Range Max (ft/lb) | Free Speed | Length | Weight |      | Air Consumption | Air Inlet Size |
|----------|-----------------------|--------------------------|------------|--------|--------|------|-----------------|----------------|
|          | Max Nm                | Max Ft Lb                | r/min      | in     | Lb     | kg   | Scfm            | in             |
| 19PTS02Q | 2.1                   | 1.5                      | 2800       | 5.9    | 1.17   | 0.53 | 11              | 1/4            |
| 19PTS03Q | 2.9                   | 2.1                      | 1900       | 6.1    | 1.17   | 0.53 | 11              | 1/4            |
| 19PTS04Q | 4.5                   | 3.3                      | 1100       | 5.9    | 1.17   | 0.53 | 11              | 1/4            |
| 19PTS05Q | 5.1                   | 3.7                      | 660        | 6.1    | 1.17   | 0.53 | 11              | 1/4            |

General: Tool performance rated at 90 psi (620kPa).  
 Standard Equipment:  
 Operating instructions & service manual  
 Suspension bail

## 88 Series - Pistol Grip - Trigger Start - Sliding Knob Reverse

1.2 - 14.7 ftlbs / 1.7 - 20 Nm

- Compact design increases productivity, saves weight, and is easy to integrate into any assembly environment
- Dependable Clecomatic clutch delivers consistent torque accuracy and repeatability
- Cleco motor is the industry standard for durability
- Easy to repair and maintain, with high parts interchangeability to other Cleco products
- 3/8" Square or 1/4" Quick Release Output



| Model        | Torque Range |        |           |           | Free Speed<br>r/min | Length<br>in | Weight |      | Side to Center<br>in | Air Consumption<br>Scfm | Air Inlet Size<br>in |
|--------------|--------------|--------|-----------|-----------|---------------------|--------------|--------|------|----------------------|-------------------------|----------------------|
|              | Min Nm       | Max Nm | Min Ft Lb | Max Ft Lb |                     |              | Lb     | kg   |                      |                         |                      |
| 88RSATP-7C-3 | 1.7          | 10     | 1.2       | 7.3       | 550                 | 8.9          | 3.13   | 1.42 | 0.81                 | 19.1                    | 1/4                  |
| 88RSATP-7CQ  | 1.7          | 10     | 1.2       | 7.3       | 550                 | 8.9          | 3.13   | 1.42 | 0.81                 | 19.1                    | 1/4                  |
| 88RSATP-5C-3 | 1.7          | 18     | 1.2       | 13.2      | 400                 | 8.9          | 3.13   | 1.42 | 0.81                 | 19.1                    | 1/4                  |
| 88RSATP-5CQ  | 1.7          | 18     | 1.2       | 13.2      | 400                 | 8.9          | 3.13   | 1.42 | 0.81                 | 19.1                    | 1/4                  |
| 88RSATP-2C-3 | 1.7          | 20     | 1.2       | 14.7      | 200                 | 9.6          | 3.37   | 1.53 | 0.81                 | 19.1                    | 1/4                  |
| 88RSATP-2CQ  | 1.7          | 20     | 1.2       | 14.7      | 200                 | 9.6          | 3.37   | 1.53 | 0.81                 | 19.1                    | 1/4                  |

General: Tool performance rated at 90 psi (620kPa).  
 Standard Equipment:  
 Operating instructions & service manual  
 Suspension bail  
 All torque springs required to meet indicated torque  
 Side handle 861006PT on all models above 8 ft lbs torque capacity

## 88 Series - Pistol Grip - Push and Trigger Start - Sliding Knob Reverse

1.2 - 14.7 ftlbs / 1.7 - 20 Nm

- Compact design increases productivity, saves weight, and is easy to integrate into any assembly environment
- Dependable Clecomatic clutch delivers consistent torque accuracy and repeatability
- Cleco motor is the industry standard for durability
- Easy to repair and maintain, with high parts interchangeability to other Cleco products
- C-3 3/8" Square or CQ 1/4" Quick Release Output



| Model        | Torque Range |        |           |           | Free Speed<br>r/min | Length<br>in | Weight |      | Side to Center<br>in | Air Consumption<br>Scfm | Air Inlet Size<br>in |
|--------------|--------------|--------|-----------|-----------|---------------------|--------------|--------|------|----------------------|-------------------------|----------------------|
|              | Min Nm       | Max Nm | Min Ft Lb | Max Ft Lb |                     |              | Lb     | kg   |                      |                         |                      |
| 88RSAPT-7CQ  | 1.7          | 10     | 1.2       | 7.3       | 550                 | 9            | 3.13   | 1.42 | 0.81                 | 19.1                    | 1/4                  |
| 88RSAPT-5C-3 | 1.7          | 18     | 1.2       | 13.2      | 400                 | 9            | 3.13   | 1.42 | 0.81                 | 19.1                    | 1/4                  |
| 88RSAPT-5CQ  | 1.7          | 18     | 1.2       | 13.2      | 400                 | 9            | 3.13   | 1.42 | 0.81                 | 19.1                    | 1/4                  |
| 88RSAPT-2CQ  | 1.7          | 20     | 1.2       | 14.7      | 200                 | 9.8          | 3.37   | 1.53 | 0.81                 | 19.1                    | 1/4                  |

General: Tool performance rated at 90 psi (620kPa).  
 Standard Equipment:  
 Operating instructions & service manual  
 Suspension bail  
 All torque springs required to meet indicated torque  
 Side handle 861006PT on all models above 8 ft lbs torque

## MP Series - Positive Clutch Screwdrivers

Up to 11.6 ftlbs

- Great for soft draw applications such as wood or aluminum
- One-hand forward reverse switch
- Rugged metal housing and components outlasts the competition
- Efficient and balanced design maximizes accessibility while minimizing operator fatigue
- Operator push maintains drive, reduces pressure for clutch to slip



| Model  | Torque Range |        |           |           | Free Speed | Length | Weight |      | Air Consumption | Air Inlet Size |
|--------|--------------|--------|-----------|-----------|------------|--------|--------|------|-----------------|----------------|
|        | Min Nm       | Max Nm | Min Ft Lb | Max Ft Lb | r/min      | in     | Lb     | kg   | Scfm            | in             |
| MP2464 | 3.3          | 8.5    | 0.8       | 6.2       | 2800       | 6.8    | 2.43   | 1.10 | 22              | 1/4            |
| MP2465 | 5.1          | 11.3   | 0.8       | 8.3       | 1800       | 6.8    | 2.43   | 1.10 | 22              | 1/4            |
| MP2466 | 9.6          | 15.8   | 0.8       | 11.6      | 1100       | 8.1    | 3.09   | 1.40 | 22              | 1/4            |

## MP Series - Adjustable Clutch Screwdriver

2.5 - 8.3 ftlbs / 3.4 - 11.3 Nm

- Clutch shut-off adjusted by spring force
- One-hand forward reverse switch
- Rugged metal housing and components outlasts the competition
- Efficient and balanced design maximizes accessibility while minimizing operator fatigue



| Model  | Torque Range |        |           |           | Free Speed | Length | Weight |      | Air Consumption | Air Inlet Size |
|--------|--------------|--------|-----------|-----------|------------|--------|--------|------|-----------------|----------------|
|        | Min Nm       | Max Nm | Min Ft Lb | Max Ft Lb | r/min      | in     | Lb     | kg   | Scfm            | in             |
| MP2477 | 3.4          | 11.3   | 2.5       | 8.3       | 1800       | 7.8    | 2.65   | 1.20 | 22              | 1/4            |

General:  
 Air All tools performance rated @ 90psi (620 kPa) air pressure.  
 Standard Equipment: Clutch adjustment wrenches  
 Owners Manual  
 Parts Sheet

## MP Series - Versa Clutch Screwdrivers

### 0.4 - 11.6 ftlbs / 0.6 - 15.8Nm - Adjustable Slip Versa Clutch

- Adjustable slip clutch for general use
- One-hand forward reverse switch
- Rugged metal housing and components outlasts the competition
- Efficient and balanced design maximizes accessibility while minimizing operator fatigue
- Versa Clutch - Allows adjustment of cam overlap to adjust torque output



| Model  | Torque Range |        |           |           | Free Speed | Length | Weight |      | Air Consumption | Air Inlet Size |
|--------|--------------|--------|-----------|-----------|------------|--------|--------|------|-----------------|----------------|
|        | Min Nm       | Max Nm | Min Ft Lb | Max Ft Lb | r/min      | in     | Lb     | kg   | Scfm            | in             |
| MP2436 | 0.6          | 11.3   | 0.4       | 8.3       | 1800       | 7.8    | 2.65   | 1.20 | 22              | 1/4            |
| MP2437 | 0.6          | 15.8   | 0.4       | 11.6      | 1100       | 9.1    | 3.31   | 1.50 | 22              | 1/4            |

General:  
 All tools performance rated @ 90psi (620 kPa) air pressure.  
 Standard Equipment:  
 Owners Manual  
 Parts Sheet

MP Series - Stall Screwdrivers

Up to 10 ftlbs / 13.6 Nm

- Torque is set by adjusting air pressure
- One-hand forward reverse switch
- Rugged metal housing and components outlasts the competition
- Efficient and balanced design maximizes accessibility while minimizing operator fatigue



Nutrunners & Screwdrivers

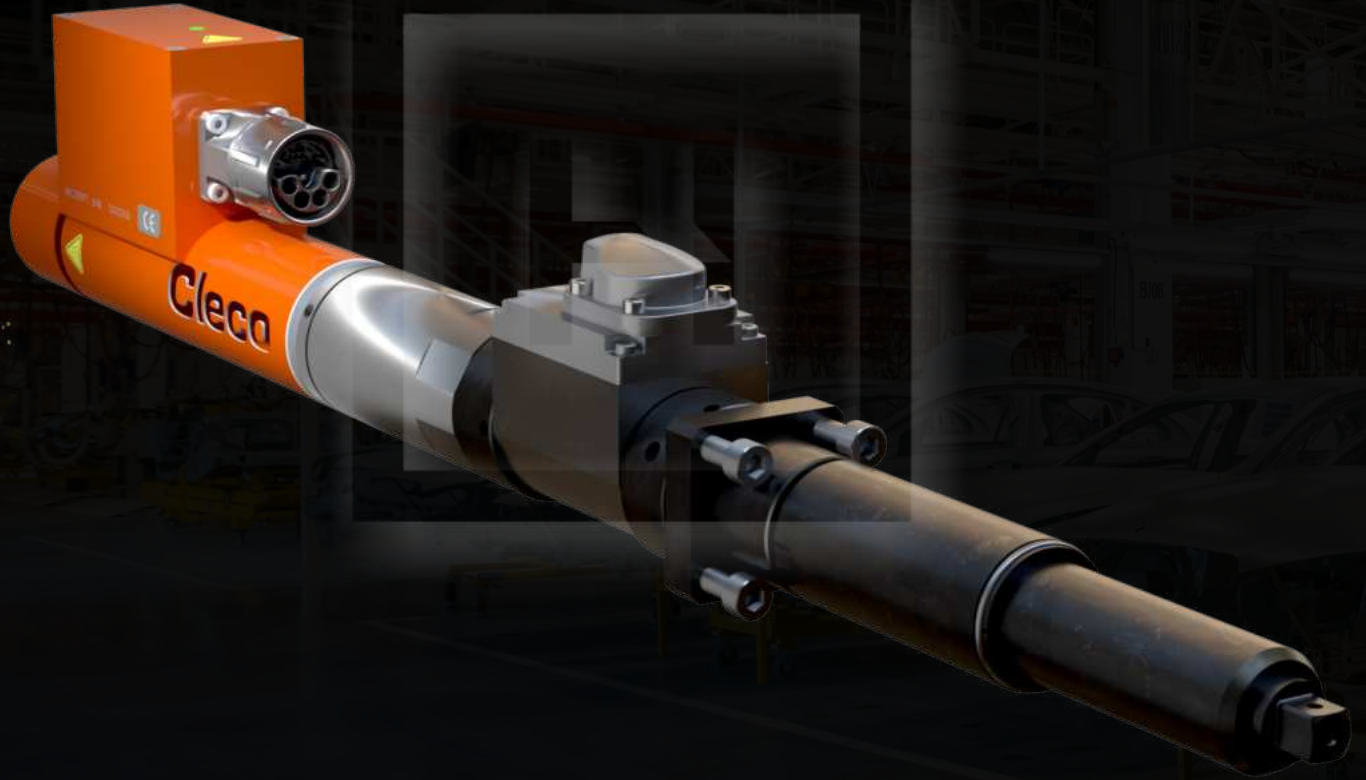
| Model  | Torque Range<br>Max (nm) | Torque Range<br>Max (ft/lb) | Free<br>Speed | Length | Weight |      | Air Consumption | Air Inlet<br>Size |
|--------|--------------------------|-----------------------------|---------------|--------|--------|------|-----------------|-------------------|
|        | Max Nm                   | Max Ft Lb                   | r/min         | in     | Lb     | kg   | Scfm            | in                |
| MP2452 | 7.2                      | 5.3                         | 2800          | 5.7    | 2.18   | 0.99 | 22              | 1/4               |
| MP2453 | 8.3                      | 6.2                         | 1800          | 5.7    | 2.18   | 0.99 | 22              | 1/4               |
| MP2454 | 13.6                     | 10                          | 1100          | 7      | 2.87   | 1.30 | 22              | 1/4               |

General:  
All tools performance rated @ 90psi (620 kPa) air pressure.  
Standard Equipment:  
Owners Manual  
Parts Sheet



# Cleco

## FIXTURED SPINDLES





# FIXTURED SPINDLES

KNOWN FOR **DURABILITY**.  
TRUSTED FOR **QUALITY**.

THE ULTIMATE **AUTOMATED**  
TIGHTENING SOLUTIONS.

Cleco DGD™ Intelligent Spindles are the exclusive fixtured assembly solution, combining reduced floor space, fewer cables and high-speed uptime availability for automated fastening applications. Intelligent spindles provide a wide range of torque capability and industry-leading free speeds.



REDUCE YOUR **FOOTPRINT AND TOTAL COST OF OWNERSHIP** VIA OUR EXCLUSIVE INTELLIGENT SPINDLE CABLING TECHNOLOGY.

When you're looking to run robotic tightening applications, look to Cleco DGD intelligent spindle solutions. By utilizing our exclusive daisy-chain connectors, we offer the only solution in the industry that enables you to run multiple spindles using a daisy-chained cable solution. This results in reduced system complexity, simple cable management and smaller pay-load capacity.

SAME CELL, SAME ROBOT:  
**INTELLI-SWAP**, AN INDUSTRY FIRST.

Combining Cleco DGD Intelligent Spindles and daisy-chain connectors with our patented Intelli-Swap system technology, plus an automatic, intelligent tool changer enables yoursystem to rapidly switch from one group of spindles to another using the same controller. Cleco DGD solutions enable you to effortlessly manage multiple applications in a single cell.






# BUILDING A FIXTURED DC TOOL SYSTEM

is as simple as 1, 2, 3 !

| Conventional Spindle | Single Intelligent Spindle | Intelligent Spindles -<br>Consult Application Center | INTELLIGENT SPINDLES                                      |
|----------------------|----------------------------|--|---|
|                      | ✓                          | ✓  | Select from catalog. Floating spindle ordered separately. |
|                      | ✓                          |  | mPRO400GCD-P-BTS  |
|                      | ✓                          | ✓  | mPRO400GCM PDBCPSXX - Select model from catalog.          |
|                      |                            | ✓  | Select cable with desired connector from catalog.         |
|                      | ✓                          | ✓  | Select from catalog.                                      |
|                      |                            |  | CONVENTIONAL SPINDLES                                     |
| ✓                    |                            |  | Select from catalog. Floating spindle ordered separately. |
| ✓                    |                            |  | mPRO300GCD-STO, mPRO400GCD-S                              |
|                      |                            |  | mPRO400GCD  |
| ✓                    |                            |  | Select from catalog.                                      |
| ✓                    |                            |  | Select from catalog.                                      |
| ✓                    | ✓                          | ✓  | Select from catalog.                                      |
| ✓                    | ✓                          | ✓  | Select cable with desired connector from catalog.         |
| ✓                    | ✓                          | ✓  | Contact application center.                               |

1. Choose a common system to the left
2. Select the components below.
3. Order your system!

|  |   |
|--|---|
|  |   |
| Intelligent Fixtured Spindles  |     |
| <b>System Control Package</b><br>Controller, Power Transformer, Power Distribution Box, Arcnet Cable and Stand |    |
| Jumper Extension Cables  |   |
| System Bus Terminator at Spindle   |   |
|  |   |
| Conventional Fixtured Spindles   |   |
| Controller   |   |
| Field Bus Accessories & System Bus Cable   |   |
| Extension Cables   |   |
| Floating Spindle Adaptors  |  |
| Field Cables   |   |
| Engineered System Fixturing  |   |

## BD Spindles

Cleco's Digital (BD) Spindles are engineered to bring you a new level of **performance and productivity**, offering a **best-in-class total cost of ownership**.



### Choosing the Correct Spindle

|   |   |   |   |    |    |   |    |
|---|---|---|---|----|----|---|----|
| 1 | B | D | U | 53 | T1 | S | -A |
|---|---|---|---|----|----|---|----|

|    |   |
|----|---|
| 1  | Size = 1-4  |
| B  | B = Brushless motor   |
| D  | D = Digital design  |
| U  | U = U-gear  |
| 53 | 35 Nm max. tool capacity<br>53 Nm max. tool capacity<br>110 Nm max. tool capacity |
| T1 | T1 = Single transducer<br>T2 = Twin transducer<br>T3 = Triple transducer          |
| S  | S = Straight drive<br>O = Offset drive<br>A = Angle head drive                    |
| -A | -A = Spindle revision (ongoing)<br>-Sxxx = Special (xxx = assigned No.)           |

#### EXAMPLE:

|   |   |  |   |   |    |    |   |    |
|---|---|--|---|---|----|----|---|----|
| 1 | B |  | D | U | 35 | T2 | S | -A |
|---|---|--|---|---|----|----|---|----|

Conventional spindle #1, U gear, 35 Nm, twin transducers, straight drive, spindle revision A

Find out today how Cleco's evolution of fixtured assembly systems will improve the performance and productivity of your assembly process.



### Speed

Increased productivity through higher free speed



### System Simplicity

Seamlessly and easily integrates to all assembly systems



### Reliability

Increases overall equipment availability through an efficient engineered system



### Accuracy

Ensures accurate and repeatable productivity

## HIGHLY PRODUCTIVE ENGINEERED ASSEMBLY SYSTEMS.

### Commonality

Cleco's System Controller provides a common platform with our other Cleco power tool products



Controller

### New High Precision Motor

Offers increased free speed and improved system energy management

### Precision Gearing

### Efficient Cleco System Design

Simple and easy service, troubleshooting and maintenance

### High-Performance Field Cable

Improves performance and reliability, reduced size, improved jacket material and robust connectors

### Modular Drive Attachment

Provides easy and limitless configurations

### Lower Total Cost of Ownership

Engineered system with proven reliability and robustness which reduces production loss and overall system maintenance.



## Conventional Spindle – BD/BDU Size 1 – Straight Drive

Cleco's Digital (BD) Spindles are engineered to bring you a new level of performance and productivity, offering a best-in-class total cost of ownership.



- Speed - Increased productivity through higher free speed
- System Simplicity - Seamlessly and easily integrates to all assembly systems
- Reliability - Increases overall equipment availability through an efficient engineered system
- Accuracy - Ensures accurate and repeatable productivity
- Compatible with mPro300GCD-STO Global Controller

| Model       | Torque Range |        |           |           | Free Speed | Float | Min Center to Center | Weight |     | Length |     |
|-------------|--------------|--------|-----------|-----------|------------|-------|----------------------|--------|-----|--------|-----|
|             | Min Nm       | Max Nm | Min Ft lb | Max Ft lb | r/min      | mm    | mm                   | Lb     | kg  | in     | mm  |
| 1BD12T1S-A  | 2            | 12     | 1.5       | 8.9       | 3317       | 50    | 43                   | 7.72   | 3.5 | 15.59  | 396 |
| 1BD12T2S-A  | 2            | 12     | 1.5       | 8.9       | 3317       | 50    | 43                   | 9.04   | 4.1 | 18.74  | 476 |
| 1BDU12T1S-A | 2            | 12     | 1.5       | 8.9       | 3317       | 50    | 43                   | 8.82   | 4   | 9.88   | 251 |
| 1BDU12T2S-A | 2            | 12     | 1.5       | 8.9       | 3317       | 50    | 43                   | 10.14  | 4.6 | 13.03  | 331 |
| 1BD35T1S-A  | 3.5          | 35     | 2.6       | 25.8      | 1255       | 50    | 43                   | 7.72   | 3.5 | 15.59  | 396 |
| 1BD35T2S-A  | 3.5          | 35     | 2.6       | 25.8      | 1255       | 50    | 43                   | 9.04   | 4.1 | 18.74  | 476 |
| 1BDU35T1S-A | 3.5          | 35     | 2.6       | 25.8      | 1255       | 50    | 43                   | 8.82   | 4   | 9.88   | 251 |
| 1BDU35T2S-A | 3.5          | 35     | 2.6       | 25.8      | 1255       | 50    | 43                   | 10.14  | 4.6 | 13.03  | 331 |
| 1BD53T1S-A  | 5.3          | 53     | 3.9       | 39.1      | 737        | 50    | 43                   | 7.72   | 3.5 | 15.59  | 396 |
| 1BD53T2S-A  | 5.3          | 53     | 3.9       | 39.1      | 737        | 50    | 43                   | 9.04   | 4.1 | 18.74  | 476 |
| 1BDU53T1S-A | 5.3          | 53     | 3.9       | 39.1      | 737        | 50    | 43                   | 8.82   | 4   | 9.88   | 251 |
| 1BDU53T2S-A | 5.3          | 53     | 3.9       | 39.1      | 737        | 50    | 43                   | 10.14  | 4.6 | 13.03  | 331 |



## Conventional Spindle – BD/BDU Size 1 – Angle Drive

Cleco's Digital (BD) Spindles are engineered to bring you a new level of performance and productivity, offering a best-in-class total cost of ownership.

- Speed - Increased productivity through higher free speed
- System Simplicity - Seamlessly and easily integrates to all assembly systems
- Reliability -
- Increases overall equipment availability through an efficient engineered system
- Accuracy - Ensures accurate and repeatable productivity
- Compatible with mPro300GCD-STO Global Controller



| Model       | Torque Range |        |           |           | Free Speed<br>r/min | Float<br>mm | Min Center to Center<br>mm | Weight |     | Length |     |
|-------------|--------------|--------|-----------|-----------|---------------------|-------------|----------------------------|--------|-----|--------|-----|
|             | Min Nm       | Max Nm | Min Ft lb | Max Ft lb |                     |             |                            | Lb     | kg  | in     | mm  |
| 1BD12T1A-A  | 2            | 12     | 1.5       | 8.9       | 3110                | 25          | 52                         | 9.7    | 4.4 | 16.81  | 427 |
| 1BD12T2A-A  | 2            | 12     | 1.5       | 8.9       | 3110                | 25          | 52                         | 11.03  | 5   | 19.96  | 507 |
| 1BDU12T1A-A | 2            | 12     | 1.5       | 8.9       | 3110                | 25          | 52                         | 10.8   | 4.9 | 11.10  | 282 |
| 1BDU12T2A-A | 2            | 12     | 1.5       | 8.9       | 3110                | 25          | 52                         | 12.13  | 5.5 | 14.25  | 362 |
| 1BD35T1A-A  | 3.5          | 35     | 2.6       | 25.8      | 1176                | 25          | 52                         | 9.7    | 4.4 | 16.81  | 427 |
| 1BD35T2A-A  | 3.5          | 35     | 2.6       | 25.8      | 1176                | 25          | 52                         | 11.03  | 5   | 19.96  | 507 |
| 1BDU35T1A-A | 3.5          | 35     | 2.6       | 25.8      | 1176                | 25          | 52                         | 10.8   | 4.9 | 11.10  | 282 |
| 1BDU35T2A-A | 3.5          | 35     | 2.6       | 25.8      | 1176                | 25          | 52                         | 12.13  | 5.5 | 14.25  | 362 |
| 1BD53T1A-A  | 5.3          | 53     | 3.9       | 39.1      | 691                 | 25          | 52                         | 9.7    | 4.4 | 16.81  | 427 |
| 1BD53T2A-A  | 5.3          | 53     | 3.9       | 39.1      | 691                 | 25          | 52                         | 11.03  | 5   | 19.96  | 507 |
| 1BDU53T1A-A | 5.3          | 53     | 3.9       | 39.1      | 691                 | 25          | 52                         |        | 4.9 |        | 282 |
| 1BDU53T2A-A | 5.3          | 53     | 3.9       | 39.1      | 691                 | 25          | 52                         | 12.13  | 5.5 | 14.25  | 362 |

## Conventional Spindle – BD/BDU Size 1 - Offset Drive

Cleco's Digital (BD) Spindles are engineered to bring you a new level of performance and productivity, offering a best-in-class total cost of ownership.



- Speed - Increased productivity through higher free speed
- System Simplicity - Seamlessly and easily integrates to all assembly systems
- Reliability - Increases overall equipment availability through an efficient engineered system
- Accuracy - Ensures accurate and repeatable productivity
- Compatible with mPro300GCD-STO Global Controller

| Model       | Torque Range |        |           |           | Free Speed | Float | Min Center to Center | Weight |     | Length |     |
|-------------|--------------|--------|-----------|-----------|------------|-------|----------------------|--------|-----|--------|-----|
|             | Min Nm       | Max Nm | Min Ft lb | Max Ft lb | r/min      | mm    | mm                   | Lb     | kg  | in     | mm  |
| 1BD12T1O-A  | 2            | 12     | 1.5       | 8.9       | 3151       | 50    | 35                   | 8.82   | 4   | 15.12  | 384 |
| 1BD12T2O-A  | 2            | 12     | 1.5       | 8.9       | 3151       | 50    | 35                   | 10.14  | 4.6 | 18.27  | 464 |
| 1BDU12T1O-A | 2            | 12     | 1.5       | 8.9       | 3151       | 50    | 35                   | 9.92   | 4.5 | 9.41   | 239 |
| 1BDU12T2O-A | 2            | 12     | 1.5       | 8.9       | 3151       | 50    | 35                   | 11.25  | 5.1 | 12.56  | 319 |
| 1BD35T1O-A  | 3.5          | 35     | 2.6       | 25.8      | 1192       | 50    | 35                   | 8.82   | 4   | 15.12  | 384 |
| 1BD35T2O-A  | 3.5          | 35     | 2.6       | 25.8      | 1192       | 50    | 35                   | 10.14  | 4.6 | 18.27  | 464 |
| 1BDU35T1O-A | 3.5          | 35     | 2.6       | 25.8      | 1192       | 50    | 35                   | 9.92   | 4.5 | 9.41   | 239 |
| 1BDU35T2O-A | 3.5          | 35     | 2.6       | 25.8      | 1192       | 50    | 35                   | 11.25  | 5.1 | 12.56  | 319 |
| 1BD53T1O-A  | 5.3          | 53     | 3.9       | 39.1      | 700        | 50    | 35                   | 8.82   | 4   | 15.12  | 384 |
| 1BD53T2O-A  | 5.3          | 53     | 3.9       | 39.1      | 700        | 50    | 35                   | 10.14  | 4.6 | 18.27  | 464 |
| 1BDU53T1O-A | 5.3          | 53     | 3.9       | 39.1      | 700        | 50    | 35                   | 9.92   | 4.5 | 9.41   | 239 |
| 1BDU53T2O-A | 5.3          | 53     | 3.9       | 39.1      | 700        | 50    | 35                   | 11.25  | 5.1 | 12.56  | 319 |

## Conventional Spindle – BD/BDU Size 2 - Straight Drive

Cleco's Digital (BD) Spindles are engineered to bring you a new level of performance and productivity, offering a best-in-class total cost of ownership.



- Speed - Increased productivity through higher free speed
- System Simplicity - Seamlessly and easily integrates to all assembly systems
- Reliability - Increases overall equipment availability through an efficient engineered system
- Accuracy - Ensures accurate and repeatable productivity
- Compatible with mPro300GCD-STO Global Controller

| Model        | Torque Range |        |           |           | Free Speed | Float | Min Center to Center | Weight |     | Length |     |
|--------------|--------------|--------|-----------|-----------|------------|-------|----------------------|--------|-----|--------|-----|
|              | Min Nm       | Max Nm | Min Ft lb | Max Ft lb | r/min      | mm    | mm                   | Lb     | kg  | in     | mm  |
| 2BD110T1S-A  | 11           | 110    | 8.1       | 81.1      | 890        | 50    | 56                   | 14.33  | 6.5 | 18.94  | 481 |
| 2BD110T2S-A  | 11           | 110    | 8.1       | 81.1      | 890        | 50    | 56                   | 16.76  | 7.6 | 22.76  | 578 |
| 2BDU110T1S-A | 11           | 110    | 8.1       | 81.1      | 890        | 50    | 56                   | 16.54  | 7.5 | 12.2   | 310 |
| 2BDU110T2S-A | 11           | 110    | 8.1       | 81.1      | 890        | 50    | 56                   | 18.96  | 8.6 | 16.02  | 407 |
| 2BD200T1S-A  | 20           | 200    | 14.8      | 147.5     | 501        | 50    | 56                   | 14.33  | 6.5 | 18.94  | 481 |
| 2BD200T2S-A  | 20           | 200    | 14.8      | 147.5     | 501        | 50    | 56                   | 16.76  | 7.6 | 22.76  | 578 |
| 2BDU200T1S-A | 20           | 200    | 14.8      | 147.5     | 501        | 50    | 56                   | 16.54  | 7.5 | 12.2   | 310 |
| 2BDU200T2S-A | 20           | 200    | 14.8      | 147.5     | 501        | 50    | 56                   | 18.96  | 8.6 | 16.02  | 407 |

## Conventional Spindle – BD/BDU Size 2 – Angle Drive

Cleco's Digital (BD) Spindles are engineered to bring you a new level of performance and productivity, offering a best-in-class total cost of ownership.



- Speed - Increased productivity through higher free speed
- System Simplicity - Seamlessly and easily integrates to all assembly systems
- Reliability - Increases overall equipment availability through an efficient engineered system
- Accuracy - Ensures accurate and repeatable productivity
- Compatible with mPro300GCD-STO Global Controller

| Model        | Torque Range |        |           |           | Free Speed | Float | Min Center to Center | Weight |     | Length | Length |
|--------------|--------------|--------|-----------|-----------|------------|-------|----------------------|--------|-----|--------|--------|
|              | Min Nm       | Max Nm | Min Ft lb | Max Ft lb | r/min      | mm    | mm                   | Lb     | kg  | in     | mm     |
| 2BD110T1A-A  | 11           | 110    | 8.1       | 81.1      | 837        | 25    | 59                   | 16.76  | 7.6 | 19.88  | 505    |
| 2BD110T2A-A  | 11           | 110    | 8.1       | 81.1      | 837        | 25    | 59                   | 19.18  | 8.7 | 23.7   | 602    |
| 2BDU110T1A-A | 11           | 110    | 8.1       | 81.1      | 837        | 25    | 59                   | 18.96  | 8.6 | 13.19  | 335    |
| 2BDU110T2A-A | 11           | 110    | 8.1       | 81.1      | 837        | 25    | 59                   | 21.39  | 9.7 | 17.01  | 432    |
| 2BD200T1A-A  | 20           | 200    | 14.8      | 147.5     | 472        | 25    | 59                   | 16.76  | 7.6 | 19.88  | 505    |
| 2BD200T2A-A  | 20           | 200    | 14.8      | 147.5     | 472        | 25    | 59                   | 19.18  | 8.7 | 23.7   | 602    |
| 2BDU200T1A-A | 20           | 200    | 14.8      | 147.5     | 472        | 25    | 59                   | 18.96  | 8.6 | 13.19  | 335    |
| 2BDU200T2A-A | 20           | 200    | 14.8      | 147.5     | 472        | 25    | 59                   | 21.39  | 9.7 | 17.01  | 432    |

## Conventional Spindle – BD/BDU Size 2 – Offset Drive

Cleco's Digital (BD) Spindles are engineered to bring you a new level of performance and productivity, offering a best-in-class total cost of ownership.



- Speed - Increased productivity through higher free speed
- System Simplicity - Seamlessly and easily integrates to all assembly systems
- Reliability - Increases overall equipment availability through an efficient engineered system
- Accuracy - Ensures accurate and repeatable productivity
- Compatible with mPro300GCD-STO Global Controller

| Model        | Torque Range |        |           |           | Free Speed | Float | Min Center to Center | Weight |      | Length |     |
|--------------|--------------|--------|-----------|-----------|------------|-------|----------------------|--------|------|--------|-----|
|              | Min Nm       | Max Nm | Min Ft lb | Max Ft lb | r/min      | mm    | mm                   | Lb     | kg   | in     | mm  |
| 2BD110T1O-A  | 11           | 110    | 8.1       | 81.1      | 830        | 50    | 44                   | 17.86  | 8.1  | 19.84  | 504 |
| 2BD110T2O-A  | 11           | 110    | 8.1       | 81.1      | 830        | 50    | 44                   | 20.29  | 9.2  | 23.66  | 601 |
| 2BDU110T1O-A | 11           | 110    | 8.1       | 81.1      | 830        | 50    | 44                   | 20.07  | 9.1  | 13.11  | 333 |
| 2BDU110T2O-A | 11           | 110    | 8.1       | 81.1      | 830        | 50    | 44                   | 22.49  | 10.2 | 16.93  | 430 |
| 2BD200T1O-A  | 20           | 200    | 14.8      | 147.5     | 468        | 50    | 44                   | 17.86  | 8.1  | 19.84  | 504 |
| 2BD200T2O-A  | 20           | 200    | 14.8      | 147.5     | 468        | 50    | 44                   | 19.18  | 9.2  | 23.66  | 601 |
| 2BDU200T1O-A | 20           | 200    | 14.8      | 147.5     | 468        | 50    | 44                   | 20.07  | 9.1  | 13.11  | 333 |
| 2BDU200T2O-A | 20           | 200    | 14.8      | 147.5     | 468        | 50    | 44                   | 22.49  | 10.2 | 16.93  | 430 |

## Conventional Spindle – BD/BDU Size 3 – Straight Drive

Cleco's Digital (BD) Spindles are engineered to bring you a new level of performance and productivity, offering a best-in-class total cost of ownership.



- Speed - Increased productivity through higher free speed
- System Simplicity - Seamlessly and easily integrates to all assembly systems
- Reliability - wouldIncreases overall equipment availability through an efficient engineered system
- Accuracy - Ensures accurate and repeatable productivity
- Compatible with mPro300GCD-STO Global Controller

| Model        | Torque Range |        |           |           | Free Speed | Float | Min Center to Center | Weight |      | Length | Length |
|--------------|--------------|--------|-----------|-----------|------------|-------|----------------------|--------|------|--------|--------|
|              | Min Nm       | Max Nm | Min Ft lb | Max Ft lb | r/min      | mm    | mm                   | Lb     | kg   | in     | mm     |
| 3BD300T1S-A  | 30           | 300    | 22.1      | 221.3     | 480        | 50    | 81                   | 28.89  | 13.1 | 21.97  | 558    |
| 3BD300T2S-A  | 30           | 300    | 22.1      | 221.3     | 480        | 50    | 81                   | 33.52  | 15.2 | 26.38  | 670    |
| 3BDU300T1S-A | 30           | 300    | 22.1      | 221.3     | 480        | 50    | 81                   | 33.3   | 15.1 | 14.41  | 366    |
| 3BDU300T2S-A | 30           | 300    | 22.1      | 221.3     | 480        | 50    | 81                   | 37.93  | 17.2 | 18.82  | 478    |



## Conventional Spindle – BD/BDU Size 3 – Angle Drive

Cleco's Digital (BD) Spindles are engineered to bring you a new level of performance and productivity, offering a best-in-class total cost of ownership.



- Speed - Increased productivity through higher free speed
- System Simplicity - Seamlessly and easily integrates to all assembly systems
- Reliability - Increases overall equipment availability through an efficient engineered system
- Accuracy - Ensures accurate and repeatable productivity
- Compatible with mPro300GCD-STO Global Controller

| Model        | Torque Range |        |           |           | Free Speed | Float | Min Center to Center | Weight |      | Length | Length |
|--------------|--------------|--------|-----------|-----------|------------|-------|----------------------|--------|------|--------|--------|
|              | Min Nm       | Max Nm | Min Ft lb | Max Ft lb | r/min      | mm    | mm                   | Lb     | kg   | in     | mm     |
| 3BD300T1A-A  | 30           | 300    | 22.1      | 221.3     | 462        | 25    | 81                   | 37.04  | 16.8 | 23.9   | 607    |
| 3BD300T2A-A  | 30           | 300    | 22.1      | 221.3     | 462        | 25    | 81                   | 41.67  | 18.9 | 28.31  | 719    |
| 3BDU300T1A-A | 30           | 300    | 22.1      | 221.3     | 462        | 25    | 81                   | 41.45  | 18.8 | 16.34  | 415    |
| 3BDU300T2A-A | 30           | 300    | 22.1      | 221.3     | 462        | 25    | 81                   | 46.08  | 20.9 | 20.75  | 527    |

## Conventional Spindle – BD/BDU Size 3 – Offset Drive

Cleco's Digital (BD) Spindles are engineered to bring you a new level of performance and productivity, offering a best-in-class total cost of ownership.

- Speed - Increased productivity through higher free speed
- System Simplicity - Seamlessly and easily integrates to all assembly systems
- Reliability - Increases overall equipment availability through an efficient engineered system
- Accuracy - Ensures accurate and repeatable productivity
- Compatible with mPro300GCD-STO Global Controller



| Model        | Torque Range |        |           |           | Free Speed | Float | Min Center to Center | Weight |      | Length | Length |
|--------------|--------------|--------|-----------|-----------|------------|-------|----------------------|--------|------|--------|--------|
|              | Min Nm       | Max Nm | Min Ft lb | Max Ft lb | r/min      | mm    | mm                   | Lb     | kg   | in     | mm     |
| 3BD300T1O-A  | 30           | 300    | 22.1      | 221.3     | 445        | 50    | 59                   | 31.31  | 14.2 | 21.77  | 553    |
| 3BD300T2O-A  | 30           | 300    | 22.1      | 221.3     | 445        | 50    | 59                   | 35.94  | 16.3 | 26.18  | 665    |
| 3BDU300T1O-A | 30           | 300    | 22.1      | 221.3     | 445        | 50    | 59                   | 35.5   | 16.1 | 14.21  | 361    |
| 3BDU300T2O-A | 30           | 300    | 22.1      | 221.3     | 445        | 50    | 59                   | 40.13  | 18.2 | 18.62  | 473    |

## Conventional Spindle – BD/BDU Size 4 – Straight Drive

Cleco's Digital (BD) Spindles are engineered to bring you a new level of performance and productivity, offering a best-in-class total cost of ownership.



- Speed - Increased productivity through higher free speed
- System Simplicity - Seamlessly and easily integrates to all assembly systems
- Reliability - Increases overall equipment availability through an efficient engineered system
- Accuracy - Ensures accurate and repeatable productivity
- Compatible with mPro300GCD-STO Global Controller

| Model         | Torque Range |        |           |           | Free Speed | Float | Min Center to Center | Weight |      | Length |     |
|---------------|--------------|--------|-----------|-----------|------------|-------|----------------------|--------|------|--------|-----|
|               | Min Nm       | Max Nm | Min Ft lb | Max Ft lb | r/min      | mm    | mm                   | Lb     | kg   | in     | mm  |
| 4BD500T1S-A   | 50           | 500    | 36.9      | 368.8     | 269        | 50    | 91                   | 44.1   | 20   | 27.13  | 689 |
| 4BD500T2S-A   | 50           | 500    | 36.9      | 368.8     | 269        | 50    | 91                   | 50.72  | 23   | 32.17  | 817 |
| 4BDU500T1S-A  | 50           | 500    | 36.9      | 368.8     | 269        | 50    | 91                   | 47.41  | 21.5 | 19.57  | 497 |
| 4BDU500T2S-A  | 50           | 500    | 36.9      | 368.8     | 269        | 50    | 91                   | 54.02  | 24.5 | 24.61  | 625 |
| 4BD660T1S-A   | 66           | 660    | 48.7      | 486.8     | 183        | 50    | 91                   | 44.1   | 20   | 27.13  | 689 |
| 4BD660T2S-A   | 66           | 660    | 48.7      | 486.8     | 183        | 50    | 91                   | 50.72  | 23   | 32.17  | 817 |
| 4BDU660T1S-A  | 66           | 660    | 48.7      | 486.8     | 183        | 50    | 91                   | 47.41  | 21.5 | 19.57  | 497 |
| 4BDU660T2S-A  | 66           | 660    | 48.7      | 486.8     | 183        | 50    | 91                   | 54.02  | 24.5 | 24.61  | 625 |
| 4BD1250T1S-A  | 320          | 1250   | 236.0     | 922.0     | 91         | 50    | 121                  | 61.74  | 28   | 29.21  | 742 |
| 4BD1250T2S-A  | 320          | 1250   | 236.0     | 922.0     | 91         | 50    | 121                  | 68.36  | 31   | 34.17  | 868 |
| 4BDU1250T1S-A | 320          | 1250   | 236.0     | 922.0     | 91         | 50    | 121                  | 66.15  | 30   | 21.65  | 550 |
| 4BDU1250T2S-A | 320          | 1250   | 236.0     | 922.0     | 91         | 50    | 121                  | 72.77  | 33   | 26.65  | 677 |
| 4BD1600T1S-A  | 400          | 1600   | 295.0     | 1180.1    | 72         | 50    | 121                  | 61.74  | 28   | 29.21  | 742 |
| 4BD1600T2S-A  | 400          | 1600   | 295.0     | 1180.1    | 72         | 50    | 121                  | 68.36  | 31   | 34.17  | 868 |
| 4BDU1600T1S-A | 400          | 1600   | 295.0     | 1180.1    | 72         | 50    | 121                  | 66.15  | 30   | 21.65  | 550 |
| 4BDU1600T2S-A | 400          | 1600   | 295.0     | 1180.1    | 72         | 50    | 121                  | 72.77  | 33   | 26.65  | 677 |
| 4BD2800T1S-A  | 980          | 2800   | 722.8     | 2065.2    | 39         |       |                      | 78.28  | 35.5 | 28.94  | 735 |
| 4BD2800T2S-A  | 980          | 2800   | 722.8     | 2065.2    | 39         |       |                      | 84.89  | 38.5 | 33.94  | 862 |
| 4BDU2800T1S-A | 980          | 2800   | 722.8     | 2065.2    | 39         |       |                      | 82.69  | 37.5 | 22.36  | 568 |
| 4BDU2800T2S-A | 980          | 2800   | 722.8     | 2065.2    | 39         |       |                      | 89.3   | 40.5 | 27.4   | 696 |

## Conventional Spindle – BD/BDU Size 4 – Angle Drive

Cleco's Digital (BD) Spindles are engineered to bring you a new level of performance and productivity, offering a best-in-class total cost of ownership.



- Speed - Increased productivity through higher free speed
- System Simplicity - Seamlessly and easily integrates to all assembly systems
- Reliability - Increases overall equipment availability through an efficient engineered system
- Accuracy - Ensures accurate and repeatable productivity
- Compatible with mPro300GCD-STO Global Controller

| Model        | Torque Range |        |           |           | Free Speed | Float | Min Center to Center | Weight |      | Length |     |
|--------------|--------------|--------|-----------|-----------|------------|-------|----------------------|--------|------|--------|-----|
|              | Min Nm       | Max Nm | Min Ft lb | Max Ft lb | r/min      | mm    | mm                   | Lb     | kg   | in     | mm  |
| 4BD500T1A-A  | 50           | 500    | 36.9      | 368.8     | 259        | 25    | 112                  | 57.55  | 26.1 | 25.39  | 645 |
| 4BD500T2A-A  | 50           | 500    | 36.9      | 368.8     | 259        | 25    | 112                  | 64.17  | 29.1 | 30.39  | 772 |
| 4BDU500T1A-A | 50           | 500    | 36.9      | 368.8     | 259        | 25    | 112                  | 61.08  | 27.7 | 17.83  | 453 |
| 4BDU500T2A-A | 50           | 500    | 36.9      | 368.8     | 259        | 25    | 112                  | 67.69  | 30.7 | 22.83  | 580 |
| 4BD660T1A-A  | 66           | 660    | 48.7      | 486.8     | 177        | 25    | 112                  | 57.55  | 26.1 | 25.39  | 645 |
| 4BD660T2A-A  | 66           | 660    | 48.7      | 486.8     | 177        | 25    | 112                  | 64.17  | 29.1 | 30.39  | 772 |
| 4BDU660T1A-A | 66           | 660    | 48.7      | 486.8     | 177        | 25    | 112                  | 61.08  | 27.7 | 17.83  | 453 |
| 4BDU660T2A-A | 66           | 660    | 48.7      | 486.8     | 177        | 25    | 112                  | 67.69  | 30.7 | 22.83  | 580 |

## Conventional Spindle – BD/BDU Size 4 – Offset Drive

Cleco's Digital (BD) Spindles are engineered to bring you a new level of performance and productivity, offering a best-in-class total cost of ownership.



- Speed - Increased productivity through higher free speed
- System Simplicity - Seamlessly and easily integrates to all assembly systems
- Reliability - Increases overall equipment availability through an efficient engineered system
- Accuracy - Ensures accurate and repeatable productivity
- Compatible with mPro300GCD-STO Global Controller

| Model        | Torque Range |        |           |           | Free Speed | Float | Min Center to Center | Weight |      | Length | Length |
|--------------|--------------|--------|-----------|-----------|------------|-------|----------------------|--------|------|--------|--------|
|              | Min Nm       | Max Nm | Min Ft lb | Max Ft lb | r/min      | mm    | mm                   | Lb     | kg   | in     | mm     |
| 4BD500T1O-A  | 50           | 500    | 36.9      | 368.8     | 252        | 50    | 76                   | 47.41  | 21.5 | 25.79  | 655    |
| 4BD500T2O-A  | 50           | 500    | 36.9      | 368.8     | 252        | 50    | 76                   | 54.02  | 24.5 | 30.79  | 782    |
| 4BDU500T1O-A | 50           | 500    | 36.9      | 368.8     | 252        | 50    | 76                   | 50.72  | 23   | 18.23  | 463    |
| 4BDU500T2O-A | 50           | 500    | 36.9      | 368.8     | 252        | 50    | 76                   | 57.33  | 26   | 23.23  | 590    |
| 4BD660T1O-A  | 66           | 660    | 48.7      | 486.8     | 172        | 50    | 76                   | 47.41  | 21.5 | 25.79  | 655    |
| 4BD660T2O-A  | 66           | 660    | 48.7      | 486.8     | 172        | 50    | 76                   | 54.02  | 24.5 | 30.79  | 782    |
| 4BDU660T1O-A | 66           | 660    | 48.7      | 486.8     | 172        | 50    |                      | 50.72  | 23   | 18.23  | 463    |
| 4BDU660T2O-A | 66           | 660    | 48.7      | 486.8     | 172        | 50    | 76                   | 57.33  | 26   | 23.23  | 590    |
| 4BD750T1O-A  | 75           | 750    | 55.3      | 553.2     | 143        | 50    | 76                   | 48.51  | 22   | 25.79  | 655    |
| 4BD750T2O-A  | 75           | 750    | 55.3      | 553.2     | 143        | 50    | 76                   | 55.13  | 25   | 30.79  | 782    |
| 4BDU750T1O-A | 75           | 750    | 55.3      | 553.2     | 143        | 76    | 76                   | 58.43  | 26.5 | 23.23  | 590    |
| 4BDU750T2O-A | 75           | 750    | 55.3      | 553.2     | 143        | 50    | 76                   | 58.43  | 26.5 | 23.23  | 590    |

## Mini Spindles

**Mini-Spindles** are the **compact solution for low-torque applications** in automatic or semi-automatic machine or robotic assembly station.

### Choosing the Correct Spindle



|    |   |   |   |    |    |   |   |    |   |     |
|----|---|---|---|----|----|---|---|----|---|-----|
| 30 | M | A | D | 28 | P3 | E | G | -S | 1 | 001 |
|----|---|---|---|----|----|---|---|----|---|-----|

|            |   |
|------------|---|
| <b>30</b>  | 30 - Motorunit 0,9Nm<br>50 - Motorunit 2,1Nm  |
| <b>M</b>   | B = Minispindle   |
| <b>A</b>   | A = Angle<br>O= Offset<br>S= Straight<br>T= Tubenut<br>C= Crowfoot  |
| <b>D</b>   | D = Digital design  |
| <b>28</b>  | 28 = max. tool capacity 28 Nm<br>35 = max. tool capacity 35 Nm<br>51 = max. tool capacity 51 Nm<br>etc.   |
| <b>P3</b>  | P3 = spiral geared AH 3/8"  |
| <b>E</b>   | E= Electronic for 2nd Transducer  |
| <b>G</b>   | G= Thread in angle head for attachment  |
| <b>-S</b>  | - S = Special with ATG Components<br>- C = Special with Customer Components   |
| <b>1</b>   | - = Standard<br>-L = turned AH left side<br>-R = turned AH right side<br>-180 = turned AH 180 degrees<br>(Nomenclature of Standard tools ends here)   |
| <b>001</b> | Only used if Special Tool:<br><br>001 = ongoing No.<br><br>Drive Component delivered by:<br>0 = Apex<br>1 = LÜBBERING<br>2 = free<br>3 = free<br>4 = free<br>5 = free<br>6 = free<br>7 = free<br>8 = free<br>9 = free |



## Conventional Fixtured Spindle - Mini - Straight

- Intelligent and compact solution for low-torque applications in automatic or semi-automatic assembly (fixed automation or robot)
- Built-in mounting provisions for ease of fixturing
- Lightweight



| Model      | Torque Range |        |           |           | Free Speed<br>r/min | Weight |     | Length |       |
|------------|--------------|--------|-----------|-----------|---------------------|--------|-----|--------|-------|
|            | Min Nm       | Max Nm | Min Ft lb | Max Ft lb |                     | Lb     | kg  | in     | mm    |
| 30MSD10D3E | 3            | 10     | 2.2       | 7.4       | 1425                | 2.64   | 1.2 | 7.37   | 187.1 |
| 30MSD15D3E | 4            | 15     | 3.0       | 11.1      | 1075                | 2.64   | 1.2 | 7.59   | 192.9 |
| 50MSD32D3E | 9            | 32     | 6.6       | 23.6      | 770                 | 3.52   | 1.6 | 9.36   | 237.7 |

## Conventional Fixtured Spindle - Mini - Angle

- Compact solution for low-torque applications in automatic or semi-automatic assembly (fixed automation or robot)
- Built-in mounting provisions for ease of fixturing
- Lightweight



| Model      | Torque Range |        |           |           | Free Speed<br>r/min | Weight |     | Length |       |
|------------|--------------|--------|-----------|-----------|---------------------|--------|-----|--------|-------|
|            | Min Nm       | Max Nm | Min Ft lb | Max Ft lb |                     | Lb     | kg  | in     | mm    |
| 30MAD28P3E | 7            | 28     | 5.2       | 20.7      | 495                 | 3.74   | 1.7 | 10.12  | 257.1 |
| 30MAD38P3E | 8            | 38     | 5.9       | 28.0      | 495                 | 3.96   | 1.8 | 10.21  | 259.3 |
| 50MAD51P3E | 14           | 51     | 10.3      | 37.6      | 920                 | 4.84   | 2.2 | 12.0   | 304.8 |
| 50MAD61P3E | 16           | 61     | 11.8      | 45.0      | 800                 | 5.06   | 2.3 | 12.31  | 312.8 |

## Intelligent Spindles

With straight drive, offset drive, and angle drive configurations, each available with reversible gears, and four different motor sizes to suit different torque requirements, there's an Intelligent Spindle to fit most any situation. Your Apex Tool Group Technical Sales Representative will work with you to determine the best solution for you. We can also provide you with application assistance in automation integration, joint analysis testing, complex data connection, and more.



**Example** **1** **BTSE** **1B035A** **2/** **1M1B** **1ZB**

**X** **XXXX** **XXXXXX** **X** **XXXX** **XXXXX**

**Size**  
1, 2, 3, 4

**Motor with servoamplifier & measurement card**  
B - Brushless Motor  
U - Reverse gearing  
TS - Tightening System  
E - Standard

**Gear**  
1 - Size  
B - Brushless motor gear  
XXX - Max. torque  
A - Generation

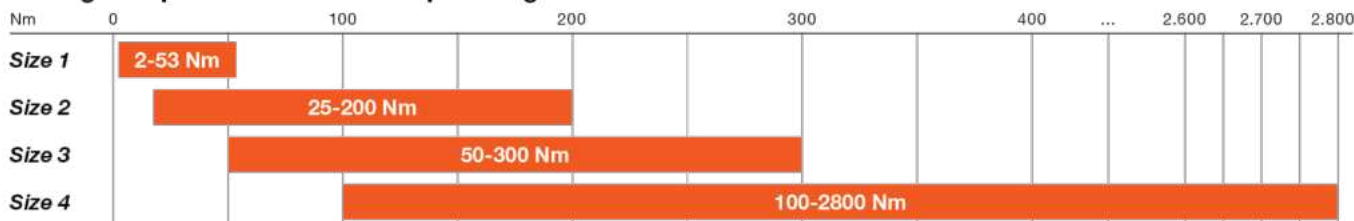
**2nd Transducer for cross check**  
2 - 2x only for Z attachment

**Attachment**  
1 - Size  
Z - Straight attachment  
VK - Offset drive with transducer  
WK - Angle drive with transducer  
1 - Capacity level  
B - Version

**Transducer**  
1 - Size  
K - Combination torque + angle  
1 - Capacity level 1 or 2  
B - Version  
M - Only moment, no angle encoder

**Note:** Floating spindle adapter must be ordered separately.

### Intelligent Spindle Sizes and Torque Ranges



## Intelligent Spindle - BTS Size 1-4 (2-1600 Nm) - Straight Drive - Single Torque Transducer - Angle Encoder

On board servo module, Patented daisy chain, Torque transducer, Angle Encoder, modular construction

- Long Service Life, Maximum Precision, High Accuracy, World class free speed, On-Board trouble shooting
- Floating adapter not included with spindle



| Model     | Torque Range |        |           |           | Free Speed<br>r/min | Float<br>mm | Drive Type          | Min Center to Center<br>mm | Weight |      | Length |     |
|-----------|--------------|--------|-----------|-----------|---------------------|-------------|---------------------|----------------------------|--------|------|--------|-----|
|           | Min Nm       | Max Nm | Min Ft lb | Max Ft lb |                     |             |                     |                            | Lb     | kg   | in     | mm  |
| 947541A8  | 2            | 12     | 1.48      | 8.9       | 1921                | 50          | 3/8" Square Drive   | 43                         | 10.6   | 4.8  | 19.1   | 486 |
| 947553A4  | 5            | 35     | 3.69      | 25.8      | 727                 | 50          | 3/8" Square Drive   | 43                         | 10.6   | 4.8  | 19.1   | 486 |
| 947565A0  | 15           | 53     | 11.1      | 39.1      | 427                 | 50          | 3/8" Square Drive   | 43                         | 10.6   | 4.8  | 19.1   | 486 |
| 947517A8  | 25           | 110    | 18.5      | 81        | 890                 | 50          | 1/2" Square Drive   | 56                         | 16.8   | 7.6  | 20.8   | 528 |
| 947529A4  | 40           | 200    | 29.5      | 148       | 502                 | 50          | 3/4" Square Drive   | 56                         | 16.8   | 7.6  | 20.8   | 528 |
| 947577A6  | 50           | 300    | 36.9      | 221       | 453                 | 50          | 3/4" Square Drive   | 81                         | 31.1   | 14.1 | 23.2   | 589 |
| 947589A2  | 100          | 500    | 74        | 369       | 254                 | 50          | 3/4" Square Drive   | 91                         | 46.3   | 21   | 28.3   | 719 |
| 947601A5  | 130          | 660    | 96        | 487       | 174                 | 50          | 1" Square Drive     | 91                         | 46.3   | 21   | 28.3   | 719 |
| 947617A71 | 320          | 1250   | 236       | 921       | 86                  | 50          | 1" Square Drive     | 121                        | 64     | 29   | 30.4   | 771 |
| 947621A11 | 400          | 1600   | 295       | 1180      | 68                  | 50          | 1-1/2" Square Drive | 121                        | 64     | 29   | 30.4   | 771 |

## Intelligent Spindle - BTSE Size 1-4 (2-2800 Nm) - Straight Drive - Single Torque Transducer

On board servo module, Patented daisy chain, Torque transducer, modular construction

- Long Service Life, Maximum Precision, High Accuracy, World class free speed, On-Board trouble shooting
- Floating adapter not included with spindle



| Model    | Torque Range |        |           |           | Free Speed<br>r/min | Float<br>mm | Drive Type        | Min Center to Center<br>mm | Weight |       | Length |     |
|----------|--------------|--------|-----------|-----------|---------------------|-------------|-------------------|----------------------------|--------|-------|--------|-----|
|          | Min Nm       | Max Nm | Min Ft lb | Max Ft lb |                     |             |                   |                            | Lb     | kg    | in     | mm  |
| 947626A6 | 2            | 12     | 1.48      | 8.85      | 1921                | 50          | 3/8" Square Drive | 43                         | 10.6   | 5.3   | 19.1   | 393 |
| 947632A8 | 5            | 35     | 1.48      | 25.8      | 727                 | 50          | 3/8" Square Drive | 43                         | 10.6   | 5.3   | 19.1   | 393 |
| 947638A2 | 15           | 53     | 11.1      | 39.1      | 427                 | 50          | 3/8" Square Drive | 43                         | 10.6   | 5.3   | 19.1   | 393 |
| 947644A4 | 25           | 110    | 18.4      | 81.1      | 890                 | 50          | 3/8" Square Drive | 56                         | 16.8   | 8.6   | 20.8   | 367 |
| 947650A6 | 40           | 200    | 29.5      | 146       | 502                 | 50          | 3/8" Square Drive | 56                         | 16.8   | 8.6   | 20.8   | 367 |
| 947656A0 | 50           | 300    | 36.9      | 221       | 453                 | 50          | 3/8" Square Drive | 81                         | 31.1   | 16.1  | 23.2   | 417 |
| 947662A2 | 100          | 500    | 73.8      | 369       | 254                 | 50          | 3/8" Square Drive | 91                         | 46.3   | 22.5  | 28.3   | 546 |
| 947668A6 | 130          | 660    | 95.9      | 487       | 174                 | 50          | 3/8" Square Drive | 91                         | 46.3   | 22.5  | 28.3   | 546 |
| 947676A6 | 320          | 1250   | 236       | 922       | 86                  | 50          | 3/8" Square Drive | 121                        | 64     | 31    | 30.4   | 599 |
| 947677A5 | 400          | 1600   | 295       | 1180      | 68                  | 50          | 3/8" Square Drive | 121                        | 64     | 31    | 30.4   | 599 |
| 947681A9 | 980          | 2800   | 773       | 2065      | 37                  | 50          | 3/8" Square Drive | 160                        | 88     | 39.73 | 31.1   | 790 |

## Intelligent Spindle - BTS Size 1-4 (2-1600 Nm) - Straight Drive - Twin Torque Transducer - Twin Angle Encoder

On board servo module, Patented daisy chain, Twin Torque transducer, Angle Encoder, Modular construction

- Long Service Life, Maximum Precision, High Accuracy, World class free speed, On-Board trouble shooting
- Floating adapter not included with spindle



| Model     | Torque Range |        |           |           | Free Speed<br>r/min | Float<br>mm | Drive Type          | Min Center to Center<br>mm | Weight |      | Length |     |
|-----------|--------------|--------|-----------|-----------|---------------------|-------------|---------------------|----------------------------|--------|------|--------|-----|
|           | Min Nm       | Max Nm | Min Ft lb | Max Ft lb |                     |             |                     |                            | Lb     | kg   | in     | mm  |
| 947542A7  | 2            | 12     | 1.48      | 8.9       | 1921                | 50          | 3/8" Square Drive   | 43                         | 11.9   | 5.4  | 22.3   | 566 |
| 947554A3  | 5            | 35     | 3.69      | 25.8      | 727                 | 50          | 3/8" Square Drive   | 43                         | 11.9   | 5.4  | 22.3   | 566 |
| 947566A9  | 15           | 53     | 11.1      | 39.1      | 427                 | 50          | 3/8" Square Drive   | 43                         | 11.9   | 5.4  | 22.3   | 566 |
| 947518A7  | 25           | 110    | 18.5      | 81        | 890                 | 50          | 1/2" Square Drive   | 56                         | 19.2   | 8.7  | 24.6   | 625 |
| 947530A1  | 40           | 200    | 29.5      | 148       | 502                 | 50          | 3/4" Square Drive   | 56                         | 19.2   | 8.7  | 24.6   | 625 |
| 947578A5  | 50           | 300    | 36.9      | 221       | 453                 | 50          | 3/4" Square Drive   | 81                         | 35.7   | 16.2 | 27.6   | 701 |
| 947590A9  | 100          | 500    | 74        | 369       | 254                 | 50          | 3/4" Square Drive   | 91                         | 53     | 24   | 33.3   | 846 |
| 947602A4  | 130          | 660    | 96        | 487       | 174                 | 50          | 1" Square Drive     | 91                         | 53     | 24   | 33.3   | 846 |
| 947618A61 | 320          | 1250   | 236       | 922       | 86                  | 50          | 1" Square Drive     | 121                        | 71     | 32   | 35.4   | 899 |
| 947622A01 | 400          | 1600   | 295       | 1180      | 68                  | 50          | 1-1/2" Square Drive | 121                        | 71     | 32   | 35.4   | 899 |

## Intelligent Spindle - BTS Size 1-4 (25-750 Nm) - Offset Drive - Twin Torque Transducer - Twin Angle Encoder

On board servo module, Patented daisy chain, Twin Torque transducer, Twin Angle Encoder

- Long Service Life, Maximum Precision, High Accuracy, World class free speed, On-Board trouble shooting
- Floating adapter not included with spindle



| Model    | Torque Range |        |           |           | Free Speed<br>r/min | Float<br>mm | Drive Type        | Min Center to Center<br>mm | Weight |      | Length |     |
|----------|--------------|--------|-----------|-----------|---------------------|-------------|-------------------|----------------------------|--------|------|--------|-----|
|          | Min Nm       | Max Nm | Min Ft lb | Max Ft lb |                     |             |                   |                            | Lb     | kg   | in     | mm  |
| 947544A5 | 2            | 12     | 1.48      | 8.9       | 1825                | 50          | 3/8" Square Drive | 35                         | 13     | 5.9  | 21.8   | 554 |
| 947556A1 | 5            | 35     | 3.69      | 25.8      | 690                 | 50          | 3/8" Square Drive | 35                         | 13     | 5.9  | 21.8   | 554 |
| 947568A7 | 15           | 53     | 11.1      | 39.1      | 405                 | 50          | 3/8" Square Drive | 35                         | 13     | 5.9  | 21.8   | 554 |
| 947522A1 | 25           | 110    | 18.5      | 81        | 831                 | 50          | 1/2" Square Drive | 44                         | 22.7   | 10.3 | 25.5   | 648 |
| 947534A7 | 40           | 200    | 29.5      | 148       | 468                 | 50          | 3/4" Square Drive | 44                         | 22.7   | 10.3 | 25.5   | 648 |
| 947580A1 | 50           | 300    | 36.9      | 221       | 421                 | 50          | 3/4" Square Drive | 59                         | 38.1   | 17.3 | 27.4   | 696 |
| 947592A7 | 100          | 500    | 74        | 369       | 238                 | 50          | 3/4" Square Drive | 76                         | 56     | 25.5 | 32     | 812 |
| 947604A2 | 130          | 660    | 96        | 487       | 163                 | 50          | 1" Square Drive   | 76                         | 56     | 25.5 | 32     | 812 |
| 947608A8 | 160          | 750    | 118       | 554       | 135                 | 50          | 1" Square Drive   | 76                         | 57     | 26   | 32     | 812 |

## Intelligent Spindle - BTS Size 1-4 (2-750 Nm) - Offset Drive - Single Torque Transducer - Angle Encoder

On board servo module, Patented daisy chain, Single Torque Transducer, Angle Encoder, Modular construction

- Long Service Life, Maximum Precision, High Accuracy, World class free speed, On-Board trouble shooting
- Floating adapter not included with spindle



| Model    | Torque Range |        |           |           | Free Speed<br>r/min | Float<br>mm | Drive Type        | Min Center to Center<br>mm | Weight |      | Length |     |
|----------|--------------|--------|-----------|-----------|---------------------|-------------|-------------------|----------------------------|--------|------|--------|-----|
|          | Min Nm       | Max Nm | Min Ft lb | Max Ft lb |                     |             |                   |                            | Lb     | kg   | in     | mm  |
| 947543A6 | 2            | 12     | 1.48      | 8.9       | 1825                | 50          | 3/8" Square Drive | 35                         | 11.7   | 5.3  | 18.7   | 474 |
| 947555A2 | 5            | 35     | 3.69      | 25.8      | 690                 | 50          | 3/8" Square Drive | 35                         | 11.7   | 5.3  | 18.7   | 474 |
| 947567A8 | 15           | 53     | 11.1      | 39.1      | 405                 | 50          | 3/8" Square Drive | 35                         | 11.7   | 5.3  | 18.7   | 474 |
| 947521A2 | 25           | 110    | 18.5      | 81        | 831                 | 50          | 1/2" Square Drive | 44                         | 20.3   | 9.2  | 21.7   | 551 |
| 947533A8 | 40           | 200    | 29.5      | 148       | 468                 | 50          | 3/4" Square Drive | 44                         | 20.3   | 9.2  | 21.7   | 551 |
| 947579A4 | 50           | 300    | 36.9      | 221       | 421                 | 50          | 3/4" Square Drive | 59                         | 33.5   | 15.2 | 23     | 584 |
| 947591A8 | 100          | 500    | 74        | 369       | 238                 | 50          | 3/4" Square Drive | 76                         | 50     | 22.5 | 26.9   | 684 |
| 947603A3 | 130          | 660    | 96        | 487       | 163                 | 50          | 1" Square Drive   | 76                         | 50     | 22.5 | 26.9   | 684 |
| 947607A9 | 160          | 750    | 118       | 554       | 135                 | 50          | 1" Square Drive   | 76                         | 51     | 23   | 26.9   | 684 |

## Intelligent Spindle - BTSE Size 1-4 (2-750 Nm) - Offset Drive - Single Torque Transducer - Angle Encoder

On board servo module, Patented daisy chain, Torque transducer, modular consutuction

- Long Service Life, Maximum Precision, High Accuracy, World class free speed, On-Board trouble shooting
- Floating adapter not included with spindle



| Model    | Torque Range |        |           |           | Free Speed<br>r/min | Float<br>mm | Drive Type        | Min Center to Center<br>mm | Weight |      | Length |     |
|----------|--------------|--------|-----------|-----------|---------------------|-------------|-------------------|----------------------------|--------|------|--------|-----|
|          | Min Nm       | Max Nm | Min Ft lb | Max Ft lb |                     |             |                   |                            | Lb     | kg   | in     | mm  |
| 947627A5 | 2            | 12     | 1.48      | 8.85      | 1801                | 50          | 3/8" Square Drive | 35                         | 11.7   | 5.7  | 18.7   | 542 |
| 947633A7 | 5            | 35     | 3.69      | 25.8      | 681                 | 50          | 3/8" Square Drive | 35                         | 11.7   | 5.7  | 18.7   | 542 |
| 947639A1 | 15           | 53     | 11.1      | 39.1      | 400                 | 50          | 3/8" Square Drive | 35                         | 11.7   | 5.7  | 18.7   | 542 |
| 947645A3 | 25           | 110    | 18.4      | 81.1      | 838                 | 50          | 3/8" Square Drive | 44                         | 20.3   | 8.7  | 21.7   | 581 |
| 947651A5 | 40           | 200    | 29.5      | 146       | 472                 | 50          | 3/8" Square Drive | 44                         | 20.3   | 8.7  | 21.7   | 581 |
| 947657A9 | 50           | 300    | 36.9      | 221       | 437                 | 50          | 3/4" Square Drive | 59                         | 33.5   | 17.8 | 23     | 629 |
| 947633A1 | 100          | 500    | 73.8      | 369       | 245                 | 50          | 3/4" Square Drive | 76                         | 50     | 27.1 | 26.9   | 729 |
| 947669A5 | 130          | 660    | 95.9      | 487       | 167                 | 50          | 1" Square Drive   | 76                         | 50     | 27.1 | 26.9   | 729 |
| 947671A1 | 160          | 750    | 118       | 553       | 135                 | 50          | 1" Square Drive   | 76                         | 51     | 23   | 26.9   | 729 |

## Intelligent Spindle - BTS Size 1-4 (2-660 Nm) - Angle Drive - Single Torque Transducer - Single Angle Encoder

On board servo module, Patented daisy chain, Twin Torque transducer, TwinAngle Encoder, Modular construction



- Long Service Life, Maximum Precision, High Accuracy, World class free speed, On-Board trouble shooting
- Floating adapter not included with spindle

| Model    | Torque Range |        |           |           | Free Speed | Float | Drive Type        | Min Center to Center | Weight |      | Length |     |
|----------|--------------|--------|-----------|-----------|------------|-------|-------------------|----------------------|--------|------|--------|-----|
|          | Min Nm       | Max Nm | Min Ft lb | Max Ft lb |            |       |                   |                      | Lb     | kg   | in     | mm  |
| 947545A4 | 2            | 12     | 1.48      | 8.9       | 1801       | 25    | 3/8" Square Drive | 52                   | 12.6   | 5.7  | 21.3   | 542 |
| 947557A0 | 5            | 35     | 3.69      | 25.8      | 681        | 25    | 3/8" Square Drive | 52                   | 12.6   | 5.7  | 21.3   | 542 |
| 947569A6 | 15           | 53     | 11.1      | 39.1      | 400        | 25    | 3/8" Square Drive | 52                   | 12.6   | 5.7  | 21.3   | 542 |
| 947525A8 | 25           | 110    | 18.5      | 81        | 838        | 25    | 1/2" Square Drive | 59                   | 19.2   | 8.7  | 22.9   | 581 |
| 947537A4 | 40           | 200    | 29.5      | 148       | 472        | 25    | 3/4" Square Drive | 59                   | 19.2   | 8.7  | 22.9   | 581 |
| 947581A0 | 50           | 300    | 36.9      | 221       | 437        | 25    | 3/4" Square Drive | 81                   | 39.2   | 17.8 | 26.7   | 678 |
| 947593A6 | 100          | 500    | 74        | 369       | 245        | 25    | 1" Square Drive   | 112                  | 60     | 27.1 | 28.7   | 729 |
| 947605A1 | 130          | 660    | 96        | 487       | 167        | 25    | 1" Square Drive   | 112                  | 60     | 27.1 | 28.7   | 729 |

## Intelligent Spindle - BTSE Size 1-4 (2-660 Nm) - Angle Drive - Single Torque Transducer

On board servo module, Patented daisy chain, Torque transducer, modular consutction



- Long Service Life, Maximum Precision, High Accuracy, World class free speed, On-Board trouble shooting
- Floating adapter not included with spindle

| Model    | Torque Range |        |           |           | Free Speed | Float | Drive Type        | Min Center to Center | Weight |      | Length |     |
|----------|--------------|--------|-----------|-----------|------------|-------|-------------------|----------------------|--------|------|--------|-----|
|          | Min Nm       | Max Nm | Min Ft lb | Max Ft lb |            |       |                   |                      | Lb     | kg   | in     | mm  |
| 947628A4 | 2            | 12     | 1.48      | 8.85      | 1801       | 25    | 3/8" Square Drive | 52                   | 12.6   | 5.7  | 21.3   | 542 |
| 947634A6 | 5            | 35     | 3.69      | 25.8      | 681        | 25    | 3/8" Square Drive | 52                   | 12.6   | 5.7  | 21.3   | 542 |
| 947640A8 | 15           | 53     | 11.1      | 39.1      | 400        | 25    | 3/8" Square Drive | 52                   | 12.6   | 5.7  | 21.3   | 542 |
| 947646A2 | 25           | 110    | 18.4      | 81.1      | 838        | 25    | 1/2" Square Drive | 59                   | 19.2   | 8.7  | 22.9   | 581 |
| 947652A4 | 40           | 200    | 29.5      | 146       | 472        | 25    | 3/4" Square Drive | 59                   | 19.2   | 8.7  | 22.9   | 581 |
| 947658A8 | 50           | 300    | 36.9      | 221       | 437        | 25    | 3/4" Square Drive | 81                   | 39.2   | 17.8 | 26.7   | 678 |
| 947664A0 | 100          | 500    | 73.8      | 369       | 245        | 25    | 1" Square Drive   | 112                  | 60     | 27.1 | 28.7   | 729 |
| 947670A2 | 130          | 660    | 95.9      | 487       | 167        | 25    | 1" Square Drive   | 112                  | 60     | 27.1 | 28.7   | 729 |



## Intelligent Spindle - BTS Size 1-4 (2-660 Nm) - Angle Drive - Twin Torque Transducer - Twin Angle Encoder

On board servo module, Patented daisy chain, Twin Torque transducer, Angle Encoder

- Long Service Life, Maximum Precision, High Accuracy, World class free speed, On-Board trouble shooting
- Floating adapter not included with spindle



| Model    | Torque Range |        |           |           | Free Speed<br>r/min | Float<br>mm | Drive Type        | Min Center to Center<br>mm | Weight |      | Length |     |
|----------|--------------|--------|-----------|-----------|---------------------|-------------|-------------------|----------------------------|--------|------|--------|-----|
|          | Min Nm       | Max Nm | Min Ft lb | Max Ft lb |                     |             |                   |                            | Lb     | kg   | in     | mm  |
| 947546A3 | 2            | 12     | 1.48      | 8.9       | 1801                | 25          | 3/8" Square Drive | 52                         | 13.9   | 6.3  | 24.5   | 622 |
| 947558A9 | 5            | 35     | 3.69      | 25.8      | 681                 | 25          | 3/8" Square Drive | 52                         | 13.9   | 6.3  | 24.5   | 622 |
| 947570A3 | 15           | 53     | 11.1      | 39.1      | 400                 | 25          | 3/8" Square Drive | 52                         | 13.9   | 6.3  | 24.5   | 622 |
| 947526A7 | 25           | 110    | 18.5      | 81        | 838                 | 25          | 1/2" Square Drive | 59                         | 21.6   | 9.8  | 26.7   | 678 |
| 947538A3 | 40           | 200    | 29.5      | 148       | 472                 | 25          | 3/4" Square Drive | 59                         | 21.6   | 9.8  | 26.7   | 678 |
| 947582A9 | 50           | 300    | 36.9      | 221       | 437                 | 25          | 3/4" Square Drive | 81                         | 43.9   | 19.9 | 31.1   | 790 |
| 947594A5 | 100          | 500    | 74        | 369       | 245                 | 25          | 1" Square Drive   | 112                        | 66     | 30.1 | 33.7   | 856 |
| 947606A0 | 130          | 660    | 96        | 487       | 167                 | 25          | 1" Square Drive   | 112                        | 66     | 30.1 | 33.7   | 856 |

## Intelligent Spindle - BUTS Size 1-4 (2-1600 Nm) - Straight Drive - Reversible Gears - Single Torque Transducer - Angle Encoder

- The transducer can be rotated for crowded multiple spindle arrangements (DGD 15° radial toothing).
- Floating adapter not included with spindle



| Model     | Torque Range |        |           |           | Free Speed<br>r/min | Float<br>mm | Drive Type          | Min Center to Center<br>mm | Weight |      | Length |     |
|-----------|--------------|--------|-----------|-----------|---------------------|-------------|---------------------|----------------------------|--------|------|--------|-----|
|           | Min Nm       | Max Nm | Min Ft lb | Max Ft lb |                     |             |                     |                            | Lb     | kg   | in     | mm  |
| 947547A2  | 2            | 12     | 1.48      | 8.9       | 1921                | 50          | 3/8" Square Drive   | 43                         | 11.7   | 5.3  | 15.5   | 393 |
| 947559A8  | 5            | 35     | 3.69      | 25.8      | 727                 | 50          | 3/8" Square Drive   | 43                         | 11.7   | 5.3  | 15.5   | 393 |
| 947571A2  | 15           | 53     | 11.1      | 39.1      | 427                 | 50          | 3/8" Square Drive   | 43                         | 11.7   | 5.3  | 15.5   | 393 |
| 947519A6  | 25           | 110    | 18.5      | 81        | 890                 | 50          | 1/2" Square Drive   | 56                         | 19     | 8.6  | 14.4   | 367 |
| 947531A0  | 40           | 200    | 29.5      | 148       | 502                 | 50          | 3/4" Square Drive   | 56                         | 19     | 8.6  | 14.4   | 367 |
| 947583A8  | 50           | 300    | 36.9      | 221       | 453                 | 50          | 3/4" Square Drive   | 81                         | 35.5   | 16.1 | 16.4   | 417 |
| 947595A4  | 100          | 500    | 74        | 369       | 254                 | 50          | 3/4" Square Drive   | 91                         | 50     | 22.5 | 21.5   | 546 |
| 947609A7  | 130          | 660    | 96        | 487       | 174                 | 50          | 1" Square Drive     | 91                         | 50     | 22.5 | 21.5   | 546 |
| 947619A51 | 320          | 1250   | 236       | 922       | 86                  | 50          | 1" Square Drive     | 121                        | 68     | 31   | 23.6   | 599 |
| 947623A91 | 400          | 1600   | 295       | 1180      | 68                  | 50          | 1-1/2" Square Drive | 121                        | 68     | 31   | 23.6   | 599 |

## Intelligent Spindle - BUTS Size 1-4 (2-1600 Nm) - Straight Drive - Reversible Gears - Twin Torque Transducer - Twin Angle Encoder

On board servo module, Patented daisy chain, Twin Torque transducer, Twin Angle Encoder

- Long Service Life, Maximum Precision, High Accuracy, World class free speed, On-Board trouble shooting
- Floating adapter not included with spindle



| Model     | Torque Range |        |           |           | Free Speed | Float | Drive Type          | Min Center to Center | Weight |      | Length | Length |
|-----------|--------------|--------|-----------|-----------|------------|-------|---------------------|----------------------|--------|------|--------|--------|
|           | Min Nm       | Max Nm | Min Ft lb | Max Ft lb |            |       |                     |                      | r/min  | mm   |        |        |
| 947548A1  | 2            | 12     | 1.48      | 8.9       | 1921       | 50    | 3/8" Square Drive   | 43                   | 13     | 5.9  | 15.5   | 393    |
| 947560A5  | 5            | 35     | 3.69      | 25.8      | 727        | 50    | 3/8" Square Drive   | 43                   | 13     | 5.9  | 15.5   | 393    |
| 947572A1  | 15           | 53     | 11.1      | 39.1      | 427        | 50    | 3/8" Square Drive   | 43                   | 13     | 5.9  | 15.5   | 393    |
| 947520A3  | 25           | 110    | 18.5      | 81        | 890        | 50    | 1/2" Square Drive   | 56                   | 21.4   | 9.7  | 18.3   | 464    |
| 947532A9  | 40           | 200    | 29.5      | 148       | 502        | 50    | 3/4" Square Drive   | 56                   | 21.4   | 9.7  | 18.3   | 464    |
| 947584A7  | 50           | 300    | 36.9      | 221       | 453        | 50    | 3/4" Square Drive   | 81                   | 40.1   | 18.2 | 20.8   | 528    |
| 947596A3  | 100          | 500    | 74        | 369       | 254        | 50    | 3/4" Square Drive   | 91                   | 56     | 25.5 | 26.5   | 674    |
| 947610A4  | 130          | 660    | 96        | 487       | 174        | 50    | 1" Square Drive     | 91                   | 56     | 25.5 | 26.5   | 674    |
| 947620A21 | 320          | 1250   | 236       | 922       | 86         | 50    | 1" Square Drive     | 121                  | 75     | 34   | 28.6   | 726    |
| 947624A81 | 400          | 1600   | 295       | 1180      | 68         | 50    | 1-1/2" Square Drive | 121                  | 75     | 34   | 28.6   | 726    |

## Intelligent Spindle - BUTS size 1-4 (2-750 Nm) - Offset Drive - Reversible Gears - Twin Torque Transducer - Twin Angle Encoder

On board servo module, Patented daisy chain, Twin Torque transducer, Twin Angle Encoder

- Long Service Life, Maximum Precision, High Accuracy, World class free speed, On-Board trouble shooting
- Floating adapter not included with spindle



| Model    | Torque Range |        |           |           | Free Speed | Float | Drive Type        | Min Center to Center | Weight |      | Length | Length |
|----------|--------------|--------|-----------|-----------|------------|-------|-------------------|----------------------|--------|------|--------|--------|
|          | Min Nm       | Max Nm | Min Ft lb | Max Ft lb |            |       |                   |                      | r/min  | mm   | mm     | Lb     |
| 947550A7 | 2            | 12     | 1.48      | 8.9       | 1825       | 50    | 3/8" Square Drive | 35                   | 14.1   | 6.4  | 15     | 382    |
| 947562A3 | 5            | 35     | 3.69      | 25.8      | 690        | 50    | 3/8" Square Drive | 35                   | 14.1   | 6.4  | 15     | 382    |
| 947574A9 | 15           | 53     | 11.1      | 39.1      | 405        | 50    | 3/8" Square Drive | 35                   | 14.1   | 6.4  | 15     | 382    |
| 947524A9 | 25           | 110    | 18.5      | 81        | 831        | 50    | 1/2" Square Drive | 44                   | 24.9   | 11.3 | 19.2   | 487    |
| 947536A5 | 40           | 200    | 29.5      | 148       | 468        | 50    | 3/4" Square Drive | 44                   | 24.9   | 11.3 | 19.2   | 487    |
| 947586A5 | 50           | 300    | 36.9      | 221       | 421        | 50    | 3/4" Square Drive | 59                   | 42.5   | 19.3 | 20.6   | 523    |
| 947598A1 | 100          | 500    | 74        | 369       | 238        | 50    | 3/4" Square Drive | 76                   | 60     | 27   | 25.2   | 639    |
| 947612A2 | 130          | 660    | 96        | 487       | 163        | 50    | 1" Square Drive   | 76                   | 60     | 27   | 25.2   | 639    |
| 947616A8 | 160          | 750    | 118       | 554       | 135        | 50    | 1" Square Drive   | 76                   | 61     | 27.5 | 25.2   | 639    |

## Intelligent Spindle - BUTS size 1-4 (2-750 Nm) - Offset Drive - Reversible Gears - Single Torque Transducer - Angle Encoder

- The transducer can be rotated for crowded multiple spindle arrangements (DGD 15° radial toothing).
- Floating adapter not included with spindle



| Model    | Torque Range |        |           |           | Free Speed<br>r/min | Float<br>mm | Drive Type        | Min Center to Center<br>mm | Weight |      | Length |     |
|----------|--------------|--------|-----------|-----------|---------------------|-------------|-------------------|----------------------------|--------|------|--------|-----|
|          | Min Nm       | Max Nm | Min Ft lb | Max Ft lb |                     |             |                   |                            | Lb     | kg   | in     | mm  |
| 947549A0 | 2            | 12     | 1.48      | 8.9       | 1825                | 50          | 3/8" Square Drive | 35                         | 12.8   | 5.8  | 15     | 382 |
| 947561A4 | 5            | 35     | 3.69      | 25.8      | 690                 | 50          | 3/8" Square Drive | 35                         | 12.8   | 5.8  | 15     | 382 |
| 947573A0 | 15           | 53     | 11.1      | 39.1      | 405                 | 50          | 3/8" Square Drive | 35                         | 12.8   | 5.8  | 15     | 382 |
| 947523A0 | 25           | 110    | 18.5      | 81        | 831                 | 50          | 1/2" Square Drive | 44                         | 22.5   | 10.2 | 15.4   | 390 |
| 947535A6 | 40           | 200    | 29.5      | 148       | 468                 | 50          | 3/4" Square Drive | 44                         | 22.5   | 10.2 | 15.4   | 390 |
| 947585A6 | 50           | 300    | 36.9      | 221       | 421                 | 50          | 3/4" Square Drive | 59                         | 37.9   | 17.2 | 16.2   | 412 |
| 947597A2 | 100          | 500    | 74        | 369       | 238                 | 50          | 3/4" Square Drive | 76                         | 53     | 24   | 20.2   | 512 |
| 947611A3 | 130          | 660    | 96        | 487       | 163                 | 50          | 1" Square Drive   | 76                         | 53     | 24   | 20.2   | 512 |
| 947615A9 | 160          | 750    | 118       | 554       | 135                 | 50          | 1" Square Drive   | 76                         | 54     | 24.5 | 20.2   | 512 |

## Intelligent Spindle - BUTS Size 1-4 (2-660 Nm) - Angle Drive - Reversible Gears - Twin Torque Transducer - Twin Angle Encoder

On board servo module, Patented daisy chain, Torque transducer, modular consutation

- Long Service Life, Maximum Precision, High Accuracy, World class free speed, On-Board trouble shooting
- Floating adapter not included with spindle



| Model    | Torque Range |        |           |           | Free Speed<br>r/min | Float<br>mm | Drive Type        | Min Center to Center<br>mm | Weight |      | Length |     |
|----------|--------------|--------|-----------|-----------|---------------------|-------------|-------------------|----------------------------|--------|------|--------|-----|
|          | Min Nm       | Max Nm | Min Ft lb | Max Ft lb |                     |             |                   |                            | Lb     | kg   | in     | mm  |
| 947552A5 | 2            | 12     | 1.48      | 8.9       | 1801                | 25          | 3/8" Square Drive | 52                         | 15     | 6.8  | 17.7   | 450 |
| 947564A1 | 5            | 35     | 3.69      | 25.8      | 681                 | 25          | 3/8" Square Drive | 52                         | 15     | 6.8  | 17.7   | 450 |
| 947576A7 | 15           | 53     | 11.1      | 39.1      | 400                 | 25          | 3/8" Square Drive | 52                         | 15     | 6.8  | 17.7   | 450 |
| 947528A5 | 25           | 110    | 18.5      | 81        | 838                 | 25          | 1/2" Square Drive | 59                         | 21.4   | 9.7  | 20.4   | 518 |
| 947540A9 | 40           | 200    | 29.5      | 148       | 472                 | 25          | 3/4" Square Drive | 59                         | 21.4   | 9.7  | 20.4   | 518 |
| 947588A3 | 50           | 300    | 36.9      | 221       | 437                 | 25          | 3/4" Square Drive | 81                         | 48     | 21.9 | 24.3   | 617 |
| 947600A6 | 100          | 500    | 74        | 369       | 245                 | 25          | 1" Square Drive   | 112                        | 70     | 31.6 | 26.9   | 684 |
| 947614A0 | 130          | 660    | 96        | 487       | 167                 | 25          | 1" Square Drive   | 112                        | 70     | 31.7 | 26.9   | 684 |

## Intelligent Spindle - BUTS Size 1-4 (2-660 Nm) - Angle Drive - Reversible Gears - Single Torque Transducer - Angle Encoder

On board servo module, Patented daisy chain, Twin Torque transducer, Angle Encoder

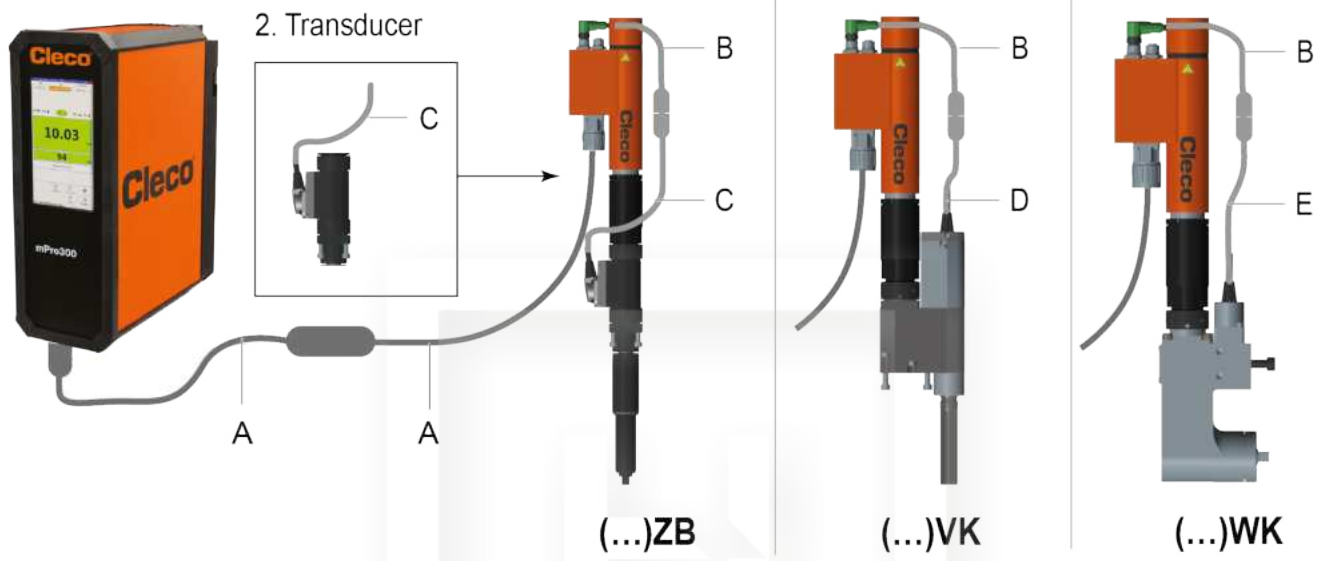
- Long Service Life, Maximum Precision, High Accuracy, World class free speed, On-Board trouble shooting
- Floating adapter not included with spindle



| Model    | Torque Range |        |           |           | Free Speed | Float | Drive Type        | Min Center to Center | Weight |      | Length |     |
|----------|--------------|--------|-----------|-----------|------------|-------|-------------------|----------------------|--------|------|--------|-----|
|          | Min Nm       | Max Nm | Min Ft lb | Max Ft lb | r/min      | mm    |                   | mm                   | Lb     | kg   | in     | mm  |
| 947551A6 | 2            | 12     | 1.48      | 8.9       | 1801       | 25    | 3/8" Square Drive | 52                   | 13.7   | 6.2  | 14.6   | 370 |
| 947563A2 | 5            | 35     | 3.69      | 25.8      | 681        | 25    | 3/8" Square Drive | 52                   | 13.7   | 6.2  | 14.6   | 370 |
| 947575A8 | 15           | 53     | 11.1      | 39.1      | 400        | 25    | 3/8" Square Drive | 52                   | 13.7   | 6.2  | 14.6   | 370 |
| 947527A6 | 25           | 110    | 18.5      | 81        | 838        | 25    | 1/2" Square Drive | 59                   | 21.4   | 9.7  | 16.6   | 421 |
| 947539A2 | 40           | 200    | 29.5      | 148       | 472        | 25    | 3/4" Square Drive | 59                   | 21.4   | 9.7  | 16.6   | 421 |
| 947587A4 | 50           | 300    | 36.9      | 221       | 437        | 25    | 3/4" Square Drive | 81                   | 43.7   | 19.8 | 19.9   | 506 |
| 947599A0 | 100          | 500    | 74        | 369       | 245        | 25    | 1" Square Drive   | 112                  | 63     | 28.6 | 21.9   | 556 |
| 947613A1 | 130          | 660    | 96        | 487       | 167        | 25    | 1" Square Drive   | 112                  | 63     | 28.7 | 21.9   | 556 |

# Conventional Spindle Field Cables

Contact the application center for other cable lengths not listed



| A            |      | ATT584387 | ATT661684 | B                   | C             | D             | E            |
|--------------|------|-----------|-----------|---------------------|---------------|---------------|--------------|
|              |      | Length    |           |                     |               |               |              |
| Order Number | Size | Meters    | Feet      | Order Number        | Order Number  | Order Number  | Order Number |
| 961561-010   | 1    | 1         | 3         | 952343-002          | 9472769PT-002 | 9472769PT-002 | 943825PT-002 |
| 961561-060   | 1    | 6         | 19.5      |                     |               |               |              |
| 961561-250   | 1    | 25        | 82        |                     |               |               |              |
|              |      |           |           |                     |               |               |              |
| 961923-010   | 2    | 1         | 3         | 952343-002          | 9472769PT-002 | 9472769PT-002 | 943825PT-002 |
| 961923-060   | 2    | 6         | 19.5      |                     |               |               |              |
| 961923-340   | 2    | 34        | 102       |                     |               |               |              |
|              |      |           |           |                     |               |               |              |
| 961923-010   | 3    | 1         | 3         | 952343-003          | 9472769PT-002 | 9472769PT-002 | 943825PT-002 |
| 961923-060   |      | 6         | 19.5      |                     |               |               |              |
| 961923-340   | 3    | 34        | 102       |                     |               |               |              |
|              |      |           |           |                     |               |               |              |
| 961923-010   | 4    | 1         | 3         | 952343-005          | 9472769PT-002 | 9472769PT-002 | 943825PT-002 |
| 961923-060   |      | 6         | 19.5      |                     |               |               |              |
| 961923-340   | 4    | 34        | 102       | 952343-007 (472800) |               |               |              |

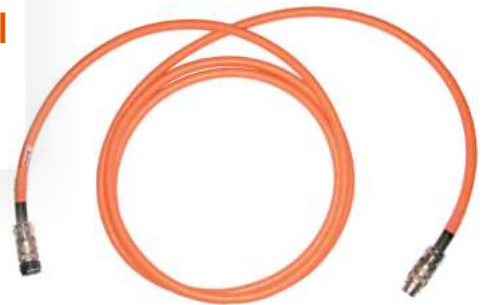
## Mini Spindle Field Cable (30 and 50 series)

| Model   | Motor Size | Torque Range Max |     | X Dimension<br>in   mm |
|---------|------------|------------------|-----|------------------------|
|         |            | Ft Lb            | Nm  |                        |
| S308434 | 1          | 44.3             | 60  | 6.61   168             |
| S308435 | 2          | 118              | 160 | 6.77   172             |
| S308436 | 3          | 384              | 520 | 6.92   176             |
| S308437 | 1          | 44.3             | 60  | 6.61   168             |
| S308438 | 2          | 81               | 110 | 6.55   166.5           |
| S308439 | 3          | 221              | 300 | 6.73   171             |
| S308440 | 4          | 384              | 520 | 6.88   175             |
| S308450 | 2          | 148              | 200 | 6.77   172             |
| S308474 | 4          | 487              | 660 | 6.73   171             |
| S308475 | 2          | 148              | 200 | 6.55   166.5           |

## Intelligent Spindle System Cable - Highflex Fiel Straight Connectors

- For fixed or flexible routing with heavy-duty requirements in applications with cable drag chain or standard robot applications.

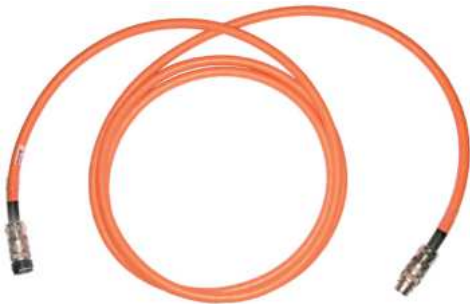
| Model      | Length |    |
|------------|--------|----|
|            | ft     | m  |
| 961104-030 | 9.8    | 3  |
| 961104-040 | 13.1   | 4  |
| 961104-050 | 16.4   | 5  |
| 961104-060 | 19.7   | 6  |
| 961104-070 | 23     | 7  |
| 961104-080 | 26.2   | 8  |
| 961104-090 | 29.5   | 9  |
| 961104-100 | 32.8   | 10 |
| 961104-150 | 49.2   | 15 |
| 961104-200 | 65.6   | 20 |
| 961104-300 | 98.4   | 30 |
| 961104-400 | 131.2  | 40 |
| 961104-500 | 164.1  | 50 |





Intelligent Spindle System Cable - Highflex UL Field Cable - Straight Connectors

| Model      | Length | Length |
|------------|--------|--------|
|            | ft     | m      |
| 961204-005 | 1.6    | 0.5    |
| 961204-010 | 32.8   | 1      |
| 961204-020 | 65.6   | 2      |
| 961204-100 | 328.1  | 10     |
| 961204-120 | 393.7  | 12     |
| 961204-150 | 492.2  | 15     |
| 961204-200 | 656.2  | 20     |
| 961204-300 | 984.3  | 30     |



Fixtured Spindles

Intelligent Spindle System Cable - Highflex UL Field Cable - Angle to Straight Connectors

| Model     | Length | Length |
|-----------|--------|--------|
|           | ft     | m      |
| 96169-150 | 492.2  | 15     |



## Intelligent Spindle System Cable - Highflex Jumper - Straight Connectors

- Highflex Type D Jumper straight connector on both sides
- Moulded connector housing

| Model      | Length |     |
|------------|--------|-----|
|            | ft     | m   |
| 961104-005 | 1.6    | 0.5 |
| 961104-010 | 3.3    | 1   |
| 961104-020 | 6.6    | 2   |

The cable lengths are specified in decimeters at the end of the order number.  
Other cable length on request.



## Intelligent Spindle System Cable - Highflex Jumper - Angle Connectors

- Highflex Type E Jumper 90° connector on both sides
- Rotatable cable glands

| Model      | Length |     |
|------------|--------|-----|
|            | ft     | m   |
| 961299-005 | 1.6    | 0.5 |
| 961299-010 | 3.3    | 1   |
| 961299-020 | 6.6    | 2   |

The cable lengths are specified in decimeters at the end of the order number.  
Other cable length on request.



## Power Table

### Overview of possible numbers of channels

The maximum number of Intelligent Spindles per mPro400GC Controller depends on load. When calculating the maximum number of spindles, please consider the following conditions:

- Maximum speed at 20% of maximum torque (at 1BTSE, 2BTSE, 3BTSE and 4BTSE)

- Final tightening stage up to 500 Nm Maximal Speed 50 rpm at maximum torque (at 1BTSE, 2BTSE, 3BTSE and 4BTSE-4B500A...)

- Final tightening stage over 500 Nm Maximal Speed 20 rpm at maximum torque (at 4BTSE-4B660A..., 4BTSE-4B660A-4VK4MS, 4BTSE-4B360A-4Z1250A and 4BTSE-4B460A-4Z1600A)

*If higher settings are chosen, number of channels should be reduced.*

*If different spindle types are used at the controller, the number of channels will be individually defined. Please contact Apex Tool Group.*

| Model   | Motor Size | Torque Range Max |     | X Dimension<br>in   mm |
|---------|------------|------------------|-----|------------------------|
|         |            | Ft Lb            | Nm  |                        |
| S308434 | 1          | 44.3             | 60  | 6.61   168             |
| S308435 | 2          | 118              | 160 | 6.77   172             |
| S308436 | 3          | 384              | 520 | 6.92   176             |
| S308437 | 1          | 44.3             | 60  | 6.61   168             |
| S308438 | 2          | 81               | 110 | 6.55   166.5           |
| S308439 | 3          | 221              | 300 | 6.73   171             |
| S308440 | 4          | 384              | 520 | 6.88   175             |
| S308450 | 2          | 148              | 200 | 6.77   172             |
| S308474 | 4          | 487              | 660 | 6.73   171             |
| S308475 | 2          | 148              | 200 | 6.55   166.5           |

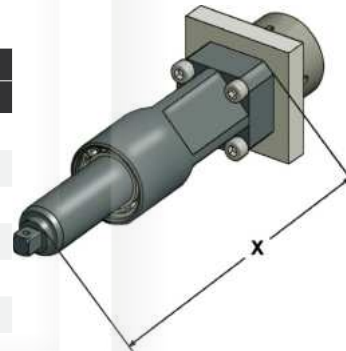
## Floating Adaptor

| Model    | Motor Size | Torque Range Max |      | X Dimension<br>in   mm |
|----------|------------|------------------|------|------------------------|
|          |            | Ft Lb            | Nm   |                        |
| 910609   | 2          | 118              | 160  | 7.08   180             |
| 910613   | 3          | 384              | 520  | 7.28   185             |
| 912106   | 4          | 384              | 520  | 7.48   190             |
| 912147   | 4          | 554              | 750  | 7.32   186             |
| 916642   | 4          | 465              | 630  | 7.28   185             |
| 916643   | 4          | 384              | 520  | 7.48   190             |
| 922325PT | 1          | 44.3             | 60   | 7.08   180             |
| 935552   | 2          | 148              | 200  | 7.08   180             |
| S308441  | 4          | 1181             | 1600 | 5.31   140             |
| S976956  | 4          | 554              | 750  | 5.31   140             |



## Floating Adaptor Including Flange Housing

| Model   | Motor Size | Torque Range Max |     | X Dimension<br>in   mm |
|---------|------------|------------------|-----|------------------------|
|         |            | Ft Lb            | Nm  |                        |
| S308434 | 1          | 44.3             | 60  | 6.61   168             |
| S308435 | 2          | 118              | 160 | 6.77   172             |
| S308436 | 3          | 384              | 520 | 6.92   176             |
| S308437 | 1          | 44.3             | 60  | 6.61   168             |
| S308438 | 2          | 81               | 110 | 6.55   166.5           |
| S308439 | 3          | 221              | 300 | 6.73   171             |
| S308440 | 4          | 384              | 520 | 6.88   175             |
| S308450 | 2          | 148              | 200 | 6.77   172             |
| S308474 | 4          | 487              | 660 | 6.73   171             |
| S308475 | 2          | 148              | 200 | 6.55   166.5           |



## Floating Adaptor Including Flange Housing for Right Angle Drive

| Model  | Motor Size | Torque Range Max |     | X Dimension<br>in   mm |
|--------|------------|------------------|-----|------------------------|
|        |            | Ft Lb            | Nm  |                        |
| 929041 | 1          | 44.3             | 60  | 2.95   75              |
| 929053 | 2          | 125              | 170 | 3.54   90              |
| 929061 | 2          | 148              | 200 | 4.52   115             |
| 929065 | 3          | 221              | 300 | 4.13   105             |
| 929077 | 4          | 384              | 520 | 4.52   115             |
| 929089 | 4          | 487              | 660 | 4.52   115             |



# Cleco

## CONTROLLERS & SOFTWARE



# CONTROLLERS & SOFTWARE

OPTIMIZE CONNECTIVITY.  
MAXIMIZE VERSATILITY.

CLECO CONTROLLERS ARE  
DESIGNED TO SEAMLESSLY  
CONNECT YOU TO YOUR  
ASSEMBLY LINE.

Our versatile Controller Systems manage a wide variety of assembly tools and applications, delivering advanced process configurations and flexible tightening solutions.



## Controller Selection Guide

Cleco makes it easy to find the right Controller system for your tools and applications.

| mPro Controllers | CellTek | CellCore | NeoTek | LiveWire | 18/48<br>Nutrunner | I-Wrench | Conventional<br>Spindles | Mini<br>Spindles | Intelligent<br>Spindles |
|------------------|---------|----------|--------|----------|--------------------|----------|--------------------------|------------------|-------------------------|
| mPro400GCD-P     | ✓       | ✓        | ✓      | ✓        | ✓                  | ✓        |                          |                  | ✓                       |
| mPro400GCD-M     | ✓       | ✓        |        | ✓        |                    | ✓        |                          |                  | ✓                       |
| mPro400GCD-SH    |         |          |        |          | ✓                  |          |                          |                  |                         |
| mPro400GCD-BTS   |         |          | ✓      |          |                    |          |                          |                  | ✓                       |
| mPro300GCD       |         |          | ✓      |          |                    |          |                          | ✓                |                         |
| mPro300GCD-STO   |         |          |        |          |                    |          | ✓                        |                  |                         |
| mPro200GC        | ✓       | ✓        |        | ✓        |                    | ✓        |                          |                  |                         |
| mPro200GC-AP     | ✓       | ✓        |        | ✓        |                    | ✓        |                          |                  |                         |



## Software Solutions

mProRemote - TorqueNet - Tightening Parameter Server - Dashboards



### Data Management

- Streamline enforcement of access, provisioning, and lifecycle management of parameters
- Provide complete and unified control over content, modification, users and security
- Provides easy access to collected production data via web browser



### Product Optimization

- Remote management allows you to push changes to production from the software versus having to physically walk or go to the production line
- Convenient monitoring for use and location of all applications enables you to easily identify which tightening parameters are used in a given location



### Error Prevention

- User-specific views in the dashboard provide meaningful data analysis that is relevant and actionable
- Change management capabilities provide ultimate control over authorizing changes prior enabling in production



### Quality Assurance

- Application archiving & rollback capabilities save application revisions so they can easily be reinstated into production
- Visibility & traceability features allow you to review who, what, why and when a change was implemented

For more information on the production benefits of Cleco Software Solutions, visit <https://www.clecotools.com/cleco-care/software-solutions>



## mPro400GCD - Global Controller - Transducer Control - Hybrid

For corded and cordless tools. Provides unsurpassed levels of flexibility, connectivity, and serviceability while providing superb torque accuracy and process control for safety-critical applications.

- Supports: NeoTek 30/50/70 Series, LiveWire, 18/48/17/47/67 Series, and Conventional BB Spindles
- Transducer Controlled
- Controls up to 16 corded/cordless tools
- User friendly 8.5" interactive screen enables simple programming and quick access to tightening data
- Standard CompactFlash memory card stores up to 10,000\* run downs and can be easily switched between controllers with a reboot time under a minute
- Remote programming software enables control of the production process from anywhere



| Model           | Tool Compatibility  | Height | Depth | Width | Weight |      |
|-----------------|---|--------|-------|-------|--------|------|
|                 |   | in     | in    | in    | Lb     | kg   |
| mPro400GCD-M    | LiveWire   CellCore   CellTek   Intelligent Spindles  | 15     | 11.34 | 10.5  | 21.3   | 9.7  |
| MPRO400GCD-M-AP | Livewire, Cellcore, Celltek, Intelligent Spindles   | 15     | 11.34 | 10.5  | 21.3   | 9.7  |
| mPro400GCD-P    | NeoTek 30/50/70 Series   LiveWire   CellCore   CellTek<br> 18/48/17/47/67 Series   Conventional BB Spindles | 15     | 11.34 | 10.5  | 30.2   | 13.7 |
| mPro400GCD-SH   | NeoTek 30/50/70 Series   18/48/17/47/67 Series   Conventional BB Spindles                                   | 15     | 11.34 | 10.5  | 28.2   | 12.8 |

Note: 17/47/67 Series Tools require Adapter Cable 961789PT.

70 Series Tools require a 220/230 power supply to the controller.

Note: Larger capacity CompactFlash memory card can be added to increase number of stored run downs.

## mPRO400GCD-P-BTS Global Controller Primary for Fixtured Intelligent Spindles

- This stand-alone system controller provides unsurpassed levels of flexibility, conductivity, and serviceability while providing superb torque accuracy and process control for safety-critical application.
- Control Capacity
  - Size 1: 2 Spindles
  - Size 2: 1 Spindle
  - Size 3: 1 Spindle
  - Size 4: 1 Spindle



| Model            | Tool Compatibility   | Height | Depth | Width | Weight |      |
|------------------|----------------------|--------|-------|-------|--------|------|
|                  |                      | in     | in    | in    | Lb     | kg   |
| mPRO400GCD-P-BTS | Intelligent Spindles | 15     | 11.34 | 10.5  | 30.2   | 13.7 |
| mPro400GCD-P-STO | Intelligent Spindles | 15     | 11.34 | 10.5  | 30.2   | 13.7 |



## mPro300GCD - Global NeoTek Controller

The mPro300 Series Controller is specifically designed for NeoTek corded assembly tools. The mPro300 provides versatile protocol functionality and easy integration into plant systems.

- Designed for NeoTek Corded Assembly Tools
- The mPro300 Series Controller is specifically designed for NeoTek corded assembly tools. The mPro300 provides versatile protocol functionality and easy integration into plant systems.
- Connected Corded
- Dedicated one-to-one connected solution for NeoTek tools
- Easy to Use
- Large touch screen enables simple programming and quick access to tightening data
- Versatile
- Seamlessly integrate with multiple plant protocols



| Model           | Tool Compatibility | Height | Depth | Width | Weight |       |
|-----------------|--------------------|--------|-------|-------|--------|-------|
|                 |                    | in     | in    | in    | Lb     | kg    |
| mPro300GCD-APAC | NeoTek             | 16.1   | 11.7  | 5.6   | 25.6   | 11.61 |
| mPro300GCD-EMEA | NeoTek             | 16.1   | 11.7  | 5.6   | 25.6   | 11.61 |
| mPro300GCD-NA   | NeoTek             | 16.1   | 11.7  | 5.6   | 25.6   | 11.61 |

## mPro300GCD-STO - Global Controller - Controller Fixtured Spindles

The mPro300 Series Controller is specifically designed for BD Fixtured Spindles. The mPro300 provides versatile protocol functionality and easy integration into plant systems.

- Connected - Dedicated one-to-one connected solution for BD Fixtured Spindles
- Easy to Use - Large 7" touch screen enables simple programming and quick access to tightening data
- Versatile - Seamlessly integrate with multiple plant protocols
- Protection Class - IP42



| Model               | Tool Compatibility   | Height | Depth | Width | Weight |       |
|---------------------|----------------------|--------|-------|-------|--------|-------|
|                     |                      | in     | in    | in    | Lb     | kg    |
| mPro300GCD-STO-APAC | BD Fixtured Spindles | 16.1   | 11.7  | 5.6   | 25.6   | 11.61 |
| mPro300GCD-STOE-MEA | BD Fixtured Spindles | 16.1   | 11.7  | 5.6   | 25.6   | 11.61 |
| mPro300GCD-STONA    | BD Fixtured Spindles | 16.1   | 11.7  | 5.6   | 25.6   | 11.61 |

## mPro200GC - Global Controller - Transducer Control

The mPro200 Controller can be connected to 10 Cleco cordless tools. Easily capture data in real time within a plant network.

- Compact - Save space on the line (4.5" vs. 10.5" on GCD400)
- Intelligent - 19 fastening strategies for all types of applications
- Easy to Use - Run remotely via mPro remote, or connect an external display using VGA output
- Standard CompactFlash memory card stores up to 10,000\* run downs and can be easily switched between controllers with a reboot time under a minute
- Versatile - Compatible with CellCore, LiveWire and I-Wrench
- mPro200GC provided with North America 110V power cord only



| Model          | Tool Compatibility             | Height | Depth | Width | Weight |      |
|----------------|--------------------------------|--------|-------|-------|--------|------|
|                |                                | in     | in    | in    | Lb     | kg   |
| mPro200GC      | LiveWire   CellCore   I-Wrench | 13.4   | 12.6  | 4.4   | 7.1    | 3.23 |
| mPro200GC-AP   | LiveWire   CellCore   I-Wrench | 13.4   | 12.6  | 4.4   | 7.5    | 3.43 |
| mPro200GC-AP-G | LiveWire   CellCore   I-Wrench | 13.4   | 12.6  | 4.4   | 7.5    | 3.43 |
| mPro200GC-G    | LiveWire   CellCore   I-Wrench | 13.4   | 12.6  | 4.4   | 7.1    | 3.23 |

Note: Larger capacity CompactFlash memory card can be added to increase number of stored run downs.

## Power Distribution System with mPro400SG Global Controller for Intelligent Spindles

- Graphic Interface
- Fully Programmable
- Local storage of 10,000 cycles
- LAN Capable
- Fieldbus options available



| Model      | Tool Compatibility                    | Height | Depth | Width |
|------------|---------------------------------------|--------|-------|-------|
|            |                                       | in     | in    | in    |
| S112849-SG | Spindles - Size 1&2<br>1.2/01-channel | 14.2   | 11    | 18.9  |
| S112850-SG | Spindles - Size 1&2<br>1.2/01-channel | 14.9   | 13.8  | 30    |
| S112870-SG | Spindles - Size 3&4<br>3/4 01-channel | 14.9   | 13.8  | 30    |
| S112871-SG | Spindles - Size 3&4<br>3/4 01-channel | 14.9   | 13.8  | 30    |

## mPro400GC-SG Global Controller - Panel Mounted

### Panel mount installation

- Graphic Interface
- Fully Programmable
- Local storage of 10,000 cycles
- LAN Capable
- Fieldbus options available



| Model         | Tool Compatibility                       |
|---------------|--|
| MPRO-400GC-SG | LiveWire   Intelligent Spindles Size 1-4 |

Panel Mount can be used in different cabinet solutions.

## Power Control Package

- Each Power Control Package consists of the following:
- mPro400 GC-M Global Controller
- PDB-CPS X power distribution box with viewing window
- Power transformer
- Stand

| Model              |
|--------------------|
| MPRO400GCMPCBCPS3A |
| MPRO400GCMPCBCPS3T |
| MPRO400GCMPCBCPS6A |
| MPRO400GCMPCBCPS6T |
| MPRO400GCMPCBCPS9A |
| MPRO400GCMPCBCPS9T |

T=PLC Siemens S7 for additional I/O



## Power Distribution System for Intelligent Spindles

The Power Distribution System is used in conjunction with the Intelligent Spindles. This system is used for power distribution.

| Model    |
|----------|
| PDB-CPS3 |
| PDB-CPS6 |
| PDB-CPS9 |

Includes standard hardware such as E stop circuitry, 24VDC power supply, line filter, CPM, necessary relays, disconnect and viewing window. External power transformer is required.



## Power Distribution System - EU

The Power Distribution System is used in conjunction with the Intelligent Spindles. This system is used for power distribution.

| Model                       |
|-----------------------------|
| S112925-OC Power Modul CPM3 |
| S112929-OC Power Modul CPM6 |
| S112932-OC Power Modul CPM9 |

Includes standard hardware such as E stop circuitry, 24VDC power supply, line filter, CPM, necessary relays, disconnect and viewing window. External power transformer is required.



## Torque Transducer Verification Fixture (TTVF)

Fast, accurate, cost effective way to verify your torque transducer on the assembly line measure.

| Model         |
|---------------|
| 579900PT-1000 |
| 579900PT-200  |
| 579900PT-23   |
| 579900PT-500  |
| 579900PT-68   |

Included is a joint simulator, slip ring torque transducer and spindle adapter. The joint simulator can be mounted to a tooling plate or mounted to the spindle directly. Any data recorder with the proper interface can be used.



## TSnet Cable

- Used to connect mPro400GCD-P, mPro400GCD-SH or mPro400GCD-M controllers



| Model      | Description          |
|------------|----------------------|
| 962037-002 | .2 Meter TSnet Cable |
| 962037-005 | .5 Meter TSnet Cable |
| 962037-010 | 1 Meter TSnet Cable  |
| 962037-020 | 2 Meter TSnet Cable  |
| 962037-030 | 3 Meter TSnet Cable  |
| 962037-040 | 4 Meter TSnet Cable  |
| 962037-050 | 5 Meter TSnet Cable  |
| 962037-100 | 10 Meter TSnet Cable |
| 962037-200 | 20 Meter TSnet Cable |
| 962037-300 | 30 Meter TSnet Cable |
| 962037-500 | 50 Meter TSnet Cable |

## Fieldbus Module - Ethernet IP

- For use in mPro400 and mPro200 Series controllers (544172PT)
- For use in mPro300 (962297PT)



| Model    | Description        |
|----------|--------------------|
| 544172PT | Anybus Ethernet IP |
| 962297PT | Anybus Ethernet IP |

## Fieldbus Module - Profibus

- For use in mPro400 and mPro200 Series controllers

| Model    | Description     |
|----------|-----------------|
| 544173PT | Anybus Profibus |



## Fieldbus Module - Profinet

- For use in mPro400 and mPro200 Series controllers

| Model    | Description     |
|----------|-----------------|
| 544174PT | Anybus Profinet |



## Fieldbus Module - Modbus - TCP

- For use in mPro400 and mPro200 Series controllers

| Model    | Description              |
|----------|--------------------------|
| 544211PT | Anybus TCP Modbus Module |



## System Bus Termination Plug

- For use with system bus accessories and mPro400GC-S controllers

| Model    | Description                 |
|----------|-----------------------------|
| 544197PT | System Bus Termination Plug |



## System Bus Termination Plug - EU

- For use with system bus accessories and mPro400GC-S controllers

| Model   | Description                 |
|---------|-----------------------------|
| S133412 | System Bus Termination Plug |



## System Bus Cables for Intelligent Spindle

- Used to connect system bus accessories to mPro400 series controllers
- Used to connect Pro400GC-P, mPro400GC-S or mPro400GC-M controllers

| Model      | Description                | Length |     |
|------------|----------------------------|--------|-----|
|            |                            | ft     | m   |
| 544196-005 | 0.5 Meter System Bus Cable | 1.6    | 0.5 |
| 544196-020 | 2 Meter System Bus Cable   | 6.6    | 2   |
| 544196-050 | 5 Meter System Bus Cable   | 16.4   | 5   |
| 544196-200 | 20 Meter System Bus Cable  | 65.6   | 20  |
| 544196-500 | 50 Meter System Bus Cable  | 164.1  | 50  |





## 16 I/O System Bus Expander

- Connects through system bus port
- Provides 16 additional 24v I/O connections

| Model   | Description               |
|---------|---------------------------|
| S133437 | I/O Expansion Module - 16 |

## Socket Tray - System Bus - 4 & 8 Position

- Connects through system bus port
- Quick and simple setup
- Can be networked with up to 31 additional accessories

| Model   | Description            |
|---------|------------------------|
| S133410 | 4 Position Socket Tray |
| S133411 | 8 Position Socket Tray |
| S970716 | Socket Tray Insert     |



## Stack Light - System Bus - w/Buzzer

- Connects through system bus port
- Quick and simple setup
- Can be networked with up to 31 additional accessories

| Model   | Description             |
|---------|-------------------------|
| S133420 | Stack Light With Buzzer |



## mProRemote - Software

Integrated software that enables programming of application parameters for a controller remotely

- Access controllers remotely from a networked PC or laptop
- Provides mirrored screen images of what operator on plant floor is seeing
- Monitor rundown results, make programming changes, and perform diagnostics in real-time



| Model      | Description                                  |
|------------|--|
| mProRemote | Provided with each mPro400GC-M & mPro400GC-P |
| TM-COM     | Provided with each mPro400GC-E & mPro400GC-I |

## TorqueNet - Software Solutions

Enables data collection and analytics by making the plant floor data visible anywhere using an internet browser.

- Make your plant floor data visible anywhere using an internet browser
- Data is sent to a single location making critical production information accessible to all users within the tightening process on the assembly line
- Easily compare traces against known good traces
- Provides preventative maintenance notifications



| Model        | Description                           | Min. Disk Space | Min. Operating System                      | Min. Processor Speed | Min. Ram | Min. Virtual Memory | Price Method |
|--------------|---------------------------------------|-----------------|--|----------------------|----------|---------------------|--------------|
| S168171-NT-4 | TorqueNet Enterprise Single Spindle   | 30 GB           | Windows Server 2008 - 2012<br>Windows 7/10 | 1.2 GHz              | 4 GB     | 8 GB                | Per Spindle  |
| S168171-PR-4 | TorqueNet Professional Single Spindle | 30 GB           | Windows Server 2008 - 2012<br>Windows 7/10 | 1.2 GHz              | 4 GB     | 8 GB                | Per Spindle  |
| S168171-ST-4 | TorqueNet Standard Single Spindle     | 30 GB           | Windows Server 2008 - 2012<br>Windows 7/10 | 1.2 GHz              | 4 GB     | 8 GB                | Per Spindle  |
| S168696-ST-1 | Open Protocol DC - TorqueNet Add-on   | 30 GB           | Windows Server 2008 - 2012<br>Windows 7/10 | 1.2 GHz              | 4 GB     | 8 GB                | Per Spindle  |

## TPS - Software Solutions

Enables full control of tightening applications used across a plant or over multiple plants, effectively minimizing opportunities for costly issues.

- Central Application Management for efficiently managing tightening applications from a central location
- Provide real-time change management
- Application archiving and rollback capabilities
- Full control of tightening applications across one or multiple plants
- Accurately stores all controller information into a central database



| Model        | Description                                      | Min. Disk Space | Min. Operating System                      | Min. Processor Speed | Min. Ram | Min. Virtual Memory | Price Method |
|--------------|--|-----------------|--|----------------------|----------|---------------------|--------------|
| S168689-ST-2 | Tightening Parameter Server (TPS) Single Spindle | 30 GB           | Windows Server 2008 - 2012<br>Windows 7/10 | 1.2 GHz              | 4 GB     | 8 GB                | Per Spindle  |

## Dashboard - Software Solutions

Improves analysis speed and performance through enabling comprehensive data analysis that is critical to manufacturing operations.

- Empowers with the ability to explore data through customized views
- User specific views enables quick navigation
- Share data to make decisions and take action
- Stay engaged with the production process by creating your own KPI's



| Model        | Description       | Min. Disk Space | Min. Operating System                      | Min. Processor Speed | Min. Ram | Min. Virtual Memory | Price Method |
|--------------|-------------------|-----------------|--|----------------------|----------|---------------------|--------------|
| S168703-ST-1 | Dashboard Manager | 30 GB           | Windows Server 2008 - 2012<br>Windows 7/10 | 1.2 GHz              | 4 GB     | 8 GB                | Per Spindle  |

2 CPU cores or more recommended.  
Additional disk space may be required depending on total number of spindles.  
TorqueNet Standard to Pro and TorqueNet Standard to Enterprise upgrade packages are also available.  
TorqueNet Pro to Enterprise upgrade package available.  
Please contact your Cleco Sales Representative for more details.

# Cleco

---

## IMPACT WRENCHES



**Cleco** | Tame the Line

SHOWN: IMPACT WRENCH

# IMPACT WRENCHES

## TOUGH TOOLS. EASY CHOICE.

For over 120 Years, Cleco has exclusively supplied the global industrial market. Where other tools are born and bred for garages and tire shops, we make tools that are engineered and primed for the most grueling industrial environments.

Where other tools weaken, seize, or become difficult to repair, our tools will endure and keep on tackling your toughest challenges. Count on Cleco Industrial Air Impact Wrenches for TOUGH TOOLS. EASY CHOICE.





## MP2264B & MP2265B Series - Impact Wrench

Smooth and efficient impacting mechanism creates no reaction for the operator

- Smooth and efficient impacting mechanism creates no reaction for the operator
- One-hand forward reverse switch
- Rugged metal housing and components outlasts the competition
- Efficient and balanced design maximizes accessibility while minimizing operator fatigue
- 1/4" Quick Change or 3/8" Square with Pin Detent



| Model   | Torque Range Max |     | Blows Per Minute | Free Speed | Air Consumption | Weight | Drive Size | Drive Type        | Air Inlet Size |
|---------|------------------|-----|------------------|------------|-----------------|--------|------------|-------------------|----------------|
|         | Ft Lb            | Nm  |                  | r/min      | Scfm            | Lb     | in         |                   | in             |
| MP2264B | 111              | 150 | 2000             | 10000      | 33              | 2.16   | 1/4 in     | Hex Quick Change  | 1/4            |
| MP2265B | 111              | 150 | 2000             | 10000      | 33              | 2.16   | 3/8 in     | Pin-Detent Square | 1/4            |

## MP Series - Inline Impacting Driver

Smooth and efficient impacting mechanism creates no reaction for the operator

- Smooth and efficient impacting mechanism creates no reaction for the operator
- Inline to access certain applications with better ergonomics
- Rugged metal housing and components for long life
- Efficient and balanced design maximizes accessibility while minimizing operator fatigue



| Model  | Torque Range Max |      | Blows Per Minute | Free Speed | Air Consumption | Weight | Drive Size | Drive Type | Air Inlet Size |
|--------|------------------|------|------------------|------------|-----------------|--------|------------|------------|----------------|
|        | Ft Lb            | Nm   |                  | r/min      | Scfm            | Lb     | in         |            | in             |
| MP2271 | 65               | 88.1 | 900              | 10500      | 22              | 2.2    | 3/8 in     | Square     | 1/4            |

## CV Composite Series - Impact Wrench

Excellent combination of performance, comfort, and value

- Excellent combination of performance, comfort, and value
- Powerful twin hammer mechanism
- Variable speed trigger
- Light-weight and ergonomically balanced
- Ideal for general industrial production, maintenance, and overhaul.



| Model     | Torque Range Max |      | Brea-kaway Torque | Blows Per Minute | Free Speed | Air Consumption | Weight | Drive Size | Drive Type            | Air Inlet Size |
|-----------|------------------|------|-------------------|------------------|------------|-----------------|--------|------------|-----------------------|----------------|
|           | Ft Lb            | Nm   | Ft Lb             |                  | r/min      | Scfm            | Lb     | in         |                       | in             |
| CV-375P   | 420              | 569  | 510               | 1600             | 8000       | 32              | 2.91   | 3/8 in     | Pin Anvil or Pin Hole | 1/4            |
| CV-375R   | 420              | 569  | 510               | 1600             | 8000       | 32              | 2.91   | 3/8 in     | Retaining Ring        | 1/4            |
| CV-500P   | 780              | 1058 | 1100              | 1200             | 8500       | 40.5            | 4.8    | 1/2 in     | Pin Anvil or Pin Hole | 1/4            |
| CV-500R   | 780              | 1058 | 1100              | 1200             | 8500       | 40.5            | 4.8    | 1/2 in     | Retaining Ring        | 1/4            |
| CV-750P   | 1300             | 1763 | 1500              | 1000             | 5500       | 64              | 8.2    | 3/4 in     | Pin Anvil or Pin Hole | 3/8            |
| CV-750P-8 | 1300             | 1763 | 1500              | 1000             | 5500       | 64              | 8.3    | 1 in       | Pin Anvil or Pin Hole | 3/8            |

## CWC Premium Composite Series - Impact Wrench

Ultimate combination of power, durability, and features

- Great combination of power, durability, and features
- Triple heat treated twin hammer mechanism
- Variable speed trigger
- User-preferred one-hand direction control
- Ideal for heavy industries and fast-paced production environments



| Model      | Torque Range Max |      | Brea-kaway Torque | Blows Per Minute | Free Speed | Air Consumption | Weight | Drive Size | Drive Type            | Air Inlet Size |
|------------|------------------|------|-------------------|------------------|------------|-----------------|--------|------------|-----------------------|----------------|
|            | Ft Lb            | Nm   |                   |                  |            |                 |        |            |                       |                |
| CWC-250QC  | 50               | 68   | 75                | 1200             | 13000      | 19.5            | 1.9    | 1/4 in     | Quick Change          | 1/4            |
| CWC-250R   | 50               | 68   | 75                | 1200             | 13000      | 19.5            | 1.9    | 1/4 in     | Retaining Ring        | 1/4            |
| CWC-375P   | 450              | 610  | 550               | 1600             | 10000      | 37.5            | 2.91   | 3/8 in     | Pin Anvil or Pin Hole | 1/4            |
| CWC-375R   | 450              | 610  | 550               | 1600             | 10000      | 37.5            | 2.91   | 3/8 in     | Retaining Ring        | 1/4            |
| CWC-375R-4 | 450              | 610  | 550               | 1600             | 10000      | 37.5            | 2.91   | 1/2 in     | Retaining Ring        | 1/4            |
| CWC-500P   | 800              | 1085 | 1180              | 1250             | 8000       | 40.5            | 4.41   | 1/2 in     | Pin Anvil or Pin Hole | 1/4            |
| CWC-500R   | 800              | 1085 | 1180              | 1250             | 8000       | 40.5            | 4.41   | 1/2 in     | Retaining Ring        | 1/4            |
| CWC-750P   | 1400             | 1898 | 1800              | 1200             | 6500       | 69              | 7.6    | 3/4 in     | Pin Anvil or Pin Hole | 3/8            |

## CWM Metal Housing Series - Impact Wrench

Engineered to outperform the competition in the harshest environments

- Engineered to outperform the competition in the harshest environments
- Triple heat treated twin hammer mechanism
- Variable speed trigger
- Durable all-metal housing
- Ideal for heavy industries and demanding environments



| Model    | Torque Range Max |      | Brea-kaway Torque | Blows Per Minute | Free Speed | Air Consumption | Weight | Drive Size | Drive Type            | Air Inlet Size |
|----------|------------------|------|-------------------|------------------|------------|-----------------|--------|------------|-----------------------|----------------|
|          | Ft Lb            | Nm   |                   |                  |            |                 |        |            |                       |                |
| CWM-375P | 340              | 450  | 450               | 1400             | 12000      | 26.9            | 3.31   | 3/8 in     | Pin Anvil or Pin Hole | 1/4            |
| CWM-375R | 340              | 450  | 450               | 1400             | 12000      | 26.9            | 3.31   | 3/8 in     | Retaining Ring        | 1/4            |
| CWM-500P | 850              | 1200 | 1200              | 1200             | 9000       | 39.8            | 5.8    | 1/2 in     | Pin Anvil or Pin Hole | 1/4            |
| CWM-500R | 850              | 1200 | 1200              | 1200             | 9000       | 39.8            | 5.8    | 1/2 in     | Retaining Ring        | 1/4            |
| CWM-750P | 1350             | 2339 | 1725              | 1200             | 6000       | 54              | 10.4   | 3/4 in     | Pin Anvil or Pin Hole | 3/8            |



# Cleco

## PULSE TOOLS



**Cleco** | Tame the Line

SHOWN: H SERIES PISTOL GRIP

# PULSE TOOLS

**DURABLE.  
ECONOMICAL.  
LOW MAINTENANCE.**

Cleco Pulse Tools are a proven solution for higher torque applications.

Durable by design with market leading repeatability on hard and soft joints.

The high rundown speed, excellent power to weight ratio and low vibration make these the ergonomic tool of choice.





## Outstanding Ergonomics

Leading motor design combined with new body development provides exceptional biotechnology. Less vibrations allow for greater operator comfort.



## Powerful and Efficient 3-Chamber Air Motor

With speed governor and oilless blades. Reduces tightening time with increased torque. Unique design reduces blade wear and lowers total cost of ownership.



3-Chamber Motor Housing



## 50% Lower Air Consumption @ Free-Speed

Innovative centrifugal speed control does not release the entire capacity before run down has ended. Enables operation to as low as 4 bar. Lower air consumption drives lower cost of ownership.



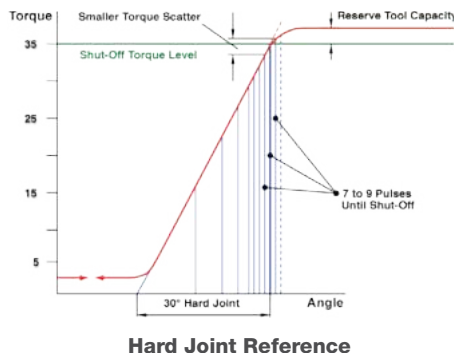
## Easy Torque Set-Up

Simply insert hex into rear port of tool.



## High-Precision Shut-Off

Mechanism ranges close to electric tool characteristics at a tolerance of +/- 10% at Six Sigma.



## Easily Adjustable Motor Speed

Ensures accuracy on hard joints. Can be locked into place to prevent accidental modification.





### Reduced Tool Maintenance

Double-chambered pulse unit with built-in automatic oil reserve. Up to 500.000 cycles before the first service.

**Pulse Unit** Delivers market-leading repeatability for hard and soft joints.



Drive Spindle Bearing



Automatically Activated Expansion Chamber



Anti-Wobble Socket

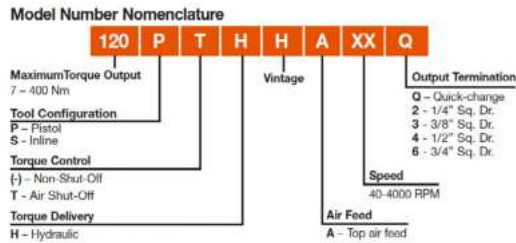
Drive Spindle Bearing Support



## H Series 2.9-88ftlb/ 4-120Nm - Pistol Grip - Shut-Off

Market leading repeatability unmatched accuracy, low maintenance, inertia shut-off, low noise level, efficient 3 chamber air motor, external speed control, oil less blades reversible torque signal port

- Durable, Economical low maintenance
- Adaptor 935472 available 3/8" Square to 7/16" Quick Change



| Model       | Output Drive      | Torque Range |           |        |        | Free Speed<br>r/min | Weight<br>Lb | Air Consumption |           |       |
|-------------|-------------------|--------------|-----------|--------|--------|---------------------|--------------|-----------------|-----------|-------|
|             |                   | Min Ft Lb    | Max Ft Lb | Min Nm | Max Nm |                     |              | NPT             | Hose I.D. | Scfm  |
| 7PTHH35Q    | 1/4" Quick Change | 2.95         | 5.2       | 4      | 7      | 3500                | 1.74         | 1/4             | 3/8       | 7.06  |
| 11PTHH353   | 3/8" Square Drive | 4.43         | 8.1       | 6      | 11     | 3500                | 1.83         | 1/4             | 3/8       | 7.06  |
| 11PTHH35Q   | 1/4" Quick Change | 4.43         | 8.1       | 6      | 11     | 3500                | 1.87         | 1/4             | 3/8       | 7.06  |
| 20PTHH403   | 3/8" Square Drive | 7.4          | 14.8      | 10     | 20     | 4000                | 1.9          | 1/4             | 1/2       | 8.70  |
| 20PTHH40Q   | 1/4" Quick Change | 7.4          | 14.8      | 10     | 20     | 4000                | 1.92         | 1/4             | 1/2       | 8.70  |
| 35PTHH403   | 3/8" Square Drive | 14.8         | 25.8      | 20     | 35     | 4000                | 2.45         | 1/4             | 1/2       | 15.90 |
| 35PTHH40Q   | 1/4" Quick Change | 14.8         | 25.8      | 20     | 35     | 4000                | 2.31         | 1/4             | 1/2       | 15.90 |
| 35PTHHA403  | 3/8" Square Drive | 14.8         | 25.8      | 20     | 35     | 4000                | 2.45         | 1/4             | 1/2       | 15.90 |
| 55PTHH403   | 3/8" Square Drive | 22.1         | 40.6      | 30     | 55     | 4000                | 2.54         | 1/4             | 1/2       | 15.90 |
| 55PTHHA403  | 3/8" Square Drive | 22.1         | 40.6      | 30     | 55     | 4000                | 2.67         | 1/4             | 1/2       | 15.90 |
| 80PTHH354   | 1/2" Square Drive | 36.9         | 59        | 50     | 80     | 3500                | 3.09         | 1/4             | 3/8       | 19.40 |
| 80PTHHA354  | 1/2" Square Drive | 36.9         | 59        | 50     | 80     | 3500                | 3.31         | 1/4             | 3/8       | 19.40 |
| 120PTHH304  | 1/2" Square Drive | 55           | 89        | 75     | 120    | 3000                | 3.75         | 3/8             | 1/2       | 19.40 |
| 120PTHHA304 | 1/2" Square Drive | 55           | 89        | 75     | 120    | 3000                | 3.86         | 3/8             | 1/2       | 19.40 |

7/16" Quick Change Chuck available separately as an accessory



## H series - 2.9-88ftlbs / 4-120Nm Pistol Grip - Non Shut-Off

Durable, Economical low maintenance low noise levels efficient air motor  
external speed control, external speed control, oil less blades reversible

- Durable, Economical low maintenance
- Adaptor 935472 available 3/8" Square to 7/16" Quick Change



| Model     | Output Drive      | Torque Range |           |        |        | Free Speed<br>r/min | Weight<br>Lb | Air Consumption |           |      |
|-----------|-------------------|--------------|-----------|--------|--------|---------------------|--------------|-----------------|-----------|------|
|           |                   | Min Ft Lb    | Max Ft Lb | Min Nm | Max Nm |                     |              | NPT             | Hose I.D. | Scfm |
| 7PHH60Q   | 1/4" Square Drive | 2.95         | 5.2       | 4      | 7      | 6000                | 1.74         | 1/4             | 3/8       | 8.7  |
| 11PHH653  | 3/8" Square Drive | 4.43         | 8.1       | 6      | 11     | 6500                | 1.74         | 1/4             | 3/8       | 10.5 |
| 11PHH65Q  | 1/4" Square Drive | 4.43         | 8.1       | 6      | 11     | 6500                | 1.76         | 1/4             | 3/8       | 10.5 |
| 20PHH753  | 3/8" Square Drive | 7.4          | 14.8      | 10     | 20     | 7500                | 1.85         | 1/4             | 3/8       | 17.3 |
| 20PHH75Q  | 1/4" Square Drive | 7.4          | 14.8      | 10     | 20     | 7500                | 1.9          | 1/4             | 3/8       | 17.3 |
| 35PHH653  | 3/8" Square Drive | 14.8         | 25.8      | 20     | 35     | 6500                | 2.25         | 1/4             | 3/8       | 19.4 |
| 35PHH65Q  | 1/4" Square Drive | 14.8         | 25.8      | 20     | 35     | 6500                | 2.29         | 1/4             | 3/8       | 15.9 |
| 55PHH603  | 3/8" Square Drive | 22.1         | 40.6      | 30     | 55     | 6000                | 2.47         | 1/4             | 3/8       | 22.9 |
| 80PHH604  | 1/2" Square Drive | 36.9         | 59        | 50     | 80     | 6000                | 3.09         | 1/4             | 3/8       | 26.5 |
| 120PHH554 | 1/2" Square Drive | 55           | 89        | 75     | 120    | 5500                | 3.64         | 3/8             | 1/2       | 30   |

7/16" Quick Change Chuck available separately as an accessory

## C Series - High Torque 74-295ftlbs / 100-400Nm - Pistol Grip - Non-Shut-off

Durable, Economical low maintenance low noise levels efficient air motor  
external speed control, oil less blades reversible

- Durable, Economical low maintenance

| Model     | Output Drive      | Torque Range |           |        |        | Free Speed | Weight | Air Consumption |           |      |
|-----------|-------------------|--------------|-----------|--------|--------|------------|--------|-----------------|-----------|------|
|           |                   | Min Ft Lb    | Max Ft Lb | Min Nm | Max Nm | r/min      | Lb     | NPT             | Hose I.D. | Scfm |
| 160PH456  | 3/4" Square Drive | 74           | 118       | 100    | 160    | 4500       | 5.7    | 3/8             | 1/2       | 31.7 |
| 250PHF406 | 3/4" Square Drive | 118          | 185       | 160    | 250    | 4000       | 8.6    | 3/8             | 1/2       | 40.6 |
| 400PHF356 | 3/4" Square Drive | 185          | 295       | 250    | 400    | 3500       | 11.5   | 3/8             | 1/2       | 42.3 |



## C Series 74-295ftlbs / 100-400Nm - Pistol Grip - Shut-Off

Durable, Economical low maintenance low noise levels, external speed control  
efficient air motor reversible torque signal port

- Durable, Economical low maintenance

| Model       | Output Drive      | Torque Range |           |        |        | Free Speed | Weight | Air Consumption |           |      |
|-------------|-------------------|--------------|-----------|--------|--------|------------|--------|-----------------|-----------|------|
|             |                   | Min Ft Lb    | Max Ft Lb | Min Nm | Max Nm | r/min      | Lb     | NPT             | Hose I.D. | Scfm |
| 160PTHC256  | 3/4" Square Drive | 74           | 118       | 100    | 160    | 2500       | 5.7    | 3/8             | 1/2       | 25.4 |
| 250PTHFC226 | 3/4" Square Drive | 118          | 185       | 160    | 250    | 2200       | 8.8    | 3/8             | 1/2       | 33.5 |
| 400PTHFC206 | 3/4" Square Drive | 185          | 295       | 250    | 400    | 2000       | 11.7   | 3/8             | 1/2       | 33.5 |





## C Series 1.9-25.8ftlbs / 2.6-35Nm - In-Line - Shut Off

Durable, Economical low maintenance low noise levels, external speed control, efficient air motor, reversible, torque signal port



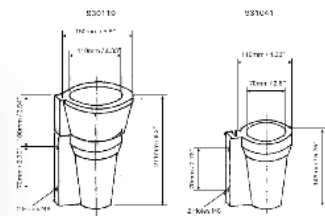
- Durable, Economical low maintenance

| Model      | Output Drive       | Torque Range |           |        |        | Free Speed | Weight | Air Consumption |           |      |
|------------|--------------------|--------------|-----------|--------|--------|------------|--------|-----------------|-----------|------|
|            |                    | Min Ft Lb    | Max Ft Lb | Min Nm | Max Nm | r/min      | Lb     | NPT             | Hose I.D. | Scfm |
| 15STHC40Q  | 1/4" Quick Change  |              |           | 5      | 15     | 3000       | 2.43   | 1/4             | 3/8       | 0.1  |
| 15STHFC40Q | 1/4" Quick Change  | 3.6          | 11        | 5      | 15     | 4000       | 2.43   | 1/4             | 3/8       | 0.1  |
| 35STHFC40Q | 1/2" Square Drive  | 12           | 26        | 12     | 35     | 4000       | 3.31   | 1/4             | 3/8       | 1.5  |
| 35STHFC40Q | 7/16" Quick Change | 12           | 26        | 15     | 35     | 4000       | 3.31   | 1/4             | 3/8       | 1.5  |
| 7STHFC55Q  | 1/4" Quick Change  | 1.9          | 4.9       | 2.6    | 6.6    | 5500       | 2.05   | 1/8             | 3/8       | 7    |

## Pulse Tools - Rubber Tool Stand

Rubber tool stand for pulse tools.

- Rubber tool stand provides protection for tool when not in use
- Two sizes - 931041 70mm opening, 930119 110mm opening
- Mounting holes to attach to work benches 2 x M6 on 70mm centers



| Model  | Description                     |
|--------|---------------------------------|
| 930119 | For Tool Series 7PTH-120PTH     |
| 931041 | For Tool Series 140/160/250/400 |

## Pulse Tools - 7/16" Quick Change Chuck Adapter

Converts to quick-change chuck

- Adapts 3/8" Square to 7/16" Quick Change

| Model  | Description                              |
|--------|--|
| 935472 | Adapts 3/8" Square to 7/16" Quick Change |



## Pulse Tools - Vibration Absorber

| Model  | Description                |
|--------|----------------------------|
| 935965 | For Tool Series 35/55      |
| 935966 | For Tool Series 80/110/120 |



## Pulse Tools - Covers

| Model    | Description                       |
|----------|-----------------------------------|
| 937442PT | For Tool Series 7/11/20PTHHA/PHHA |
| 937443PT | For Tool Series 35PTHHA/PHHA      |
| 937444PT | For Tool Series 55PTHHA/PHHA      |
| 937445PT | For Tool Series 80PTHHA/PHHA      |
| 937446PT | For Tool Series 110/120PTHHA/PHHA |
| 937447PT | For Tool Series 7/11/20PTHHA/PHHA |
| 937448PT | For Tool Series 35PTHH/PHH        |
| 937449PT | For Tool Series 55PTHH/PHH        |
| 937450PT | For Tool Series 80PTHH/PHH        |
| 937451PT | For Tool Series 110/120PTHH/PHH   |



# Cleco

## TORQUE WRENCHES



**Cleco** | Tame the Line

SHOWN: Advanced and Basic Electronic  
Torque Wrenches

# TORQUE WRENCHES

ACCURACY MADE TO LAST.

INDUSTRIAL TORQUE WRENCHES  
THAT PROVIDE **REPEATABLE**  
ACCURACY FOR **TOUGH**  
APPLICATIONS.

Regardless of industry when there is a requirement for accurate torque application Cleco® has the right tool for the job. From safety to quality-critical applications Cleco industrial torque wrenches are the product for your specific application and are compliant with global fastening standards.



## Cleco ETWA Advanced Electronic Torque Wrenches

- Accurate: Torque accuracy of +/-1.5% CW and +/-2.5% CCW angle settings offer +/-1% reading of angle accuracy
- Durable: Increase uptime with up to 100K cycles between calibration
- Operator Feedback: Vibrating handle, buzzer and tracking LED light indicate when target is reached
- Connectivity: USB connection with PC software interface
- Includes 2 x rechargeable lithium ion battery, charging cradle and USB-A to USB-C cable for charging/PC software
- 1 year limited warranty.



| Model     | Description   | Torque Range Min (ft/lb) | Torque Range Min (Nm) | Torque Range Max |     | Weight |      |
|-----------|---|--------------------------|-----------------------|------------------|-----|--------|------|
|           |   | Ft Lb                    | Nm                    | Ft Lb            | Nm  | Lb     | kg   |
| ETWA100IC | 3/8" 120XP™ Cleco E-Spec Electronic Interchangeable Head Torque Wrench 20-100Nm       | 15                       | 20                    | 74               | 100 | 2.9    | 1.3  |
| ETWA25IC  | 1/4" 120XP™ Cleco E-Spec Cleco Electronic Interchangeable Head Torque Wrench 5-25Nm   | 4                        | 5                     | 18               | 25  | 2.9    | 1.22 |
| ETWA27IC  | 3/8" 120XP™ Cleco E-Spec Cleco Electronic Interchangeable Head Torque Wrench 5.6-28Nm | 4.1                      | 5.6                   | 20.6             | 28  | 2.9    | 1.3  |
| ETWA340IC | 1/2" 120XP™ Cleco E-Spec Electronic Interchangeable Head Torque Wrench 68-340Nm       | 50                       | 68                    | 250              | 340 | 5.1    | 2.3  |

## Cleco ETWB Basic Electronic Torque Wrenches

- Accurate: Torque Accuracy of +3% CW applies to the upper 80% of wrench capability
- Easy to Use: 10 available preset torque settings allow you to quickly access frequently-repeated applications
- Versatile: 3 function modes feature peak torque, angle and peak angle for additional versatility
- Operator Feedback: Digitally tracks torque and angle measurements. Vibrating handle, buzzer and LCD screen alert when target torque is reached
- 1 year limited warranty
- Conforms with ISO 6789 and ASME B107.300-2022 standards and specifications



| Model     | Description  | Torque Range Min (ft/lb) | Torque Range Min (Nm) | Torque Range Max |     | Size            | Weight |      |
|-----------|--|--------------------------|-----------------------|------------------|-----|-----------------|--------|------|
|           |  | Ft Lb                    | Nm                    | Ft Lb            | Nm  |                 | Lb     | kg   |
| ETWB135FR | 3/8" 120XP™ Cleco Flex Head Electronic Torque Wrench with Angle 13.5-135Nm | 10                       | 13.5                  | 100              | 135 | 5° - 999° Angle | 1.8    | 0.8  |
| ETWB27FR  | 1/4" 120XP™ Cleco Flex Head Electronic Torque Wrench with Angle 2.7-27Nm   | 2                        | 2.7                   | 20               | 27  | 5° - 999° Angle | 1.5    | 0.68 |
| ETWB340FR | 1/2" 120XP™ Cleco Flex Head Electronic Torque Wrench with Angle 34 - 340Nm | 25                       | 34                    | 250              | 340 | 5° - 999° Angle | 2.9    | 1.3  |



## Cleco PTW Preset Mechanical Torque Wrenches

- Accurate: Torque accuracy of +/- 4% CW\* delivering precise control to your safety and quality-critical tightening applications.
- Durable: Designed and tested for 100K cycles before recertification providing exceptional durability and reliability.
- Versatile: Industry standard interchange sizes (9x12 and 14x18) that easily integrate into your existing workflow.
- Accessibility: Supplied with a 120XP ball lock ratchet head boasting a minimal 3° swing arc making it ideal in tight spaces.
- Comfort grip with line indicating correct operating position
- Conforms with ASME B107.300-2022 standards and specifications
- Tamper proof preset beneath a cover, using standard Torx® wrench PTW05IC T20, PTW25IC/PTW50IC T30, PTW100IC/PTW200IC T40 - Not Supplied.



| Model    | Torque Range Min |       | Torque Range Max |     | Weight |      |
|----------|------------------|-------|------------------|-----|--------|------|
|          | Ft Lb            | Nm    | Ft Lb            | Nm  | Lb     | kg   |
| PTW05IC  | 0.8 ft/lb        | 1 Nm  | 3.8              | 5   | 0.36   | .16  |
| PTW100IC | 15 ft/lb         | 20 Nm | 74               | 100 | 1.80   | .82  |
| PTW200IC | 30 ft/lb         | 40 Nm | 148              | 200 | 2.35   | 1.07 |
| PTW25IC  | 3.8 ft/lb        | 5 Nm  | 18.4             | 25  | 1.04   | .47  |
| PTW50IC  | 7 ft/lb          | 10 Nm | 37               | 50  | 1.04   | .47  |



## Utica Torque Limiting Screwdriver - Adjustable - Standard

- Product calibrated right hand only.
- Adjustable model with precision micrometer scale.
- Accuracy is  $\pm 6\%$  of setting, starting at 20% of full scale to full scale. Right hand only.
- Precision micrometer scale (adjustable models) calibrated in inch-ounces or inch-pounds.
- Easy-release 1/4" Hex bit holders securely retain bits during operation while permitting easy removal.
- Anti-backlash design for repeatability.



| Model  | Description                                     | Type          | Weight |
|--------|---|---------------|--------|
|        |   |               | Lb     |
| TS-100 | 20-100 inoz in 2 inoz increments - Black Collar | U.S. Standard | 0.51   |
| TS-30  | 6 -30 inlb in 1 inlb increments - Red Collar    | U.S. Standard | 0.51   |
| TS-35  | 6 -36 inlb in 1 inlb increments - Blue Collar   | U.S. Standard | 0.51   |



## Utica Torque Limiting Screwdriver Kits - Adjustable - Standard

- Product calibrated right hand only.
- Adjustable model with precision micrometer scale.
- Accuracy is  $\pm 6\%$  of setting, starting at 20% of full scale to full scale. Right hand only.
- Precision micrometer scale (adjustable models) calibrated in inch-ounces or inch-pounds.
- Easy-release bit holders securely retain bits during operation while permitting easy removal.
- Anti-backlash design for repeatability.



| Model  | Description  |
|--------|--|
| KT-100 | Screwdriver Kit - 20 Piece Kit with TS-100         |
| KT-130 | Screwdriver Kit - 43 Piece Kit with TS-30 & TS-100 |
| KT-30  | Screwdriver Kit - 24 Piece Kit with TS-30          |

## Utica Torque Limiting Screwdriver - Adjustable - Miniature

- Specifically designed for reliable tightening of the very smallest threaded fasteners.
- Largest model weighs only 1 oz.
- Reach set torque and slip to prevent over-torquing of delicate components.
- Accuracy  $\pm 6\%$ , right hand only. Meets or exceeds ASME B107.14M and ISO 6789 specifications.
- Use miniature universal bits tang drive



| Model | Description                       | Weight | Length           |
|-------|-----------------------------------|--------|------------------|
|       |                                   | Lb     | in   mm          |
| TT-1  | 5-20 inoz in 1/4" inoz increments | 0.066  | 3.625 in   92 mm |

Utica Torque Limiting Screwdriver - Preset - Miniature

- Specifically designed for reliable tightening of the very smallest threaded fasteners.
- Largest model weighs only 1 oz.
- Reach set torque and slip to prevent over-torquing of delicate components.
- Accuracy ±6%, right hand only. Meets or exceeds ASME B107.14M and ISO 6789 specifications.
- Use miniature universal bits tang drive



| Model   | Description                                       | Weight | Length           |
|---------|---|--------|------------------|
|         |   | Lb     | in   mm          |
| TT-SN-1 | Can be preset within ranges 5-30 inoz / .33-2.0Nm | 0.066  | 3.625 in   92 mm |

Utica Torque Limiting Screwdriver - Preset - Standard

- Product calibrated right hand only.
- Easy-release 1/4" hex bit holders securely retain bits during operation while permitting easy removal.
- Preset Model



| Model   | Description  |
|---------|--|
| TS-SN-1 | Can be preset within ranges 1.5 -10 inlb / 20-150 inoz / .15-1.1Nm |
| TS-SN-2 | Can be preset within ranges 8 -40 inlb / 128-640 inoz / .1-4.5Nm   |

# Cleco

## MOUNTABLE POWER MOTORS



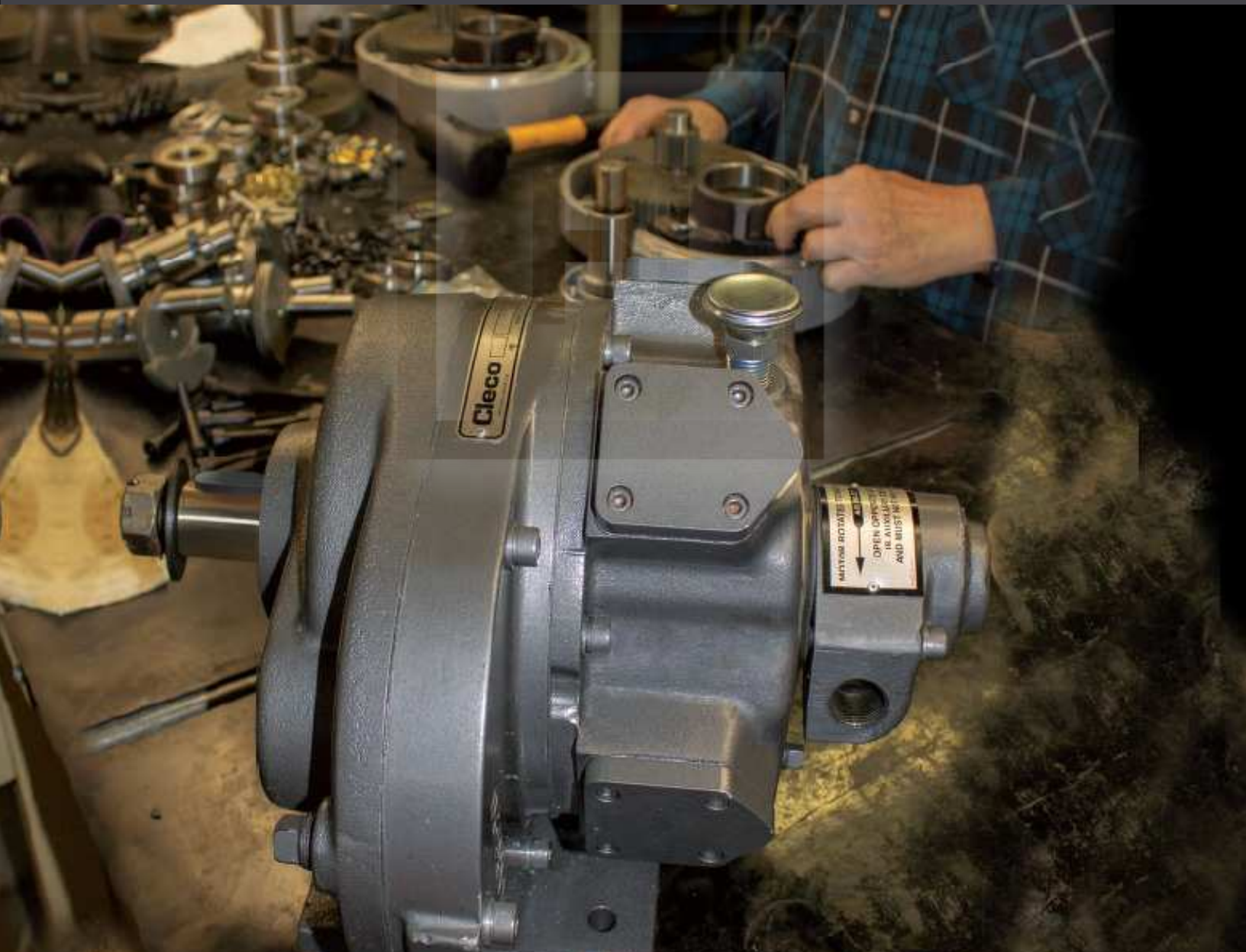
**Cleco** | Tame the Line

SHOWN: MA3 SERIES - AIR MOTOR

# MOUNTABLE POWER MOTORS

**Choose the right  
Air Motor to fit your  
application.**

Apex Tool Group's air motors are engineered for flexibility and reliability. Cleco air motors cover a wide range of uses where compressed air is advantageous: powering air driven machinery, raising foundry copes and drags, rotating a turntable, mixing paint, powering cranes, valve actuation, or power source for mechanical hands or universal joints.



## 22 Series - Air Motor - Rotary Vane - Reversible/Non Reversible



**Maximum Power 0.7 hp | 0.52 kw**

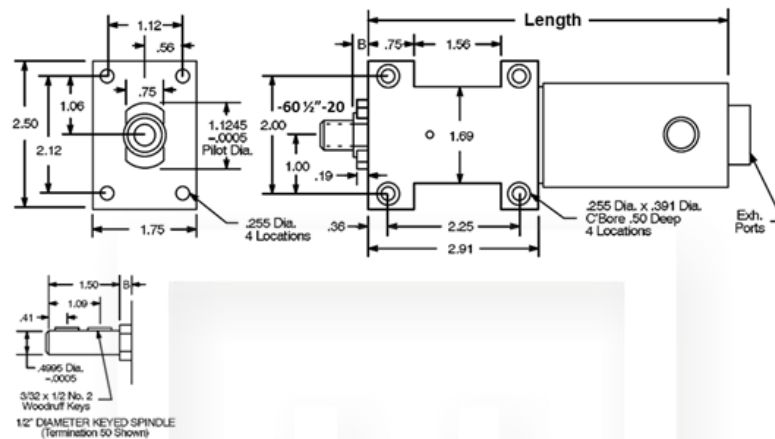
- Maximum Power 0.7 hp | 0.52 kw
- Torque Range 0.6 - 28.4 ft. lbs. | 0.81 - 38.48 Nm

| Model      | Mount                    | Spindle Type             | RPM at Max HP | Free Speed | Torque Stall | Weight |      | Gear Ratio | Length     | Horsepower | Air Consumption | Control        |
|------------|--------------------------|--------------------------|---------------|------------|--------------|--------|------|------------|------------|------------|-----------------|----------------|
|            |                          |                          | r/min         | r/min      | Ft Lb   Nm   | Lb     | kg   |            | in   mm    | Hp   kW    | Scfm            |                |
| 22M5070-50 | Flange and Base Mounting | 1/2" in Keyed Spindle    | 165           | 330        | 28.4   38.48 | 3.06   | 1.39 | 50.4-1     | 7.88   200 | 0.7        | 29              | Reversible     |
| 22M5070-60 | Flange and Base Mounting | 1/2"-20 Threaded Spindle | 165           | 330        | 28.4   38.48 | 3.06   | 1.39 | 50.4-1     | 7.88   200 | 0.7        | 29              | Reversible     |
| 22V5040-50 | Flange and Base Mounting | 1/2" in Keyed Spindle    | 215           | 430        | 5.8   7.86   | 4.0    | 1.81 | 38.7-1     | 7.88   200 | 0.9        | 29              | LH Rotation    |
| 22M5071-50 | Flange and Base Mounting | 1/2" in Keyed Spindle    | 250           | 500        | 19.6   26.56 | 3.06   | 1.39 | 34.8-1     | 7.88   200 | 0.7        | 29              | Reversible     |
| 22M5270-50 | Flange and Base Mounting | 1/2" in Keyed Spindle    | 1200          | 2400       | 4.0   5.42   | 2.38   | 1.08 | 7.1-1      | 6.16   156 | 0.7        | 29              | Reversible     |
| 22M5340-50 | Flange and Base Mounting | 1/2" in Keyed Spindle    | 1600          | 3200       | 5.8   7.86   | 4.0    | 1.81 | 7.1-1      | 6.19   157 | 0.9        | 29              | Non-Reversible |
| 22M5440-50 | Flange and Base Mounting | 1/2" in Keyed Spindle    | 2350          | 4700       | 4.0   5.42   | 4.0    | 1.81 | 4.9-1      | 6.19   157 | 0.9        | 29              | Non-Reversible |

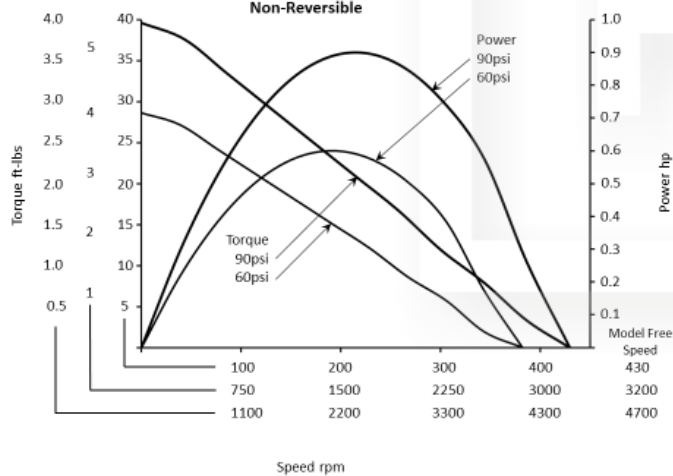
Air Inlet: 1/4" NPT-Side and rear  
 Air consumption: 29 cfm(.82 m3/min)  
 All tools performance rated @ 90psi(620 kPa) air pressure  
 Standard Equipment:  
 Hex socket screw provided for closure of unused inlet  
 Flush fitting for lubrication of gears



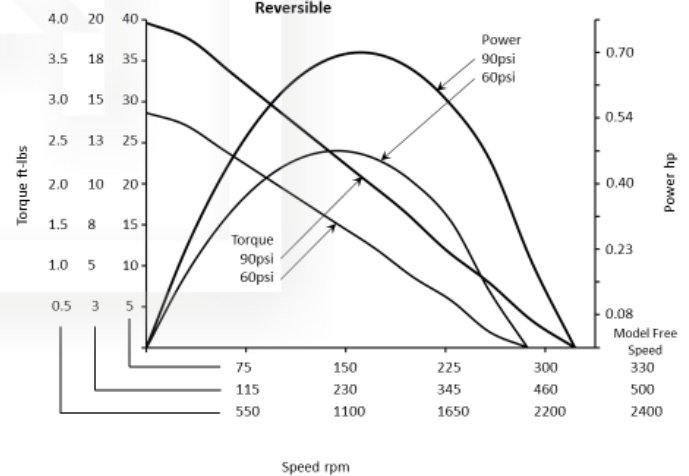
## 22M Series Motor Dimensions



**22M Speed Torque Data Non-Reversible**



**22M Speed Torque Data Reversible**





## A2 Series - Air Motor - Axial Piston

Maximum Power 0.6 hp | 0.45 kw

- Maximum Power 0.6 hp | 0.45 kw
- Torque Range 2 - 107 ft. lbs. | 2.7 - 145 Nm
- Reversible
- Rear Exhaust
- Keyed Spindle



| Model   | Mount         | Spindle Type         | RPM at Max HP | Free Speed | Torque Stall | Weight |      | Gear Ratio | Length      | Horsepower | Air Consumption | Control    |
|---------|---------------|----------------------|---------------|------------|--------------|--------|------|------------|-------------|------------|-----------------|------------|
|         |               |                      | r/min         | r/min      | Ft Lb   Nm   | Lb     | kg   |            | in   mm     | Hp   kW    | Scfm            |            |
| A2R306M | Face Mounting | 7/8 in Keyed Spindle | 44            | 90         | 107   145    | 22     | 10   | 53.6-1     | 14.28   363 | 0.6        | 21.2            | Reversible |
| A2R305M | Face Mounting | 7/8 in Keyed Spindle | 75            | 150        | 63.0   85    | 22     | 10   | 31.4-1     | 14.28   363 | 0.6        | 21.2            | Reversible |
| A2R304M | Face Mounting | 7/8 in Keyed Spindle | 99            | 200        | 48.0   65    | 22     | 10   | 23.8-1     | 14.28   363 | 0.6        | 21.2            | Reversible |
| A2R303M | Face Mounting | 7/8 in Keyed Spindle | 169           | 345        | 28.0   38    | 22     | 10   | 13.9-1     | 14.28   363 | 0.6        | 21.2            | Reversible |
| A2R302M | Face Mounting | 7/8 in Keyed Spindle | 255           | 520        | 19.0   26    | 14     | 6.35 | 9.25-1     | 12.12   308 | 0.6        | 21.2            | Reversible |
| A2R301M | Face Mounting | 7/8 in Keyed Spindle | 575           | 1170       | 8.0   11     | 14     | 6.35 | 4.1-1      | 12.12   308 | 0.6        | 21.2            | Reversible |

All models assume overhung load located at 1.75" (44.45mm) from face of motor.

These motors must be operated with sufficient load to prevent speed from exceeding maximum allowable speed, 75% of free speed as shown on performance curve.

General:  
Air Inlet: 3/8" NPTF

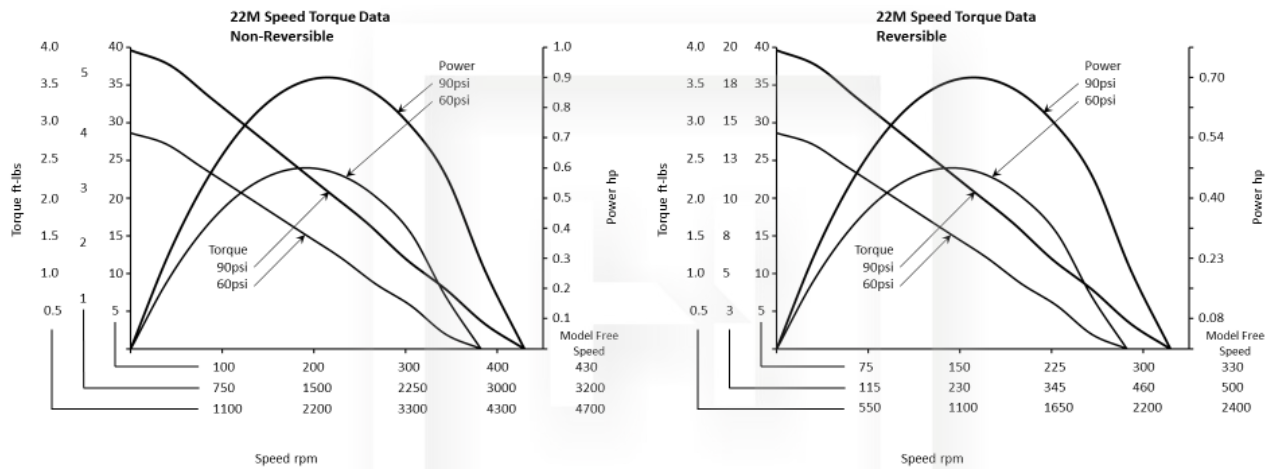
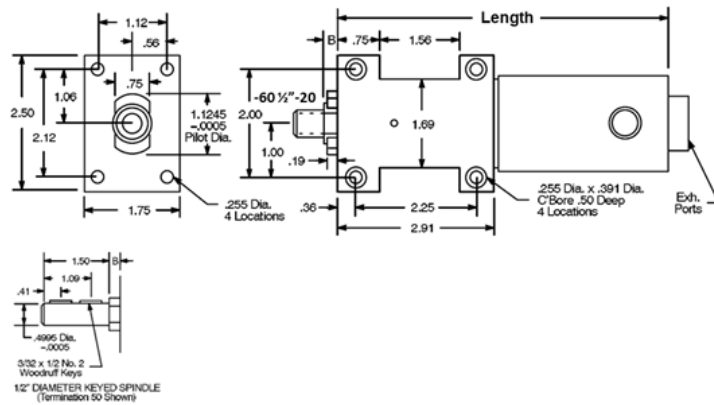
All tools performance rated @ 90psi (620 kPa) air pressure.

Optional Equipment:

Lubricating Oil - Part 533485 (1 gallon) Airlube 10W/NR

Gear Grease - Part A123771 (16oz) Shell Gadus S2 V220 00

### 22M Series Motor Dimensions



## B4 Series - Air Motor - Axial Piston

Maximum Power 0.9 hp | 0.67 kw

- Maximum Power 0.9 hp | 0.67 kw
- Torque Range 4 - 232 ft. lbs. | 6.8 - 315 Nm
- Reversible
- Rear Exhaust
- Keyed Spindle



| Model   | Mount         | Spindle Type         | RPM at Max HP | Free Speed | Torque Stall | Weight |      | Gear Ratio | Length      | Horsepower | Air Consumption | Control    |
|---------|---------------|----------------------|---------------|------------|--------------|--------|------|------------|-------------|------------|-----------------|------------|
|         |               |                      | r/min         | r/min      | Ft Lb   Nm   | Lb     | kg   |            | in   mm     | Hp   kW    | Scfm            |            |
| B4R317M | Face Mounting | 7/8 in Keyed Spindle | 46            | 90         | 232.0   315  | 22.5   | 10.2 | 46.4-1     | 15.21   386 | 0.9        | 39.9            | Reversible |
| B4R322M | Face Mounting | 7/8 in Keyed Spindle | 79            | 150        | 136.0   184  | 22.5   | 10.2 | 27.2-1     | 15.21   386 | 0.9        | 39.9            | Reversible |
| B4R323M | Face Mounting | Discontinued         | 90            | 175        | 119.0   161  | 22.5   | 10.2 | 23.8-1     | 15.21   386 | 0.9        | 39.9            | Reversible |
| B4R320M | Face Mounting | 7/8 in Keyed Spindle | 154           | 300        | 70.0   95    | 22.5   | 10.2 | 13.9-1     | 15.21   386 | 0.9        | 39.9            | Reversible |
| B4R318M | Face Mounting | 7/8 in Keyed Spindle | 270           | 525        | 40.0   54    | 14.5   | 6.6  | 8-1        | 13.19   335 | 0.9        | 39.9            | Reversible |
| B4R319M | Face Mounting | 7/8 in Keyed Spindle | 525           | 1020       | 21.0   28    | 14.5   | 6.6  | 4.1-1      | 13.19   335 | 0.9        | 39.9            | Reversible |
| B4R321M | Face Mounting | Discontinued         | 2150          | 4200       | 5.0   6.8    | 14.5   | 6.6  | 1-1        | 13.19   335 | 0.9        | 39.9            | Reversible |

All models assume overhung load located at 1.75" (44.45mm) from face of motor.  
These motors must be operated with sufficient load to prevent speed from exceeding maximum allowable speed, 75% of free speed as shown on performance curve.

General:

Air Inlet: 3/8" NPTF

All tools performance rated @ 90psi (620 kPa) air pressure.

Optional Equipment:

Exhaust Muffler - Part 813485

Lubricating Oil - Part 533485 (1 gallon) Airlube 10W/NR

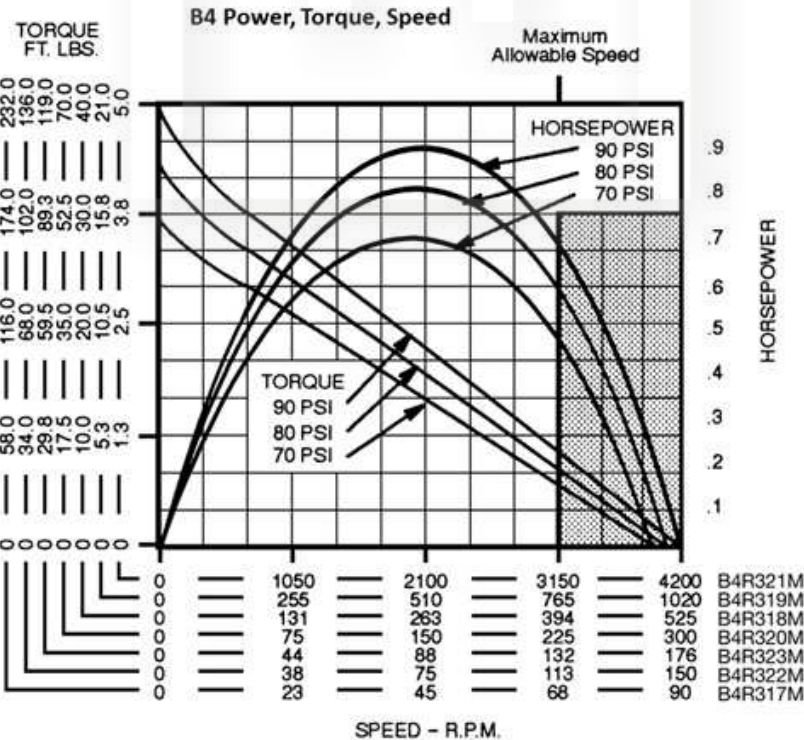
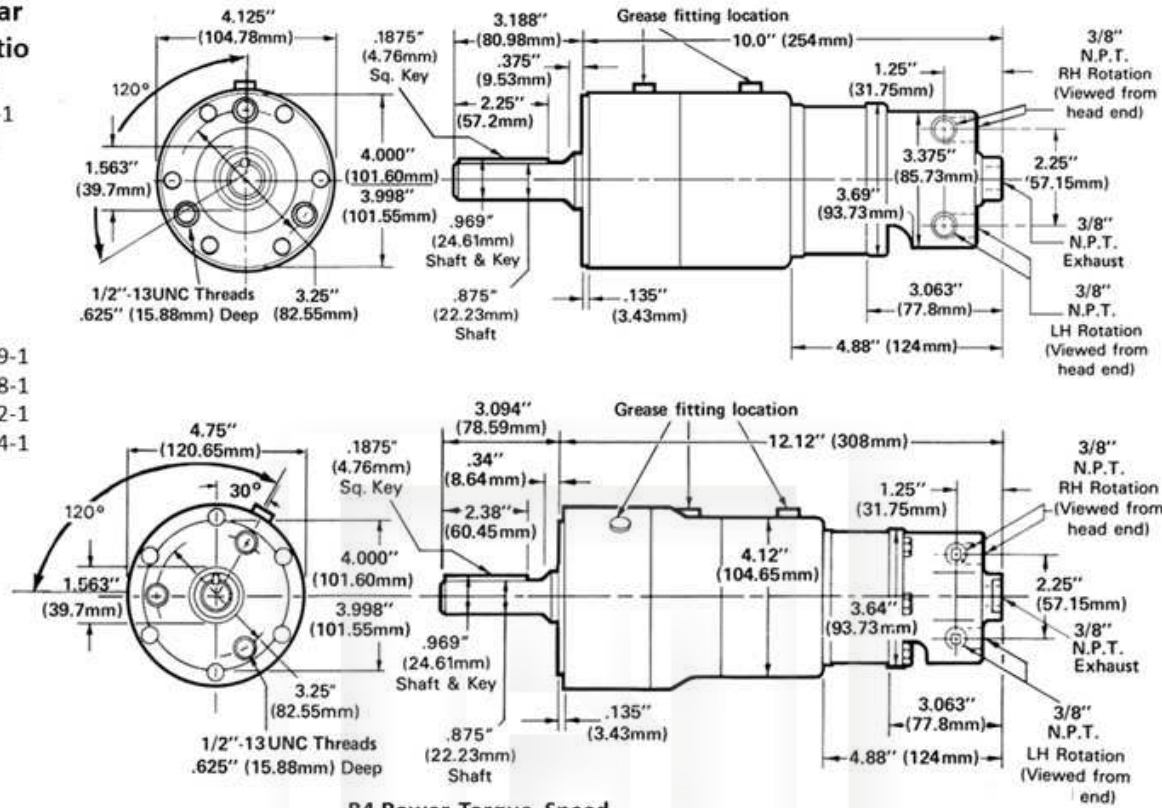
Gear Grease - Part A123771 (16oz) Shell Gadus S2 V220 00

# B4 Series Motor Dimensions

## Gear Ratio

1-1  
4.1-1  
8-1

13.9-1  
23.8-1  
27.2-1  
46.4-1



## A6 Series - Air Motor - Axial Piston

Maximum Power 1.9 hp | 1.42 kw

- Maximum Power 1.9 hp | 1.42 kw
- Torque Range 11 - 370 ft. lbs. | 15 - 502 Nm
- Reversible
- Rear Exhaust
- Keyed Spindle



| Model   | Mount         | Spindle Type           | RPM at Max HP | Free Speed | Torque Stall | Weight |      | Gear Ratio | Length      | Horsepower | Air Consumption | Control    |
|---------|---------------|------------------------|---------------|------------|--------------|--------|------|------------|-------------|------------|-----------------|------------|
|         |               |                        | r/min         | r/min      | Ft Lb   Nm   | Lb     | kg   |            | in   mm     | Hp   kW    | Scfm            |            |
| A6R331M | Face Mounting | 1 1/8 in Keyed Spindle | 54            | 100        | 370.0   502  | 43     | 19.5 | 33.6-1     | 19.06   484 | 1.9        | 62              | Reversible |
| A6R333M | Face Mounting | 1 1/8 in Keyed Spindle | 89            | 170        | 223.0   302  | 43     | 19.5 | 20.3-1     | 19.06   484 | 1.9        | 62              | Reversible |
| A6R332M | Face Mounting | 1 1/8 in Keyed Spindle | 152           | 290        | 130.0   176  | 43     | 19.5 | 11.9-1     | 19.06   484 | 1.9        | 62              | Reversible |
| A6R307M | Face Mounting | 1 1/8 in Keyed Spindle | 315           | 605        | 64.0   87    | 27     | 12.2 | 5.8-1      | 15.88   403 | 1.9        | 62              | Reversible |
| A6R335M | Face Mounting | 1 1/8 in Keyed Spindle | 535           | 1030       | 37.0   50    | 27     | 12.2 | 3.4-1      | 15.88   403 | 1.9        | 62              | Reversible |
| A6R308M | Face Mounting | Discontinued           | 1820          | 3500       | 1.0   15     | 27     | 12.2 | 1-1        | 15.88   403 | 1.9        | 62              | Reversible |

All models assume overhung load located at 2.25" (57.15mm) from face of motor.  
These motors must be operated with sufficient load to prevent speed from exceeding maximum allowable speed, 75% of free speed as shown on performance curve.

General:

Air Inlet: 3/8" NPTF

All tools performance rated @ 90psi (620 kPa) air pressure.

Optional Equipment:

Exhaust Muffler - Part 81348 Lubricating Oil - Part 533485 (1 gallon) Airlube 10W/NR

Gear Grease - Part A123771 (16oz) Shell Gadus S2 V220 0

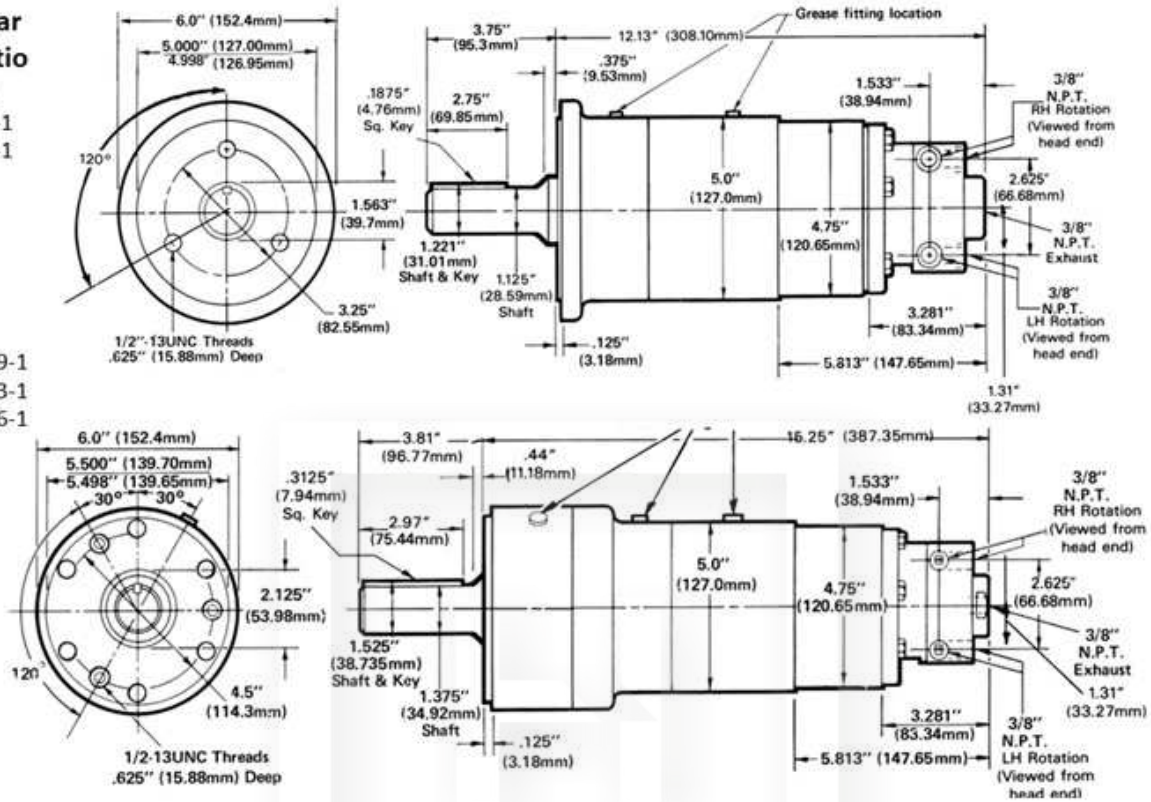


## A6 Series Motor Dimensions

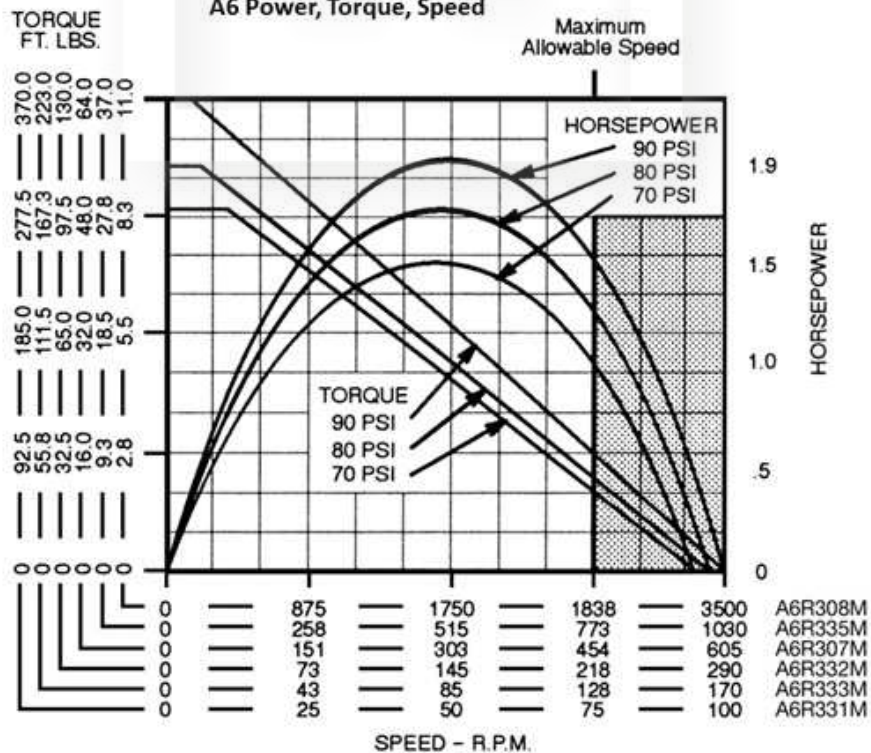
### Gear Ratio

1-1  
3.4-1  
5.8-1

11.9-1  
20.3-1  
33.6-1



## A6 Power, Torque, Speed





## A8 Series - Air Motor - Axial Piston

Maximum Power 2.7 hp | 2.01 kw

- Maximum Power 2.7 hp | 2.01 kw
- Torque Range 19 - 638 ft. lbs. | 26 - 865 Nm
- Reversible
- Rear Exhaust
- Keyed Spindle



| Model   | Mount         | Spindle Type           | RPM at Max HP | Free Speed | Torque Stall | Weight |      | Gear Ratio | Length      | Horsepower | Air Consumption | Control    |
|---------|---------------|------------------------|---------------|------------|--------------|--------|------|------------|-------------|------------|-----------------|------------|
|         |               |                        | r/min         | r/min      | Ft Lb   Nm   | Lb     | kg   |            | in   mm     | Hp   kW    | Scfm            |            |
| A8R336M | Face Mounting | 1 3/8 in Keyed Spindle | 38            | 75         | 638.0   865  | 51     | 23.1 | 33.6-1     | 20.63   524 | 2.7        | 112             | Reversible |
| A8R338M | Face Mounting | 1 3/8 in Keyed Spindle | 65            | 125        | 385.0   522  | 51     | 23.1 | 20.3-1     | 20.63   524 | 2.7        | 112             | Reversible |
| A8R337M | Face Mounting | 1 3/8 in Keyed Spindle | 109           | 215        | 226.0   306  | 51     | 23.1 | 11.9-1     | 20.63   524 | 2.7        | 112             | Reversible |
| A8R311M | Face Mounting | 1 1/8 in Keyed Spindle | 225           | 450        | 110.0   149  | 38     | 17.2 | 5.8-1      | 17.5   445  | 2.7        | 112             | Reversible |
| A8R310M | Face Mounting | 1 1/8 in Keyed Spindle | 375           | 765        | 64.0   87    | 38     | 17.2 | 3.4-1      | 17.5   445  | 2.7        | 112             | Reversible |
| A8R309M | Face Mounting | 1 1/8 in Keyed Spindle | 1300          | 2600       | 19.0   26    | 38     | 17.2 | 1-1        | 17.5   445  | 2.7        | 112             | Reversible |

All models assume overhung load located at 2.25" (57.15mm) from face of motor.

These motors must be operated with sufficient load to prevent speed from exceeding maximum allowable speed, 75% of free speed as shown on performance curve.

General:

Air Inlet: 1/2" NPTF

All tools performance rated @ 90psi (620 kPa) air pressure.

Optional Equipment

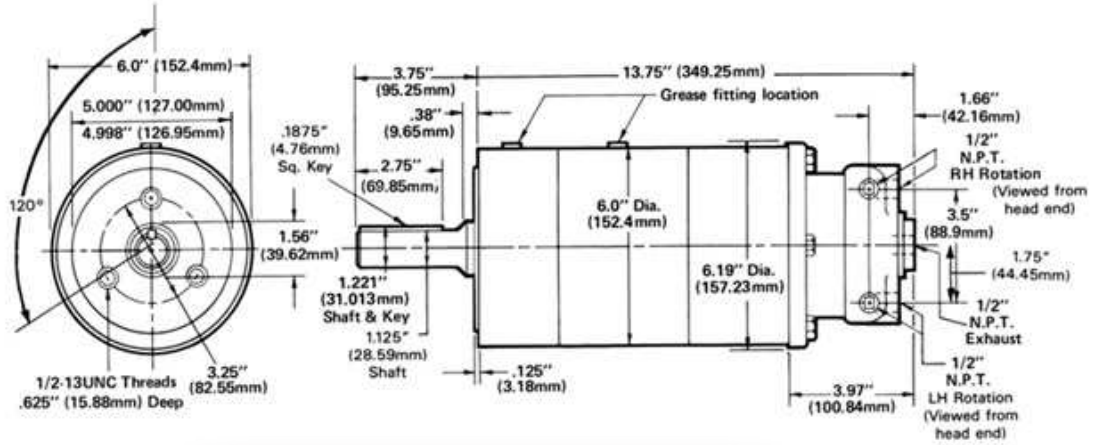
Lubricating Oil - Part 533485 (1 gallon) Airlube 10W/NR

Gear Grease - Part A123771 (16oz) Shell Gadus S2 V220 00

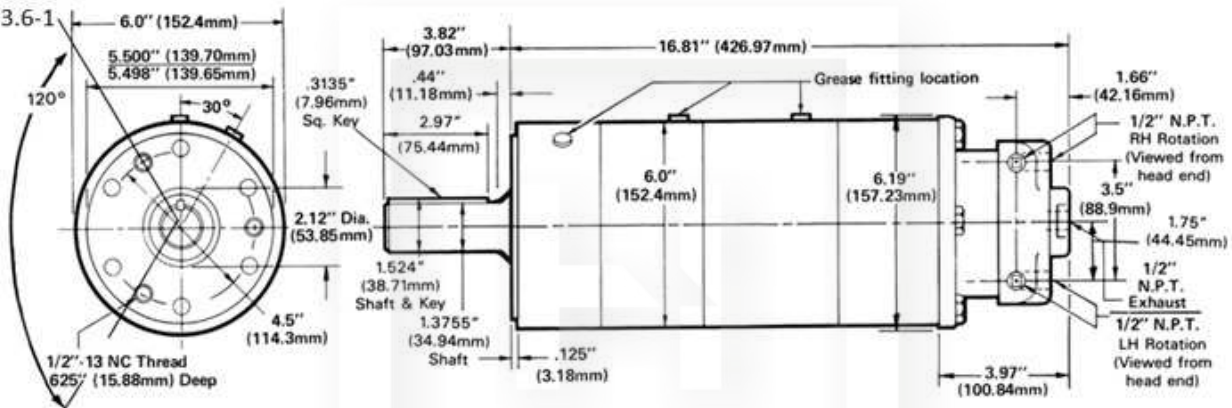
## A8 Series Motor Dimensions

### Gear Ratio

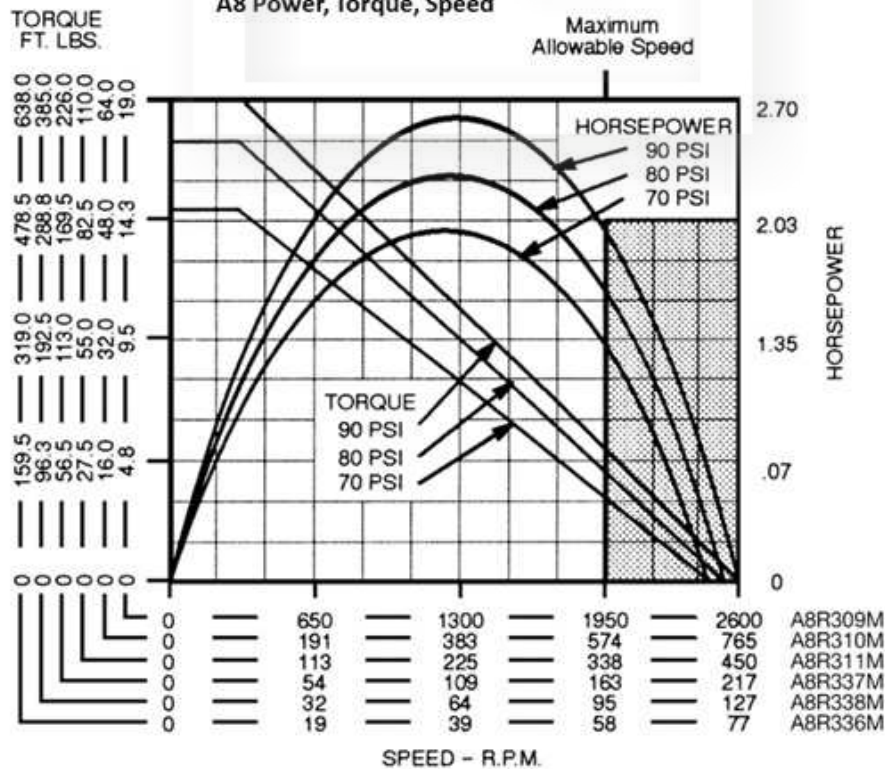
1-1  
3.4-1  
5.8-1



11.9-1  
20.3-1  
33.6-1



## A8 Power, Torque, Speed



## MA2 Series - Air Motor - Radial Piston

Maximum Power 1.5 hp | 1.12 kw

- Maximum Power 1.5 hp | 1.12 kw
- Torque Range 8.6 - 262 ft. lbs. | 12 - 355 Nm
- Threaded Spindle



| Model    | Mount         | Spindle Type            | RPM at Max HP | Free Speed | Torque Stall | Weight |      | Gear Ratio | Length     | Horsepower | Air Consumption | Control    |
|----------|---------------|-------------------------|---------------|------------|--------------|--------|------|------------|------------|------------|-----------------|------------|
|          |               |                         | r/min         | r/min      | Ft Lb   Nm   | Lb     | kg   |            | in   mm    | Hp   kW    | Scfm            |            |
| MA2W403M | Foot Mounting | 5/8 in Threaded Spindle | 60            | 120        | 262.0   355  | 43     | 19.5 | 30.4-1     | 14.6   371 | 1.5        | 58              | No Valving |

All models assume overhung load located at 0.625" (15.88mm) from face of motor.

These motors must be operated with sufficient load to prevent speed from exceeding maximum allowable speed shown on performance curve.

General:

Air Inlet: 1/2" NPTF

All tools performance rated @ 90psi (620 kPa) air pressure.

Note:

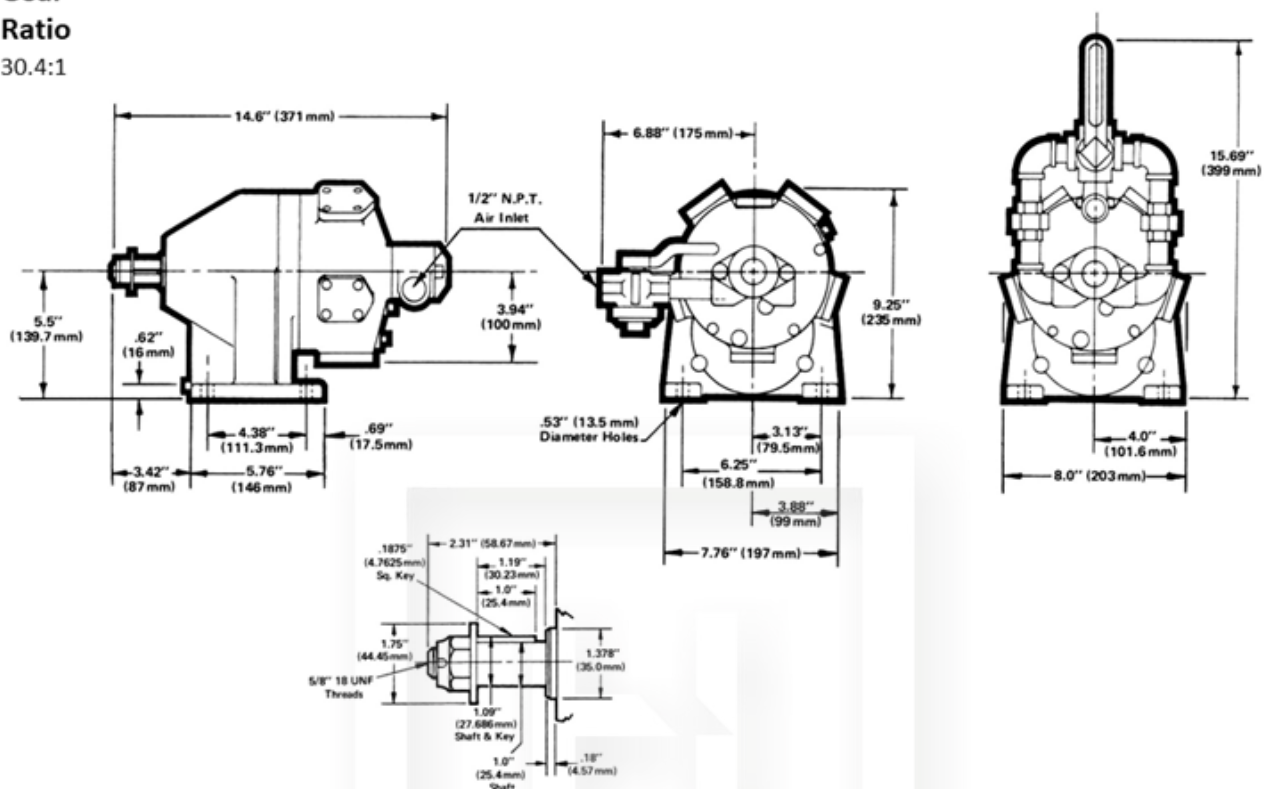
Fill the motor to the proper level before operating. Use engine oil API Service Classified "SC" in the following weights:

Above 32° F: SAE 30W

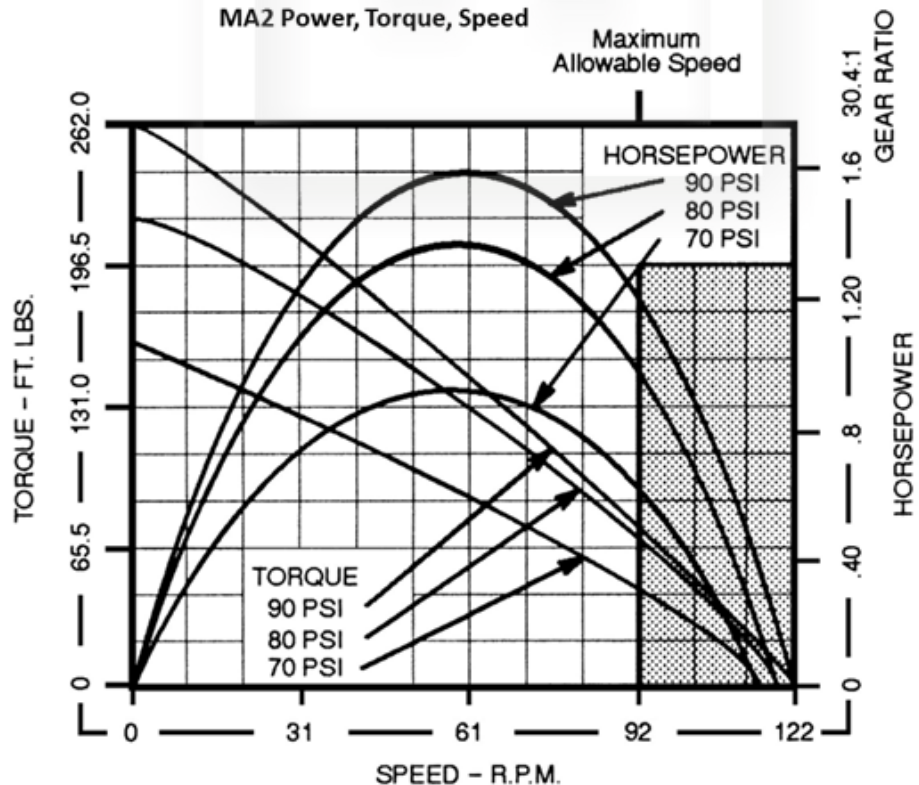
Below 32° F: SAE 10W

Gear  
Ratio  
30.4:1

# MA2 Series Motor Dimensions



## MA2 Power, Torque, Speed



## MA3 Series -Air Motor - Radial Piston

Maximum Power 3.0 hp | 2.24 kw

- Maximum Power 3.0 hp | 2.24 kw
- Torque Range 24 - 588 ft. lbs. | 33 - 797 Nm
- Threaded Spindle



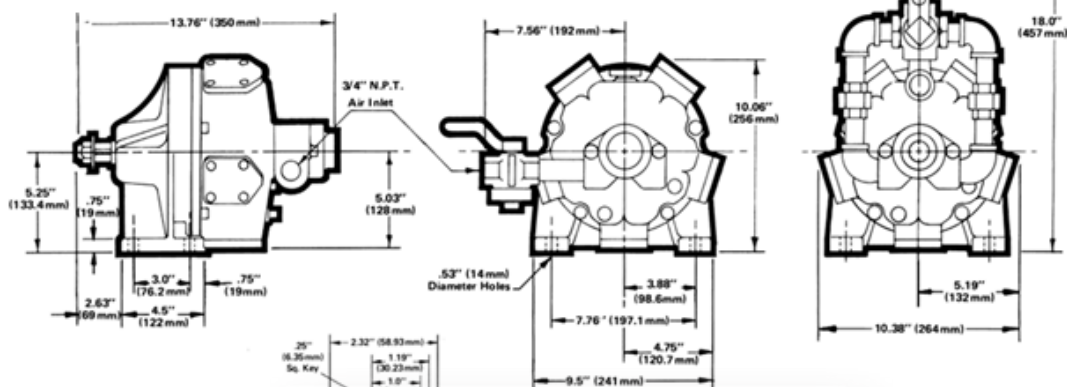
| Model    | Mount         | Spindle Type            | RPM at Max HP | Free Speed | Torque Stall | Weight |      | Gear Ratio | Length      | Horsepower | Air Consumption | Control    |
|----------|---------------|-------------------------|---------------|------------|--------------|--------|------|------------|-------------|------------|-----------------|------------|
|          |               |                         | r/min         | r/min      | Ft Lb   Nm   | Lb     | kg   |            | in   mm     | Hp   kW    | Scfm            |            |
| MA3W407M | Foot Mounting | 5/8 in Threaded Spindle | 48            | 100        | 588.0   797  | 67     | 30.1 | 24.6-1     | 16.56   421 | 3.0        | 95              | No Valving |

|          |               |                         |      |      |           |    |      |     |             |     |    |            |
|----------|---------------|-------------------------|------|------|-----------|----|------|-----|-------------|-----|----|------------|
| MA3W406M | Foot Mounting | 5/8 in Threaded Spindle | 1190 | 2600 | 24.0   33 | 51 | 23.1 | 1-1 | 13.76   350 | 3.0 | 80 | No Valving |
|----------|---------------|-------------------------|------|------|-----------|----|------|-----|-------------|-----|----|------------|

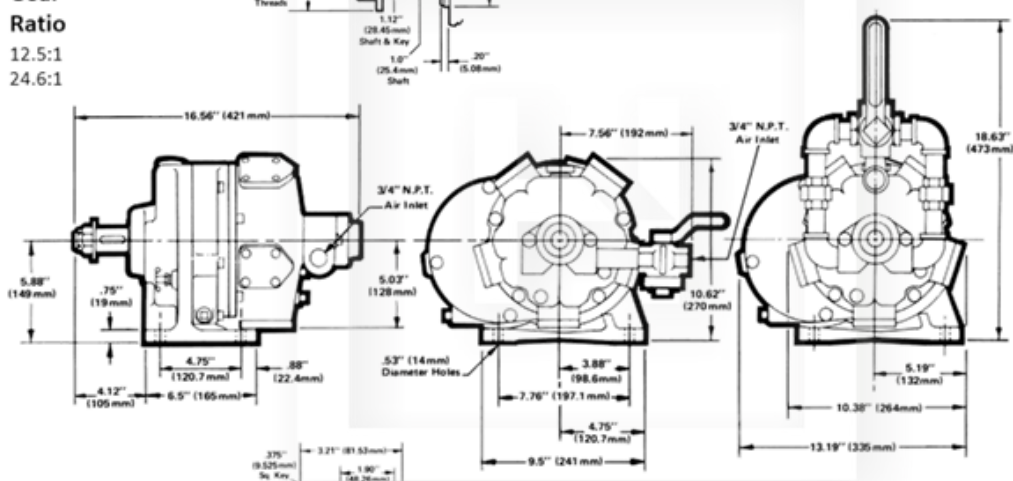
Non-geared models assume overhung load located at 0.625" (15.88mm) from face of motor.  
 Geared models assume overhung load located at 1" (25.40mm) from face of motor.  
 These motors must be operated with sufficient load to prevent speed from exceeding maximum allowable speed, 65% of free speed as shown on performance curve.  
 General:  
 Air Inlet: 3/4" NPTF  
 All tools performance rated @ 90psi (620 kPa) air pressure.  
 Note:  
 Fill the motor to the proper level before operating. Use engine oil API Service Classified "SC" in the following weights:  
 Above 32° F: SAE 30W  
 Below 32° F: SAE 10W

Gear  
Ratio  
1:1

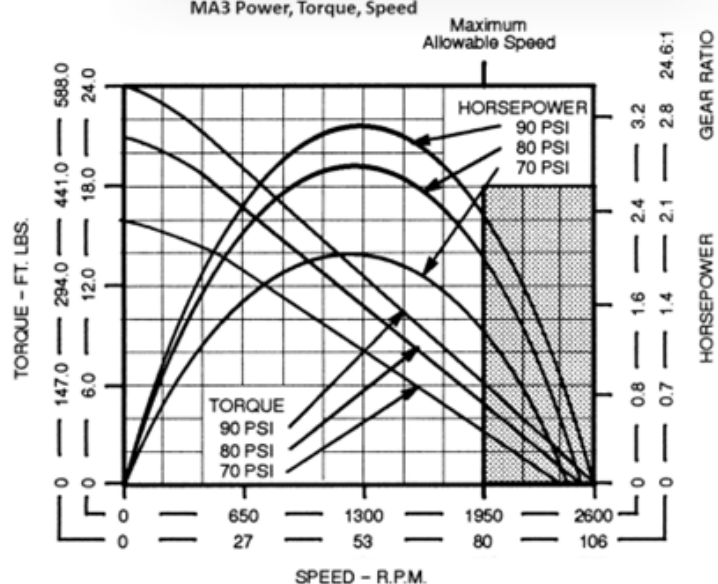
# MA3 Series Motor Dimensions



Gear  
Ratio  
12.5:1  
24.6:1



## MA3 Power, Torque, Speed





## MB Series - Air Motor - Radial Piston

Maximum Power 5.5 hp | 4.10 kw

- Maximum Power 5.5 hp | 4.10 kw
- Torque Range 34 - 700 ft. lbs. | 46 - 949 Nm
- Threaded Spindle



| Model   | Mount         | Spindle Type  | RPM at Max HP | Free Speed | Torque Stall | Weight |      | Gear Ratio | Length      | Horsepower | Air Consumption | Control                  |
|---------|---------------|---------------|---------------|------------|--------------|--------|------|------------|-------------|------------|-----------------|--------------------------|
|         |               |               | r/min         | r/min      | Ft Lb   Nm   | Lb     | kg   |            | in   mm     | Hp   kW    | Scfm            |                          |
| MBR377M | Foot Mounting | 1 1/2in keyed | 74            | 150        | 700.0   949  | 148    | 67.1 | 20.4-1     | 18.12   460 | 5.5        | 154             | Reversible Valving       |
| MBW411M | Foot Mounting | 1 1/2in keyed | 74            | 150        | 700.0   949  | 148    | 67.1 | 20.4-1     | 18.12   460 | 5.5        | 154             | No Valving               |
| MBW412M | Foot Mounting | 1 1/2in keyed | 133           | 270        | 388.0   526  | 148    | 67.1 | 11.3-1     | 18.12   460 | 5.5        | 148             | No Valving               |
| MBW413M | Foot Mounting | 1 1/2in keyed | 268           | 540        | 192.0   260  | 148    | 67.1 | 5.6-1      | 18.12   460 | 5.5        | 140             | No Valving               |
| MBS380M | Foot Mounting | 1 1/2in keyed | 270           | 540        | 192.0   260  | 145    | 65.8 | 5.6-1      | 18.12   460 | 5.5        | 144             | Single Direction Valving |

All models assume overhung load located at 1" (25.40mm) from face of motor.

These motors must be operated with sufficient load to prevent speed from exceeding maximum allowable speed, 65% of free speed as shown on performance curve.

General:

Air Inlet: 1" NPTF

All tools performance rated @ 90psi (620 kPa) air pressure.

Note: Fill the motor to the proper level before operating. Use engine oil API Service Classified "SC" in the following weights:

Above 32° F: SAE 30W

Below 32° F: SAE 10W

**Gear Ratio**

[illegible][illegible]

## MK Series - Air Motor - Radial Piston

Maximum Power 11 hp | 8.20 kw

- Maximum Power 11 hp | 8.20 kw
- Torque Range 117 - 1654 ft. lbs. | 159 - 2243 Nm
- Threaded Spindle



| Model   | Mount         | Spindle Type              | RPM at Max HP | Free Speed | Torque Stall  | Weight |       | Gear Ratio | Length      | Horsepower | Air Consumption | Control                  |
|---------|---------------|---------------------------|---------------|------------|---------------|--------|-------|------------|-------------|------------|-----------------|--------------------------|
|         |               |                           | r/min         | r/min      | Ft Lb   Nm    | Lb     | kg    |            | in   mm     | Hp   kW    | Scfm            |                          |
| MKW419M | Foot Mounting | 1 1/4 in Threaded Spindle | 67            | 135        | 1654.0   2243 | 230    | 104.3 | 14.2-1     | 20.88   530 | 11         | 288             | No Valving               |
| MKS392M | Foot Mounting | Discontinued              | 69            | 135        | 1654.0   2243 | 225    | 102.1 | 14.2-1     | 20.88   530 | 11         | 293             | Single Direction Valving |
| MKR395M | Foot Mounting | 1 1/4 in Threaded Spindle | 183           | 375        | 606.0   822   | 230    | 104.3 | 5.2-1      | 20.88   530 | 11         | 299             | Reversible Valving       |
| MKW420M | Foot Mounting | 1 1/4 in Threaded Spindle | 183           | 375        | 606.0   822   | 230    | 104.3 | 5.2-1      | 20.88   530 | 11         | 299             | No Valving               |
| MKW418M | Foot Mounting | 1 in Threaded Spindle     | 975           | 1900       | 117.0   159   | 104    | 91.6  | 1-1        | 20.42   519 | 11         | 311             | No Valving               |

All models assume overhung load located at 1" (25.40mm) from face of motor.

These motors must be operated with sufficient load to prevent speed from exceeding maximum allowable speed, 65% of free speed as shown on performance curve.

General:

Air Inlet: 1-1/4" NPTF

All tools performance rated @ 90psi (620 kPa) air pressure.

Note:

Fill the motor to the proper level before operating. Use engine oil API Service Classified "SC" in the following weights:

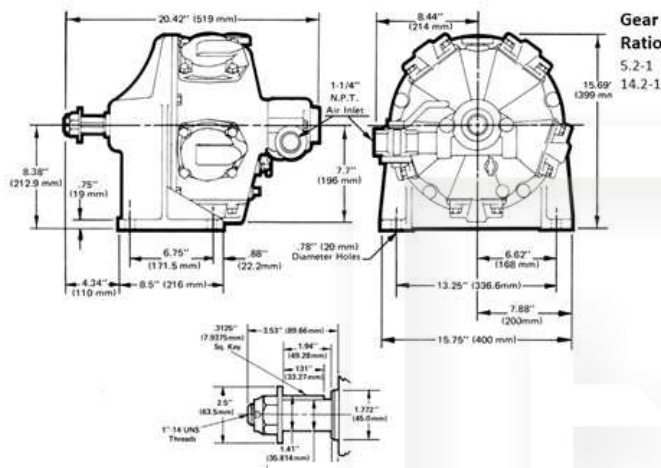
Above 32° F: SAE 30W

Below 32° F: SAE 10W

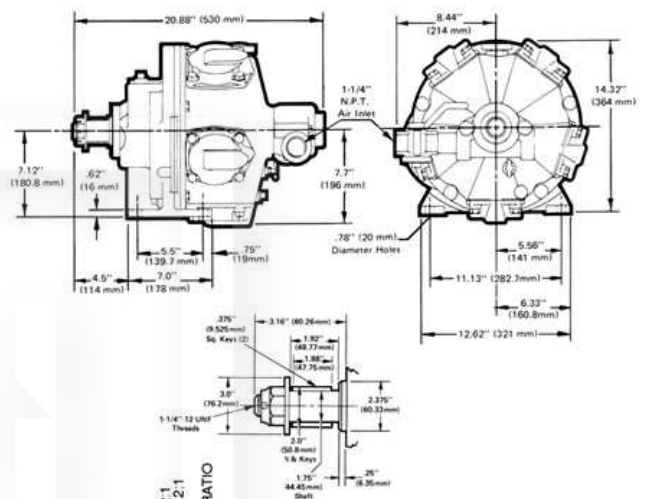
MK Series Motor Dimensions

MK Series Motor Dimensions

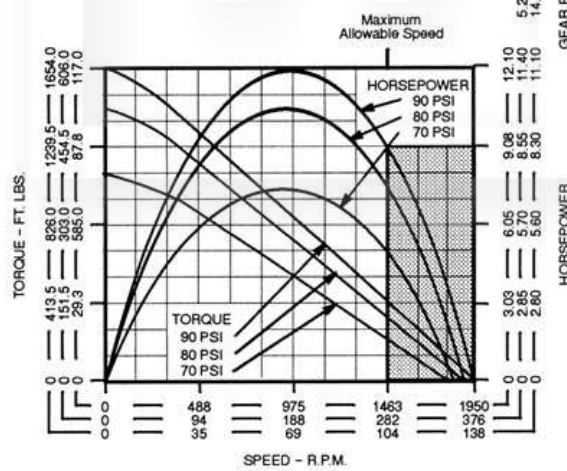
Gear Ratio  
1:1



Gear Ratio  
5.2:1  
14.2:1



MK Power, Torque, Speed



Gear Ratio  
5.2:1  
14.2:1

GEAR RATIO

HORSEPOWER

## MM Series - Air Motor - Radial Piston

Maximum Power 15 hp | 11.19 kw

- Maximum Power 15 hp | 11.19 kw
- Torque Range 138 - 1952 ft. lbs. | 187 - 2647 Nm
- Threaded Spindle



| Model   | Mount         | Spindle Type              | RPM at Max HP | Free Speed | Torque Stall  | Weight |       | Gear Ratio | Length      | Horsepower | Air Consumption | Control                  |
|---------|---------------|---------------------------|---------------|------------|---------------|--------|-------|------------|-------------|------------|-----------------|--------------------------|
|         |               |                           | r/min         | r/min      | Ft Lb   Nm    | Lb     | kg    |            | in   mm     | Hp   kW    | Scfm            |                          |
| MMW422M | Foot Mounting | 1 1/4 in Threaded Spindle | 71            | 150        | 1952.0   2647 | 231    | 104.8 | 14.2-1     | 20.88   530 | 15         | 345             | No Valving               |
| MMW423M | Foot Mounting | 1 1/4 in Threaded Spindle | 194           | 400        | 715.0   970   | 231    | 104.8 | 5.2-1      | 20.88   530 | 15         | 332             | No Valving               |
| MMS400M | Foot Mounting | 1 1/4 in Threaded Spindle | 206           | 400        | 715.0   970   | 226    | 102.5 | 5.2-1      | 20.88   530 | 15         | 336             | Single Direction Valving |
| MMW421M | Foot Mounting | 1 1/4 in Threaded Spindle | 1010          | 2100       | 138.0   187   | 214    | 97.1  | 1-1        | 20.42   519 | 15         | 352             | No Valving               |
| MMS396M | Foot Mounting | 1 1/4 in Threaded Spindle | 1070          | 2100       | 138.0   187   | 210    | 95.3  | 1-1        | 20.42   519 | 15         | 348             | Single Direction Valving |

All models assume overhung load located at 1" (25.40mm) from face of motor.

These motors must be operated with sufficient load to prevent speed from exceeding maximum allowable speed, 65% of free speed as shown on performance curve.

General:

Air Inlet: 1-1/4" NPTF

All tools performance rated @ 90psi (620 kPa) air pressure.

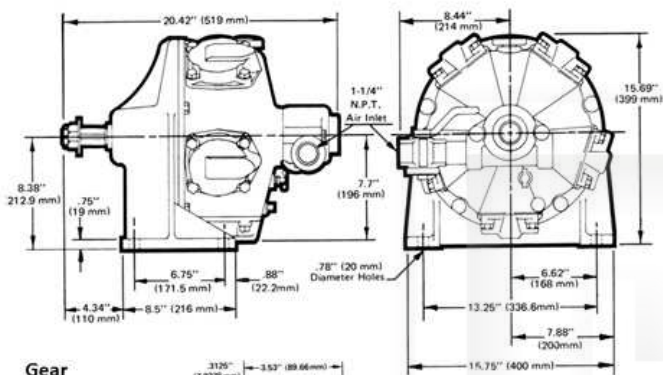
Note:

Fill the motor to the proper level before operating. Use engine oil API Service Classified "SC" in the following weights:

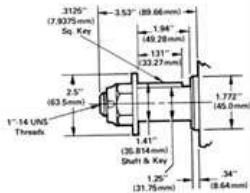
Above 32° F: SAE 30W

Below 32° F: SAE 10W

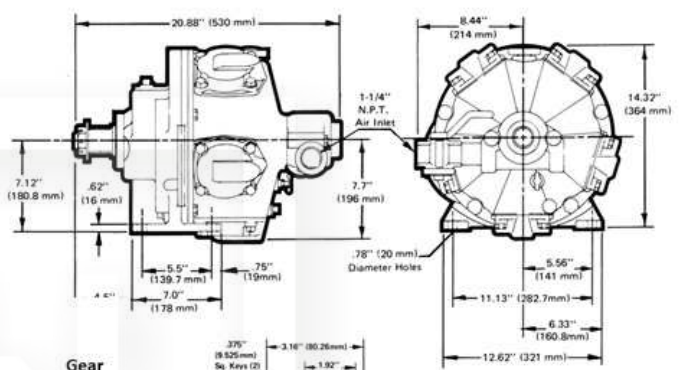
MM Series Motor Dimensions



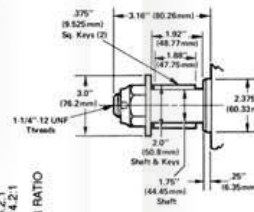
Gear Ratio  
1:1



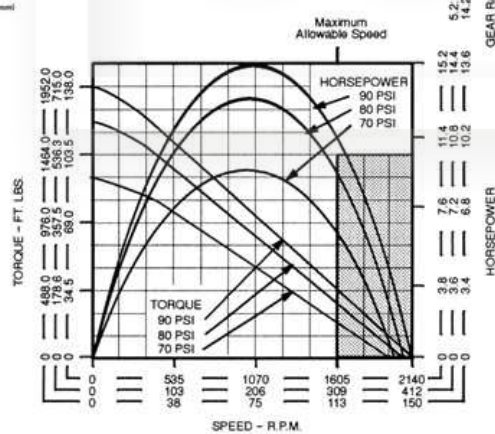
MM Series Motor Dimensions



Gear Ratio  
5.2:1  
14.2:1



MM Power, Torque, Speed





# Cleco

---

## ACCESSORIES

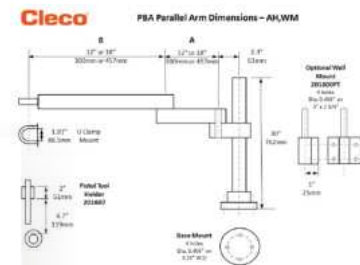


## Balance Arms - Spring - Parallel

- AH - adjustable height post mounting
- Includes Standard U Bolt Tool Clamp Max Dia 1.91" Dia - 201675
- Post Height 30" / 760mm
- Torque Capacity 10 ftlbs / 13.5Nm Weight Capacity 5lb / 2.25kg
- 4" Dia Base Mount with 4 holes PCD 3.25" / 0.406" Dia.
- Optional Wall Mount Kit 201600PT

| Model  | Description  | Dimension A | Dimension B | Dimension D |
|--------|--|-------------|-------------|-------------|
|        |  | in          | in          | in          |
| 520009 | Adjustable Height, 24" Reach, 1.25" Max Dia U Bolt Mount | 12          | 12          | 30          |
| 520012 | Adjustable Height, 30" Reach, 1.25" Max Dia U Bolt Mount | 12          | 18          | 30          |

Tool weight capacity: 5 lbs. (2.3 kg)  
Torque capacity: 10 ft. lbs. (13.5 Nm)  
Standard Equipment:  
Operating Instructions and Service Manual.

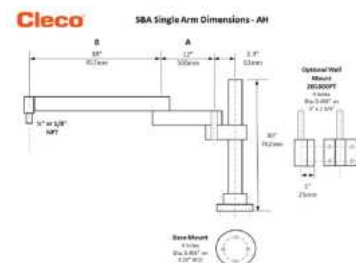


## Balance Arms - Spring - Single

- Ball bearing construction
- Supports tools weighing up to 5 lbs.
- Adjustable height post mounting. Optional Kit for Wall Mounting 201600PT
- Includes Nipples for 1/4" (204032PT) and 1/8" NPT (204137PT) tool mount

| Model  | Description   | Dimension A | Dimension B | Dimension D |
|--------|---|-------------|-------------|-------------|
|        |   | in          | in          | in          |
| 520003 | Adjustable Height, 24" Reach Manifold Mount 1/4" / 1/8" NPT | 12          | 12          | 30          |
| 520006 | Adjustable Height, 30" Reach Manifold Mount 1/4" / 1/8" NPT | 12          | 18          | 30          |

Tool weight capacity: 5 lbs. (2.3 kg)  
Torque capacity: 10 ft. lbs. (13.5 Nm)  
Standard Equipment:  
Operating Instructions and Service Manual.



### BL-1 and -2 Series Balancers 0.5 - 1.8 kg / 1 - 4lbs - Cleco

- Impact-resistant plastic housing
- Resilient, durable spring
- Mounting eye can be rotated 360°
- Mounting point for safety chain
- Adjustable cable stop
- Adjustment of the spring tension using external rotary knob
- Nylon rope length 1.6m / 5.2 ft

| Model | Description        | Cable Length | Weight |      |
|-------|--------------------|--------------|--------|------|
|       |                    |              | Lb     | kg   |
| BL-1B | 0.5-0.9kg / 1-2lb  | 1.6m / 5.2ft | 0.94   | 0.43 |
| BL-2B | 0.5-1.8kg / 1-4lbs | 1.6m / 5.2ft | 0.94   | 0.43 |



### BL Series Balancers 0.5 - 10 kg / 1 - 22lbs - Cleco

- Painted steel housing
- Spring break protection
- Adjustable cable stop permits adjustment of tool to the required height
- Carabiner hook can be rotated 360° except BL-3B
- Cable length 2.4m/7.9ft Cable diameter 2.5mm / 0.1"

| Model  | Description         | Cable Length | Weight |     |
|--------|---------------------|--------------|--------|-----|
|        |                     |              | Lb     | kg  |
| BL-10C | 7.3-10kg / 16-22 lb | 2.4m / 7.9ft | 9.26   | 4.2 |
| BL-3B  | 0.5-2.3kg / 1-5lbs  | 2.4m / 7.9ft | 3.97   | 1.8 |
| BL-5C  | 1.8-5kg / 4-11 lb   | 2.4m / 7.9ft | 8.38   | 3.8 |
| BL-7C  | 3.6-6.8kg / 8-15 lb | 2.4m / 7.9ft | 8.38   | 3.8 |



## BM Series - Balancers 2.3 - 30 kg / 5 - 66 lb- Cleco

- Aluminum housing
- Spring break protection
- Adjustable cable stop permits adjustment of tool to the required height
- Manual drum locking
- Coated cable drum against wear
- Mounting bar can be rotated 360°
- Cable length 1.8m / 5.9 ft, Cable diameter 3.0 mm / 0.12"
- Option: 939536 safety chain



| Model  | Description          | Cable Length | Weight |     |
|--------|----------------------|--------------|--------|-----|
|        |                      |              | Lb     | kg  |
| BM-14B | 9 - 14kg / 20-31 lb  | 1.8m / 5.9ft | 16.32  | 7.4 |
| BM-18B | 13 - 18kg / 29-40 lb | 1.8m / 5.9ft | 16.32  | 7.4 |
| BM-30B | 22 -30kg / 48-66 lb  | 1.8m / 5.9ft | 16.32  | 7.4 |
| BM-5B  | 2.3 - 5kg / 5-11 lb  | 1.8m / 5.9ft | 16.32  | 7.4 |
| BM-9B  | 5 - 9kg / 11-20 lb   | 1.8m / 5.9ft | 16.32  | 7.4 |

## BH Series - Balancers 31 - 49 kg Cleco

- Aluminum housing
- Spring break protection
- Adjustable cable stop permits adjustment of tool to the required height
- Manual drum locking
- Coated cable drum against wear
- Mounting bar can be rotated 360°
- Cable diameter 5.0 mm
- Option: 939536 safety chain



| Model  | Description            | Cable Length | Weight |    |
|--------|------------------------|--------------|--------|----|
|        |                        |              | Lb     | kg |
| BH-39B | 31 - 39kg / 68 - 86lbs | 2.1          | 37.49  | 17 |

## Torque Analyzer

Up to 68Nm/50 ftlbs use with Electric, Pneumatic Clutch Stall and Pulse and Manual Electronic and Click Torque Wrenches

- Choice of measurement modes including track, peak, pulse, and click
- Memory for 999 date- and time-stamped readings for complete traceability
- 3-color LED indication of torque measurement status
- Easy-to-operate for fast and accurate torque readings and assembly tool auditing
- Automatically switches to highest voltage power source (main/USB/battery)
- Clear, easy-to-read white OLED screen for basic torque data readings and alerts
- Analyzer supplied with either 4Nm or 30Nm rundown joint
- Range can be expanded with optional 68NM transducer and rundown kit - suitable for 4Nm and 30Nm analyzer



| Model   | Description   | Torque Range Max |    |
|---------|---|------------------|----|
|         |   | Ft Lb            | Nm |
| CJK38   | Dynamic Joint Kit for use with 68Nm Stationary Transducer | 50               | 68 |
| CST6838 | 68 Nm Stationary Transducer                               | 50               | 68 |
| CTA0414 | 0.4-4 Nm Torque Analyzer                                  | 3                | 4  |
| CTA3038 | 3.0-30Nm Torque Analyzer                                  | 22               | 30 |

## TULMan Electronic Counter

Cycle or Run Time Counter for Small Pneumatic Tools Up to 20cfm / 570 lpm

- First ever odometer and tripometer for small pneumatic tools
- Useable on any small pneumatic device with suitable air flow, including Cleco & Dotco products
- Manage tool service and tool calibration, quantify & compare tool consumable life
- Monitor workforce productivity, improve quality of product or process and realize cost savings
- LED indicator lights blink yellow (warning) and red as cycle and run time limits are reached.
- Easy-to-use monitoring software included
- Tamper-proof cover for micro-USB access
- Min Air Flow 5CFM/145 l/min Max Air Flow 20CFM/ 570 l/min



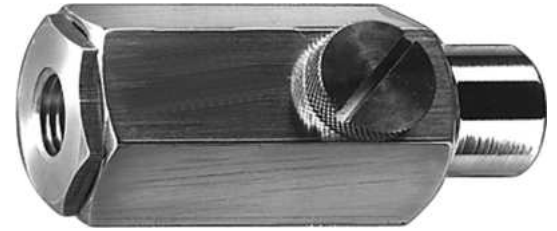
| Model    | Max Pressure                     | Max Flow    | Min Flow    | Weight |
|----------|----------------------------------|-------------|-------------|--------|
|          | lb/in <sup>2</sup>   bar         | cfm   l/min | cfm   l/min | Lb     |
| 240461PT | 100 lb/in <sup>2</sup>   6.9 bar | 20   570    | 5   145     | 0.176  |



## Airline Filter & Lubricator

Mounts in Hose Line.

- One ounce reservoir good for average 8-hour shift.



| Model   | Description                    | Max Pressure                     | Air Inlet Size |
|---------|--------------------------------|----------------------------------|----------------|
|         |                                | lb/in <sup>2</sup>   bar         | in             |
| 45-0201 | 1/4" NPTF Hose Line Lubricator | 100 lb/in <sup>2</sup>   6.9 bar | 1/4 in         |

## Flexible Air Hose

- Buna N Material with Flexible Nylon Braid



| Model   | Description                                   | Fittings (NPT) | Tool Series   | Diameter | Length | Length |
|---------|---|----------------|---|----------|--------|--------|
|         |   |                |   | in       | ft     | m      |
| 45-1307 | 3/16" Hose I.D.; 1/4"M X 1/8"M Fittings; 7 ft | 1/8M - 1/4M    |   | 3/16     | 7      | 2.13   |
| 45-1408 | 1/4" Hose I.D.; 1/4"M X 1/4"M Fittings; 8 ft  | 1/4M - 1/4M    | 12-10, 12-11, 12-12, 12-13, 14CF, 15LF, 15-14   | 1/4      | 8      | 2.44   |
| 45-1409 | 1/4" Hose I.D.; 1/4"M X 1/8"M Fittings; 8 ft  | 1/8M - 1/4M    | 10-10, 10-11, 10-12   | 1/4      | 8      | 2.44   |
| 45-1508 | 5/16" Hose I.D.; 1/4"M X 1/4"M Fittings 8 ft  | 1/4M - 1/4M    | 10-20, 10-21, 10-22, 10-25, 10-26, 10-27, 12-20, 12-21, 12-22, 12-25, 12-26, 12-27, 12-28, 14CS, 14CN, 15LS, 15LN | 5/16     | 8      | 2.44   |

General: 3/16" & 1/4" hoses have braided covers, all others have neoprene covers.

## Lubricants



| Part Number | Size                      | Description  | MSDS Number |
|-------------|---------------------------|--|-------------|
| 45-0918     | 1 qt. plastic             | Air Tool Oil - Qt.   | CPT-155     |
| 45-0980     | 2 oz. tube                | Cleoc Dotco Angle Head Grease Moly-XL 250 for Grinders/Sanders | CPT-148     |
| 45-0983     | 2 oz. tube                | Cleco Dotco Planetary Gear Grease for Grinders & Sanders       | CPT-147     |
| 513156      | 18 oz. can                | Magnalube-G Assembly Tool Teflon Grease                        | CPT-145     |
| 533485      | 1 gal. metal              | Axial Piston Motor Air Tool Oil 1 gal. can                     | CPT-153     |
| 539317      | 1 ct quart plastic bottle | Univis Pulse Tool Hydraulic Oil                                | CPT-157     |
| 540394      | 2.8oz Tube                | Molykote G-N Metal Assembly Paste for Angle & Planetary        | CPT-146     |
| 541445      | 500g Can                  | Rheolube 363AX-1 500g can                                      | CPT-286     |
| A123771     | 1 gal. metal              | Shell Gadus S2 V220 00 16 oz can                               |             |

Under normal conditions of use, lubrication products sold separately for or used within these tools should not cause an exposure hazard.

Refer to the Material Safety Data Sheet M.S.D.S. for Safety and Disposal information.

M.S.D.S. sheets are available upon request.

# Cleco

---

## DRILLS



**Cleco** | Tame the Line

SHOWN: MP14 SERIES

# DRILLS

## ENGINEERED FOR YOUR APPLICATIONS.

Cleco offers two levels of hand drills depending on your application needs. Cleco MP Series Drills are Industrial grade medium duty drills suitable for a wide range of production and MRO applications.

Cleco® Dotco™ drills are Industrial high duty grade and are used daily in applications ranging from appliances to aerospace manufacturing.

Offered in a variety of configurations, including pistol grip, inline, and right angle, Cleco Dotco air drills are designed for the high-volume, high-repetition, high-precision demands of today's assembly lines.



## PARTS INTERCHANGEABILITY.

Maintenance of tools can be time consuming and expensive. That is why our products have been designed with high parts interchangeability. With fewer parts required to repair our tools, less inventory of parts is required and tools are easier to repair.

## PRECISION PARTS

It's simple, precision parts let operators manufacture precision products. Whether it is a spindle, a chuck, a motor or an angle head, our parts are manufactured from the finest materials available and are machined to the highest tolerances.

## DEPENDABLE ERGONOMIC DRILLS

Cleco Dotco drills have long been the industry workhorse for the high-volume, high-repetition, high-precision demands of today's assembly line. Cleco® Dotco™ drills are the ergonomic solution to deliver comfort and productivity, while assuring decreased operator fatigue, potential for injury and downtime on the line.



## 14 SERIES PISTOL GRIP DRILLS

Design features double ball bearings for the spindle, pre-loaded for longer bearing life and more accurate spindle control. Vibration and runout are reduced.

Gears are machined from alloy steel and heat-treated, with fixed cages to control centers for smooth operation.

Time-proven motor and gear design is well-balanced to reduce vibration and extend tool life.

Each tool is individually checked, aligned and adjusted on our assembly line for minimum chuck runout. Vibration is minimized.

Ergonomically critical finger and thumb guides fit the hand and aid in control.

The trigger is practically forceless requiring only 4 ounces of pressure to engage.

Full feathering is accomplished with our pressurized tip-valve design for speed control while drilling.

Housing is made of durable lightweight industrial grade aluminum.

Finger lip under the trigger keeps other fingers from interfering with the trigger action.

Rubber grip acts as a thermal protector and isolates vibration for improved operator comfort.

Handles are shaped to fit the human hand. They are flat where they need to be flat and round where they need to be round ensuring less slippage.

Minimal noise levels enhance operator comfort.

Pistol Grip Drills



Inline Drills



Right Angle Drills





## 15LF Series Right Angle Drill - Light Duty/Small Head Height - Cleco Dotco

0.4hp / 0.30kW

600-5300rpm

Ideal for Restricted Access Applications

- -62 1/4"-28 Internal thread standard
- Other terminations available:
  - 61 10-32 Internal Thread
  - 63 Threaded Collet
  - 64 5/16"-24 Internal Thread
- Other Angle Heads Available:
  - 5X Heavy Duty
  - 7X Compact Style
  - 4X 45 degree Angle Head
  - 9X 360 degree Angle Head
- Rear Exhaust
- Lock off safety lever standard



| Model      | Termination | Free Speed (rpm) | Exhaust | Weight | Weight (kg) | Length | Length (mm) |
|------------|-------------|------------------|---------|--------|-------------|--------|-------------|
|            |             |                  |         | Lb     |             | in     |             |
| 15LF281-62 | 1/4"-28 i   | 5300 r/min       | Rear    | 1.6    | 0.73 kg     | 10.7   | 272 mm      |
| 15LF282-62 | 1/4"-28 i   | 4000 r/min       | Rear    | 1.6    | 0.73 kg     | 10.7   | 272 mm      |
| 15LF283-62 | 1/4"-28 i   | 3300 r/min       | Rear    | 1.6    | 0.73 kg     | 10.7   | 272 mm      |
| 15LF284-62 | 1/4"-28 i   | 2400 r/min       | Rear    | 1.8    | 0.82 kg     | 11.1   | 282 mm      |
| 15LF285-62 | 1/4"-28 i   | 1000 r/min       | Rear    | 1.9    | 0.86 kg     | 11.8   | 300 mm      |
| 15LF286-62 | 1/4"-28 i   | 750 r/min        | Rear    | 1.9    | 0.86 kg     | 11.8   | 300 mm      |
| 15LF287-62 | 1/4"-28 i   | 600 r/min        | Rear    | 1.9    | 0.86 kg     | 11.8   | 300 mm      |

All tools performance rated @ 90psi / 620 kPa air pressure.

Air inlet size: 1/4in

Minimum Hose I.D.: 1/4in / 6.4mm



## 15LF Series Right Angle Drill - Heavy Duty Head - Cleco Dotco

0.4hp / 0.30kW

420-3700rpm

Ideal for Restricted Access Applications



- -52 1/4"-28 Internal thread standard
- Other terminations Available:
  - 51 10-32 Internal Thread
  - 53 Threaded Collet
  - 54 5/16"-24 Internal Thread
  - 55 3/8"-24 Internal Thread
  - 59NC 3/8"-24 External Thread
- Other Angle Heads Available:
  - 6X Light Duty
  - 7X Compact Style
  - 4X 45 degree Angle Head
  - 9X 360 degree Angle Head
- Rear Exhaust
- Lock off safety lever standard

| Model      | Termination | Free Speed (rpm) | Exhaust | Weight | Weight (kg) | Length | Length (mm) |
|------------|-------------|------------------|---------|--------|-------------|--------|-------------|
|            |             |                  |         | Lb     |             | in     |             |
| 15LF281-52 | 1/4"-28 i   | 3700 r/min       | Rear    | 1.7    | 0.91 kg     | 11     | 279 mm      |
| 15LF282-52 | 1/4"-28 i   | 2800 r/min       | Rear    | 1.7    | 0.91 kg     | 11     | 279 mm      |
| 15LF283-52 | 1/4"-28 i   | 2300 r/min       | Rear    | 1.7    | 0.91 kg     | 11     | 279 mm      |
| 15LF284-52 | 1/4"-28 i   | 1700 r/min       | Rear    | 1.8    | 0.82 kg     | 10.6   | 269 mm      |
| 15LF285-52 | 1/4"-28 i   | 700 r/min        | Rear    | 2      | 0.77 kg     | 12     | 305 mm      |
| 15LF286-52 | 1/4"-28 i   | 525 r/min        | Rear    | 2      | 0.77 kg     | 12     | 305 mm      |
| 15LF287-52 | 1/4"-28 i   | 420 r/min        | Rear    | 2      | 0.77 kg     | 12     | 305 mm      |

All tools performance rated @ 90psi / 620 kPa air pressure.

Air inlet size: 1/4in

Minimum Hose I.D.: 1/4in / 6.4mm

## 15LN Series Right Angle Drill - Light Duty/Small Head Height - Cleco Dotco

0.9hp / 0.67kW

470-5600 rpm

Ideal for Restricted Access Applications



- -62 1/4"-28 Internal thread standard
- Other terminations available:
  - 61 10-32 Internal Thread
  - 63 Threaded Collet
  - 64 5/16"-24 Internal Thread
- Other Angle Heads Available:
  - 5X Heavy Duty
  - 7X Compact Style
  - 4X 45 degree Angle Head
  - 9X 360 degree Angle Head
- Rear Exhaust
- Lock off safety lever standard

| Model      | Termination | Free Speed (rpm) | Exhaust | Weight | Weight (kg) | Length | Length (mm) |
|------------|-------------|------------------|---------|--------|-------------|--------|-------------|
|            |             |                  |         | Lb     |             | in     |             |
| 15LN281-62 | 1/4"-28 i   | 5000 r/min       | Rear    | 2.5    | 1.13 kg     | 12     | 305 mm      |
| 15LN282-62 | 1/4"-28 i   | 3100 r/min       | Rear    | 2.5    | 1.13 kg     | 12     | 305 mm      |
| 15LN283-62 | 1/4"-28 i   | 1850 r/min       | Rear    | 2.5    | 1.13 kg     | 12     | 305 mm      |
| 15LN284-62 | 1/4"-28 i   | 1530 r/min       | Rear    | 2.5    | 1.13 kg     | 12     | 305 mm      |
| 15LN285-62 | 1/4"-28 i   | 1250 r/min       | Rear    | 2.5    | 1.13 kg     | 12     | 305 mm      |
| 15LN286-62 | 1/4"-28 i   | 770 r/min        | Rear    | 2.5    | 1.13 kg     | 13.5   | 343 mm      |
| 15LN287-62 | 1/4"-28 i   | 470 r/min        | Rear    | 2.5    | 1.13 kg     | 12     | 305 mm      |
| 15LN288-62 | 1/4"-28 i   | 5600 r/min       | Rear    | 2.5    | 1.13 kg     | 12     | 305 mm      |

All tools performance rated @ 90psi / 620 kPa air pressure.

Air inlet size: 1/4in

Standard Equipment: 600 Series Mini Angle Head with 1/4"-28 internal thread

## 15LN Series Right Angle Drill - Heavy Duty Head - Cleco Dotco

0.9hp / 0.67kW

540-3900rpm

Ideal for Restricted Access Applications



- -52 1/4"-28 Internal thread standard
- Other terminations Available:
  - 51 10-32 Internal Thread
  - 53 Threaded Collet
  - 54 5/16"-24 Internal Thread
  - 55 3/8"-24 Internal Thread
  - 59NC 3/8"-24 External Thread
- Other Angle Heads Available:
  - 6X Light Duty
  - 7X Compact Style
  - 4X 45 degree Angle Head
  - 9X 360 degree Angle Head
- Rear Exhaust
- Lock off safety lever standard

| Model      | Termination | Free Speed (rpm) | Exhaust | Weight | Weight (kg) | Length | Length (mm) |
|------------|-------------|------------------|---------|--------|-------------|--------|-------------|
|            |             |                  |         | Lb     |             | in     |             |
| 15LN281-52 | 1/4"-28 i   | 3500 r/min       | Rear    | 2.65   | 1.20 kg     | 11.5   | 292 mm      |
| 15LN283-52 | 1/4"-28 i   | 1300 r/min       | Rear    | 2.65   | 1.20 kg     | 11.5   | 292 mm      |
| 15LN284-52 | 1/4"-28 i   | 1070 r/min       | Rear    | 3.09   | 1.40 kg     | 12.8   | 325 mm      |
| 15LN285-52 | 1/4"-28 i   | 870 r/min        | Rear    | 3.09   | 1.40 kg     | 12.8   | 325 mm      |
| 15LN286-52 | 1/4"-28 i   | 540 r/min        | Rear    | 3.09   | 1.40 kg     | 12.8   | 325 mm      |
| 15LN288-52 | 1/4"-28 i   | 3900 r/min       | Rear    | 2.65   | 1.20 kg     | 11.5   | 292 mm      |

All tools performance rated @ 90psi / 620 kPa air pressure.

Air inlet size: 1/4in

Standard Equipment:

500 Series Heavy Duty Angle Head with 1/4"-28

## 15LFQ Series Right Angle Drill - Quick Chang

0.4hp / 0.30kW

Ideal for Multiple Applications

- Power unit for quick release angle head attachments
- Rear Exhaust
- Speed dependent on Head Fitted Q5X Lower Speed / Q4X, Q6X, Q7X, Q9X Higher Speed



| Model    | Termination | Free Speed (rpm) | Exhaust | Weight | Weight (kg) |
|----------|-------------|------------------|---------|--------|-------------|
|          |             |                  |         | Lb     |             |
| 15LF281Q | Q           | 3700/5300 r/min  | Rear    | 1.6    | 0.73 kg     |
| 15LF282Q | Q           | 2800/4000 r/min  | Rear    | 1.6    | 0.73 kg     |
| 15LF283Q | Q           | 2300/3300 r/min  | Rear    | 1.6    | 0.73 kg     |
| 15LF284Q | Q           | 1700/2400 r/min  | Rear    | 1.8    | 0.82 kg     |
| 15LF285Q | Q           | 700/1000 r/min   | Rear    | 1.9    | 0.86 kg     |
| 15LF286Q | Q           | 525/750 r/min    | Rear    | 1.9    | 0.86 kg     |
| 15LF287Q | Q           | 420/600 r/min    | Rear    | 1.9    | 0.86 kg     |

All tools performance rated @ 90psi / 620 kPa air pressure.  
Air inlet size: 1/4in  
Minimum Hose I.D.: 1/4in / 6.4mm

## 15LNQ Series Right Angle Drill - Quick Change - Cleco Dotco

0.9hp / 0.67kW-

Ideal for Multiple Applications

- Power unit for quick change angle heads
- Rear Exhaust
- Lock off safety lever standard
- Speed dependent on Head Fitted Q5X Lower Speed / Q4X, Q6X, Q7X, Q9X Higher Speed



| Model    | Termination | Free Speed (rpm) | Exhaust | Weight | Weight (kg) |
|----------|-------------|------------------|---------|--------|-------------|
|          |             |                  |         | Lb     |             |
| 15LN281Q | Q           | 3500/5000 r/min  | Rear    | 2.31   | 1.05 kg     |
| 15LN282Q | Q           | 2200/3100 r/min  | Rear    | 2.31   | 1.05 kg     |
| 15LN283Q | Q           | 1300/1850 r/min  | Rear    | 2.31   | 1.05 kg     |
| 15LN284Q | Q           | 1070/1530 r/min  | Rear    | 2.31   | 1.05 kg     |
| 15LN285Q | Q           | 870/1000 r/min   | Rear    | 2.31   | 1.05 kg     |
| 15LN286Q | Q           | 540/770 r/min    | Rear    | 2.31   | 1.05 kg     |
| 15LN287Q | Q           | 320/470 r/min    | Rear    | 2.31   | 1.05 kg     |

All tools performance rated @ 90psi / 620 kPa air pressure.  
Air inlet size: 1/4in  
Minimum Hose I.D.: 1/4in / 6.4mm

## 15L Series Compact Angle Head - Cleco Dotco

- Compact short reach angle head for restricted access applications
- -71 10-32 Internal Thread for Direct Cutter Mount
- -72 1/4"-28 Internal Thread For Direct Cutter Mount and Collet Adaptor Option 14-1569 (Mini Collet) Max 1/4"/6.4mm
- -73 Threaded Collet Max #10/5mm - Collets Ordered Separately
- -73 Threaded Collet Max #10/5mm - Collets Ordered Separately



| Model   | Description                     | Tool Termination | Spindle Size             |
|---------|---------------------------------|------------------|--------------------------|
| 1025476 | Compact Angle Head - 700 Series | -73              | 9/32"-40 Internal Thread |
| 1025477 | Compact Angle Head - 700 Series | -72              | 1/4"-28 Internal Thread  |
| 1025668 | Compact Angle Head - 700 Series | -74              | 5/16"-24 Internal Thread |

These drill attachments can be ordered as a separate accessory item or as part of a complete model. To order as a complete model, use the basic model number from the appropriate 15LF or 15LN and replace the termination number -62 for example with the termination number of the desired optional attachment -72 for example from this page.

## 15L Series Light Duty Angle Head - Cleco Dotco

- -61 10-32 Internal Thread for Direct Cutter Mount
- -62 1/4"-28 Internal Thread For Direct Cutter Mount and Collet Adaptor Option 14-1569 (Mini Collet) Max 1/4"/6.4mm
- -63 Threaded Collet Max #10/5mm - Collets Ordered Separately
- -64 5/16"-24 Internal Thread
- -64 5/16"-24 Internal Thread



| Model   | Description                  | Tool Termination | Spindle Size             |
|---------|------------------------------|------------------|--------------------------|
| 1025313 | Mini Angle Head - 600 Series | -63              | 9/32"-40 Internal Thread |
| 1025328 | Mini Angle Head - 600 Series | -64              | 5/16"-24 Internal Thread |
| 1025409 | Mini Angle Head - 600 Series | -62              | 1/4"-28 Internal Thread  |

These drill attachments can be ordered as a separate accessory item or as part of a complete model. To order as a complete model, use the basic model number from the appropriate 15LF or 15LN and replace the termination number -62 for example with the termination number of the desired optional attachment -63 for example from this page.

## 15L Series Heavy Duty Angle Head - Cleco Dotco

- -52 1/4"-28 Internal Thread For Direct Cutter Mount and Collet Adaptor Option 14-1569 (Mini Collet) Max 1/4"/6.4mm
- -53 Threaded Collet Max #10/5mm - Collets Ordered Separately
- -54 5/16"-24 Internal Thread
- -59NC 3/8"-24 External Thread for chuck or collet adaptor mounting
- -59NC 3/8"-24 External Thread for chuck or collet adaptor mounting



| Model   | Description                        | Tool Termination | Spindle Size             |
|---------|------------------------------------|------------------|--------------------------|
| 1021289 | Heavy Duty Angle Head - 500 Series | -52              | 1/4"-28 Internal Thread  |
| 1021291 | Heavy Duty Angle Head - 500 Series | -54              | 5/16"-24 Internal Thread |
| 1021292 | Heavy Duty Angle Head - 500 Series | -53              | 9/32"-40 Internal Thread |
| 1021620 | Heavy Duty Angle Head - 500 Series | -59NC            | 3/8"-24 External Thread  |
| 1025780 | Heavy Duty Angle Head - 500 Series | -55              | 3/8"-24 Internal Thread  |

These drill attachments can be ordered as a separate accessory item or as part of a complete model. To order as a complete model, use the basic model number from the appropriate 15LF or 15LN and replace the termination number -52 for example with the termination number of the desired optional attachment -59NC for example from this page.

## 15L Series 45 Degree Angle Head - Cleco Dotco

- For difficult access applications
- -42 1/4"-28 Internal Thread For Direct Cutter Mount and Collet Adaptor Option 14-1569 (Mini Collet) Max 1/4"/6.4mm
- -43 Threaded Collet Max #10/5mm - Collets Ordered Separately
- -44 5/16"-24 Internal Thread
- -44 5/16"-24 Internal Thread



| Model   | Description    | Tool Termination | Spindle Size             |
|---------|----------------|------------------|--------------------------|
| 1025730 | 45° Angle Head | -42              | 1/4"-28 Internal Thread  |
| 1025731 | 45° Angle Head | -43              | 9/32"-40 Internal Thread |
| 1025733 | 45° Angle Head | -44              | 5/16"-24 Internal Thread |

These drill attachments can be ordered as a separate accessory item or as part of a complete model.



## 15L Series 360° Angle Head - Cleco Dotco

- Versatile swivel head for very difficult access applications
- -91 10-32 Internal Thread for Direct Cutter Mount
- -92 1/4"-28 Internal Thread For Direct Cutter Mount and Collet Adaptor Option 14-1569 (Mini Collet) Max 1/4"/6.4mm



| Model   | Description     | Tool Termination | Spindle Size            |
|---------|-----------------|------------------|-------------------------|
| 1025694 | 360° Angle Head | -92              | 1/4"-28 Internal Thread |

These drill attachments can be ordered as a separate accessory item or as part of a complete model. To order as a complete model, use the basic model number from the appropriate 15LF or 15LN and replace the termination number -62 for example with the termination number of the desired optional attachment -92 for example from this page

## 15LQ Series Quick Change Angle Head - Cleco Dotco

- For Use with Quick Change Power Units
- Right Angle, 45 Degree and 360 degree version for optimum access



| Model        | Description                        | Tool Termination | Spindle Size             |
|--------------|------------------------------------|------------------|--------------------------|
| 302206PT-Q42 | 45° Angle Head                     | -42              | 1/4"-28 Internal Thread  |
| 302206PT-Q43 | 45° Angle Head                     | -43              | 9/32"-40 Internal Thread |
| 302206PT-Q52 | Heavy Duty Angle Head - 500 Series | -52              | 1/4"-28 Internal Thread  |
| 302206PT-Q53 | Heavy Duty Angle Head - 500 Series | -53              | 9/32"-40 Internal Thread |
| 302206PT-Q59 | Heavy Duty Angle Head - 500 Series | -59NC            | 3/8"-24 External Thread  |
| 302206PT-Q62 | Mini Angle Head - 600 Series       | -62              | 1/4"-28 Internal Thread  |
| 302206PT-Q73 | Compact Angle Head - 700 Series    | -73              | 9/32"-40 Internal Thread |
| 303306PT-Q63 | Mini Angle Head - 600 Series       | -63              | 9/32"-40 Internal Thread |
| 303306PT-Q72 | Compact Angle Head - 700 Series    | -72              | 1/4"-28 Internal Thread  |
| 303306PT-Q92 | 360° Angle Head                    | -92              | 1/4"-28 Internal Thread  |

## Collets

### Collets Threaded 9/32"-40 - Inch - Cleco Dotco

- For use on Cleco Dotco 15LF, 15LS & 15LN right angle drills with 9/32"-40 spindles
- (Termination codes: - 43, -53, -63, -73, & -93)



| Model   | Description |
|---------|-------------|
| 1006408 | 0.060 Inch  |
| 1005180 | 0.063 Inch  |
| 1006412 | 0.067 Inch  |
| 1005875 | 0.081 Inch  |
| 1005182 | 0.094 Inch  |
| 1005684 | 0.098 Inch  |
| 1006395 | 0.100 Inch  |
| 1005183 | 0.109 Inch  |
| 1005873 | 0.120 Inch  |
| 1005184 | 0.125 Inch  |
| 1013904 | 0.129 Inch  |
| 1005185 | 0.141 Inch  |
| 1005872 | 0.144 Inch  |
| 1006373 | 0.147 Inch  |
| 1005186 | 0.156 Inch  |
| 1005926 | 0.157 Inch  |
| 1005682 | 0.159 Inch  |
| 1005876 | 0.161 Inch  |
| 1006035 | 0.166 Inch  |
| 1005187 | 0.172 Inch  |
| 1005977 | 0.173 Inch  |
| 1006346 | 0.177 Inch  |
| 1005927 | 0.185 Inch  |
| 1005188 | 0.188 Inch  |
| 1005871 | 0.189 Inch  |
| 1006001 | 0.191 Inch  |
| 1005681 | 0.194 Inch  |

Other sizes available, please contact Cleco Production Tools

## Collets

### Collets Threaded 9/32"-40 - Metric - Cleco Dotco

- For use on Cleco Dotco 15LF, 15LS & 15LN right angle drills with 9/32"-40 spindles
- (Termination codes: - 43, -53, -63, -73, & -93)



| Model | Description |
|-------|-------------|
| 316PT | 1.6 mm      |
| 320PT | 2.0 mm      |
| 324PT | 2.4 mm      |
| 325PT | 2.5 mm      |
| 326PT | 2.6 mm      |
| 330PT | 3.0 mm      |
| 331   | 3.1 mm      |
| 332PT | 3.2 mm      |
| 333PT | 3.3 mm      |
| 335PT | 3.5 mm      |
| 338PT | 3.8 mm      |
| 340PT | 4.0 mm      |
| 341PT | 4.1 mm      |
| 342PT | 4.2 mm      |
| 344PT | 4.4 mm      |
| 345PT | 4.5 mm      |
| 347PT | 4.7 mm      |
| 348PT | 4.8 mm      |
| 349   | 4.9 mm      |
| 350PT | 5.0 mm      |

Other sizes available, please contact Cleco Production Tools

## 15L14 Series - Right Angle Drill - Cleco Dotco

0.3hp / 0.22kW

500-20000rpm

Up to 1/4" Capacity

- Chuck, Collet and 1/4"-28 internal output options
- Rear Exhaust
- Integral Angle Head
- Lock off Safety lever standard



| Model      | Termination | Free Speed (rpm) | Exhaust | Weight | Weight (kg) | Length | Length (mm) |
|------------|-------------|------------------|---------|--------|-------------|--------|-------------|
|            |             |                  |         | Lb     |             | in     |             |
| 15L1470-37 | 5/32" Chuck | 12000 r/min      | Rear    | 1.2    | 0.54 kg     | 6.9    | 175 mm      |
| 15L1471-37 | 5/32" Chuck | 20000 r/min      | Rear    | 1.2    | 0.54 kg     | 6.9    | 175 mm      |
| 15L1487-32 | 1/4"-28 i   | 1500 r/min       | Rear    | 1.2    | 0.54 kg     | 8      | 203 mm      |
| 15L1487-36 | 1/4" Collet | 1500 r/min       | Rear    | 1.2    | 0.54 kg     | 8      | 203 mm      |
| 15L1487-38 | 1/4" Chuck  | 1500 r/min       | Rear    | 1.5    | 0.68 kg     | 8      | 203 mm      |
| 15L1488-36 | 1/4" Collet | 2400 r/min       | Rear    | 1.6    | 0.73 kg     | 8.7    | 221 mm      |
| 15L1488-38 | 1/4" Chuck  | 2400 r/min       | Rear    | 1.5    | 0.68 kg     | 8      | 203 mm      |
| 15L1489-32 | 1/4"-28 i   | 3600 r/min       | Rear    | 1.6    | 0.73 kg     | 8.7    | 221 mm      |
| 15L1489-36 | 1/4" Collet | 3600 r/min       | Rear    | 1.6    | 0.73 kg     | 8.7    | 221 mm      |
| 15L1489-51 | 3/8" Chuck  | 3600 r/min       | Rear    | 1.5    | 0.68 kg     | 8      | 203 mm      |
| 15L1491-38 | 1/4" Chuck  | 500 r/min        | Rear    | 1.5    | 0.68 kg     | 8      | 203 mm      |

All tools performance rated @ 90psi / 620 kPa air pressure.

Air inlet size: 1/4in

Minimum Hose I.D.: 1/4in / 6.4mm

## 15LF Series Inline Drill 1/4" Chuck - Cleco Dotco

**0.4hp / 0.30kW**  
**600-28500rpm**

- Supplied with 1/4" Jacobs® Keyed Chuck
- Rear Exhaust
- Lock off safety lever standard



| Model      | Termination | Free Speed (rpm) | Exhaust | Weight | Weight (kg) | Length | Length (mm) |
|------------|-------------|------------------|---------|--------|-------------|--------|-------------|
|            |             |                  |         | Lb     |             | in     |             |
| 15LF080-38 | 1/4" Chuck  | 28500 r/min      | Rear    | 0.9    | 0.41 kg     | 6.3    | 160 mm      |
| 15LF081-38 | 1/4" Chuck  | 5300 r/min       | Rear    | 1.32   | 0.60 kg     | 8      | 203 mm      |
| 15LF082-38 | 1/4" Chuck  | 4000 r/min       | Rear    | 1.32   | 0.60 kg     | 8      | 203 mm      |
| 15LF083-38 | 1/4" Chuck  | 3300 r/min       | Rear    | 1.32   | 0.60 kg     | 8      | 203 mm      |
| 15LF084-38 | 1/4" Chuck  | 2400 r/min       | Rear    | 1.32   | 0.60 kg     | 8      | 203 mm      |
| 15LF085-38 | 1/4" Chuck  | 1000 r/min       | Rear    | 1.32   | 0.60 kg     | 8      | 203 mm      |
| 15LF086-38 | 1/4" Chuck  | 750 r/min        | Rear    | 1.32   | 0.60 kg     | 8      | 203 mm      |
| 15LF087-38 | 1/4" Chuck  | 600 r/min        | Rear    | 1.98   | 0.90 kg     | 8.6    | 218 mm      |

All tools performance rated @ 90psi / 620 kPa air pressure.  
Air inlet size: 1/4in  
Minimum Hose I.D.: 1/4in / 6.4mm

## 15LF Series Inline Drill 3/8"-24 - Cleco Dotco

**0.4hp / 0.30kW**  
**600-28500rpm**

- Supplied with 3/8"-24 Male Threaded Termination for Keyless Chuck/Collet
- Rear Exhaust
- Lock off safety lever standard



| Model      | Termination | Free Speed (rpm) | Exhaust | Weight | Weight (kg) | Length | Length (mm) |
|------------|-------------|------------------|---------|--------|-------------|--------|-------------|
|            |             |                  |         | Lb     |             | in     |             |
| 15LF081-40 | 3/8" - 24 e | 5300 r/min       | Rear    | 1.32   | 0.60 kg     | 8      | 203 mm      |
| 15LF082-40 | 3/8" - 24 e | 4000 r/min       | Rear    | 1.32   | 0.60 kg     | 7.3    | 185 mm      |
| 15LF083-40 | 3/8" - 24 e | 3300 r/min       | Rear    | 1.32   | 0.60 kg     | 8      | 203 mm      |
| 15LF085-40 | 3/8" - 24 e | 1000 r/min       | Rear    | 1.32   | 0.60 kg     | 8      | 203 mm      |
| 15LF087-40 | 3/8" - 24 e | 600 r/min        | Rear    | 1.98   | 0.90 kg     | 8.6    | 218 mm      |

All tools performance rated @ 90psi / 620 kPa air pressure.  
Air inlet size: 1/4in  
Minimum Hose I.D.: 1/4in / 6.4mm

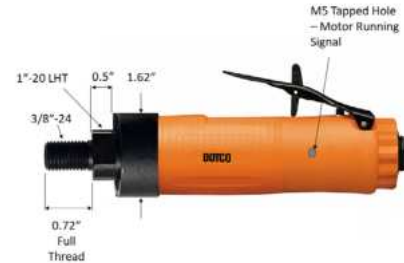
## 15LN0 Series Inline Power Unit- Cleco Dotco

0.9hp / 0.67kW  
500-20000 rpm

- Inline power unit with motor running signal
- Lock off safety lever standard
- Designed to incorporate into other equipment
- Rear Exhaust

**Cleco**

15LN0XX-40T Tools



| Model        | Termination | Free Speed (rpm) | Exhaust | Weight | Weight (kg) | Length | Length (mm) |
|--------------|-------------|------------------|---------|--------|-------------|--------|-------------|
|              |             |                  |         | Lb     |             | in     |             |
| 15LN080-40T  | 3/8"-24     | 20000 r/min      | Rear    | 2.65   | 1.20 kg     | 11.5   | 292 mm      |
| 15LN081-40T  | 3/8"-24     | 5200 r/min       | Rear    | 2.65   | 1.20 kg     | 11.5   | 292 mm      |
| 15LN082-40T  | 3/8"-24     | 3200 r/min       | Rear    | 2.65   | 1.20 kg     | 11.5   | 292 mm      |
| 15LN083-40T  | 3/8"-24     | 1900 r/min       | Rear    | 2.65   | 1.20 kg     | 11.5   | 292 mm      |
| 15LN084-40T  | 3/8"-24     | 1600 r/min       | Rear    | 2.65   | 1.20 kg     | 11.5   | 292 mm      |
| 15LN085-40T  | 3/8"-24     | 1300 r/min       | Rear    | 2.65   | 1.20 kg     | 11.5   | 292 mm      |
| 15LN0855-40T | 3/8"-24     | 325 r/min        | Rear    | 2.65   | 1.20 kg     | 11.5   | 292 mm      |
| 15LN086-40T  | 3/8"-24     | 800 r/min        | Rear    | 2.65   | 1.20 kg     | 11.5   | 292 mm      |
| 15LN087-40T  | 3/8"-24     | 500 r/min        | Rear    | 2.65   | 1.20 kg     | 11.5   | 292 mm      |

All tools performance rated @ 90psi / 620 kPa air pressure.  
Air inlet size: 1/4in



## 14CF Series Pistol Drill Non-Reversible 1/4" Chuck- Cleco Dotco

0.4hp / 0.33kW  
600-29000rpm  
1/4" Chuck

- Comfort grip with ergonomic finger and thumb guides to aid control
- Supplied with 1/4" Jacobs® Keyed Chuck
- Excellent for aerospace, metal fabrication, and wood working applications



| Model      | Termination | Free Speed (rpm) | Exhaust | Weight | Weight (kg) | Length | Length (mm) |
|------------|-------------|------------------|---------|--------|-------------|--------|-------------|
|            |             |                  |         | Lb     |             | in     |             |
| 14CFS90-38 | 1/4" Chuck  | 29000 r/min      | Rear    | 1.54   | 0.70 kg     | 5.7    | 145 mm      |
| 14CFS91-38 | 1/4" Chuck  | 5200 r/min       | Rear    | 1.54   | 0.70 kg     | 5.7    | 145 mm      |
| 14CFS92-38 | 1/4" Chuck  | 3800 r/min       | Rear    | 1.54   | 0.70 kg     | 5.7    | 145 mm      |
| 14CFS93-38 | 1/4" Chuck  | 3200 r/min       | Rear    | 1.54   | 0.70 kg     | 5.7    | 145 mm      |
| 14CFS94-38 | 1/4" Chuck  | 2400 r/min       | Rear    | 1.54   | 0.70 kg     | 5.7    | 145 mm      |
| 14CFS95-38 | 1/4" Chuck  | 1000 r/min       | Rear    | 1.76   | 0.80 kg     | 6.9    | 175 mm      |
| 14CFS96-38 | 1/4" Chuck  | 700 r/min        | Rear    | 1.76   | 0.80 kg     | 6.9    | 175 mm      |
| 14CFS97-38 | 1/4" Chuck  | 600 r/min        | Rear    | 1.76   | 0.80 kg     | 6.9    | 175 mm      |

All tools performance rated @ 90psi / 620 kPa air pressure.  
Air inlet size: 1/4in  
Minimum Hose I.D.: 5/16in / 7.9mm  
Drill Diameter Capacity Matches Chuck Size

## 14CF Series Pistol Drill Non-Reversible 3/8" Chuck- Cleco Dotco

0.4hp / 0.33kW  
600-29000rpm  
3/8" Chuck

- Comfort grip with ergonomic finger and thumb guides to aid control
- Supplied with Jacobs® Keyed Chuck or Threaded Termination for Keyless Chuck/Collet
- Excellent for aerospace, metal fabrication, and wood working applications



| Model      | Termination | Free Speed (rpm) | Exhaust | Weight | Weight (kg) | Length | Length (mm) |
|------------|-------------|------------------|---------|--------|-------------|--------|-------------|
|            |             |                  |         | Lb     |             | in     |             |
| 14CFS90-51 | 3/8" Chuck  | 29000 r/min      | Rear    | 1.54   | 0.70 kg     | 5.7    | 145 mm      |
| 14CFS91-51 | 3/8" Chuck  | 5200 r/min       | Rear    | 1.54   | 0.70 kg     | 5.7    | 145 mm      |
| 14CFS92-51 | 3/8" Chuck  | 3800 r/min       | Rear    | 1.54   | 0.70 kg     | 5.7    | 145 mm      |
| 14CFS93-51 | 3/8" Chuck  | 3200 r/min       | Rear    | 1.54   | 0.70 kg     | 5.7    | 145 mm      |
| 14CFS94-51 | 3/8" Chuck  | 2400 r/min       | Rear    | 1.54   | 0.70 kg     | 5.7    | 145 mm      |
| 14CFS95-51 | 3/8" Chuck  | 1000 r/min       | Rear    | 1.76   | 0.80 kg     | 6.9    | 175 mm      |
| 14CFS96-51 | 3/8" Chuck  | 700 r/min        | Rear    | 1.76   | 0.80 kg     | 6.9    | 175 mm      |
| 14CFS97-51 | 3/8" Chuck  | 600 r/min        | Rear    | 1.76   | 0.80 kg     | 6.9    | 175 mm      |

All tools performance rated @ 90psi / 620 kPa air pressure.  
Air inlet size: 1/4in  
Minimum Hose I.D.: 5/16in / 7.9mm  
Drill Diameter Capacity Matches Chuck Size

## 14CN Series Pistol Drill Non-Reversible 1/4" Chuck - Cleco Dotco

0.9hp / 0.67kW  
500-20000rpm

- Comfort grip with ergonomic finger and thumb guides to aid control
- Supplied with 1/4" Jacobs® Keyed Chuck
- Excellent for aerospace, metal fabrication, and wood working applications
- 1/2" models equipped with dead handle
- 1/2" models equipped with dead handle



| Model      | Termination | Free Speed (rpm) | Exhaust | Weight | Weight (kg) | Length | Length (mm) |
|------------|-------------|------------------|---------|--------|-------------|--------|-------------|
|            |             |                  |         | Lb     |             | in     |             |
| 14CNL90-38 | 1/4" Chuck  | 20000 r/min      | Rear    | 2.2    | 1.00 kg     | 6.8    | 173 mm      |
| 14CNL92-38 | 1/4" Chuck  | 3200 r/min       | Rear    | 2.43   | 1.10 kg     | 7.2    | 183 mm      |
| 14CNL98-38 | 1/4" Chuck  | 6000 r/min       | Rear    | 2.2    | 1.00 kg     | 6.8    | 173 mm      |

All tools performance rated @ 90psi / 620 kPa air pressure.  
Air inlet size: 1/4in  
Minimum Hose I.D.: 5/16in / 7.9mm  
Drill Diameter Capacity Matches Chuck Size

## 14CN Series Pistol Drill Non-Reversible 3/8" Chuck - Cleco Dotco

0.9hp / 0.67kW  
500-20000rpm

- Comfort grip with ergonomic finger and thumb guides to aid control
- Supplied with 3/8" Jacobs® Keyed Chuck
- Excellent for aerospace, metal fabrication, and wood working applications



| Model      | Termination | Free Speed (rpm) | Exhaust | Weight | Weight (kg) | Length | Length (mm) |
|------------|-------------|------------------|---------|--------|-------------|--------|-------------|
|            |             |                  |         | Lb     |             | in     |             |
| 14CNL91-51 | 3/8" Chuck  | 5200 r/min       | Rear    | 2.43   | 1.10 kg     | 7.2    | 183 mm      |
| 14CNL92-51 | 3/8" Chuck  | 3200 r/min       | Rear    | 2.43   | 1.10 kg     | 7.2    | 183 mm      |
| 14CNL95-51 | 3/8" Chuck  | 1300 r/min       | Rear    | 2.87   | 1.30 kg     | 8.6    | 218 mm      |
| 14CNL97-51 | 3/8" Chuck  | 500 r/min        | Rear    | 3.53   | 1.60 kg     | 9.1    | 231 mm      |
| 14CNL98-51 | 3/8" Chuck  | 6000 r/min       | Rear    | 2.2    | 1.00 kg     | 6.8    | 173 mm      |

All tools performance rated @ 90psi / 620 kPa air pressure.  
Air inlet size: 1/4in  
Minimum Hose I.D.: 5/16in / 7.9mm  
Drill Diameter Capacity Matches Chuck Size

## 14CN Series Pistol Drill Non-Reversible 1/2" Chuck - Cleco Dotco

0.9hp / 0.67kW  
500-20000rpm

- Comfort grip with ergonomic finger and thumb guides to aid control
- Supplied with 1/2" Jacobs® Keyed Chuck
- Excellent for aerospace, metal fabrication, and wood working applications
- 1/2" models equipped with dead handle
- 1/2" models equipped with dead handle



| Model      | Termination | Free Speed (rpm) | Exhaust | Weight | Weight (kg) | Length | Length (mm) |
|------------|-------------|------------------|---------|--------|-------------|--------|-------------|
|            |             |                  |         | Lb     |             | in     |             |
| 14CNL92-53 | 1/2" Chuck  | 3200 r/min       | Rear    | 2.43   | 1.10 kg     | 7.2    | 183 mm      |
| 14CNL97-53 | 1/2" Chuck  | 500 r/min        | Rear    | 3.53   | 1.60 kg     | 9.1    | 231 mm      |
| 14CNL98-53 | 1/2" Chuck  | 6000 r/min       | Rear    | 2.2    | 1.00 kg     | 6.8    | 173 mm      |

All tools performance rated @ 90psi / 620 kPa air pressure.  
Air inlet size: 1/4in  
Minimum Hose I.D.: 5/16in / 7.9mm  
Drill Diameter Capacity Matches Chuck Size

## 14CN Series Pistol Drill Non-Reversible 3/8"-24 - Cleco Dotco

0.9hp / 0.67kW  
500-20000rpm

- Comfort grip with ergonomic finger and thumb guides to aid control
- Supplied with 3/8"-24 termination for collet or chuck
- Excellent for aerospace, metal fabrication, and wood working applications



| Model      | Termination | Free Speed (rpm) | Exhaust | Weight | Weight (kg) | Length | Length (mm) |
|------------|-------------|------------------|---------|--------|-------------|--------|-------------|
|            |             |                  |         | Lb     |             | in     |             |
| 14CNL90-40 | 3/8" - 24 e | 20000 r/min      | Rear    | 2.2    | 1.00 kg     | 6.8    | 173 mm      |
| 14CNL91-40 | 3/8" - 24 e | 5200 r/min       | Rear    | 2.43   | 1.10 kg     | 7.2    | 183 mm      |
| 14CNL92-40 | 3/8" - 24 e | 3200 r/min       | Rear    | 2.43   | 1.10 kg     | 7.2    | 183 mm      |
| 14CNL95-40 | 3/8" - 24 e | 1300 r/min       | Rear    | 2.87   | 1.30 kg     | 8.6    | 218 mm      |
| 14CNL97-40 | 3/8" - 24 e | 500 r/min        | Rear    | 3.53   | 1.60 kg     | 9.1    | 231 mm      |
| 14CNL98-40 | 3/8" - 24 e | 6000 r/min       | Rear    | 2.2    | 1.00 kg     | 6.8    | 173 mm      |

All tools performance rated @ 90psi / 620 kPa air pressure.  
Air inlet size: 1/4in  
Minimum Hose I.D.: 5/16in / 7.9mm  
Drill Diameter Capacity Matches Chuck Size

## 135DPV Series Pistol Drill Non-Reversible Variable Speed - Cleco Dotco

0.7hp / 0.5kW

150-2400rpm

Governed Speed Setting/ Control

- Flexible speed setting for range of hole sizes
- Variable speed can replace multiple other tools
- Calibrated governed speed control min/max speeds shown



| Model         | Termination | Free Speed (rpm) | Governed RPM Range | Exhaust | Weight | Weight (kg) | Length | Length (mm) |
|---------------|-------------|------------------|--------------------|---------|--------|-------------|--------|-------------|
|               |             |                  | r/min              |         | Lb     |             | in     |             |
| 135DPV-14B-50 | 1/2" Chuck  | 1250 r/min       | 400 – 1,200 RPM    | Rear    | 3.31   | 1.50 kg     | 9.3    | 236 mm      |
| 135DPV-14B-51 | 3/8" Chuck  | 1250 r/min       | 400 – 1,200 RPM    | Rear    | 3.31   | 1.50 kg     | 9.3    | 236 mm      |
| 135DPV-28B-51 | 3/8" Chuck  | 2600 r/min       | 700 – 2,400 RPM    | Rear    | 3.31   | 1.50 kg     | 8.5    | 216 mm      |
| 135DPV-7B-43  | 3/8" Chuck  | 600 r/min        | 150 – 550 RPM      | Rear    | 3.53   | 1.60 kg     | 9.6    | 244 mm      |
| 135DPV-7B-50  | 1/2" Chuck  | 600 r/min        | 150 – 550 RPM      | Rear    | 3.53   | 1.60 kg     | 9.6    | 244 mm      |

All tools performance rated @ 90psi / 620 kPa air pressure

## MP14 Series - Pistol Drill Reversible/Non-Reversible

Industrial grade medium duty drills suitable for a wide range of production and MRO applications

MP1457/1463 1.0hp / 0.75 kW

MP1458 1.2hp / 0.90kW

- 2-step throttle for easy starting
- Built-in, no-clog mufflers for quiet operation
- Hardened and ground precision parts for extended service life
- MP1463-51 is Reversible Other Models are Non Reversible



| Model     | Termination | Free Speed (rpm) | Exhaust | Weight | Weight (kg) | Length | Length (mm) |
|-----------|-------------|------------------|---------|--------|-------------|--------|-------------|
|           |             |                  |         | Lb     |             | in     |             |
| MP1457-51 | 3/8" Chuck  | 2600 r/min       | Rear    | 1.98   | 0.90 kg     | 7.5    | 191 mm      |
| MP1458-55 | 1/2" Chuck  | 1200 r/min       | Rear    | 2.2    | 1.00 kg     | 9      | 229 mm      |
| MP1463-51 | 3/8" Chuck  | 1800 r/min       | Rear    | 2.43   | 1.10 kg     | 6.8    | 173 mm      |

All tools performance rated @ 90psi / 620 kPa air pressure

## 14CF / 14CN Series Rivet Shaver - Cleco Dotco

**14CF 0.4hp / 0.3kW 29000rpm**

**14CN 0.9hp / 0.75kW 20000rpm**

- 0.00025 or 0.0005 Cutter Adjustment
- Stabilizer 02-8120 included on -95 and -97 models
- Optional Adjustment Guard 02-8150 prevents adjustment by operator - can not be used with Stabilizer tools
- Standard rivet shavers accept skirts for cutters up to 3/4" in diameter - these are sold separately
- -96XL version for 1" and greater skirts.



14CF560-95

| Model        | Free Speed (rpm) | Exhaust | Weight | Weight (kg) | Length | Length (mm) |
|--------------|------------------|---------|--------|-------------|--------|-------------|
|              |                  |         | Lb     |             | in     |             |
| 14CFS60-95   | 29000 r/min      | Rear    | 2.2    | 1 kg        | 8.2    | 208.3 mm    |
| 14CFS60-96   | 29000 r/min      | Rear    | 2.2    | 1 kg        | 8.2    | 208.3 mm    |
| 14CFS60-97   | 29000 r/min      | Rear    | 2.2    | 1 kg        | 8.2    | 208.3 mm    |
| 14CFS60-98   | 29000 r/min      | Rear    | 2.2    | 1 kg        | 8.2    | 208.3 mm    |
| 14CNL60-95   | 20000 r/min      | Rear    | 3.5    | 1.6 kg      | 8.9    | 226.1 mm    |
| 14CNL60-96   | 20000 r/min      | Rear    | 3.5    | 1.6 kg      | 8.9    | 226.1 mm    |
| 14CNL60-96XL | 20000 r/min      | Rear    | 3.5    | 1.6 kg      | 8.9    | 226.1 mm    |
| 14CNL60-97   | 20000 r/min      | Rear    | 3.5    | 1.6 kg      | 8.9    | 226.1 mm    |

All tools performance rated @ 90psi / 620 kPa air pressure.  
Minimum Hose I.D.: 5/16in / 7.9mmmm

## Jacobs Chucks

### Keyed Chucks to 1/2" Capacity

- Jacobs Precision Chucks
- Range of Capacity and Mounting

| Model   | Description       | Tool Termination | Chuck Size | Spindle Size |
|---------|-------------------|------------------|------------|--------------|
|         |                   |                  | in         |              |
| 1075    | OB                | -37              | 5/32 in    | 5/16"-24     |
| 1005078 | 1 BA              | -38              | 1/4 in     | 3/8"-24      |
| 1001252 | 41 BA (med. duty) | -51              | 3/8 in     | 3/8"-24      |
| 1009726 | 33 BA             | -53              | 1/2 in     | 3/8"-24      |



## 300 Series - Collet Chuck

### Up to 1/4" Capacity

- Supplied with Standard Collet: 1/4" (#308).
- 5/16"-24 or 3/8"-24 Thread Mount



| Model   | Description                                   |
|---------|---|
| 14-1148 | 300 Series Collet Chuck 5/16"-24 Thread Mount |
| 14-3050 | 300 Series Collet Chuck 3/8"-24 Thread Mount  |

## TULMan Electronic Counter

### Cycle or Run Time Counter for Small Pneumatic Tools Up to 20cfm / 570 lpm

- First ever odometer and tripometer for small pneumatic tools
- Useable on any small pneumatic device with suitable air flow, including Cleco & Dotco products
- Manage tool service and tool calibration, quantify & compare tool consumable life
- Monitor workforce productivity, improve quality of product or process and realize cost savings
- LED indicator lights blink yellow (warning) and red as cycle and run time limits are reached.
- Easy-to-use monitoring software included

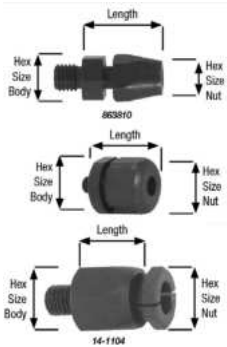


| Model    | Max Pressure         | Max Flow    | Min Flow    | Weight |
|----------|----------------------|-------------|-------------|--------|
|          | lb/in²   bar         | cfm   l/min | cfm   l/min | Lb     |
| 240461PT | 100 lb/in²   6.9 bar | 20   570    | 5   145     | 0.176  |

Straight Shank Drill Adaptors

For use with Cleco Dotco 15LF, 15LS & 15LN right angle drills with 1/4”-28 spindles.

- For use on Cleco 15LF, 15LS & 15LN right angle drills
- Adapts 1/4”-28 output to collet/chuck for straight shank drills



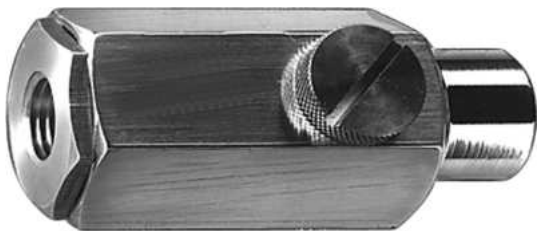
| Model   | Shank Diameter Capacity | Length  | Length |    | Drill Diameter Capacity |
|---------|-------------------------|---------|--------|----|-------------------------|
|         |                         | in   mm | in     | mm |                         |
| 14-0170 | 6mm                     | 0.7 in  | 0.7    | 18 |                         |
| 14-1104 | 1/4 in                  | 0.7 in  | 0.7    | 18 |                         |
| 14-1568 | 1/8 in                  | 0.65 in | 0.65   | 17 |                         |
| 14-1569 | 1/4 in                  | 0.7 in  | 0.7    | 18 |                         |
| 863806  | 1/4 in                  | 0.8 in  | 0.8    | 20 | 1/4 in 6.4mm            |
| 863810  | 3/16 in                 | 0.8 in  | 0.8    | 20 | 3/16 in 4.8mm           |



Airline Filter & Lubricator

Mounts in Hose Line.

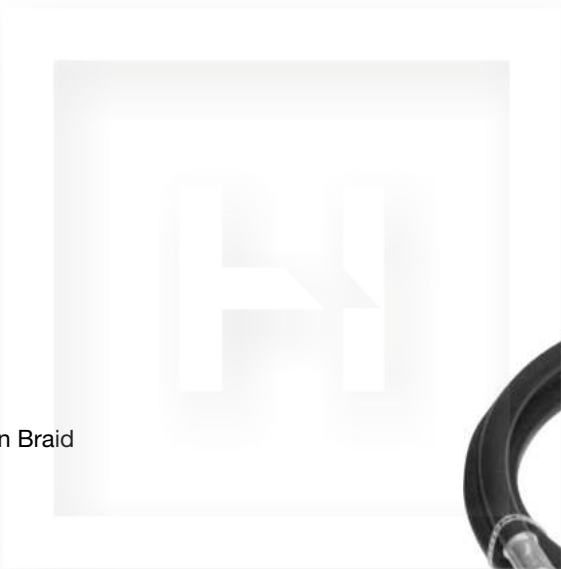
- One ounce reservoir good for average 8-hour shift.



| Model   | Description                    | Max Pressure         | Air Inlet Size |
|---------|--------------------------------|----------------------|----------------|
|         |                                | lb/in²   bar         | in             |
| 45-0201 | 1/4" NPTF Hose Line Lubricator | 100 lb/in²   6.9 bar | 1/4 in         |

Flexible Air Hose

- Buna N Material with Flexible Nylon Braid



| Model   | Description                                  | Fittings (NPT) | Tool Series   | Diameter | Length | Length |
|---------|--|----------------|---|----------|--------|--------|
|         |  |                |   | in       | ft     | m      |
| 45-1307 | 3/16" Hose I.D; 1/4"M X 1/8"M Fittings; 7 ft | 1/8M - 1/4M    |   | 3/16     | 7      | 2.13   |
| 45-1408 | 1/4" Hose I.D; 1/4"M X 1/4"M Fittings; 8 ft  | 1/4M - 1/4M    | 12-10, 12-11, 12-12, 12-13, 14CF, 15LF, 15-14   | 1/4      | 8      | 2.44   |
| 45-1409 | 1/4" Hose I.D; 1/4"M X 1/8"M Fittings; 8 ft  | 1/8M - 1/4M    | 10-10, 10-11, 10-12   | 1/4      | 8      | 2.44   |
| 45-1508 | 5/16" Hose I.D; 1/4"M X 1/4"M Fittings 8 ft  | 1/4M - 1/4M    | 10-20, 10-21, 10-22, 10-25, 10-26, 10-27, 12-20, 12-21, 12-22, 12-25, 12-26, 12-27, 12-28, 14CS, 14CN, 15LS, 15LN | 5/16     | 8      | 2.44   |

General: 3/16" & 1/4" hoses have braided covers, all others have neoprene covers.

## Lubricants



| Part Number | Size                      | Description  | MSDS Number |
|-------------|---------------------------|--|-------------|
| 45-0918     | 1 qt. plastic             | Air Tool Oil - Qt.   | CPT-155     |
| 45-0980     | 2 oz. tube                | Cleco Dotco Angle Head Grease Moly-XL 250 for Grinders/Sanders | CPT-148     |
| 45-0983     | 2 oz. tube                | Cleco Dotco Planetary Gear Grease for Grinders & Sanders       | CPT-147     |
| 513156      | 18 oz. can                | Magnalube-G Assembly Tool Teflon Grease                        | CPT-145     |
| 533485      | 1 gal. metal              | Axial Piston Motor Air Tool Oil 1 gal. can                     | CPT-153     |
| 539317      | 1 ct quart plastic bottle | Univis Pulse Tool Hydraulic Oil                                | CPT-157     |
| 540394      | 2.8oz Tube                | Molykote G-N Metal Assembly Paste for Angle & Planetary        | CPT-146     |
| 541445      | 500g Can                  | Rheolube 363AX-1 500g can                                      | CPT-286     |
| A123771     | 1 gal. metal              | Shell Gadus S2 V220 00 16 oz can                               |             |

Under normal conditions of use, lubrication products sold separately for or used within these tools should not cause an exposure hazard. Refer to the Material Safety Data Sheet M.S.D.S. for Safety and Disposal information. M.S.D.S. sheets are available upon request.

## RB106 - Flat Offset Angle Drill

Use in Pistol Drills for Difficult Access Applications

- 10-32 thread for cutter attachment
- 6mm/0.236" Shank Diameter
- Recommended maximum drilling capacity 5mm/0.197" in Aluminium
- Recommended maximum countersinking capacity 10mm/0.394" in Aluminium



| Model    | Height |       | Length |    | Weight |      |
|----------|--------|-------|--------|----|--------|------|
|          | in     | mm    | in     | mm | lb     | kg   |
| 10080005 | 1.102  | 28    | 3.307  | 84 | 0.220  | 0.10 |
| 10080010 | 4.429  | 112.5 | 3.307  | 84 | 0.397  | 0.18 |
| 10080015 | 1.102  | 28    | 2.48   | 63 | 0.287  | 0.13 |
| 10080020 | 4.429  | 112.5 | 2.480  | 63 | 0.49   | 0.22 |

## Drill Cutters for Flat Offset Angle Drill

- Alternative drills may be manufactured on request. E.g. : special diameters and lengths
- These cutters are designed for use with the flat offset angle drill RB 106 with UNF 10-32 F spindle thread.
- Recommended for use with Dotco hand drills
- Can be used in aluminum



| Model    | Cutter Flute Length |       | Drill Diameter |     |
|----------|---------------------|-------|----------------|-----|
|          | mm                  | in    | in             | mm  |
| 33000020 | 12                  | 0.472 | 0.098          | 2.5 |
| 33000125 | 8                   | 0.315 | 0.098          | 2.5 |
| 33000625 | 20                  | 0.79  | 0.098          | 2.5 |
| 33000025 | 12                  | 0.472 | 0.118          | 3   |
| 33000030 | 12                  | 0.472 | 0.126          | 3.2 |
| 33000132 | 8                   | 0.315 | 0.126          | 3.2 |
| 33000632 | 20                  | 0.79  | 0.126          | 3.2 |
| 33000040 | 12                  | 0.472 | 0.157          | 4   |
| 33000240 | 15                  | 0.59  | 0.157          | 4   |
| 33000248 | 15                  | 0.59  | 0.189          | 4.8 |

## RB1130/60QBSF/70QBSF - Manual Back Spotfacer

**Fixed Speed 0.6hp / 0.4kW 460rpm**

**Variable Speed 0.7hp / 0.5kW 150-550rpm**

- Specially designed for all back-spotfacing operations in light alloys or steel with an accuracy of .001" / .025mm micro adjustment
- 70100012 Fixed speed 460rpm (RB 1130 | 60QBSF) using 14CSL
- 70100031 Adjustable speed 150-550rpm (RB 1130-2 | 70QBSF) using 135DPV7
- Wide range of interchangeable collets - Ordered Separately
- Feed lever with 360° orientation
- Fixed Speed 0.6hp / 0.4kW 460rpm Adjustable Speed 0.7hp / 0.5kW 150-550rpm



| Model    | Motor              | Speed   | Fixturing | Accessories   |
|----------|--------------------|---------|-----------|---|
|          | Configura-<br>tion | r/min   | Options   |   |
| 70100012 | Pistol Grip        | 500     | NA        | Spindle Collet<br>Spindle Pilot<br>Back Spot Facing Cutters |
| 70100031 | Pistol Grip        | 150-550 | NA        | Spindle Collet<br>Spindle Pilot<br>Back Spot Facing Cutters |

Air Pressure: 90psi | 6.3bar  
Recommended Hose Size: 3/8in | 10mm

## Manual Back Spotfacer Collets - Cleco

| Model    | Diameter (mm) | Diameter<br>in |
|----------|---------------|----------------|
|          |               |                |
| 70110200 | 2 mm          | 0.0787 in      |
| 70110250 | 2.5 mm        | 0.0984 in      |
| 70110300 | 3 mm          | 0.1181 in      |
| 70110350 | 3.5 mm        | 0.1378 in      |
| 70110400 | 4 mm          | 5/32 in        |
| 70110480 | 4.8 mm        | 3/16 in        |
| 70110500 | 5 mm          | 0.1969 in      |
| 70110550 | 5.5 mm        | 0.2165 in      |
| 70110600 | 6 mm          | 0.2362 in      |
| 70110635 | 6.35 mm       | 1/4 in         |
| 70110794 | 7.94 mm       | 5/16 in        |
| 70110952 | 9.52 mm       | 3/8 in         |

Alternate collet diameters available upon request.



## RB 156 - Microstop Cage

Stroke 3.5mm/0.14in  
Cutter Thread M6 x 1

- Different mounting bases available
- Reduced dimensions for tight access areas
- For special composites mounting base with vacuum
- Cemented, hardened and ground chrome-nickel steel spindle mounted on a self lubricating bronze body and a thrust bearing.
- Centring-cone of the cutter (120°) for perfect concentricity.
- Microstop depth adjustment (1 scale division = .001").



| Model       | Input Style | Shank |     | Cutter Thread | Stroke mm | Vacuum | Mounting Base Style  | Window Size | Nose Insert Style | Diameter Max. mm | Overall Length Max. mm | Overall Length Min. mm | Weight g |
|-------------|-------------|-------|-----|---------------|-----------|--------|----------------------|-------------|-------------------|------------------|------------------------|------------------------|----------|
|             |             | in    | mm  |               |           |        |                      |             |                   |                  |                        |                        |          |
| 10000010    | Fixed Shank | 0.189 | 4.8 | M6 x 1        | 3.5       | No     | Tapped M19F for Nose | Small       | Nylon             | 25               | 55                     | 51                     | 75       |
| 100000100   | Fixed Shank | 0.189 | 4.8 | M6 x 1        | 3.5       | No     | Offset Mounting Base | Small       | None              | 25               | 55                     | 51                     | 75       |
| 100000100 W | Fixed Shank | 0.189 | 4.8 | M6 x 1        | 3.5       | No     | OFFSET MOUNTING BASE | Large       | None              | 25               | 55                     | 51                     | 75       |
| 10000010W   | Fixed Shank | 0.189 | 4.8 | M6 x 1        | 3.5       | No     | TAPPED M19F FOR NOSE | Large       | Nylon             | 25               | 55                     | 51                     | 75       |

## RB206 & RB(I) 206 Microstop Cage

Stroke 6mm/0.24in

Cutter Thread RB 206 M6 x 1 RBI 206 1/4"-28

- Different mounting bases available
- Reduced dimensions for tight access areas
- For special composites mounting base with vacuum
- Cemented, hardened and ground chrome-nickel steel spindle mounted on a self lubricating bronze body and a thrust bearing.
- Centring-cone of the cutter (120°) for perfect concentricity.
- Microstop depth adjustment (1 scale division = .001").



| Model     | Input Style | Shank |     | Cutter Thread | Stroke mm | Vacuum | Mounting Base Style  | Window Size | Nose Insert Style | Diameter Max. mm | Overall Length Max mm | Overall Length Min mm | Weight g |
|-----------|-------------|-------|-----|---------------|-----------|--------|----------------------|-------------|-------------------|------------------|-----------------------|-----------------------|----------|
|           |             | in    | mm  |               |           |        |                      |             |                   |                  |                       |                       |          |
| 10005000  | Fixed Shank | 0.236 | 6.0 | M6 x 1        | 6.0       | No     | None/Flat Base       | Small       | None              | 21               | 101                   | 95                    | 120      |
| 10005000W | Fixed Shank | 0.236 | 6.0 | M6 x 1        | 6.0       | No     | None/Flat Base       | Large       | None              | 21               | 101                   | 95                    | 120      |
| 10005001  | Fixed Shank | 0.236 | 6.0 | M6 x 1        | 6.0       | Yes    | None/Flat Base       | Small       | None              | 21               | 101                   | 95                    | 120      |
| 10005001W | Fixed Shank | 0.236 | 6.0 | M6 x 1        | 6.0       | Yes    | None/Flat Base       | Large       | None              | 21               | 101                   | 95                    | 120      |
| 10005050  | Fixed Shank | 0.236 | 6.0 | 1/4"-28       | 6.0       | No     | None/Flat Base       | Small       | None              | 21               | 101                   | 95                    | 120      |
| 10005050W | Fixed Shank | 0.236 | 6.0 | 1/4"-28       | 6.0       | No     | None/Flat Base       | Large       | None              | 21               | 101                   | 95                    | 120      |
| 10005051  | Fixed Shank | 0.236 | 6.0 | 1/4"-28       | 6.0       | Yes    | None/Flat Base       | Small       | None              | 21               | 101                   | 95                    | 120      |
| 10005051W | Fixed Shank | 0.236 | 6.0 | 1/4"-28       | 6.0       | Yes    | None/Flat Base       | Large       | None              | 21               | 101                   | 95                    | 120      |
| 10005200  | Fixed Shank | 0.236 | 6.0 | M6 x 1        | 6.0       | No     | None/Offset Base     | Small       | None              | 21               | 101                   | 95                    | 120      |
| 10005200W | Fixed Shank | 0.236 | 6.0 | M6 x 1        | 6.0       | No     | None/Offset Base     | Large       | None              | 21               | 101                   | 95                    | 120      |
| 10005250  | Fixed Shank | 0.236 | 6.0 | 1/4"-28       | 6.0       | No     | None/Offset Base     | Small       | None              | 21               | 101                   | 95                    | 120      |
| 10005250W | Fixed Shank | 0.236 | 6.0 | 1/4"-28       | 6.0       | Yes    | None/Offset Base     | Large       | None              | 21               | 101                   | 95                    | 120      |
| 10005305  | Fixed Shank | 0.236 | 6.0 | M6 x 1        | 6.0       | No     | Tapped M16F for Nose | Small       | Nylon             | 21               | 101                   | 95                    | 120      |
| 10005305W | Fixed Shank | 0.236 | 6.0 | M6 x 1        | 6.0       | No     | Tapped M16F for Nose | Large       | Nylon             | 21               | 101                   | 95                    | 120      |
| 10005306  | Fixed Shank | 0.236 | 6.0 | M6 x 1        | 6.0       | Yes    | Tapped M16F for Nose | Small       | None              | 21               | 101                   | 95                    | 120      |

| Model     | Input Style | Shank |     | Cutter  | Stroke | Vacuum | Mounting             | Window | Nose Insert | Diameter Max. | Overall Length Max | Overall Length Min | Weight |
|-----------|-------------|-------|-----|---------|--------|--------|----------------------|--------|-------------|---------------|--------------------|--------------------|--------|
|           |             | in    | mm  | Thread  | mm     |        | Base Style           | Size   | Style       | mm            | mm                 | mm                 | g      |
| 10005306W | Fixed Shank | 0.236 | 6.0 | M6 x 1  | 6.0    | Yes    | Tapped M16F for Nose | Large  | None        | 21            | 101                | 95                 | 120    |
| 10005355  | Fixed Shank | 0.236 | 6.0 | 1/4"-28 | 6.0    | No     | Tapped M16F for Nose | Small  | Nylon       | 21            | 101                | 95                 | 120    |
| 10005355W | Fixed Shank | 0.236 | 6.0 | 1/4"-28 | 6.0    | No     | Tapped M16F for Nose | Large  | Nylon       | 21            | 101                | 95                 | 120    |
| 10005356  | Fixed Shank | 0.236 | 6.0 | 1/4"-28 | 6.0    | Yes    | Tapped M16F for Nose | Small  | None        | 21            | 101                | 95                 | 120    |
| 10005356W | Fixed Shank | 0.236 | 6.0 | 1/4"-28 | 6.0    | Yes    | Tapped M16F for Nose | Large  | None        | 21            | 101                | 95                 | 120    |



## RB 256 & RB(I)256 - Microstop Cage

Stroke 7.5mm/0.30in

Cutter Thread RB 206 M6x1 RB(I) 206 1/4"-28

- Different mounting bases available
- Reduced dimensions for tight access areas
- For special composites mounting base with vacuum
- Cemented, hardened and ground chrome-nickel steel spindle mounted on a self lubricating bronze body and a thrust bearing.
- Centring-cone of the cutter (120°) for perfect concentricity.
- Microstop depth adjustment (1 scale division = .001").



| Model     | Input Style | Shank |     | Cutter Thread | Stroke mm | Vacuum | Mounting Base Style | Window Size | Nose Insert Style | Diameter Max. mm | Overall Length Max. mm | Overall Length Min. mm | Weight g |
|-----------|-------------|-------|-----|---------------|-----------|--------|---------------------|-------------|-------------------|------------------|------------------------|------------------------|----------|
|           |             | in    | mm  |               |           |        |                     |             |                   |                  |                        |                        |          |
| 10010001  | Fixed Shank | 0.236 | 6.0 | M6 x 1        | 7.5       | Yes    | M19F                | Small       | Hard Chrome       | 28               | 98                     | 91                     | 175      |
| 10010001W | Fixed Shank | 0.236 | 6.0 | M6 x 1        | 7.5       | Yes    | M19F                | Large       | Hard Chrome       | 28               | 98                     | 91                     | 175      |
| 10010010  | Fixed Shank | 0.236 | 6.0 | M6 x 1        | 7.5       | No     | M19F                | Small       | Hard Chrome       | 28               | 98                     | 91                     | 175      |
| 10010010W | Fixed Shank | 0.236 | 6.0 | M6 x 1        | 7.5       | No     | M19F                | Large       | Hard Chrome       | 28               | 98                     | 91                     | 175      |
| 10010015  | Fixed Shank | 0.236 | 6.0 | M6 x 1        | 7.5       | No     | M19F                | Small       | Nylon             | 28               | 98                     | 91                     | 175      |
| 10010015W | Fixed Shank | 0.236 | 6.0 | M6 x 1        | 7.5       | No     | M19F                | Large       | Nylon             | 28               | 98                     | 91                     | 175      |
| 10010016  | Fixed Shank | 0.236 | 6.0 | M6 x 1        | 7.5       | Yes    | M19F                | Small       | Nylon             | 28               | 98                     | 91                     | 175      |
| 10010016W | Fixed Shank | 0.236 | 6.0 | M6 x 1        | 7.5       | Yes    | M19F                | Large       | Nylon             | 28               | 98                     | 91                     | 175      |
| 10010110  | Fixed Shank | 0.236 | 6.0 | 1/4"-28       | 7.5       | No     | M19F                | Small       | Hard Chrome       | 28               | 98                     | 91                     | 175      |
| 10010110W | Fixed Shank | 0.236 | 6.0 | 1/4"-28       | 7.5       | No     | M19F                | Large       | Hard Chrome       | 28               | 98                     | 91                     | 175      |
| 10010111  | Fixed Shank | 0.236 | 6.0 | 1/4"-28       | 7.5       | Yes    | M19F                | Small       | Hard Chrome       | 28               | 98                     | 91                     | 175      |
| 10010111W | Fixed Shank | 0.236 | 6.0 | 1/4"-28       | 7.5       | Yes    | M19F                | Large       | Hard Chrome       | 28               | 98                     | 91                     | 175      |
| 10010115  | Fixed Shank | 0.236 | 6.0 | 1/4"-28       | 7.5       | No     | M19F                | Small       | Nylon             | 28               | 98                     | 91                     | 175      |
| 10010115W | Fixed Shank | 0.236 | 6.0 | 1/4"-28       | 7.5       | No     | M19F                | Large       | Nylon             | 28               | 98                     | 91                     | 175      |
| 10010116  | Fixed Shank | 0.236 | 6.0 | 1/4"-28       | 7.5       | Yes    | M19F                | Small       | Nylon             | 28               | 98                     | 91                     | 175      |
| 10010116W | Fixed Shank | 0.236 | 6.0 | 1/4"-28       | 7.5       | Yes    | M19F                | Large       | Nylon             | 28               | 98                     | 91                     | 175      |
| 10010205  | Fixed Shank | 0.236 | 6.0 | M6 x 1        | 7.5       | Yes    | M30 x 1M            | Small       | Nylon             | 28               | 98                     | 91                     | 175      |
| 10010205W | Fixed Shank | 0.236 | 6.0 | M6 x 1        | 7.5       | Yes    | M30 x 1M            | Large       | Nylon             | 28               | 98                     | 91                     | 175      |

## RB 257 - Microstop Cage

Stroke 6mm/0.24"

Cutter Thread M6 x 1

- Different mounting bases available
- Reduced dimensions for tight access areas
- For special composites mounting base with vacuum
- High precision microstop cage, body in heat treated chrome steel, fully ground throughout. This ball mounted microstop cage includes two needle bearings for best utilisation.
- When using the RB 257, any misalignment of the microstop cage is corrected by the unique ball pivoting spindle. This assembly ensures perpendicularity throughout the operation at all time.
- Centring cone of the cutter (120°) for perfect concentricity.



| Model        | Input Style | Shank |     | Cutter Thread | Stroke mm | Vacuum | Mounting Base Style | Window Size | Nose Insert Style | Diameter Max. mm | Overall Length Max mm | Overall Length Min mm | Weight g |
|--------------|-------------|-------|-----|---------------|-----------|--------|---------------------|-------------|-------------------|------------------|-----------------------|-----------------------|----------|
|              |             | in    | mm  |               |           |        |                     |             |                   |                  |                       |                       |          |
| 10015001     | Ball Pivot  | 0.236 | 6.0 | M6 x 1        | 6.0       | Yes    | M16F and M26M       | Small       | Rotary Celoron    | 29               | 92                    | 88                    | 165      |
| 10015001W    | Ball Pivot  | 0.236 | 6.0 | M6 x 1        | 6.0       | Yes    | M16F and M26M       | Large       | Rotary Celoron    | 29               | 92                    | 88                    | 165      |
| 10015010     | Ball Pivot  | 0.236 | 6.0 | M6 x 1        | 6.0       | No     | M16F and M26M       | Small       | Rotary Celoron    | 29               | 92                    | 88                    | 175      |
| 10015010W    | Ball Pivot  | 0.236 | 6.0 | M6 x 1        | 6.0       | No     | M16F and M26M       | Large       | Rotary Celoron    | 29               | 92                    | 88                    | 165      |
| 10015015     | Ball Pivot  | 0.236 | 6.0 | M6 x 1        | 6.0       | No     | M16F and M26M       | Small       | Hard Chrome       | 29               | 92                    | 88                    | 165      |
| 10015015W    | Ball Pivot  | 0.236 | 6.0 | M6 x 1        | 6.0       | No     | M16F and M26M       | Large       | Hard Chrome       | 29               | 92                    | 88                    | 165      |
| 10015016     | Ball Pivot  | 0.236 | 6.0 | M6 x 1        | 6.0       | Yes    | M16F and M26M       | Small       | Hard Chrome       | 29               | 92                    | 88                    | 165      |
| 10015016W    | Ball Pivot  | 0.236 | 6.0 | M6 x 1        | 6.0       | Yes    | M16F and M26M       | Large       | Hard Chrome       | 29               | 92                    | 88                    | 165      |
| 10015021     | Ball Pivot  | 0.236 | 6.0 | M6 x 1        | 6.0       | Yes    | M16F and M26M       | Small       | Celoron           | 29               | 92                    | 88                    | 165      |
| 10015021W    | Ball Pivot  | 0.236 | 6.0 | M6 x 1        | 6.0       | Yes    | M16F and M26M       | Large       | Celoron           | 29               | 92                    | 88                    | 165      |
| 10015200     | Ball Pivot  | 0.236 | 6.0 | M6 x 1        | 6.0       | No     | Three Nylon Pads    | Small       | None              | 29               | 92                    | 88                    | 165      |
| 10015200W    | Ball Pivot  | 0.236 | 6.0 | M6 x 1        | 6.0       | No     | Three Nylon Pads    | Large       | None              | 29               | 92                    | 88                    | 165      |
| RC-10015020  | Ball Pivot  | 0.236 | 6.0 | M6 x 1        | 6.0       | No     | M16F and M26M       | Small       | Nylon             | 29               | 92                    | 88                    | 165      |
| RC-10015020W | Ball Pivot  | 0.236 | 6.0 | M6 x 1        | 6.0       | No     | M16F and M26M       | Large       | Nylon             | 29               | 92                    | 88                    | 165      |

## RB(I) 258 - Microstop Cage

Stroke 27mm/1.06"

Cutter Thread M8 x 1 or 1/4"-28

- Different mounting bases available
- Reduced dimensions for tight access areas
- High precision microstop cage, body in heat treated chrome steel, fully ground throughout. This ball mounted microstop cage includes two needle bearings for best utilisation.
- When using the RB 258, any misalignment of the microstop cage is corrected by the unique ball pivoting spindle. This assembly ensures perpendicularity throughout the operation at all time.
- Centring cone of the cutter (120°) for perfect concentricity.
- Microstop depth adjustment (1 scale division = .001").



| Model      | Input Style | Shank |      | Cutter<br>Thread | Stroke<br>mm | Vacuum | Mounting<br>Base Style  | Window<br>Size | Nose<br>Insert<br>Style | Diameter<br>Max.<br>mm | Overall<br>Length<br>Max<br>mm | Overall<br>Length<br>Min<br>mm | Weight<br>g |
|------------|-------------|-------|------|------------------|--------------|--------|-------------------------|----------------|-------------------------|------------------------|--------------------------------|--------------------------------|-------------|
|            |             | in    | mm   |                  |              |        |                         |                |                         |                        |                                |                                |             |
| 10015500PT | Ball Pivot  | 0.250 | 6.35 | M6<br>x 1        | 27.0         | No     | Tapped M19F<br>for Nose | Small          | Nylon                   | 29                     | 156                            | 141                            | 250         |
| 10015500W  | Ball Pivot  | 0.250 | 6.35 | M6<br>x 1        | 27.0         | No     | Tapped M19F<br>for Nose | Large          | Nylon                   | 29                     | 156                            | 141                            | 250         |
| 10015550   | Ball Pivot  | 0.250 | 6.35 | 1/4"-<br>28      | 27.0         | No     | Tapped M19F<br>for Nose | Small          | Nylon                   | 29                     | 156                            | 141                            | 250         |
| 10015550W  | Ball Pivot  | 0.250 | 6.35 | 1/4"-<br>28      | 27.0         | No     | Tapped M19F<br>for Nose | Large          | Nylon                   | 29                     | 156                            | 141                            | 250         |

## RB 306 - Microstop Cage

Stroke 7.5mm/0.3"

Cutter Thread M8 x 1

- Different mounting bases available
- This cage has been designed for use with cutters greater than 0.394" dia.
- For special composites mounting base with vacuum
- Cemented, hardened and ground chrome-nickel steel spindle mounted on a self lubricating bronze body and a thrust bearing.
- Centring-cone of the cutter (120°) for perfect concentricity.
- Microstop depth adjustment (1 scale division = .001").
- Cemented, hardened and ground chrome-nickel steel spindle mounted on a self lubricating bronze body and a thrust bearing.
- Centring-cone of the cutter (120°) for perfect concentricity.
- Microstop depth adjustment (1 scale division = .001").



| Model        | Input Style | Shank |    | Cutter | Stroke | Vacuum | Mounting | Window | Nose Insert    | Diameter Max. | Overall Length Max | Overall Length Min | Weight |
|--------------|-------------|-------|----|--------|--------|--------|----------|--------|----------------|---------------|--------------------|--------------------|--------|
|              |             | in    | mm |        |        |        |          |        |                |               |                    |                    |        |
| 10025001     | Fixed Shank | 0.236 | 6  | M8 x 1 | 7.5    | Yes    | M26M     | Small  | Hard Chrome    | 28            | 98                 | 91                 | 185    |
| 10025001W    | Fixed Shank | 0.236 | 6  | M8 x 1 | 7.5    | Yes    | M26M     | Large  | Hard Chrome    | 28            | 98                 | 91                 | 185    |
| 10025016     | Fixed Shank | 0.236 | 6  | M8 x 1 | 7.5    | Yes    | M26M     | Small  | Nylon          | 28            | 98                 | 91                 | 185    |
| 10025016W    | Fixed Shank | 0.236 | 6  | M8 x 1 | 7.5    | Yes    | M26M     | Large  | Nylon          | 28            | 98                 | 91                 | 185    |
| 10025105     | Fixed Shank | 0.236 | 6  | M8 x 1 | 7.5    | No     | M30M     | Small  | Hard Chrome    | 28            | 98                 | 91                 | 185    |
| 10025105W    | Fixed Shank | 0.236 | 6  | M8 x 1 | 7.5    | No     | M30M     | Large  | Hard Chrome    | 28            | 98                 | 91                 | 185    |
| 10025110     | Fixed Shank | 0.236 | 6  | M8 x 1 | 7.5    | No     | M30M     | Small  | Nylon          | 28            | 98                 | 91                 | 185    |
| 10025110W    | Fixed Shank | 0.236 | 6  | M8 x 1 | 7.5    | No     | M30M     | Large  | Nylon          | 28            | 98                 | 91                 | 185    |
| 10025111     | Fixed Shank | 0.236 | 6  | M8 x 1 | 7.5    | Yes    | M30M     | Small  | Nylon          | 28            | 98                 | 91                 | 185    |
| 10025111W    | Fixed Shank | 0.236 | 6  | M8 x 1 | 7.5    | Yes    | M30M     | Large  | Nylon          | 28            | 98                 | 91                 | 185    |
| 10025116     | Fixed Shank | 0.236 | 6  | M8 x 1 | 7.5    | Yes    | M30M     | Small  | Rotary Celoron | 28            | 98                 | 91                 | 185    |
| 10025116W    | Fixed Shank | 0.236 | 6  | M8 x 1 | 7.5    | Yes    | M30M     | Large  | Rotary Celoron | 28            | 98                 | 91                 | 185    |
| 10025117     | Fixed Shank | 0.236 | 6  | M8 x 1 | 7.5    | Yes    | M30M     | Small  | Hard Chrome    | 28            | 98                 | 91                 | 185    |
| 10025117W    | Fixed Shank | 0.236 | 6  | M8 x 1 | 7.5    | Yes    | M30M     | Large  | Hard Chrome    | 28            | 98                 | 91                 | 185    |
| RC_10025015  | Fixed Shank | 0.236 | 6  | M8 x 1 | 7.5    | No     | M26M     | Small  | Nylon          | 28            | 98                 | 91                 | 185    |
| RC-10025010  | Fixed Shank | 0.236 | 6  | M8 x 1 | 7.5    | No     | M26M     | Small  | Hard Chrome    | 28            | 98                 | 91                 | 185    |
| RC-10025010W | Fixed Shank | 0.236 | 6  | M8 x 1 | 7.5    | No     | M26M     | Large  | Hard Chrome    | 28            | 98                 | 91                 | 185    |
| RC-10025015W | Fixed Shank | 0.236 | 6  | M8 x 1 | 7.5    | No     | M26M     | Large  | Nylon          | 28            | 98                 | 91                 | 185    |

## RB(I) 307 - Microstop Cage

Stroke 7mm/0.3"

Cutter Thread M8 x 1 or 1/2"-28

- Different mounting bases available
- Reduced dimensions for tight access areas
- For special composites mounting base with vacuum
- High precision microstop cage, body in heat treated chrome steel, fully ground throughout. This ball mounted microstop cage includes two needle bearings for best utilisation.
- When using the RB 307, any misalignment of the microstop cage is corrected by the unique ball pivoting spindle. This assembly ensures perpendicularity throughout the operation at all time.
- Centring cone of the cutter (120°) for perfect concentricity.



| Model     | Input Style | Shank |    | Cutter Thread | Stroke mm | Vacuum | Mounting Base Style | Window Size | Nose Insert Style | Diameter Max. mm | Overall Length Max. mm | Overall Length Min. mm | Weight g |
|-----------|-------------|-------|----|---------------|-----------|--------|---------------------|-------------|-------------------|------------------|------------------------|------------------------|----------|
|           |             | in    | mm |               |           |        |                     |             |                   |                  |                        |                        |          |
| 10020001  | Ball Pivot  | 0.236 | 6  | M8 x 1        | 7.0       | Yes    | M19F and M26M       | Small       | Rotary Celeron    | 29               | 98                     | 88                     | 165      |
| 10020001W | Ball Pivot  | 0.236 | 6  | M8 x 1        | 7.0       | Yes    | M19F and M26M       | Large       | Rotary Celeron    | 29               | 98                     | 88                     | 165      |
| 10020001  | Ball Pivot  | 0.236 | 6  | M8 x 1        | 7.0       | Yes    | M19F and M26M       | Small       | Hard Chrome       | 29               | 98                     | 88                     | 165      |
| 10020010  | Ball Pivot  | 0.236 | 6  | M8 x 1        | 7.0       | No     | M19F and M26M       | Small       | Rotary Celeron    | 29               | 98                     | 88                     | 165      |
| 10020010W | Ball Pivot  | 0.236 | 6  | M8 x 1        | 7.0       | No     | M19F and M26M       | Large       | Rotary Celeron    | 29               | 98                     | 88                     | 165      |
| 10020015  | Ball Pivot  | 0.236 | 6  | M8 x 1        | 7.0       | No     | M19F and M26M       | Small       | Hard Chrome       | 29               | 98                     | 88                     | 165      |
| 10020015W | Ball Pivot  | 0.236 | 6  | M8 x 1        | 7.0       | No     | M19F and M26M       | Large       | Hard Chrome       | 29               | 98                     | 88                     | 165      |
| 1002001W  | Ball Pivot  | 0.236 | 6  | M8 x 1        | 7.0       | Yes    | M19F and M26M       | Large       | Hard Chrome       | 29               | 98                     | 88                     | 165      |
| 10020020  | Ball Pivot  | 0.236 | 6  | M8 x 1        | 7.0       | No     | M19F and M26M       | Small       | Nylon             | 29               | 98                     | 88                     | 165      |
| 10020020W | Ball Pivot  | 0.236 | 6  | M8 x 1        | 7.0       | No     | M19F and M26M       | Large       | Nylon             | 29               | 98                     | 88                     | 165      |
| 10020021  | Ball Pivot  | 0.236 | 6  | M8 x 1        | 7.0       | Yes    | M19F and M26M       | Small       | Nylon             | 29               | 98                     | 88                     | 165      |
| 10020021W | Ball Pivot  | 0.236 | 6  | M8 x 1        | 7.0       | Yes    | M19F and M26M       | Large       | Nylon             | 29               | 98                     | 88                     | 165      |
| 10020060  | Ball Pivot  | 0.236 | 6  | 1/4"-28       | 7.0       | No     | M19F and M26M       | Small       | Rotary Celeron    | 29               | 98                     | 88                     | 165      |
| 10020060W | Ball Pivot  | 0.236 | 6  | 1/4"-28       | 7.0       | No     | M19F and M26M       | Large       | Rotary Celeron    | 29               | 98                     | 88                     | 165      |
| 10020065  | Ball Pivot  | 0.236 | 6  | 1/4"-28       | 7.0       | No     | M19F and M26M       | Small       | Hard Chrome       | 29               | 98                     | 88                     | 165      |
| 10020065W | Ball Pivot  | 0.236 | 6  | 1/4"-28       | 7.0       | No     | M19F and M26M       | Large       | Hard Chrome       | 29               | 98                     | 88                     | 165      |
| 10020070  | Ball Pivot  | 0.236 | 6  | 1/4"-28       | 7.0       | No     | M19F and M26M       | Small       | Nylon             | 29               | 98                     | 88                     | 165      |

## Hand Drilling, Countersinking & Spotfacing

| Model     | Input Style | Shank |    | Cutter  | Stroke | Vacuum | Mounting      | Window | Nose Insert    | Diameter Max. | Overall Length Max | Overall Length Min | Weight |
|-----------|-------------|-------|----|---------|--------|--------|---------------|--------|----------------|---------------|--------------------|--------------------|--------|
|           |             | in    | mm | Thread  | mm     |        | Base Style    | Size   | Style          | mm            | mm                 | mm                 | g      |
| 10020070W | Ball Pivot  | 0.236 | 6  | 1/4"-28 | 7.0    | No     | M19F and M26M | Large  | Nylon          | 29            | 98                 | 88                 | 165    |
| 10020105  | Ball Pivot  | 0.236 | 6  | M8 x 1  | 7.0    | No     | M19F and M26M | Small  | Rotary Celeron | 29            | 98                 | 88                 | 165    |
| 10020105W | Ball Pivot  | 0.236 | 6  | M8 x 1  | 7.0    | No     | M19F and M26M | Large  | Rotary Celeron | 29            | 98                 | 88                 | 165    |
| 10020106  | Ball Pivot  | 0.236 | 6  | M8 x 1  | 7.0    | Yes    | M19F and M26M | Small  | Rotary Celeron | 29            | 98                 | 88                 | 165    |
| 10020106W | Ball Pivot  | 0.236 | 6  | M8 x 1  | 7.0    | Yes    | M19F and M26M | Large  | Rotary Celeron | 29            | 98                 | 88                 | 165    |
| 10020110  | Ball Pivot  | 0.236 | 6  | M8 x 1  | 7.0    | No     | M19F and M26M | Small  | Hard Chrome    | 29            | 98                 | 88                 | 165    |
| 10020110W | Ball Pivot  | 0.236 | 6  | M8 x 1  | 7.0    | No     | M19F and M26M | Large  | Hard Chrome    | 29            | 98                 | 88                 | 165    |
| 10020111  | Ball Pivot  | 0.236 | 6  | M8 x 1  | 7.0    | Yes    | M19F and M26M | Small  | Hard Chrome    | 29            | 98                 | 88                 | 165    |
| 10020111W | Ball Pivot  | 0.236 | 6  | M8 x 1  | 7.0    | Yes    | M19F and M26M | Large  | Hard Chrome    | 29            | 98                 | 88                 | 165    |
| 10020115  | Ball Pivot  | 0.236 | 6  | M8 x 1  | 7.0    | No     | M30M          | Small  | Nylon          | 29            | 98                 | 88                 | 165    |
| 10020115W | Ball Pivot  | 0.236 | 6  | M8 x 1  | 7.0    | No     | M30M          | Large  | Nylon          | 29            | 98                 | 88                 | 165    |
| 10020116  | Ball Pivot  | 0.236 | 6  | M8 x 1  | 7.0    | Yes    | M30M          | Small  | Nylon          | 29            | 98                 | 88                 | 165    |
| 10020116W | Ball Pivot  | 0.236 | 6  | M8 x 1  | 7.0    | Yes    | M30M          | Large  | Nylon          | 29            | 98                 | 88                 | 165    |
| 10020155  | Ball Pivot  | 0.236 | 6  | 1/4"-28 | 7.0    | No     | M19F and M26M | Small  | Rotary Celeron | 29            | 98                 | 88                 | 165    |
| 10020155W | Ball Pivot  | 0.236 | 6  | 1/4"-28 | 7.0    | No     | M19F and M26M | Large  | Rotary Celeron | 29            | 98                 | 88                 | 165    |
| 10020160  | Ball Pivot  | 0.236 | 6  | 1/4"-28 | 7.0    | No     | M19F and M26M | Small  | Hard Chrome    | 29            | 98                 | 88                 | 165    |
| 10020160W | Ball Pivot  | 0.236 | 6  | 1/4"-28 | 7.0    | No     | M19F and M26M | Large  | Hard Chrome    | 29            | 98                 | 88                 | 165    |
| 10020165  | Ball Pivot  | 0.236 | 6  | 1/4"-28 | 7.0    | No     | M19F and M26M | Small  | Nylon          | 29            | 98                 | 88                 | 165    |
| 10020165W | Ball Pivot  | 0.236 | 6  | 1/4"-28 | 7.0    | No     | M19F and M26M | Large  | Nylon          | 29            | 98                 | 88                 | 165    |
| 10020166  | Ball Pivot  | 0.236 | 6  | 1/4"-28 | 7.0    | Yes    | M19F and M26M | Small  | Nylon          | 29            | 98                 | 88                 | 165    |
| 10020166W | Ball Pivot  | 0.236 | 6  | 1/4"-28 | 7.0    | Yes    | M19F and M26M | Large  | Nylon          | 29            | 98                 | 88                 | 165    |
| 10020200  | Ball Pivot  | 0.236 | 6  | M8 x 1  | 7.0    | No     | 3 Nylon Pads  | Small  | None           | 29            | 98                 | 88                 | 165    |
| 10020200W | Ball Pivot  | 0.236 | 6  | M8 x 1  | 7.0    | No     | 3 Nylon Pads  | Large  | None           | 29            | 98                 | 88                 | 165    |
| 10020250  | Ball Pivot  | 0.236 | 6  | 1/4"-28 | 7.0    | No     | 3 Nylon Pads  | Small  | None           | 29            | 98                 | 88                 | 165    |
| 10020250W | Ball Pivot  | 0.236 | 6  | 1/4"-28 | 7.0    | No     | 3 Nylon Pads  | Large  | None           | 29            | 98                 | 88                 | 165    |

## RB 356 HP 21 | RBI 356 HP 21 | RB356 HPI 21 - Microstop Cage

Stroke 21mm/0.83"

Cutter Thread M6 x 1 or 1/4"-28

Input shank 7mm/0.28", No 1 Jacobs Taper, 3/8"-24 Female Thread

- Detachable spindle adaptor provides alternative methods for use:
  - In combination with 3 jaw chuck.
  - Mounting direct onto machine spindle using No 1 Jacobs taper or 3/8"-24 Threaded Input Option. This method provides increased level of concentricity, while reducing the length and weight of the drill / tool assembly. This results in better performance, improved machining and less fatigue on the operator.
- Cemented, hardened and ground chrome-nickel steel spindle mounted on 3 needle-bearings and a thrust bearing.
- Microstop depth adjustment (1 scale division = .001")
- Microstop depth setting is held securely in place by locknut with seal. This patented feature allows an easy loosening of the locknut without damage to the drill cage.



| Model     | Input Style      | Shank |    | Cutter<br>Thread | Stroke<br>mm | Vacuum | Mounting<br>Base Style | Window<br>Size | Nose<br>Insert<br>Style | Diameter<br>Max.<br>mm | Overall<br>Length<br>Max<br>mm | Overall<br>Length<br>Min<br>mm | Weight<br>g |
|-----------|------------------|-------|----|------------------|--------------|--------|------------------------|----------------|-------------------------|------------------------|--------------------------------|--------------------------------|-------------|
|           |                  | in    | mm |                  |              |        |                        |                |                         |                        |                                |                                |             |
| 10040050  | JT1 with Adaptor | 0.28  | 7  | 1/4"-28          | 22.0         | No     | None/Flat Base         | Small          | None                    | 27                     | 136                            | 116                            | 300         |
| 10040200W | JT1 with Adaptor | 0.28  | 7  | M6 x 1           | 22.0         | No     | None/Flat Base Narrow  | Large          | None                    | 27                     | 136                            | 116                            | 300         |
| 10040210  | JT1 with Adaptor | 0.28  | 7  | M6 x 1           | 22.0         | No     | None/Flat Base Narrow  | Small          | Tripod + 3 Nylon Studs  | 27                     | 136                            | 116                            | 300         |
| 10040210W | JT1 with Adaptor | 0.28  | 7  | M6 x 1           | 22.0         | No     | None/Flat Base Narrow  | Large          | None                    | 27                     | 136                            | 116                            | 300         |
| 10040250  | JT1 with Adaptor | 0.28  | 7  | 1/4"-28          | 22.0         | No     | None/Flat Base Narrow  | Small          | None                    | 27                     | 136                            | 116                            | 300         |
| 10040250W | JT1 with Adaptor | 0.28  | 7  | 1/4"-28          | 22.0         | No     | None/Flat Base Narrow  | Large          | None                    | 27                     | 136                            | 116                            | 300         |
| 10040260  | JT1 with Adaptor | 0.28  | 7  | 1/4"-28          | 22.0         | No     | None                   | Small          | Tripod + 3 Nylon Studs  | 27                     | 136                            | 116                            | 300         |
| 10040260W | JT1 with Adaptor | 0.28  | 7  | 1/4"-28          | 22.0         | No     | None/Flat Base Narrow  | Large          | Tripod + 3 Nylon Studs  | 27                     | 136                            | 116                            | 300         |
| 10040405  | JT1 with Adaptor | 0.28  | 7  | M6 x 1           | 22.0         | No     | Tapped M35 For Nose    | Small          | Nylon                   | 27                     | 136                            | 116                            | 300         |
| 10040405W | JT1 with Adaptor | 0.28  | 7  | M6 x 1           | 22.0         | No     | Tapped M35 For Nose    | Large          | Nylon                   | 27                     | 136                            | 116                            | 300         |
| 10040455  | JT1 with Adaptor | 0.28  | 7  | 1/4"-28          | 22.0         | No     | Tapped M35 For Nose    | Small          | Nylon                   | 27                     | 136                            | 116                            | 300         |



## Hand Drilling, Countersinking & Spotfacing

| Model     | Input Style      | Shank |    | Cutter  | Stroke | Vacuum | Mounting            | Window | Nose Insert            | Diameter Max. | Overall Length Max | Overall Length Min | Weight |
|-----------|------------------|-------|----|---------|--------|--------|---------------------|--------|------------------------|---------------|--------------------|--------------------|--------|
|           |                  | in    | mm | Thread  | mm     |        | Base Style          | Size   | Style                  | mm            | mm                 | mm                 | g      |
| 10040455W | JT1 with Adaptor | 0.28  | 7  | 1/4"-28 | 22.0   | No     | Tapped M35 For Nose | Large  | Nylon                  | 27            | 136                | 116                | 300    |
| 10040505  | JT1 with Adaptor | 0.28  | 7  | M6 x 1  | 22.0   | No     | None                | Small  | Tripod + 3 Nylon Studs | 27            | 136                | 116                | 300    |
| 10040505W | JT1 with Adaptor | 0.28  | 7  | M6 x 1  | 22.0   | No     | None                | Large  | Tripod + 3 Nylon Studs | 27            | 136                | 116                | 300    |
| 10040555W | JT1 with Adaptor | 0.28  | 7  | 1/4"-28 | 22.0   | No     | None                | Large  | Tripod + 3 Nylon Studs | 27            | 136                | 116                | 300    |
| 10040600W | JT1 with Adaptor | 0.28  | 7  | M6 x 1  | 22.0   | No     | None/Flat Base      | Large  | None                   | 27            | 136                | 116                | 300    |
| 10040650  | JT1 with Adaptor | 0.28  | 7  | 1/4"-28 | 22.0   | No     | None/Flat Base      | Small  | None                   | 27            | 136                | 116                | 300    |
| 10040650W | JT1 with Adaptor | 0.28  | 7  | 1/4"-28 | 22.0   | No     | None/Flat Base      | Large  | None                   | 27            | 136                | 116                | 300    |
| 10040720  | 3/8"-24          | 0.28  | 7  | M6 x 1  | 22.0   | No     | None/Flat Base      | Small  | None                   | 27            | 136                | 116                | 300    |
| 10040730  | 3/8"-24          | 0.28  | 7  | M6 x 1  | 22.0   | No     | None                | Small  | Tripod + 3 Nylon Studs | 27            | 136                | 116                | 300    |
| 10040740  | 3/8"-24          | 0.28  | 7  | M6 x 1  | 22.0   | No     | Tapped M35 For Nose | Small  | Nylon                  | 27            | 136                | 116                | 300    |
| 10040750  | 3/8"-24          | 0.28  | 7  | M6 x 1  | 22.0   | No     | None                | Small  | Tripod + 3 Nylon Studs | 27            | 136                | 116                | 300    |
| 10040760  | 3/8"-24          | 0.28  | 7  | M6 x 1  | 22.0   | No     | None/Flat Base      | Small  | None                   | 27            | 136                | 116                | 300    |

## RB 356 HP 38 | RBI 356 HP 38 | RB 356 HPI 38 - Microstop Cage

Stroke 38mm/1.49"

Cutter Thread M6 x 1 or 1/4"-28

Input shank 7mm/0.28", No 1 Jacobs Taper, 3/8"-24 Female Thread

- Detachable spindle adaptor provides alternative methods for use:
  - In combination with 3 jaw chuck.
  - Mounting direct onto machine spindle using No 1 Jacobs taper or 3/8"-24 Threaded Input Option. This method provides increased level of concentricity, while reducing the length and weight of the drill / tool assembly. This results in better performance, improved machining and less fatigue on the operator.
- Cemented, hardened and ground chrome-nickel steel spindle mounted on 3 needle-bearings and a thrust bearing.
- Microstop depth adjustment (1 scale division = .001").
- Microstop depth setting is held securely in place by locknut with seal. This patented feature allows an easy loosening of the locknut without damage to the drill cage.



| Model     | Input Style      | Shank |    | Cutter Thread | Stroke mm | Vacuum | Mounting Base Style    | Window Size | Nose Insert Style      | Diameter Max. mm | Overall Length Max mm | Overall Length Min mm | Weight g |
|-----------|------------------|-------|----|---------------|-----------|--------|------------------------|-------------|------------------------|------------------|-----------------------|-----------------------|----------|
|           |                  | in    | mm |               |           |        |                        |             |                        |                  |                       |                       |          |
| 10045050  | JT1 with Adaptor | 0.28  | 7  | 1/4"-28       | 38.0      | No     | None/Flat Base         | Small       | None                   | 27               | 183                   | 168                   | 375      |
| 10045050W | JT1 with Adaptor | 0.28  | 7  | 1/4"-28       | 38.0      | No     | None/Flat Base         | Large       | None                   | 27               | 183                   | 168                   | 375      |
| 10045200W | JT1 with Adaptor | 0.28  | 7  | M6 x 1        | 38.0      | No     | None/Flat Base         | Large       | None                   | 27               | 183                   | 168                   | 375      |
| 10045210  | Straight Shank   | 0.28  | 7  | M 6 X 1       | 38.0      | No     | Tripod + 3 Nylon Studs | Large       |                        | 27               | 183                   | 168                   | 375      |
| 10045210W | Straight Shank   | 0.28  | 7  | M 6 X 1       | 38.0      | No     | Tripod + 3 Nylon Studs | Small       |                        | 27               | 183                   | 168                   | 375      |
| 10045405  | JT1 with Adaptor | 0.28  | 7  | M6 x 1        | 38.0      | No     | Tapped M35 For Nose    | Small       | Nylon                  | 27               | 183                   | 168                   | 375      |
| 10045405W | JT1 with Adaptor | 0.28  | 7  | M6 x 1        | 38.0      | No     | Tapped M35 For Nose    | Large       | Nylon                  | 27               | 183                   | 168                   | 375      |
| 10045455  | JT1 with Adaptor | 0.28  | 7  | 1/4"-28       | 38.0      | No     | Tapped M35 For Nose    | Small       | Nylon                  | 27               | 183                   | 168                   | 375      |
| 10045505  | JT1 with Adaptor | 0.28  | 7  | M6 x 1        | 38.0      | No     | None/Flat Base         | Small       | Tripod + 3 Nylon Studs | 27               | 183                   | 168                   | 375      |
| 10045555  | JT1 with Adaptor | 0.28  | 7  | 1/4"-28       | 38.0      | No     | None/Flat Base         | Small       | Tripod + 3 Nylon Studs | 27               | 183                   | 168                   | 375      |
| 10045600W | JT1 with Adaptor | 0.28  | 7  | M6 x 1        | 38.0      | No     | None/Flat Base         | Large       | None                   | 27               | 183                   | 168                   | 375      |
| 10045650  | JT1 with Adaptor | 0.28  | 7  | 1/4"-28       | 38.0      | No     | None/Flat Base         | Small       | None                   | 27               | 183                   | 168                   | 375      |

## Hand Drilling, Countersinking & Spotfacing

| Model     | Input Style      | Shank |    | Cutter  | Stroke | Vacuum | Mounting              | Window | Nose Insert | Diame-ter Max. | Overall Length Max | Overall Length Min | Weight |
|-----------|------------------|-------|----|---------|--------|--------|-----------------------|--------|-------------|----------------|--------------------|--------------------|--------|
|           |                  | in    | mm | Thread  | mm     |        | Base Style            | Size   | Style       | mm             | mm                 | mm                 | g      |
| 10045650W | JT1 with Adaptor | 0.28  | 7  | 1/4"-28 | 38.0   | No     | None/Flat Base        | Large  | None        | 27             | 183                | 168                | 375    |
| 10045720  | 3/8"-24          |       |    | M6 x 1  | 38.0   | No     | None/Flat Base Narrow | Small  | None        | 27             | 183                | 168                | 375    |
| 10045740  | 3/8"-24          |       |    | M6 x 1  | 38.0   | No     | Tapped M35 For Nose   | Small  | Nylon       | 27             | 183                | 168                | 375    |
| 10045760  | 3/8"-24          |       |    | M6 x 1  | 38.0   | No     | None/Flat Base        | Small  | None        | 27             | 183                | 168                | 375    |
| 10045760W | 3/8"-24          |       |    | M6 x 1  | 38.0   | No     | None/Flat Base        | Large  | None        | 27             | 183                | 168                | 375    |



## RB 356HP58 - Microstop Cage

Stroke 58mm/2.3"

Cutter Thread M10 x 1 and 7/16"-20

- Detachable spindle adaptor No 1 Jacobs Taper provides alternative methods for use:
  - In combination with 3 jaw chuck with 10mm/0.39" shank input.
  - Mounting direct onto machine spindle using No 1 Jacobs Taper. This method provides increased level of concentricity, while reducing the length and weight of the drill / tool assembly. This results in better performance, improved machining and less fatigue on the operator.
- Cemented, hardened and ground chrome-nickel steel spindle mounted on 3 needle-bearings and a thrust bearing.
- Microstop depth adjustment (1 scale division = .001").
- Microstop depth setting is held securely in place by locknut with seal. This patented feature allows an easy loosening of the locknut without damage to the drill cage.



| Model     | Input Style      | Shank |    | Cutter<br>Thread | Stroke<br>mm | Vacuum | Mounting<br>Base Style | Window<br>Size | Diameter<br>Max.<br>mm | Overall<br>Length<br>Max<br>mm | Overall<br>Length<br>Min<br>mm | Weight<br>g |
|-----------|------------------|-------|----|------------------|--------------|--------|------------------------|----------------|------------------------|--------------------------------|--------------------------------|-------------|
|           |                  | in    | mm |                  |              |        |                        |                |                        |                                |                                |             |
| 10050000  | JT1 with Adaptor | 0.276 | 7  | M10 x 1          | 58.0         | No     | Flat Bearing           | Small          | 38                     | 292                            | 264                            | 970         |
| 10050000W | JT1 with Adaptor | 0.276 | 7  | M10 x 1          | 58.0         | No     | Flat Bearing           | Large          | 38                     | 292                            | 264                            | 970         |
| 10050050  | JT1 with Adaptor | 0.276 | 7  | 7/16"-20 F       | 58.0         | No     | Flat Bearing           | Small          | 38                     | 292                            | 264                            | 970         |
| 10050050W | JT1 with Adaptor | 0.276 | 7  | 7/16"-20 F       | 58.0         | No     | Flat Bearing           | Large          | 38                     | 292                            | 264                            | 970         |

## RB 406 - Microstop Cage

Stroke 14mm/0.55"

Cutter Thread M10 x 1

- This drill cage has been designed for use with cutter of 7/8" to 1.1/2" dia.
- Different mounting bases available
- Reduced dimensions for tight access areas
- Detachable spindle adaptor provides alternative methods for use :
  - In combination with 3 jaw chuck.
  - Mounting direct onto machine spindle. This method provides increased level of concentricity, while reducing the length and weight of the drill / tool assembly. This results in better performance, improved machining and less fatigue on the operator.
- Cemented, hardened and ground chrome-nickel steel spindle mounted on 3 needle-bearings and a thrust bearing.
- Microstop depth adjustment (1 scale division = .001").



| Model     | Shank |    | Cutter  | Stroke | Vacuum | Mounting       | Window | Diameter Max. | Overall Length Max | Overall Length Min | Weight |
|-----------|-------|----|---------|--------|--------|----------------|--------|---------------|--------------------|--------------------|--------|
|           | in    | mm | Thread  | mm     |        | Base Style     | Size   | mm            | mm                 | mm                 | g      |
| 10030010  | 0.39  | 10 | M10 x 1 | 14.0   | No     | None/Flat Base | Small  | 36            | 163                | 136                | 545    |
| 10030010W | 0.39  | 10 | M10 x 1 | 14.0   | No     | None/Flat Base | Large  | 36            | 163                | 136                | 545    |
| 10030105  | 0.39  | 10 | M10 x 1 | 14.0   | No     | None/Flat Base | Small  | 36            | 163                | 136                | 545    |
| 10030105W | 0.39  | 10 | M10 x 1 | 14.0   | No     | None/Flat Base | Large  | 36            | 163                | 136                | 545    |

# Cleco

---

## RIVETING



## RB41/RB42 Series - Compression Riveter - C-Yoke Type

Up to 3/16" | 4.8mm Capacity Al rivets



- Rivet set holder adjustment - stroke 0.12" allows the operator to use this compression riveter with different thicknesses without changing the rivet set.
- This light, sturdy, compact and fast compression riveter, has a maximum rivet capacity of 9/64" dia (3,6 mm) for aluminium rivets (depending on the rivet joint thickness).
- Equipped with a safety throttle lever.
- Smooth controlled throttle movement for fast and slow approach.
- To develop maximum power the riveter must squeeze the rivet near to the end of the riveting stroke. Therefore, the combined length of the two rivets sets must be correct.
- The operator can adjust exactly the position of the rivet by adjusting the snap holder (stroke 3 mm). This allows the operator to use the same rivet set for different thicknesses.

| Model    | Rivet Squeezer Set Shank Diameter | Capacity Aluminum Rivets | Maximum Force   | Reach           | Gap             | Maximum Travel  | Weight | Accessories   | Length  |
|----------|-----------------------------------|--------------------------|-----------------|-----------------|-----------------|-----------------|--------|---|---------|
|          |                                   | mm   in                  | T   Lb          | mm   in         | mm   in         | mm   in         | Lb     |   | in      |
| 60102010 | Std diameter 5 mm                 | 4.8mm   3/16in           | 2.2T   4850 lbs | 50 mm   2.00 in | 35 mm   1.38 in | 34 mm   1.34 in | 6.7 lb | Select Rivet Set from:-<br>RB 400 for countersink rivets<br>RB 401 for universal head type rivets<br>RB 402 for special reduced universal head rivets | 13.4 in |
| 60102110 | Std diameter 3/16"                | 4.8mm   3/16in           | 2.2T   4850 lbs | 50 mm   2.00 in | 35 mm   1.38 in | 34 mm   1.34 in | 6.7 lb | Select Rivet Set from:-<br>RB 400 for countersink rivets<br>RB 401 for universal head type rivets<br>RB 402 for special reduced universal head rivets | 13.4 in |
| 60103010 | Std diameter 5 mm                 | 3.6mm   9/64in           | 1.4T   3090 lbs | 50 mm   2.00 in | 36 mm   1.41 in | 35 mm   1.38 in | 4.8 lb | Select Rivet Set from:-<br>RB 400 for countersink rivets<br>RB 401 for universal head type rivets<br>RB 402 for special reduced universal head rivets | 10.8 in |
| 60103110 | Std diameter 3/16"                | 3.6mm   9/64in           | 1.4T   3090 lbs | 50 mm   2.00 in | 36 mm   1.41 in | 35 mm   1.38 in | 4.8 lb | Select Rivet Set from:-<br>RB 400 for countersink rivets<br>RB 401 for universal head type rivets<br>RB 402 for special reduced universal head rivets | 10.8 in |



## RB43/RB40/RB44 Series - Compression Riveter- Alligator Jaw Type

Up to 7/32" | 5.6mm Capacity Al rivets

- Rivet set holder adjustment - stroke 0.2" allows the operator to use this compression riveter with different thicknesses without changing the rivet set.
- This light, sturdy, compact and fast compression riveter, has a maximum rivet capacity of 3/16" dia for aluminium rivets (depending on the rivet joint thickness).
- Equipped with a safety throttle lever.
- Smooth controlled throttle movement for fast and slow approach.
- To develop maximum power the riveter must squeeze the rivet near to the end of the riveting stroke. Therefore, the combined length of the two rivets sets must be correct.
- The operator can adjust exactly the position of the rivet by adjusting the snap holder (stroke 5 mm). This allows the operator to use the same rivet set for different thicknesses.



| Model    | Rivet Squeezer Set Shank Diameter | Capacity Aluminum Rivets | Maximum Force   | Reach           | Gap             | Maximum Travel  | Weight  | Accessories   | Length  |
|----------|-----------------------------------|--------------------------|-----------------|-----------------|-----------------|-----------------|---------|---|---------|
|          |                                   | mm   in                  | T   Lb          | mm   in         | mm   in         | mm   in         | Lb      |   | in      |
| 60101010 | Std diameter 5 mm                 | 4.8mm   3/16in           | 2.6T   5730 lbs | 60 mm   2.36 in | 55 mm   2.16 in | 49 mm   1.93 in | 6.7 lb  | Select Rivet Set from:-<br>RB 400 for countersink rivets<br>RB 401 for universal head type rivets<br>RB 402 for special reduced universal head rivets | 14.4 in |
| 60101020 | Std diameter 5 mm                 | 3.6mm   9/64in           | 1.8T   3970 lbs | 85 mm   3.35 in | 55 mm   2.16 in | 49 mm   1.93 in | 6.8 lb  | Select Rivet Set from:-<br>RB 400 for countersink rivets<br>RB 401 for universal head type rivets<br>RB 402 for special reduced universal head rivets | 15.4 in |
| 60101110 | Std diameter 3/16"                | 4.8mm   3/16in           | 2.6T   5730 lbs | 60 mm   2.36 in | 55 mm   2.16 in | 49 mm   1.93 in | 6.7 lb  | Select Rivet Set from:-<br>RB 400 for countersink rivets<br>RB 401 for universal head type rivets<br>RB 402 for special reduced universal head rivets | 14.4 in |
| 60101120 | Std diameter 3/16"                | 3.6mm   9/64in           | 1.8T   3970 lbs | 85mm   3.35 in  | 55 mm   2.16 in | 49 mm   1.93 in | 6.8 lb  | Select Rivet Set from:-<br>RB 400 for countersink rivets<br>RB 401 for universal head type rivets<br>RB 402 for special reduced universal head rivets | 15.4 in |
| 60104010 | Std diameter 5 mm                 | 3.6mm   9/64in           | 1.4T   3090 lbs | 60 mm   2.36 in | 55 mm   2.16 in | 49 mm   1.93 in | 4.59 lb | Select Rivet Set from:-<br>RB 400 for countersink rivets<br>RB 401 for universal head type rivets<br>RB 402 for special reduced universal head rivets | 9.7 in  |
| 60104110 | Std diameter 3/16"                | 3.6mm   9/64in           | 1.4T   3090 lbs | 60 mm   2.36 in | 55 mm   2.16 in | 49 mm   1.93 in | 4.59 lb | Select Rivet Set from:-<br>RB 400 for countersink rivets<br>RB 401 for universal head type rivets<br>RB 402 for special reduced universal head rivets | 9.7 in  |
| 60110010 | Std diameter 5 mm                 | 5.6mm   7/32in           | 3T   6610 lbs   | 58 mm   2.28 in | 35 mm   1.38 in | 45 mm   1.77 in | 11.2 lb | Select Rivet Set from:-<br>RB 400 for countersink rivets<br>RB 401 for universal head type rivets<br>RB 402 for special reduced universal head rivets | 16.8 in |

## RB46 Series - Pressure Riveting Unit for C Yoke or Alligator Jaws

Up to 5/16" / 8mm Capacity Al rivets

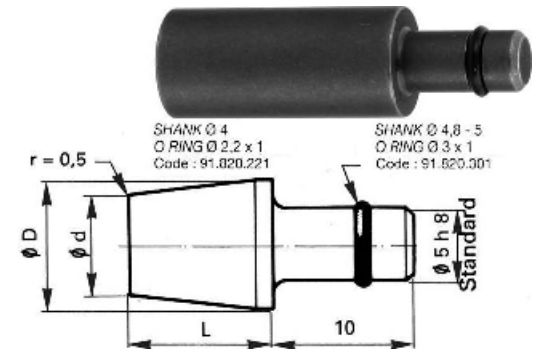
- The RB 46 pressure riveting assembly comprises a hydropneumatic generator, a hydraulic cylinder and a regulator for setting the force (max. 7 tonnes). It uses various standard and special yokes to form solid rivets made from various materials.
- It is easy to use and adjust, making it suitable for all riveting operations on assembly rigs and for maintenance repairs.
- The work cycle is performed automatically after initiation by the operator.
  - quick feed at low pressure until rivet contact
  - high pressure squeezing at preset forces
  - automatic return.
- The principle of this riveting assembly is based on automatic control of the squeezing force ; no additional adjustment is required to squeeze rivets of the same type, diameter and material on assemblies of varying thicknesses.
- An adjusting nut can be used to reduce the return stroke to shorten the riveting time.



| Model    | Maximum Force  | Accessories   | Hose Length |
|----------|----------------|---|-------------|
|          | T   Lb         |   | m           |
| 60203006 | 7T   15400 lbs | Select Rivet Set from:-<br>RB 400 for countersink rivets<br>RB 401 for universal head type rivets<br>RB 402 for special reduced universal head rivets | 1.80, 5.9   |
| 60203016 | 7T   15400 lbs | Select Rivet Set from:-<br>RB 400 for countersink rivets<br>RB 401 for universal head type rivets<br>RB 402 for special reduced universal head rivets | 1.80, 5.9   |
| 60203106 | 7T   15400 lbs | Select Rivet Set from:-<br>RB 400 for countersink rivets<br>RB 401 for universal head type rivets<br>RB 402 for special reduced universal head rivets | 3, 9.8      |
| 60203116 | 7T   15400 lbs | Select Rivet Set from:-<br>RB 400 for countersink rivets<br>RB 401 for universal head type rivets<br>RB 402 for special reduced universal head rivets | 3, 9.8      |

## RB400 - Rivet Set - Countersunk Rivets

- For Countersink Rivets

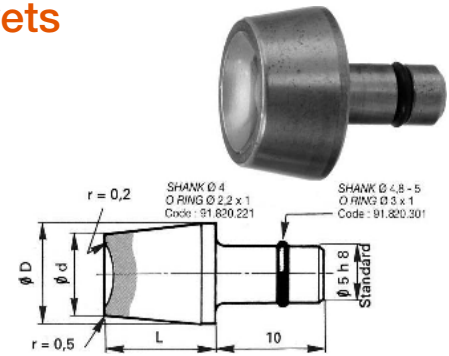


| Model    | Shank | Rivet Diameter                      | Length |       | Diameter Min |       | Diameter Max |       | Used On  |
|----------|-------|-------------------------------------|--------|-------|--------------|-------|--------------|-------|--|
|          |       |                                     | mm     | in    | mm           | in    | mm           | in    |  |
| 60701005 | 4h8   | 1.6 mm   2.4 mm   1/16 in   3/32 in | 4      | 0.157 | 7            | 0.276 | 9            | 0.354 | •RB 40-13-30 Hand Riveter  |
| 60701020 | 4h8   | 1.6 mm   2.4 mm   1/16 in   3/32 in | 7      | 0.276 | 7            | 0.276 | 9            | 0.354 | •RB 40-13-30 Hand Riveter  |
| 60701205 | 4h8   | 3.2 mm   3.6 mm   1/16 in   3/32 in | 4      | 0.157 | 9            | 0.354 | 9            | 0.354 | •RB 40-13-30 Hand Riveter  |
| 60701220 | 4h8   | 3.2 mm   3.6 mm   1/16 in   3/32 in | 7      | 0.276 | 9            | 0.354 | 9            | 0.354 | •RB 40-13-30 Hand Riveter  |
| 60703005 | 5h8   | 1.6 mm   2.4 mm   1/16 in   3/32 in | 4      | 0.157 | 7            | 0.276 | 9            | 0.354 | •RB 41-17-70 Hand Riveter<br>•All compression riveters RB41-17-70 Hand Riveter |
| 60703020 | 5h8   | 1.6 mm   2.4 mm   1/16 in   3/32 in | 7      | 0.276 | 7            | 0.276 | 9            | 0.354 | •RB 41-17-70 Hand Riveter<br>•All compression riveters RB41-17-70 Hand Riveter |
| 60703040 | 5h8   | 1.6 mm   2.4 mm   1/16 in   3/32 in | 10     | 0.394 | 7            | 0.276 | 9            | 0.354 | •RB 41-17-70 Hand Riveter<br>•All compression riveters RB41-17-70 Hand Riveter |
| 60703055 | 5h8   | 1.6 mm   2.4 mm   1/16 in   3/32 in | 12.5   | 0.492 | 7            | 0.276 | 9            | 0.354 | •RB 41-17-70 Hand Riveter<br>•All compression riveters RB41-17-70 Hand Riveter |
| 60703075 | 5h8   | 1.6 mm   2.4 mm   1/16 in   3/32 in | 16     | 0.63  | 7            | 0.276 | 9            | 0.354 | •RB 41-17-70 Hand Riveter<br>•All compression riveters RB41-17-70 Hand Riveter |
| 60703095 | 5h8   | 1.6 mm   2.4 mm   1/16 in   3/32 in | 20     | 0.787 | 7            | 0.276 | 9            | 0.354 | •RB 41-17-70 Hand Riveter<br>•All compression riveters RB41-17-70 Hand Riveter |
| 60703220 | 5h8   | 3.2 mm   3.6 mm   1/16 in   3/32 in | 7      | 0.276 | 9            | 0.354 | 9            | 0.354 | •RB 41-17-70 Hand Riveter<br>•All compression riveters RB41-17-70 Hand Riveter |
| 60703240 | 5h8   | 3.2 mm   3.6 mm   1/16 in   3/32 in | 10     | 0.394 | 9            | 0.354 | 9            | 0.354 | •RB 41-17-70 Hand Riveter<br>•All compression riveters RB41-17-70 Hand Riveter |
| 60703255 | 5h8   | 3.2 mm   3.6 mm   1/16 in   3/32 in | 12.5   | 0.492 | 9            | 0.354 | 9            | 0.354 | •RB 41-17-70 Hand Riveter<br>•All compression riveters RB41-17-70 Hand Riveter |
| 60703275 | 5h8   | 3.2 mm   3.6 mm   1/16 in   3/32 in | 16     | 0.63  | 9            | 0.354 | 9            | 0.354 | •RB 41-17-70 Hand Riveter<br>•All compression riveters RB41-17-70 Hand Riveter |
| 60703295 | 5h8   | 3.2 mm   3.6 mm   1/16 in   3/32 in | 20     | 0.787 | 9            | 0.354 | 9            | 0.354 | •RB 41-17-70 Hand Riveter<br>•All compression riveters RB41-17-70 Hand Riveter |

| Model    | Shank | Rivet Diameter                     | Length |       | Diameter Min |       | Diameter Max |       | Used On  |
|----------|-------|------------------------------------|--------|-------|--------------|-------|--------------|-------|--|
|          |       |                                    | mm     | in    | mm           | in    | mm           | in    |  |
| 60703405 | 5h8   | 4 mm   5/32 in                     | 4      | 0.157 | 10           | 0.394 | 14           | 0.551 | <ul style="list-style-type: none"> <li>•RB 41-17-70 Hand Riveter</li> <li>•All compression riveters RB41-17-70 Hand Riveter</li> </ul> |
| 60703420 | 5h8   | 4 mm   5/32 in                     | 7      | 0.276 | 10           | 0.394 | 14           | 0.551 | <ul style="list-style-type: none"> <li>•RB 41-17-70 Hand Riveter</li> <li>•All compression riveters RB41-17-70 Hand Riveter</li> </ul> |
| 60703440 | 5h8   | 4 mm   5/32 in                     | 10     | 0.394 | 10           | 0.394 | 14           | 0.551 | <ul style="list-style-type: none"> <li>•RB 41-17-70 Hand Riveter</li> <li>•All compression riveters RB41-17-70 Hand Riveter</li> </ul> |
| 60703455 | 5h8   | 4 mm   5/32 in                     | 12.5   | 0.492 | 10           | 0.394 | 14           | 0.551 | <ul style="list-style-type: none"> <li>•RB 41-17-70 Hand Riveter</li> <li>•All compression riveters RB41-17-70 Hand Riveter</li> </ul> |
| 60703475 | 5h8   | 4 mm   5/32 in                     | 16     | 0.63  | 10           | 0.394 | 14           | 0.551 | <ul style="list-style-type: none"> <li>•RB 41-17-70 Hand Riveter</li> <li>•All compression riveters RB41-17-70 Hand Riveter</li> </ul> |
| 60703495 | 5h8   | 4 mm   5/32 in                     | 20     | 0.787 | 10           | 0.394 | 14           | 0.551 | <ul style="list-style-type: none"> <li>•RB 41-17-70 Hand Riveter</li> <li>•All compression riveters RB41-17-70 Hand Riveter</li> </ul> |
| 60703505 | 5h8   | 4.8 mm   3/16 in                   | 4      | 0.157 | 12           | 0.472 | 14           | 0.551 | <ul style="list-style-type: none"> <li>•RB 41-17-70 Hand Riveter</li> <li>•All compression riveters RB41-17-70 Hand Riveter</li> </ul> |
| 60703520 | 5h8   | 4.8 mm   3/16 in                   | 7      | 0.276 | 12           | 0.472 | 14           | 0.551 | <ul style="list-style-type: none"> <li>•RB 41-17-70 Hand Riveter</li> <li>•All compression riveters RB41-17-70 Hand Riveter</li> </ul> |
| 60703540 | 5h8   | 4.8 mm   3/16 in                   | 10     | 0.394 | 12           | 0.472 | 14           | 0.551 | <ul style="list-style-type: none"> <li>•RB 41-17-70 Hand Riveter</li> <li>•All compression riveters RB41-17-70 Hand Riveter</li> </ul> |
| 60703555 | 5h8   | 4.8 mm   3/16 in                   | 12.5   | 0.492 | 12           | 0.472 | 14           | 0.551 | <ul style="list-style-type: none"> <li>•RB 41-17-70 Hand Riveter</li> <li>•All compression riveters RB41-17-70 Hand Riveter</li> </ul> |
| 60703575 | 5h8   | 4.8 mm   3/16 in                   | 16     | 0.63  | 12           | 0.472 | 14           | 0.551 | <ul style="list-style-type: none"> <li>•RB 41-17-70 Hand Riveter</li> <li>•All compression riveters RB41-17-70 Hand Riveter</li> </ul> |
| 60703595 | 5h8   | 4.8 mm   3/16 in                   | 20     | 0.787 | 12           | 0.472 | 14           | 0.551 | <ul style="list-style-type: none"> <li>•RB 41-17-70 Hand Riveter</li> <li>•All compression riveters RB41-17-70 Hand Riveter</li> </ul> |
| 60703605 | 5h8   | 5.6 mm   6.4 mm   7/32 in   1/4 in | 4      | 0.157 | 16           | 0.63  | 16           | 0.63  | <ul style="list-style-type: none"> <li>•RB 41-17-70 Hand Riveter</li> <li>•All compression riveters RB41-17-70 Hand Riveter</li> </ul> |
| 60703620 | 5h8   | 5.6 mm   6.4 mm   7/32 in   1/4 in | 7      | 0.276 | 16           | 0.63  | 16           | 0.63  | <ul style="list-style-type: none"> <li>•RB 41-17-70 Hand Riveter</li> <li>•All compression riveters RB41-17-70 Hand Riveter</li> </ul> |
| 60703640 | 5h8   | 5.6 mm   6.4 mm   7/32 in   1/4 in | 10     | 0.394 | 16           | 0.63  | 16           | 0.63  | <ul style="list-style-type: none"> <li>•RB 41-17-70 Hand Riveter</li> <li>•All compression riveters RB41-17-70 Hand Riveter</li> </ul> |
| 60703655 | 5h8   | 5.6 mm   6.4 mm   7/32 in   1/4 in | 12.5   | 0.492 | 16           | 0.63  | 16           | 0.63  | <ul style="list-style-type: none"> <li>•RB 41-17-70 Hand Riveter</li> <li>•All compression riveters RB41-17-70 Hand Riveter</li> </ul> |
| 60703675 | 5h8   | 5.6 mm   6.4 mm   7/32 in   1/4 in | 16     | 0.63  | 16           | 0.63  | 16           | 0.63  | <ul style="list-style-type: none"> <li>•RB 41-17-70 Hand Riveter</li> <li>•All compression riveters RB41-17-70 Hand Riveter</li> </ul> |
| 60703695 | 5h8   | 5.6 mm   6.4 mm   7/32 in   1/4 in | 20     | 0.787 | 16           | 0.63  | 16           | 0.63  | <ul style="list-style-type: none"> <li>•RB 41-17-70 Hand Riveter</li> <li>•All compression riveters RB41-17-70 Hand Riveter</li> </ul> |

## RB401 - Rivet Set - Universal Head Type Rivets

- For Universal Head Type Rivets

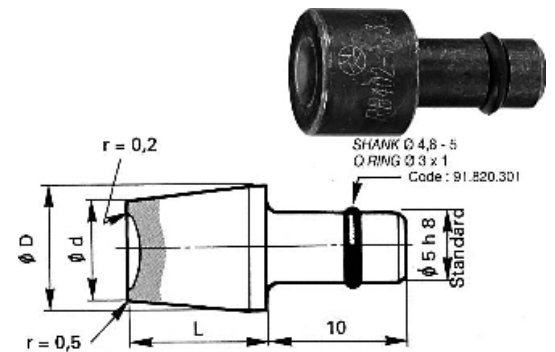


| Model    | Shank | Rivet Diameter   | Length |       | Diameter Min |       | Diameter Max |       | Used On  |
|----------|-------|------------------|--------|-------|--------------|-------|--------------|-------|--|
|          |       |                  | mm     | in    | mm           | in    | mm           | in    |  |
| 60711105 | 4h8   | 2.4 mm   3/32 in | 4      | 0.157 | 7            | 0.276 | 9            | 0.354 | •RB 40-13-30 Hand Riveter  |
| 60711120 | 4h8   | 2.4 mm   3/32 in | 7      | 0.276 | 7            | 0.276 | 9            | 0.354 | •RB 40-13-30 Hand Riveter  |
| 60711205 | 4h8   | 2.4 mm   3/32 in | 4      | 0.157 | 9            | 0.354 | 9            | 0.354 | •RB 40-13-30 Hand Riveter  |
| 60711220 | 4h8   | 2.4 mm   3/32 in | 7      | 0.276 | 9            | 0.354 | 9            | 0.354 | •RB 40-13-30 Hand Riveter  |
| 60713105 | 5h8   | 2.4 mm   3/32 in | 4      | 0.157 | 7            | 0.276 | 9            | 0.354 | •RB 41-17-70 Hand Riveter<br>•All compression riveters RB41-17-70 Hand Riveter |
| 60713120 | 5h8   | 2.4 mm   3/32 in | 7      | 0.276 | 7            | 0.276 | 9            | 0.354 | •RB 41-17-70 Hand Riveter<br>•All compression riveters RB41-17-70 Hand Riveter |
| 60713140 | 5h8   | 2.4 mm   3/32 in | 10     | 0.394 | 7            | 0.276 | 9            | 0.354 | •RB 41-17-70 Hand Riveter<br>•All compression riveters RB41-17-70 Hand Riveter |
| 60713155 | 5h8   | 2.4 mm   3/32 in | 12.5   | 0.492 | 7            | 0.276 | 9            | 0.354 | •RB 41-17-70 Hand Riveter<br>•All compression riveters RB41-17-70 Hand Riveter |
| 60713175 | 5h8   | 2.4 mm   3/32 in | 16     | 0.63  | 7            | 0.276 | 9            | 0.354 | •RB 41-17-70 Hand Riveter<br>•All compression riveters RB41-17-70 Hand Riveter |
| 60713195 | 5h8   | 2.4 mm   3/32 in | 20     | 0.787 | 7            | 0.276 | 9            | 0.354 | •RB 41-17-70 Hand Riveter<br>•All compression riveters RB41-17-70 Hand Riveter |
| 60713205 | 5h8   | 3.2 mm   1/8 in  | 4      | 0.157 | 9            | 0.354 | 9            | 0.354 | •RB 41-17-70 Hand Riveter<br>•All compression riveters RB41-17-70 Hand Riveter |
| 60713220 | 5h8   | 3.2 mm   1/8 in  | 7      | 0.276 | 9            | 0.354 | 9            | 0.354 | •RB 41-17-70 Hand Riveter<br>•All compression riveters RB41-17-70 Hand Riveter |
| 60713240 | 5h8   | 3.2 mm   1/8 in  | 10     | 0.394 | 9            | 0.354 | 9            | 0.354 | •RB 41-17-70 Hand Riveter<br>•All compression riveters RB41-17-70 Hand Riveter |
| 60713255 | 5h8   | 3.2 mm   1/8 in  | 12.5   | 0.492 | 9            | 0.354 | 9            | 0.354 | •RB 41-17-70 Hand Riveter<br>•All compression riveters RB41-17-70 Hand Riveter |
| 60713275 | 5h8   | 3.2 mm   1/8 in  | 16     | 0.63  | 9            | 0.354 | 9            | 0.354 | •RB 41-17-70 Hand Riveter<br>•All compression riveters RB41-17-70 Hand Riveter |
| 60713295 | 5h8   | 3.2 mm   1/8 in  | 20     | 0.787 | 9            | 0.354 | 9            | 0.354 | •RB 41-17-70 Hand Riveter<br>•All compression riveters RB41-17-70 Hand Riveter |
| 60713405 | 5h8   | 4 mm   5/32 in   | 4      | 0.157 | 10           | 0.394 | 14           | 0.551 | •RB 41-17-70 Hand Riveter<br>•All compression riveters RB41-17-70 Hand Riveter |

| Model    | Shank | Rivet Diameter   | Length |       | Diameter Min |       | Diameter Max |       | Used On  |
|----------|-------|------------------|--------|-------|--------------|-------|--------------|-------|--|
|          |       |                  | mm     | in    | mm           | in    | mm           | in    |  |
| 60713420 | 5h8   | 4 mm   5/32 in   | 7      | 0.276 | 10           | 0.394 | 14           | 0.551 | •RB 41-17-70 Hand Riveter<br>•All compression riveters RB41-17-70 Hand Riveter |
| 60713440 | 5h8   | 4 mm   5/32 in   | 10     | 0.394 | 10           | 0.394 | 14           | 0.551 | •RB 41-17-70 Hand Riveter<br>•All compression riveters RB41-17-70 Hand Riveter |
| 60713455 | 5h8   | 4 mm   5/32 in   | 12.5   | 0.492 | 10           | 0.394 | 14           | 0.551 | •RB 41-17-70 Hand Riveter<br>•All compression riveters RB41-17-70 Hand Riveter |
| 60713475 | 5h8   | 4 mm   5/32 in   | 16     | 0.63  | 10           | 0.394 | 14           | 0.551 | •RB 41-17-70 Hand Riveter<br>•All compression riveters RB41-17-70 Hand Riveter |
| 60713495 | 5h8   | 4 mm   5/32 in   | 20     | 0.787 | 10           | 0.394 | 14           | 0.551 | •RB 41-17-70 Hand Riveter<br>•All compression riveters RB41-17-70 Hand Riveter |
| 60713505 | 5h8   | 4.8 mm   3/26 in | 4      | 0.157 | 12           | 0.472 | 14           | 0.551 | •RB 41-17-70 Hand Riveter<br>•All compression riveters RB41-17-70 Hand Riveter |
| 60713520 | 5h8   | 4.8 mm   3/26 in | 7      | 0.276 | 12           | 0.472 | 14           | 0.551 | •RB 41-17-70 Hand Riveter<br>•All compression riveters RB41-17-70 Hand Riveter |
| 60713540 | 5h8   | 4.8 mm   3/26 in | 10     | 0.394 | 12           | 0.472 | 14           | 0.551 | •RB 41-17-70 Hand Riveter<br>•All compression riveters RB41-17-70 Hand Riveter |
| 60713555 | 5h8   | 4.8 mm   3/26 in | 12.5   | 0.492 | 12           | 0.472 | 14           | 0.551 | •RB 41-17-70 Hand Riveter<br>•All compression riveters RB41-17-70 Hand Riveter |
| 60713575 | 5h8   | 4.8 mm   3/26 in | 16     | 0.63  | 12           | 0.472 | 14           | 0.551 | •RB 41-17-70 Hand Riveter<br>•All compression riveters RB41-17-70 Hand Riveter |
| 60713595 | 5h8   | 4.8 mm   3/26 in | 20     | 0.787 | 12           | 0.472 | 14           | 0.551 | •RB 41-17-70 Hand Riveter<br>•All compression riveters RB41-17-70 Hand Riveter |
| 60713605 | 5h8   | 5.6 mm   7/32 in | 4      | 0.157 | 14           | 0.551 | 16           | 0.63  | •RB 41-17-70 Hand Riveter<br>•All compression riveters RB41-17-70 Hand Riveter |
| 60713620 | 5h8   | 5.6 mm   7/32 in | 7      | 0.276 | 14           | 0.551 | 16           | 0.63  | •RB 41-17-70 Hand Riveter<br>•All compression riveters RB41-17-70 Hand Riveter |
| 60713640 | 5h8   | 5.6 mm   7/32 in | 10     | 0.394 | 14           | 0.551 | 16           | 0.63  | •RB 41-17-70 Hand Riveter<br>•All compression riveters RB41-17-70 Hand Riveter |
| 60713655 | 5h8   | 5.6 mm   7/32 in | 12.5   | 0.492 | 14           | 0.551 | 16           | 0.63  | •RB 41-17-70 Hand Riveter<br>•All compression riveters RB41-17-70 Hand Riveter |
| 60713675 | 5h8   | 5.6 mm   7/32 in | 16     | 0.63  | 14           | 0.551 | 16           | 0.63  | •RB 41-17-70 Hand Riveter<br>•All compression riveters RB41-17-70 Hand Riveter |
| 60713695 | 5h8   | 5.6 mm   7/32 in | 20     | 0.787 | 14           | 0.551 | 16           | 0.63  | •RB 41-17-70 Hand Riveter<br>•All compression riveters RB41-17-70 Hand Riveter |
| 60713705 | 5h8   | 6.4 mm   1/4 in  | 4      | 0.157 | 16           | 0.63  | 16           | 0.63  | •RB 41-17-70 Hand Riveter<br>•All compression riveters RB41-17-70 Hand Riveter |
| 60713720 | 5h8   | 6.4 mm   1/4 in  | 7      | 0.276 | 16           | 0.63  | 16           | 0.63  | •RB 41-17-70 Hand Riveter<br>•All compression riveters RB41-17-70 Hand Riveter |
| 60713740 | 5h8   | 6.4 mm   1/4 in  | 10     | 0.394 | 16           | 0.63  | 16           | 0.63  | •RB 41-17-70 Hand Riveter<br>•All compression riveters RB41-17-70 Hand Riveter |
| 60713755 | 5h8   | 6.4 mm   1/4 in  | 12.5   | 0.492 | 16           | 0.63  | 16           | 0.63  | •RB 41-17-70 Hand Riveter<br>•All compression riveters RB41-17-70 Hand Riveter |
| 60713775 | 5h8   | 6.4 mm   1/4 in  | 16     | 0.63  | 16           | 0.63  | 16           | 0.63  | •RB 41-17-70 Hand Riveter<br>•All compression riveters RB41-17-70 Hand Riveter |
| 60713795 | 5h8   | 6.4 mm   1/4 in  | 20     | 0.787 | 16           | 0.63  | 16           | 0.63  | •RB 41-17-70 Hand Riveter<br>•All compression riveters RB41-17-70 Hand Riveter |

## RB402 - Rivet Set - Special Reduced Universal Head Type Rivets

- For Special Reduced Universal Head Rivets



| Model    | Shank | Rivet Dia-<br>meter | Length |       | Diameter Min |       | Diameter Max |       | Used On  |
|----------|-------|---------------------|--------|-------|--------------|-------|--------------|-------|--|
|          |       |                     | mm     | in    | mm           | in    | mm           | in    |  |
| 60723105 | 5h8   | 2.4 mm   3/32 in    | 4      | 0.157 | 7            | 0.276 | 9            | 0.354 | •RB 41-17-70 Hand Riveter<br>•All compression riveters RB41-17-70 Hand Riveter |
| 60723120 | 5h8   | 2.4 mm   3/32 in    | 7      | 0.276 | 7            | 0.276 | 9            | 0.354 | •RB 41-17-70 Hand Riveter<br>•All compression riveters RB41-17-70 Hand Riveter |
| 60723140 | 5h8   | 2.4 mm   3/32 in    | 10     | 0.394 | 7            | 0.276 | 9            | 0.354 | •RB 41-17-70 Hand Riveter<br>•All compression riveters RB41-17-70 Hand Riveter |
| 60723155 | 5h8   | 2.4 mm   3/32 in    | 12.5   | 0.492 | 7            | 0.276 | 9            | 0.354 | •RB 41-17-70 Hand Riveter<br>•All compression riveters RB41-17-70 Hand Riveter |
| 60723175 | 5h8   | 2.4 mm   3/32 in    | 16     | 0.63  | 7            | 0.276 | 9            | 0.354 | •RB 41-17-70 Hand Riveter<br>•All compression riveters RB41-17-70 Hand Riveter |
| 60723195 | 5h8   | 2.4 mm   3/32 in    | 20     | 0.787 | 7            | 0.276 | 9            | 0.354 | •RB 41-17-70 Hand Riveter<br>•All compression riveters RB41-17-70 Hand Riveter |
| 60723205 | 5h8   | 3.2 mm   1/8 in     | 4      | 0.157 | 9            | 0.354 | 9            | 0.354 | •RB 41-17-70 Hand Riveter<br>•All compression riveters RB41-17-70 Hand Riveter |
| 60723220 | 5h8   | 3.2 mm   1/8 in     | 7      | 0.276 | 9            | 0.354 | 9            | 0.354 | •RB 41-17-70 Hand Riveter<br>•All compression riveters RB41-17-70 Hand Riveter |
| 60723240 | 5h8   | 3.2 mm   1/8 in     | 10     | 0.394 | 9            | 0.354 | 9            | 0.354 | •RB 41-17-70 Hand Riveter<br>•All compression riveters RB41-17-70 Hand Riveter |
| 60723255 | 5h8   | 3.2 mm   1/8 in     | 12.5   | 0.492 | 9            | 0.354 | 9            | 0.354 | •RB 41-17-70 Hand Riveter<br>•All compression riveters RB41-17-70 Hand Riveter |
| 60723275 | 5h8   | 3.2 mm   1/8 in     | 16     | 0.63  | 9            | 0.354 | 9            | 0.354 | •RB 41-17-70 Hand Riveter<br>•All compression riveters RB41-17-70 Hand Riveter |
| 60723295 | 5h8   | 3.2 mm   1/8 in     | 20     | 0.787 | 9            | 0.354 | 9            | 0.354 | •RB 41-17-70 Hand Riveter<br>•All compression riveters RB41-17-70 Hand Riveter |
| 60723405 | 5h8   | 4 mm   5/32 in      | 4      | 0.157 | 10           | 0.394 | 14           | 0.551 | •RB 41-17-70 Hand Riveter<br>•All compression riveters RB41-17-70 Hand Riveter |
| 60723420 | 5h8   | 4 mm   5/32 in      | 7      | 0.276 | 10           | 0.394 | 14           | 0.551 | •RB 41-17-70 Hand Riveter<br>•All compression riveters RB41-17-70 Hand Riveter |
| 60723440 | 5h8   | 4 mm   5/32 in      | 10     | 0.394 | 10           | 0.394 | 14           | 0.551 | •RB 41-17-70 Hand Riveter<br>•All compression riveters RB41-17-70 Hand Riveter |



| Model    | Shank | Rivet Dia-<br>meter | Length |       | Diameter Min |       | Diameter Max |       | Used On  |
|----------|-------|---------------------|--------|-------|--------------|-------|--------------|-------|--|
|          |       |                     | mm     | in    | mm           | in    | mm           | in    |  |
| 60723455 | 5h8   | 4 mm   5/32 in      | 12.5   | 0.492 | 10           | 0.394 | 14           | 0.551 | •RB 41-17-70 Hand Riveter<br>•All compression riveters RB41-17-70 Hand Riveter |
| 60723475 | 5h8   | 4 mm   5/32 in      | 16     | 0.63  | 10           | 0.394 | 14           | 0.551 | •RB 41-17-70 Hand Riveter<br>•All compression riveters RB41-17-70 Hand Riveter |
| 60723495 | 5h8   | 4 mm   5/32 in      | 20     | 0.787 | 10           | 0.394 | 14           | 0.551 | •RB 41-17-70 Hand Riveter<br>•All compression riveters RB41-17-70 Hand Riveter |
| 60723505 | 5h8   | 4.8 mm   3/32 in    | 4      | 0.157 | 12           | 0.472 | 14           | 0.551 | •RB 41-17-70 Hand Riveter<br>•All compression riveters RB41-17-70 Hand Riveter |
| 60723520 | 5h8   | 4.8 mm   3/32 in    | 7      | 0.276 | 12           | 0.472 | 14           | 0.551 | •RB 41-17-70 Hand Riveter<br>•All compression riveters RB41-17-70 Hand Riveter |
| 60723540 | 5h8   | 4.8 mm   3/32 in    | 10     | 0.394 | 12           | 0.472 | 14           | 0.551 | •RB 41-17-70 Hand Riveter<br>•All compression riveters RB41-17-70 Hand Riveter |
| 60723555 | 5h8   | 4.8 mm   3/32 in    | 12.5   | 0.492 | 12           | 0.472 | 14           | 0.551 | •RB 41-17-70 Hand Riveter<br>•All compression riveters RB41-17-70 Hand Riveter |
| 60723575 | 5h8   | 4.8 mm   3/32 in    | 16     | 0.63  | 12           | 0.472 | 14           | 0.551 | •RB 41-17-70 Hand Riveter<br>•All compression riveters RB41-17-70 Hand Riveter |
| 60723595 | 5h8   | 4.8 mm   3/32 in    | 20     | 0.787 | 12           | 0.472 | 14           | 0.551 | •RB 41-17-70 Hand Riveter<br>•All compression riveters RB41-17-70 Hand Riveter |
| 60723605 | 5h8   | 5.6 mm   7/32 in    | 4      | 0.157 | 14           | 0.551 | 14           | 0.551 | •RB 41-17-70 Hand Riveter<br>•All compression riveters RB41-17-70 Hand Riveter |
| 60723620 | 5h8   | 5.6 mm   7/32 in    | 7      | 0.276 | 14           | 0.551 | 14           | 0.551 | •RB 41-17-70 Hand Riveter<br>•All compression riveters RB41-17-70 Hand Riveter |
| 60723640 | 5h8   | 5.6 mm   7/32 in    | 10     | 0.394 | 14           | 0.551 | 14           | 0.551 | •RB 41-17-70 Hand Riveter<br>•All compression riveters RB41-17-70 Hand Riveter |
| 60723655 | 5h8   | 5.6 mm   7/32 in    | 12.5   | 0.492 | 14           | 0.551 | 14           | 0.551 | •RB 41-17-70 Hand Riveter<br>•All compression riveters RB41-17-70 Hand Riveter |
| 60723675 | 5h8   | 5.6 mm   7/32 in    | 16     | 0.63  | 14           | 0.551 | 14           | 0.551 | •RB 41-17-70 Hand Riveter<br>•All compression riveters RB41-17-70 Hand Riveter |
| 60723695 | 5h8   | 5.6 mm   7/32 in    | 20     | 0.787 | 14           | 0.551 | 14           | 0.551 | •RB 41-17-70 Hand Riveter<br>•All compression riveters RB41-17-70 Hand Riveter |

Rivet Cutting Pliers

- This very simple hand cutting tool includes a microstop adjustment for a clean, precise cut of all aluminium rivets from : 1/16” to 7/32” dia.

| Model       | Minimum Underhead | Rivet  | Tolerance Over     |
|-------------|-------------------|--|--------------------|
|             | Cutting Length    | Diameter   | Length             |
| 60001000    | 5 mm - 0.197" dia | 2 mm   2.5 mm   3 mm   3.5 mm   4 mm   5 mm   6 mm                 | 0,5 mm - 0.02" dia |
| RC-60001005 | 5 mm - 0.197" dia | 1/16 in   3/32 in   1/8 in   9/64 in   5/32 in   3/16 in   7/32 in | 0,5 mm - 0.02" dia |



Thickness Gauge

0 to 1/4” (30mm)

- Simple and handy, equipped with a flexible, highly-efficient safety locking device, this inspection tool is designed for checking all thicknesses from 0 to 1 1/4” (30 mm).
- The accurate scale allows reading to 0.004” (0,1 mm).

| Model    | Description               |
|----------|---------------------------|
| 60901000 | RB 2010 - Thickness Gauge |



## Ring Cutters

### Easy removal of Rivet Rings 4.00 - 8.00mm

- Simple, rugged and handy, this tool has been designed to afford the easy removal of rivet rings (Huck, LGP type or others) without risk of damage to the hole or skin.
- Strong mechanical leverage enables clean removal of rings into two half shells.
- Quick change levers enable the ring cutter to be used in either « in line » or « right angle » position.
- Reduced dimension of the working part.
- No adjustment or setting required for use which is a considerable time-saver for rivet ring removal.
- Removable, quick change anvils.



| Model    | Fastener Size       |
|----------|---------------------|
| 60004000 | 4 mm   0.1579 in    |
| 60004001 | 4.8 mm   0.188 in   |
| 60004005 | 5 mm   0.1969 in    |
| 60004008 | 5.6 mm   0.219 in   |
| 60004010 | 6 mm   0.2362 in    |
| 60004015 | 7.94 mm   0.313 in  |
| 60004016 | 6.35 mm   0.250 in  |
| 60004017 | 4.16 mm   0.1638 in |

# Cleco

---

## MATERIAL REMOVAL



**Cleco** | Tame the Line

SHOWN: 12LF200 GRINDER

# MATERIAL REMOVAL

## CLECO MATERIAL REMOVAL TOOLS ARE COMPRISED OF:

The Cleco Dotco family of precision grinders whose reputation for durability, dependability and versatility is among the highest for fine finishing applications.

Cleco Dotco sanders and buffers that are built off the common platform of the precision grinders. Cleco MP series tools that are industrial grade medium duty tools suitable for a wide range of production and MRO applications. Cleco rough grinding tools meet the demanding requirements of industries including shipbuilding, pipe fabricating and welding applications. Since these types of applications typically require a high material removal rate, Cleco grinders typically incorporate higher horsepower motors.



## CLECO DOTCO PENCIL AND DIE GRINDERS GRINDERS ARE DESIGNED WITH THE OPERATOR IN MIND.

They are small, lightweight and comfortable to use, without sacrificing durability. Plus, they incorporate elastomer coatings, and perfectly balanced moving parts to keep vibration to a minimum. This optimal combination of tool characteristics allows the operator to focus doing the best job possible, in the least amount of time.



## HIGH PERFORMANCE FOR HIGH-VOLUME, HIGH-REPETITION TASKS.

Cleco's Dotco drills have long been the industry workhorse for daily high-volume, high-precision use in applications ranging from appliances to aerospace manufacturing. Be it aluminum, steel, titanium, composite, or wood, many industries require hand-drilled holes, and Cleco's Dotco tools offer some of the industry's most durable and reliable handheld drills, available in pistol, angle and in-line configurations.

## THE CLECO DOTCO DIFFERENCE

**Precision** - Known for their performance, dependability and versatility, the Cleco Dotco brand is viewed as the premier line of surface-preparation tools in the industrial marketplace. With the lowest runout in the market, precision parts let the operators manufacture precision products.

**Ergonomics** - Cleco Dotco tools are designed so that their form follows their function. Simply put, these tools that are more comfortable for the operator to use, and work with operators - not against them.

**Versatility** - By using only a few motor types, a diverse line of Cleco Dotco products have been developed to handle a wide range of applications. The tools also have a high interchangeability of part making maintenance easier and more affordable.

## Cleco Dotco 10-90 Series - Precision Grinder - Turbine

100,000 RPM 0.06 hp (0.044 kW)



- Requires no air line lubrication - High precision ball bearings for long life expectancy
- Two-stage turbine motor with roll throttle and front exhaust
- Achieves a superb finish with its high speed and precision spindle
- Light weight and durable steel housing
- Low vibration and quiet operation minimizes operator fatigue

| Model      | Collet Size | Exhaust | Free Speed | Abrasive Capacity Grinder             | Weight | Length | Air Inlet Size |
|------------|-------------|---------|------------|---------------------------------------|--------|--------|----------------|
|            |             |         | r/min      |                                       | Lb     | in     | in             |
| 10R9000-03 | 3mm         | Front   | 100000     | 3/16" Carbide Burr, 3/16" Diamond Pin | 0.441  | 5.4    | 1/8 in         |
| 10R9000-08 | 1/8 in      | Front   | 100000     | 3/16" Carbide Burr, 3/16" Diamond Pin | 0.441  | 5.4    | 1/8 in         |

CAUTION: Use dry air at 90 psi maximum: Do not lubricate turbine grinders. Lubrication will be detrimental to the operation and life of turbine tools. Do not attach a quick-disconnect fitting directly to the tool.

Standard Equipment:

Applicable collet, collet wrenches, 7 ft./2.1 m air supply hose, replaceable cartridge hose filter.

## Cleco Dotco 12-04 Series - Precision Pencil Grinder - Inline

60,000 RPM 0.1 hp (0.074 kW)



- Industrial bearing provides long life expectancy
- Designed for precision deburring and metal removal
- Compact and light weight composite housing
- Roll throttle equipped

| Model      | Collet Size | Exhaust | Free Speed | Abrasive Capacity Grinder           | Overhose     | Weight | Length | Air Inlet Size |
|------------|-------------|---------|------------|-------------------------------------|--------------|--------|--------|----------------|
|            |             |         | r/min      |                                     |              | Lb     | in     | in             |
| 12R0400-13 | 3mm         | Rear    | 60000      | 1/4" Carbide Burr, 1/4" Diamond Pin | 1 ft   0.3 m | 0.22   | 5.8    | 1/8 in         |
| 12R0400-18 | 1/8 in      | Rear    | 60000      | 1/4" Carbide Burr, 1/4" Diamond Pin | 1 ft   0.3 m | 0.22   | 5.8    | 1/8 in         |
| 12R0400-43 | 3mm         | Rear    | 60000      | 1/4" Carbide Burr, 1/4" Diamond Pin | 4 ft   1.2 m | 0.22   | 5.8    | 1/8 in         |
| 12R0410-13 | 3mm         | Rear    | 60000      | 1/4" Carbide Burr, 1/4" Diamond Pin | 1 ft   0.3 m | 0.22   | 5.8    | 1/8 in         |
| 12R0410-18 | 1/8 in      | Rear    | 60000      | 1/4" Carbide Burr, 1/4" Diamond Pin | 1 ft   0.3 m | 0.22   | 5.8    | 1/8 in         |
| 12R0410-43 | 3mm         | Rear    | 60000      | 1/4" Carbide Burr, 1/4" Diamond Pin | 4 ft   1.2 m | 0.22   | 5.8    | 1/8 in         |

Do not attach a quick-disconnect fitting directly to the tool.

Standard Equipment:

Applicable collet, collet wrenches, collet guard, 5 ft./1.5 m air supply hose, 1 ft./0.3 m overhose

## Cleco Dotco 10-04 Series - Precision Grinder - Inline

60,000 RPM 0.1 hp (0.074 kW)

- Industrial bearing provides long life expectancy
- Designed for precision deburring and metal removal
- Compact and light aluminum weight housing
- Roll throttle equipped



| Model      | Collet Size | Exhaust | Free Speed | Abrasive Capacity Grinder           | Overhose     | Weight | Length | Air Inlet Size |
|------------|-------------|---------|------------|-------------------------------------|--------------|--------|--------|----------------|
|            |             |         | r/min      |                                     |              | Lb     | in     | in             |
| 10R0400-13 | 3mm         | Rear    | 60000      | 1/4" Carbide Burr, 1/4" Diamond Pin | 1 ft   0.3 m | 0.22   | 5.8    | 1/8 in         |
| 10R0400-18 | 1/8 in      | Rear    | 60000      | 1/4" Carbide Burr, 1/4" Diamond Pin | 1 ft   0.3 m | 0.22   | 5.8    | 1/8 in         |
| 10R0401-13 | 3mm         | Rear    | 60000      | 1/4" Carbide Burr, 1/4" Diamond Pin | 1 ft   0.3 m | 0.22   | 5.8    | 1/8 in         |
| 10R0401-43 | 3mm         | Rear    | 60000      | 1/4" Carbide Burr, 1/4" Diamond Pin | 4 ft   1.2 m | 0.22   | 5.8    | 1/8 in         |

## Cleco Dotco 12-03 Series - Precision Grinder - Gearless - Right Angle

80,000 RPM 0.1 hp (0.074 kW)

- Industrial bearing provides long life expectancy
- Designed for precision deburring and metal removal
- Compact and light weight composite housing
- Roll throttle equipped
- Includes over-hose



| Model      | Collet Size | Exhaust | Free Speed | Abrasive Capacity Grinder           | Overhose     | Weight | Length | Air Inlet Size |
|------------|-------------|---------|------------|-------------------------------------|--------------|--------|--------|----------------|
|            |             |         | r/min      |                                     |              | Lb     | in     | in             |
| 12R0380-13 | 3mm         | Rear    | 80000      | 1/4" Carbide Burr, 1/4" Diamond Pin | 1 ft   0.3 m | 0.3    | 5.5    | 1/8 in         |
| 12R0380-18 | 1/8 in      | Rear    | 80000      | 1/4" Carbide Burr, 1/4" Diamond Pin | 1 ft   0.3 m | 0.22   | 5.5    | 1/8 in         |
| 12R0380-43 | 3mm         | Rear    | 80000      | 1/4" Carbide Burr, 1/4" Diamond Pin | 4 ft   1.2 m | 0.22   | 5.5    | 1/8 in         |

Do not attach a quick-disconnect fitting directly to the tool.

Standard Equipment:

Applicable collet, collet wrenches, collet guard, 5 ft/1.5 m air supply hose, 1 ft/0.3 m overhose



## Cleco Dotco 12-05 Series - Precision Grinder- with Collet Guard

40,000 RPM 0.2 hp (0.15 kW)



- Equipped with dial throttle
- Compact size for ultimate control - easy access to confined areas
- Ideal for die and mold work as well as deburring
- Comprehensive selection of speed available

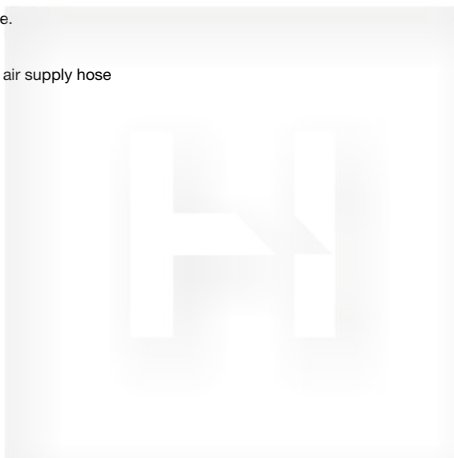
| Model      | Collet Size | Exhaust | Free Speed | Abrasive Capacity Grinder             | Weight | Length | Air Inlet Size |
|------------|-------------|---------|------------|---------------------------------------|--------|--------|----------------|
|            |             |         | r/min      |                                       | Lb     | in     | in             |
| 12R0500-36 | 1/4 in      | Front   | 40000      | 1/4" Carbide Burr, 7/8" Mounted Wheel | 0.66   | 5.9    | 1/8 in         |

All tools performance rated @ 90psi / 620 kPa air pressure.

Minimum Hose I.D.: 3/16in / 4.8mm

Standard Equipment:

Applicable collet, collet wrenches, collet guard, 7 ft / 2.1m air supply hose



## Cleco Dotco 12-10 Series - Die Grinder - 300 Series Collet

12,000 - 34,000 RPM 0.3 hp (0.22 kW)

- Durable and ergonomic composite housing - Ideal for die/mold and deburring
- Compact size for ultimate control - easy access to confined areas
- OH versions include 4' of Overhose for additional noise suppression
- Conversion kits available to add OH Overhose on rear exhaust tools for additional noise suppression
- LH = Left Hand Rotation
- Optional Extended Collet Guard - 01-1047 supplied separately



Grinders

| Model          | Collet Size  | Exhaust | Free Speed | Abrasive Capacity Grinder           | Weight | Length | Air Inlet Size |
|----------------|--------------|---------|------------|-------------------------------------|--------|--------|----------------|
|                |              |         | r/min      |                                     | Lb     |        | in             |
| 12L1000-36     | 1/4 in       | Front   | 30000      | 1/2" Carbide Burr, 1" Mounted Wheel | 0.88   | 6      | 1/4 in         |
| 12L1000-36LH   | 1/4 in       | Front   | 30000      | 1/2" Carbide Burr, 1" Mounted Wheel | 0.88   | 6      | 1/4 in         |
| 12L1000-36M6   | 1/4 in   6mm | Front   | 30000      | 1/2" Carbide Burr, 1" Mounted Wheel | 0.88   | 6      | 1/4 in         |
| 12L1001-36     | 1/4 in       | Front   | 34000      | 1/2" Carbide Burr, 1" Mounted Wheel | 0.88   | 6      | 1/4 in         |
| 12L1001-36M6   | 1/4 in   6mm | Front   | 34000      | 1/2" Carbide Burr, 1" Mounted Wheel | 0.88   | 6      | 1/4 in         |
| 12L1003-36     | 1/4 in       | Front   | 25000      | 1/2" Carbide Burr, 1" Mounted Wheel | 0.88   | 6      | 1/4 in         |
| 12L1003-36LH   | 1/4 in       | Front   | 25000      | 1/2" Carbide Burr, 1" Mounted Wheel | 0.88   | 6      | 1/4 in         |
| 12L1028-36     | 1/4 in       | Rear    | 20000      | 1/2" Carbide Burr, 1" Mounted Wheel | 0.88   | 6      | 1/4 in         |
| 12L1028-36M6   | 1/4 in   6mm | Rear    | 20000      | 1/2" Carbide Burr, 1" Mounted Wheel | 0.88   | 6      | 1/4 in         |
| 12L1045-36     | 1/4 in       | Front   | 12000      | 1/2" Carbide Burr, 1" Mounted Wheel | 0.88   | 6      | 1/4 in         |
| 12L1045-36M6   | 1/4 in   6mm | Front   | 12000      | 1/2" Carbide Burr, 1" Mounted Wheel | 0.88   | 6      | 1/4 in         |
| 12L1046-36     | 1/4 in       | Front   | 18000      | 1/2" Carbide Burr, 1" Mounted Wheel | 0.88   | 6      | 1/4 in         |
| 12L1076-36OH   | 1/4 in       | Front   | 18000      | 1/2" Carbide Burr, 1" Mounted Wheel | 0.88   | 6      | 1/4 in         |
| 12L1080-36     | 1/4 in       | Rear    | 30000      | 1/2" Carbide Burr, 1" Mounted Wheel | 0.88   | 6      | 1/4 in         |
| 12L1080-36M6   | 1/4 in   6mm | Rear    | 30000      | 1/2" Carbide Burr, 1" Mounted Wheel | 0.88   | 6      | 1/4 in         |
| 12L1080-36M6OH | 1/4 in   6mm | Rear    | 30000      | 1/2" Carbide Burr, 1" Mounted Wheel | 0.88   | 6      | 1/4 in         |
| 12L1080-36OH   | 1/4 in       | Rear    | 30000      | 1/2" Carbide Burr, 1" Mounted Wheel | 0.88   | 6      | 1/4 in         |
| 12L1081-36     | 1/4 in       | Rear    | 34000      | 1/2" Carbide Burr, 1" Mounted Wheel | 0.88   | 6      | 1/4 in         |
| 12L1081-36M6OH | 1/4 in   6mm | Rear    | 34000      | 1/2" Carbide Burr, 1" Mounted Wheel | 0.88   | 6      | 1/4 in         |
| 12L1081-36OH   | 1/4 in   6mm | Rear    | 34000      | 1/2" Carbide Burr, 1" Mounted Wheel | 0.88   | 6      | 1/4 in         |
| 12L1082-36     | 1/4 in       | Rear    | 25000      | 1/2" Carbide Burr, 1" Mounted Wheel | 0.88   | 6      | 1/4 in         |
| 12L1082-36M6   | 1/4 in   6mm | Rear    | 25000      | 1/2" Carbide Burr, 1" Mounted Wheel | 0.88   | 6      | 1/4 in         |
| 12L1082-36OH   | 1/4 in       | Rear    | 25000      | 1/2" Carbide Burr, 1" Mounted Wheel | 0.88   | 6      | 1/4 in         |
| 12S1008-36     | 1/4 in       | Front   | 20000      | 1/2" Carbide Burr, 1" Mounted Wheel | 0.88   | 6      | 1/4 in         |
| 12S1085-36OH   | 1/4 in       | Front   | 20000      | 1/2" Carbide Burr, 1" Mounted Wheel | 0.88   | 6      | 1/4 in         |

All tools performance rated @ 90 psi / 620 kPa air pressure.

Standard Equipment:

Applicable collet, collet wrenches

Minimum Hose I.D.: 1/4 in / 6.4 mm

## Cleco Dotco 10-10 Series - 200 & 300 Series Collet - Die Grinder

25,000 - 34,000 RPM 0.3 hp (0.22 kW)

- Durable aluminum housing - Ideal for die/mold and deburring work
- Compact size for ultimate control - easy access to confined areas
- Rear exhaust models are "OH" Overhose Ready for additional noise suppression
- 10L with Lock Off Lever 10N does not have a lever and is for mounting / remote start
- LH = Left Hand Rotation Version



| Model        | Collet Size | Exhaust | Free Speed | Abrasive Capacity Grinder           | Weight | Length | Air Inlet Size |
|--------------|-------------|---------|------------|-------------------------------------|--------|--------|----------------|
|              |             |         | r/min      |                                     | Lb     |        |                |
| 10L1000-36   | 1/4 in      | Front   | 30000      | 1/2" Carbide Burr, 1" Mounted Wheel | 0.66   | 4.6    | 1/4 in         |
| 10L1000-3608 | 1/8 in      | Front   | 30000      | 1/2" Carbide Burr, 1" Mounted Wheel | 0.66   | 4.6    | 1/4 in         |
| 10L1000-36LH | 1/4 in      | Front   | 30000      | 1/2" Carbide Burr, 1" Mounted Wheel | 0.66   | 4.6    | 1/4 in         |
| 10L1001-36   | 1/4 in      | Front   | 34000      | 1/2" Carbide Burr, 1" Mounted Wheel | 0.66   | 4.6    | 1/4 in         |
| 10L1001-3608 | 1/8 in      | Front   | 34000      | 1/2" Carbide Burr, 1" Mounted Wheel | 0.66   | 4.6    | 1/4 in         |
| 10L1003-36   | 1/4 in      | Front   | 25000      | 1/2" Carbide Burr, 1" Mounted Wheel | 0.66   | 4.6    | 1/4 in         |
| 10L1080-36   | 1/4 in      | Rear    | 30000      | 1/2" Carbide Burr, 1" Mounted Wheel | 0.66   | 4.6    | 1/8 in         |
| 10L1081-36   | 1/4 in      | Rear    | 34000      | 1/2" Carbide Burr, 1" Mounted Wheel | 0.66   | 4.6    | 1/8 in         |
| 10L1082-36   | 1/4 in      | Rear    | 25000      | 1/2" Carbide Burr, 1" Mounted Wheel | 0.66   | 4.6    | 1/8 in         |
| 10N1080-0124 | 3/8 in      | Rear    | 30000      | 1/2" Carbide Burr, 1" Mounted Wheel | 0.66   | 4.6    | 1/8 in         |
| 10N1081-36   | 1/4 in      | Rear    | 34000      | 1/2" Carbide Burr, 1" Mounted Wheel | 0.66   | 4.6    | 1/8 in         |

All tools performance rated @ 90 psi / 620 kPa air pressure.

Standard Equipment:

Applicable collet, collet wrenches

Minimum Hose I.D.: 1/4 in / 6.4 mm

## Cleco Dotco 12-20 Series - Die Grinder - 200 Series Collet

12,000 - 25,000 RPM 0.6 hp (0.45 kW)

- Ergonomic composite housing
- Front and rear exhaust models available
- OH models include 4' Overhose for additional noise suppression
- Conversion kits available to add OH Overhose on rear exhaust tools for additional noise suppression
- LH = Left Hand Rotation Version
- Optional collet guard 01-2047PT supplied separately



| Model          | Collet Size  | Exhaust | Free Speed | Abrasive Capacity Grinder             | Weight | Length | Air Inlet Size |
|----------------|--------------|---------|------------|---------------------------------------|--------|--------|----------------|
|                |              |         | r/min      |                                       | Lb     | in     | in             |
| 12L2000-01     | 1/4 in       | Front   | 25000      | 3/4" Carbide Burr, 1.5" Mounted Wheel | 1.32   | 6.9    | 1/4 in         |
| 12L2000-01LH   | 1/4 in       | Front   | 25000      | 3/4" Carbide Burr, 1.5" Mounted Wheel | 1.32   | 6.9    | 1/4 in         |
| 12L2000-01M6   | 1/4 in   6mm | Front   | 25000      | 3/4" Carbide Burr, 1.5" Mounted Wheel | 1.32   | 6.9    | 1/4 in         |
| 12L2001-01     | 1/4 in       | Front   | 20000      | 3/4" Carbide Burr, 1.5" Mounted Wheel | 1.32   | 6.9    | 1/4 in         |
| 12L2001-01LH   | 1/4 in       | Front   | 20000      | 3/4" Carbide Burr, 1.5" Mounted Wheel | 1.32   | 6.9    | 1/4 in         |
| 12L2002-01     | 1/4 in       | Front   | 18000      | 3/4" Carbide Burr, 1.5" Mounted Wheel | 1.32   | 6.9    | 1/4 in         |
| 12L2002-01LH   | 1/4 in       | Front   | 18000      | 3/4" Carbide Burr, 1.5" Mounted Wheel | 1.32   | 6.9    | 1/4 in         |
| 12L2003-01     | 1/4 in       | Front   | 12000      | 3/4" Carbide Burr, 1.5" Mounted Wheel | 1.32   | 6.9    | 1/4 in         |
| 12L2080-01     | 1/4 in       | Rear    | 25000      | 3/4" Carbide Burr, 1.5" Mounted Wheel | 1.32   | 6.9    | 1/4 in         |
| 12L2080-01M6   | 1/4 in   6mm | Rear    | 25000      | 3/4" Carbide Burr, 1.5" Mounted Wheel | 1.32   | 6.9    | 1/4 in         |
| 12L2080-01OH   | 1/4 in       | Rear    | 25000      | 3/4" Carbide Burr, 1.5" Mounted Wheel | 1.32   | 6.9    | 1/4 in         |
| 12L2081-01     | 1/4 in       | Rear    | 20000      | 3/4" Carbide Burr, 1.5" Mounted Wheel | 1.32   | 6.9    | 1/4 in         |
| 12L2081-01M6   | 1/4 in   6mm | Rear    | 20000      | 3/4" Carbide Burr, 1.5" Mounted Wheel | 1.32   | 6.9    | 1/4 in         |
| 12L2081-01M6OH | 1/4 in   6mm | Rear    | 20000      | 3/4" Carbide Burr, 1.5" Mounted Wheel | 1.32   | 6.9    | 1/4 in         |
| 12L2082-01     | 1/4 in       | Rear    | 18000      | 3/4" Carbide Burr, 1.5" Mounted Wheel | 1.32   | 6.9    | 1/4 in         |

All tools performance rated @ 90psi / 620 kPa air pressure.

Standard Equipment:

Applicable collet, collet wrenches

Minimum Hose I.D.: 1/4in / 6.4mm

## Cleco Dotco 10-20 Series - 200 & 300 Series Collet - Die Grinder 18,000 - 25,000 RPM 0.6 hp (0.45 kW)

- Durable aluminum housing - Ideal for die/mold and deburring work
- Front and rear exhaust models available
- -01 200 Series Collet -36 300 Series Collet
- Rear exhaust models are "OH" Overhose Ready for additional noise suppression
- 10L with Lock Off Lever 10N does not have a lever and is for mounting / remote start
- LH - Left Hand Rotation



| Model          | Collet Size  | Exhaust | Free Speed | Abrasive Capacity Grinder             | Weight | Length | Air Inlet Size |
|----------------|--------------|---------|------------|---------------------------------------|--------|--------|----------------|
|                |              |         | r/min      |                                       | Lb     |        |                |
| 10L2000-01     | 1/4 in       | Front   | 25000      | 3/4" Carbide Burr, 1.5" Mounted Wheel | 1.32   | 5.8    | 1/4 in         |
| 10L2000-36     | 1/4 in       | Front   | 25000      | 3/4" Carbide Burr, 1.5" Mounted Wheel | 1.1    | 6.4    | 1/4 in         |
| 10L2002-36     | 1/4 in       | Front   | 18000      | 3/4" Carbide Burr, 1.5" Mounted Wheel | 1.32   | 6.6    | 1/4 in         |
| 10L2005-01     | 1/4 in       | Front   | 20000      | 3/4" Carbide Burr, 1.5" Mounted Wheel | 1.32   | 5.7    | 1/4 in         |
| 10L2080-01     | 1/4 in       | Rear    | 25000      | 3/4" Carbide Burr, 1.5" Mounted Wheel | 1.32   | 5.8    | 1/4 in         |
| 10L2080-01M6   | 1/4 in   6mm | Rear    | 25000      | 3/4" Carbide Burr, 1.5" Mounted Wheel | 1.32   | 5.8    | 1/4 in         |
| 10L2080-36     | 1/4 in       | Rear    | 25000      | 3/4" Carbide Burr, 1.5" Mounted Wheel | 1.32   | 6.4    | 1/4 in         |
| 10L2081-01     | 1/4 in       | Rear    | 20000      | 3/4" Carbide Burr, 1.5" Mounted Wheel | 1.32   | 5.8    | 1/4 in         |
| 10L2082-01     | 1/4 in       | Rear    | 18000      | 3/4" Carbide Burr, 1.5" Mounted Wheel | 1.32   | 6.6    | 1/4 in         |
| 10N2080-01     | 1/4 in       | Rear    | 25000      | 3/4" Carbide Burr, 1.5" Mounted Wheel | 1.32   | 5.8    | 1/4 in         |
| 10N2080-0124   | 3/8 in       | Rear    | 25000      | 3/4" Carbide Burr, 1.5" Mounted Wheel | 1.32   | 5.8    | 1/4 in         |
| 10N2080-0124LH | 3/8 in       | Rear    | 25000      | 3/4" Carbide Burr, 1.5" Mounted Wheel | 1.32   | 5.8    | 1/4 in         |

All tools performance rated @ 90 psi / 620 kPa air pressure.

Standard Equipment:

Applicable collet, collet wrenches Minimum Hose I.D.: 5/16 in / 7.9 mm

Termination -01 = 200 Series collet

Termination -36 = 300 series collet

## Cleco Dotco 12-25 Series - Die Grinder - 200 & 300 Series Collet

12,000 - 23,000 RPM 0.9 hp (0.67 kW)

- Ergonomic composite housing
- Optional over-hose available
- High power-to-weight ratio for optimal productivity
- OH models include 4' Overhose for additional noise suppression
- Conversion kits available to add OH Overhose on rear exhaust tools for additional noise suppression
- Optional collet guard 01-2047PT supplied separately



| Model          | Collet Size  | Exhaust | Free Speed | Abrasive Capacity Grinder           | Weight | Length | Air Inlet Size |
|----------------|--------------|---------|------------|-------------------------------------|--------|--------|----------------|
|                |              |         | r/min      |                                     | Lb     | in     | in             |
| 12L2500-01     | 1/4 in       | Front   | 23000      | 1" Carbide Burr, 1.5" Mounted Wheel | 1.76   | 7.3    | 1/4 in         |
| 12L2500-01M6   | 1/4 in   6mm | Front   | 23000      | 1" Carbide Burr, 1.5" Mounted Wheel | 1.76   | 7.3    | 1/4 in         |
| 12L2500-36     | 1/4 in       | Front   | 23000      | 1" Carbide Burr, 1.5" Mounted Wheel | 1.76   | 8      | 1/4 in         |
| 12L2502-01     | 1/4 in       | Front   | 18000      | 1" Carbide Burr, 1.5" Mounted Wheel | 1.76   | 7.3    | 1/4 in         |
| 12L2542-01     | 1/4 in       | Rear    | 12000      | 1" Carbide Burr, 1.5" Mounted Wheel | 1.76   | 7.4    | 1/4 in         |
| 12L2562-01     | 1/4 in       | Front   | 12000      | 1" Carbide Burr, 1.5" Mounted Wheel | 1.76   | 7.4    | 1/4 in         |
| 12L2562-01M6   | 1/4 in   6mm | Front   | 12000      | 1" Carbide Burr, 1.5" Mounted Wheel | 1.76   | 7.4    | 1/4 in         |
| 12L2565-01     | 1/4 in       | Front   | 15000      | 1" Carbide Burr, 1.5" Mounted Wheel | 1.76   | 7.4    | 1/4 in         |
| 12L2568-01     | 1/4 in       | Front   | 18000      | 1" Carbide Burr, 1.5" Mounted Wheel | 1.76   | 7.4    | 1/4 in         |
| 12L2580-01     | 1/4 in       | Rear    | 23000      | 1" Carbide Burr, 1.5" Mounted Wheel | 1.76   | 7.3    | 1/4 in         |
| 12L2580-01M6OH | 1/4 in   6mm | Rear    | 23000      | 1" Carbide Burr, 1.5" Mounted Wheel | 1.76   | 7.3    | 1/4 in         |
| 12L2580-01OH   | 1/4 in       | Rear    | 23000      | 1" Carbide Burr, 1.5" Mounted Wheel | 1.76   | 7.3    | 1/4 in         |
| 12L2580-36     | 1/4 in       | Rear    | 23000      | 1" Carbide Burr, 1.5" Mounted Wheel | 1.76   | 8      | 1/4 in         |
| 12L2582-01     | 1/4 in       | Rear    | 18000      | 1" Carbide Burr, 1.5" Mounted Wheel | 1.76   | 7.3    | 1/4 in         |
| 12L2582-01M6   | 1/4 in   6mm | Rear    | 18000      | 1" Carbide Burr, 1.5" Mounted Wheel | 1.76   | 7.3    | 1/4 in         |
| 12L2582-01OH   | 1/4 in       | Rear    | 18000      | 1" Carbide Burr, 1.5" Mounted Wheel | 1.76   | 7.3    | 1/4 in         |

All tools performance rated @ 90 psi / 620 kPa air pressure.

Standard Equipment:

Applicable collet, collet wrenches

Minimum Hose I.D.: 5/16 in / 7.9 mm

Termination -01 = 200 Series collet

Termination -36 = 300 series collet

## Cleco Dotco 10-25 Series - 200 & 300 Series Collet - Die Grinder

12,000 - 23,000 RPM 0.9 hp (0.67 kW)

- Durable aluminum housing - Ideal for die/mold and deburring work
- Front and rear exhaust models available
- Rear exhaust models are "OH" Overhose Ready for additional noise suppression



| Model      | Collet Size | Exhaust | Free Speed | Abrasive Capacity Grinder           | Weight | Length | Air Inlet Size |
|------------|-------------|---------|------------|-------------------------------------|--------|--------|----------------|
|            |             |         | r/min      |                                     | Lb     | in     | in             |
| 10L2500-01 | 1/4 in      | Front   | 23000      | 1" Carbide Burr, 1.5" Mounted Wheel | 1.32   | 0.63   | 1/4 in         |
| 10L2500-36 | 1/4 in      | Front   | 23000      | 1" Carbide Burr, 1.5" Mounted Wheel | 1.32   | 7.1    | 1/4 in         |
| 10L2502-01 | 1/4 in      | Front   | 18000      | 1" Carbide Burr, 1.5" Mounted Wheel | 1.32   | 0.63   | 1/4 in         |
| 10L2580-01 | 1/4 in      | Rear    | 23000      | 1" Carbide Burr, 1.5" Mounted Wheel | 1.32   | 0.63   | 1/4 in         |
| 10L2580-36 | 1/4 in      | Rear    | 23000      | 1" Carbide Burr, 1.5" Mounted Wheel | 1.54   | 7.9    | 1/4 in         |

All tools performance rated @ 90 psi / 620 kPa air pressure.

Standard Equipment:

Applicable collet, collet wrenches

Minimum Hose I.D.: 5/16 in / 7.9 mm

Termination -01 = 200 Series collet

Termination -36 = 300 series collet

## Cleco Dotco 12-11 Series - Extended - Die Grinder

25,000 - 28,000 RPM 0.3 hp (0.22 kW)

- 3" | 75mm and 5" | 125mm extended housings available
- Conversion kits available to add OH Overhose on rear exhaust tools for additional noise suppression
- Multiple bearings for low vibration and balance



| Model        | Collet Size | Exhaust | Free Speed | Abrasive Capacity Grinder           | Weight | Length | Air Inlet Size |
|--------------|-------------|---------|------------|-------------------------------------|--------|--------|----------------|
|              |             |         | r/min      |                                     | Lb     | in     | in             |
| 12L1100-36   | 1/4 in      | Front   | 28000      | 1/2" Carbide Burr, 1" Mounted Wheel | 1.1    | 8.9    | 1/4 in         |
| 12L1101-36   | 1/4 in      | Front   | 28000      | 1/2" Carbide Burr, 1" Mounted Wheel | 1.32   | 10.9   | 1/4 in         |
| 12L1111-36   | 1/4 in      | Front   | 25000      | 1/2" Carbide Burr, 1" Mounted Wheel | 1.1    | 8.9    | 1/4 in         |
| 12L1112-36   | 1/4 in      | Front   | 25000      | 1/2" Carbide Burr, 1" Mounted Wheel | 1.32   | 10.9   | 1/4 in         |
| 12L1180-36   | 1/4 in      | Rear    | 28000      | 1/2" Carbide Burr, 1" Mounted Wheel | 1.1    | 8.9    | 1/4 in         |
| 12L1180-36OH | 1/4 in      | Rear    | 28000      | 1/2" Carbide Burr, 1" Mounted Wheel | 1.1    | 8.9    | 1/4 in         |
| 12L1181-36   | 1/4 in      | Rear    | 28000      | 1/2" Carbide Burr, 1" Mounted Wheel | 1.32   | 10.9   | 1/4 in         |
| 12L1181-36OH | 1/4 in      | Rear    | 28000      | 1/2" Carbide Burr, 1" Mounted Wheel | 1.32   | 10.9   | 1/4 in         |

All tools performance rated @ 90 psi / 620 kPa air pressure.

Standard Equipment:

Applicable collet, collet wrenches

Minimum Hose I.D.: 1/4 in / 4.8 mm



## Cleco Dotco 10-11 Series - Extended - Die Grinder - 300 Series Collet

25,000 - 28,000 RPM 0.3 hp (0.22 kW)

- 3" | 75mm & 5" | 125mm extended housing for hard to reach areas
- Balanced and comfortable to minimize fatigue
- Rear exhaust models are "OH" Overhose Ready for additional noise suppression



| Model        | Collet Size  | Exhaust | Free Speed | Abrasive Capacity Grinder           | Weight | Length | Air Inlet Size |
|--------------|--------------|---------|------------|-------------------------------------|--------|--------|----------------|
|              |              |         | r/min      |                                     | Lb     | in     | in             |
| 10L1100-36   | 1/4 in       | Front   | 28000      | 1/2" Carbide Burr, 1" Mounted Wheel | 1.1    | 7.6    | 1/4 in         |
| 10L1101-36   | 1/4 in       | Front   | 28000      | 1/2" Carbide Burr, 1" Mounted Wheel | 1.1    | 9.8    | 1/4 in         |
| 10L1101-36M6 | 1/4 in   6mm | Front   | 28000      | 1/2" Carbide Burr, 1" Mounted Wheel | 1.1    | 9.8    | 1/4 in         |
| 10L1111-36   | 1/4 in       | Front   | 25000      | 1/2" Carbide Burr, 1" Mounted Wheel | 1.1    | 7.6    | 1/4 in         |
| 10L1112-36   | 1/4 in       | Front   | 25000      | 1/2" Carbide Burr, 1" Mounted Wheel | 1.1    | 9.8    | 1/4 in         |
| 10L1180-36   | 1/4 in       | Rear    | 28000      | 1/2" Carbide Burr, 1" Mounted Wheel | 1.1    | 8.4    | 1/8 in         |
| 10L1181-36   | 1/4 in       | Rear    | 28000      | 1/2" Carbide Burr, 1" Mounted Wheel | 1.1    | 9.8    | 1/8 in         |

All tools performance rated @ 90 psi / 620 kPa air pressure.

Standard Equipment:

Applicable collet, collet wrenches

Minimum Hose I.D.: 1/4 in / 6.4 mm

## Cleco Dotco 12-26 Series - Extended - Die Grinder - 5" (127mm) Extension - 200 Series Collet

18,000 - 22,000 RPM 0.9 hp (0.67 kW)

- 5" | 125mm Extended housing for hard to reach areas
- Conversion kits available to add OH Overhose on rear exhaust tools for additional noise suppression
- Balanced and comfortable to minimize fatigue



| Model        | Collet Size | Exhaust | Free Speed | Abrasive Capacity Grinder           | Weight | Length | Air Inlet Size |
|--------------|-------------|---------|------------|-------------------------------------|--------|--------|----------------|
|              |             |         | r/min      |                                     | Lb     | in     | in             |
| 12L2680-01   | 1/4 in      | Rear    | 22000      | 1" Carbide Burr, 1.5" Mounted Wheel | 2.87   | 12.9   | 1/4 in         |
| 12L2680-01OH | 1/4 in      | Rear    | 22000      | 1" Carbide Burr, 1.5" Mounted Wheel | 2.87   | 12.9   | 1/4 in         |
| 12L2682-01   | 1/4 in      | Rear    | 18000      | 1" Carbide Burr, 1.5" Mounted Wheel | 2.87   | 12.9   | 1/4 in         |

All tools performance rated @ 90 psi / 620 kPa air pressure.

Standard Equipment:

Applicable collet, collet wrenches

Minimum Hose I.D.: 5/16 in / 7.9 mm

## Cleco Dotco 12-26 Series - Die Grinder - Multiple Extension

### 18,000 RPM 0.9 hp (0.67 kW)

- Can be customized with multiple extensions for access to the most far-reaching areas
- Multiple industrial bearings provides optimal balance and power transfer
- Designed to work comfortably with the operator
- Available with 300 series 1/4" (A) 200 series 3/8" collet (B) and 3/8"-24" external thread (C)



| Model        | Collet Size       | Exhaust | Free Speed | Abrasive Capacity Grinder               | Weight | Length | Air Inlet Size |
|--------------|-------------------|---------|------------|---|--------|--------|----------------|
|              |                   |         | r/min      |   | Lb     | in     | in             |
| 12S2674-2C   | 3/8 in-24e        | Rear    | 18000      | 1.25" Cone or Plug Wheel                | 4.19   | 23.5   | 1/4 in         |
| 12S2674-4C   | 3/8 in-24e        | Rear    | 18000      | 1.25" Cone or Plug Wheel                | 6.6    | 38     | 1/4 in         |
| 12S2674-5C   | 3/8 in-24e        | Rear    | 18000      | 1.25" Cone or Plug Wheel                | 7.7    | 45.3   | 1/4 in         |
| 12L2674-1A   | 1/4 in            | Rear    | 18000      | 3/4" Carbide Burr, 1-1/2" Mounted Wheel | 4.19   | 23.5   | 1/4 in         |
| 12L2674-2A   | 1/4 in            | Rear    | 18000      | 3/4" Carbide Burr, 1-1/2" Mounted Wheel | 4.19   | 23.5   | 1/4 in         |
| 12L2674-3A   | 1/4 in            | Rear    | 18000      | 3/4" Carbide Burr, 1.5" Mounted Wheel   | 5.3    | 30.8   | 1/4 in         |
| 12L2674-5A   | 1/4 in            | Rear    | 18000      | 3/4" Carbide Burr, 1.5" Mounted Wheel   | 7.7    | 45.3   | 1/4 in         |
| 12S2674-2AM6 | 1/4 in   6mm E300 | Rear    | 18000      | 3/4" Carbide Burr, 1.5" Mounted Wheel   | 4.19   | 23.5   | 1/4 in         |
| 12S2674-4A   | 1/4 in            | Rear    | 18000      | 3/4" Carbide Burr, 1.5" Mounted Wheel   | 6.6    | 38     | 1/4 in         |

All tools performance rated @ 90 psi / 620 kPa air pressure.

Standard Equipment:

Applicable collet, collet wrenches

Minimum Hose I.D.: 5/16 in / 7.9 mm

Termination:

A - 1/4" Collet

C - 3/8"-24 e

12L and 12S have the same throttle configuration

## Cleco Dotco 12LF Series - Precision Right Angle Die Grinder - 36 300 Series Collet -32 1/4"-28

12,000 - 20,000 RPM 0.4 hp (0.29 kW)

- Composite housing
- 12000rpm or 20000rpm, front and rear exhaust models available
- Ergonomic and balanced design minimized operator fatigue
- OH version includes 4ft overhose for additional noise suppression
- Conversion kits available to add OH Overhose on rear exhaust tools for additional noise suppression



Grinders

| Model          | Collet Size  | Exhaust | Free Speed | Abrasive Capacity Grinder           | Abrasive Capacity Sander          | Spindle Size | Weight | Length | Head Height | Air Inlet Size |
|----------------|--------------|---------|------------|-------------------------------------|-----------------------------------|--------------|--------|--------|-------------|----------------|
|                |              |         | r/min      |                                     |                                   |              | Lb     | in     | in          |                |
| 12LF280-32     | 1/4 in-28i   | Rear    | 12000      | 1/2" Carbide Burr, 1" Mounted Wheel | 3" (75 mm) Sanding/Polishing disc | 1/4"-28      | 1.1    | 6.6    | 2.70        | 1/4 in         |
| 12LF280-32OH   | 1/4 in-28i   | Rear    | 12000      | 1/2" Carbide Burr, 1" Mounted Wheel | 3" (75 mm) Sanding/Polishing disc | 1/4"-28      | 1.1    | 6.6    | 2.70        | 1/4 in         |
| 12LF281-32     | 1/4 in-28i   | Rear    | 20000      | 1/2" Carbide Burr, 1" Mounted Wheel | 2" (50 mm) Sanding/Polishing disc | 1/4"-28      | 1.1    | 6.6    | 2.70        | 1/4 in         |
| 12LF281-32OH   | 1/4 in-28i   | Rear    | 20000      | 1/2" Carbide Burr, 1" Mounted Wheel | 2" (50 mm) Sanding/Polishing disc | 1/4"-28      | 1.1    | 6.6    | 2.70        | 1/4 in         |
| 12LF200-36     | 1/4 in       | Front   | 12000      | 1/2" Carbide Burr, 1" Mounted Wheel | 3" (75 mm) Sanding/Polishing disc |              | 1.1    | 6.6    | 2.70        | 1/4 in         |
| 12LF200-36M6   | 1/4 in   6mm | Front   | 12000      | 1/2" Carbide Burr, 1" Mounted Wheel | 3" (75 mm) Sanding/Polishing disc |              | 1.1    | 6.6    | 2.70        | 1/4 in         |
| 12LF201-36     | 1/4 in       | Front   | 20000      | 1/2" Carbide Burr, 1" Mounted Wheel | 2" (50 mm) Sanding/Polishing disc |              | 1.1    | 6.6    | 2.70        | 1/4 in         |
| 12LF201-36M6   | 1/4 in   6mm | Front   | 20000      | 1/2" Carbide Burr, 1" Mounted Wheel | 2" (50 mm) Sanding/Polishing disc |              | 1.1    | 6.6    | 2.70        | 1/4 in         |
| 12LF280-36     | 1/4 in       | Rear    | 12000      | 1/2" Carbide Burr, 1" Mounted Wheel | 3" (75 mm) Sanding/Polishing disc |              | 1.1    | 6.6    | 2.70        | 1/4 in         |
| 12LF280-36M6   | 1/4 in   6mm | Rear    | 12000      | 1/2" Carbide Burr, 1" Mounted Wheel | 3" (75 mm) Sanding/Polishing disc |              | 1.1    | 6.6    | 2.70        | 1/4 in         |
| 12LF280-36M6OH | 1/4 in   6mm | Rear    | 12000      | 1/2" Carbide Burr, 1" Mounted Wheel | 3" (75 mm) Sanding/Polishing disc |              | 1.1    | 6.6    | 2.70        | 1/4 in         |
| 12LF281-36     | 1/4 in       | Rear    | 20000      | 1/2" Carbide Burr, 1" Mounted Wheel | 2" (50 mm) Sanding/Polishing disc |              | 1.1    | 6.6    | 2.70        | 1/4 in         |
| 12LF281-36M6   | 1/4 in   6mm | Rear    | 20000      | 1/2" Carbide Burr, 1" Mounted Wheel | 2" (50 mm) Sanding/Polishing disc |              | 1.1    | 6.6    | 2.70        | 1/4 in         |
| 12LF281-36M6OH | 1/4 in   6mm | Rear    | 20000      | 1/2" Carbide Burr, 1" Mounted Wheel | 2" (50 mm) Sanding/Polishing disc |              | 1.1    | 6.6    | 2.70        | 1/4 in         |
| 12LF201-32     | 1/4 in-28i   | Front   | 20000      | 2" (50 mm) Sanding/Polishing disc   | 2" (50 mm) Sanding/Polishing disc |              | 1.1    | 6.6    | 2.70        | 1/4 in         |
| 12LF200-32     | 1/4 in-28i   | Front   | 12000      | 3" (75 mm) Sanding/Polishing disc   | 3" (75 mm) Sanding/Polishing disc |              | 1.1    | 6.6    | 2.70        | 1/4 in         |
| 12LF280-27     | 3/8 in-24e   | Rear    | 12000      | 3" (75 mm) Sanding/Polishing disc   | 3" (75 mm) Sanding/Polishing disc |              | 1.1    | 6.6    | 2.70        | 1/4 in         |

All tools performance rated @ 90 psi / 620 kPa air pressure.

Standard Equipment:

Applicable collet, collet wrenches

Minimum Hose I.D.: 1/4 in / 4.8 mm

## Cleco Dotco 10LF Series - Precision Right Angle Die Grinder - 36 300 Series Collet -32 1/4"-28

12,000 - 20,000 RPM 0.4 hp (0.29 kW)

- Metal housing
- 12000rpm or 20000rpm, front and rear exhaust models available
- Ergonomic and balanced design minimized operator fatigue
- OH Option Supplied with 4' Overhose for additional noise suppression
- Conversion kits available to add OH Overhose on rear exhaust tools for additional noise suppression



| Model        | Collet Size  | Exhaust | Free Speed | Abrasive Capacity Grinder           | Abrasive Capacity Sander          | Weight | Length | Head Height | Air Inlet Size |
|--------------|--------------|---------|------------|-------------------------------------|-----------------------------------|--------|--------|-------------|----------------|
|              |              |         | r/min      |                                     |                                   | Lb     | in     | in          | in             |
| 10LF200-36   | 1/4 in       | Front   | 12000      | 1/2" Carbide Burr, 1" Mounted Wheel | 3" (75 mm) Sanding/Polishing Disc | 1.1    | 6.6    | 2.70        | 1/4 in         |
| 10LF200-36M6 | 1/4 in   6mm | Front   | 12000      | 1/2" Carbide Burr, 1" Mounted Wheel | 3" (75 mm) Sanding/Polishing Disc | 1.1    | 6.6    | 2.70        | 1/4 in         |
| 10LF201-36   | 1/4 in       | Front   | 20000      | 1/2" Carbide Burr, 1" Mounted Wheel | 2" (50 mm) Sanding/Polishing Disc | 1.1    | 6.6    | 2.70        | 1/4 in         |
| 10LF201-36M6 | 1/4 in   6mm | Front   | 20000      | 1/2" Carbide Burr, 1" Mounted Wheel | 2" (50 mm) Sanding/Polishing Disc | 1.1    | 6.6    | 2.70        | 1/4 in         |
| 10LF280-36   | 1/4 in       | Rear    | 12000      | 1/2" Carbide Burr, 1" Mounted Wheel | 3" (75 mm) Sanding/Polishing Disc | 1.1    | 6.6    | 2.70        | 1/4 in         |
| 10LF280-36M6 | 1/4 in   6mm | Rear    | 12000      | 1/2" Carbide Burr, 1" Mounted Wheel | 3" (75 mm) Sanding/Polishing Disc | 1.1    | 6.6    | 2.70        | 1/4 in         |
| 10LF281-36   | 1/4 in       | Rear    | 20000      | 1/2" Carbide Burr, 1" Mounted Wheel | 2" (50 mm) Sanding/Polishing Disc | 1.1    | 6.6    | 2.70        | 1/4 in         |
| 10LF281-36OH | 1/4 in       | Rear    | 20000      | 1/2" Carbide Burr, 1" Mounted Wheel | 2" (50 mm) Sanding/Polishing Disc | 1.1    | 6.6    | 2.70        | 1/4 in         |
| 10LF201-32   | 1/4 in-28i   | Front   | 20000      | 2" (50 mm) Sanding/Polishing Disc   | 2" (50 mm) Sanding/Polishing Disc | 1.1    | 6.6    | 2.90        | 1/4 in         |
| 10LF281-32   | 1/4 in-28i   | Rear    | 20000      | 2" (50 mm) Sanding/Polishing Disc   | 2" (50 mm) Sanding/Polishing Disc | 1.1    | 6.6    | 2.90        | 1/4 in         |
| 10LF200-32   | 1/4 in-28i   | Front   | 12000      | 3" (75 mm) Sanding/Polishing Dis    | 3" (75 mm) Sanding/Polishing Disc | 1.1    | 6.6    | 2.90        | 1/4 in         |
| 10LF280-32   | 1/4 in-28i   | Rear    | 12000      | 3" (75 mm) Sanding/Polishing Dis    | 3" (75 mm) Sanding/Polishing Disc | 1.1    | 6.6    | 2.90        | 1/4 in         |

All tools performance rated @ 90 psi / 620 kPa air pressure.  
 Standard Equipment:  
 Applicable collet, collet wrenches  
 Minimum Hose I.D.: 1/4 in / 4.8 mm

## Cleco Dotco 12-27 and 10-27 Series Extended Angle Head

12000-14500rpm

- 12L Composite housing 10L Aluminum Housing
- 12L22 0.6hp / .45kW 12L27 and 10L27 0.9hp (.67kW)
- -28 3/8"-24E Type 1 4" Guard, -30 1/4"-20int -32 1/4"-28int, -36 300 Series Collet shown in picture, -45 Universal Collet, -84 4" Type 27
- Standard 3" | 75mm extension
- Robust design perfectly suited for industrial applications
- -28 supplied with 4" guard for Type 1 cut off wheel



Grinders

| Model        | Collet Size | Exhaust | Free Speed | Abrasive Capacity Grinder              | Abrasive Capacity Sander          | Weight | Length | Head Height | Air Inlet Size |
|--------------|-------------|---------|------------|--|-----------------------------------|--------|--------|-------------|----------------|
|              |             |         | r/min      |  |                                   | Lb     |        |             |                |
| 10L2778-36   | 1/4 in      | Rear    | 14500      | 3/4" Carbide Burr, 1.25" Mounted Wheel | 4" (100mm) Sanding/Polishing Disc | 2.4    | 10.5   | 2.90        | 1/4 in         |
| 10L2778-45   | 1/4 in      | Rear    | 14500      | 3/4" Carbide Burr, 1.25" Mounted Wheel | 4" (100mm) Sanding/Polishing Disc | 2.4    | 10.5   | 2.90        | 1/4 in         |
| 12L2277-36   | 1/4 in      | Rear    | 12000      | 3/4" Carbide Burr, 1.25" Mounted Wheel | 4" (100mm) Sanding/Polishing Disc | 2.2    | 10     | 2.70        | 1/4 in         |
| 12L2278-36   | 1/4 in      | Rear    | 14500      | 3/4" Carbide Burr, 1.25" Mounted Wheel | 4" (100mm) Sanding/Polishing Disc | 2.2    | 10     | 2.70        | 1/4 in         |
| 12L2776-36   | 1/4 in      | Rear    | 13500      | 3/4" Carbide Burr, 1.25" Mounted Wheel | 4" (100mm) Sanding/Polishing Disc | 2.2    | 10.5   | 2.90        | 1/4 in         |
| 12L2777-32   | 1/4 in-28i  | Rear    | 12000      | 3/4" Carbide Burr, 1.25" Mounted Wheel | 4" (100mm) Sanding/Polishing Disc | 2.2    | 10.5   | 2.90        | 1/4 in         |
| 12L2777-36   | 1/4 in      | Rear    | 12000      | 3/4" Carbide Burr, 1.25" Mounted Wheel | 4" (100mm) Sanding/Polishing Disc | 2.2    | 10.5   | 2.90        | 1/4 in         |
| 12L2777-45   | 1/4 in      | Rear    | 12000      | 3/4" Carbide Burr, 1.25" Mounted Wheel | 4" (100mm) Sanding/Polishing Disc | 2.2    | 10.5   | 2.90        | 1/4 in         |
| 12L2778-36   | 1/4 in      | Rear    | 14500      | 3/4" Carbide Burr, 1.25" Mounted Wheel | 4" (100mm) Sanding/Polishing Disc | 2.2    | 10.5   | 2.90        | 1/4 in         |
| 12L2778-45   | 1/4 in      | Rear    | 14500      | 3/4" Carbide Burr, 1.25" Mounted Wheel |                                   | 2.2    | 10.5   | 2.90        | 1/4 in         |
| 12L2776-30   | 1/4 in-20i  | Rear    | 13500      | 4" Sanding Disc                        |                                   | 2.2    | 10.5   | 2.90        | 1/4 in         |
| 12L2776-32   | 1/4 in-28i  | Rear    | 13500      | 4" Sanding Disc                        |                                   | 2.2    | 10.5   | 2.90        | 1/4 in         |
| 12L2777-28OH | 3/8 in-24e  | Rear    | 12000      | 4" Type 1 Cut-Off Wheel                |                                   | 3.3    | 10.9   | 2.90        | 1/4 in         |
| 12L2778-28   | 3/8 in-24e  | Rear    | 14500      | 4" Type 1 Cut-Off Wheel                |                                   | 3.3    | 10.9   | 2.90        | 1/4 in         |
| 12L2778-84   | 3/8 in-24e  | Rear    | 14500      | 4" Type 27 Wheel                       |                                   | 2.87   | 10.5   | 2.30        | 1/4 in         |

All tools performance rated @ 90 psi / 620 kPa air pressure.  
Standard Equipment:  
Applicable collet, collet wrenches  
Minimum Hose I.D.: 5/16 in / 7.9 mm

## Cleco Dotco 12-27 Series - Standard Duty Head Right Angle Grinder

14,500 RPM 0.9 hp (0.67 kW)

- 12L Ergonomic composite housing, 10L Aluminium Housing
- Durable and low profile angle head
- Low vibration and high output motor provides superior productivity
- -36 1/4" Collet No Guard
- -28 3/6"-24ext Type 1 with 4" Guard



| Model      | Collet Size | Exhaust | Free Speed | Abrasive Capacity Grinder              | Abrasive Capacity Sander           | Weight | Length | Head Height | Air Inlet Size |
|------------|-------------|---------|------------|--|------------------------------------|--------|--------|-------------|----------------|
|            |             |         | r/min      |  |                                    | Lb     | in     | in          | in             |
| 12L2718-36 | 1/4 in      | Rear    | 18000      | 3/4" Carbide Burr, 1.25" Mounted Wheel | 4" (100mm) Sanding/ Polishing Disc | 1.98   | 8      | 2.90        | 1/4 in         |
| 12L2714-28 | 3/8 in-24e  | Rear    | 14500      | 4" (100mm) Type 1                      |                                    | 3.31   | 8      | 2.90        | 1/4 in         |
| 12L2718-28 | 3/8 in-24e  | Rear    | 18000      | 4" (100mm) Type 1                      |                                    | 3.31   | 8      | 2.90        | 1/4 in         |

All tools performance rated @ 90 psi / 620 kPa air pressure.  
Minimum Hose I.D.: 1/2 in / 12.7 mm  
Standard Equipment:  
Wheel guard and flange wrench

## Cleco Dotco 12-13 Series - Die Grinder - Right Angle - Gearless - 300 Series Collet, 1/4"-20E

20,000 - 30,000 RPM 0.3 hp (0.22 kW)

- Composite housing
- Wide array of speeds offered; front and rear exhaust models available
- Suitable for a wide range of finishing and deburring applications
- -36 1/4" Collet, -30 1/4"-20 Ext



| Model      | Collet Size | Exhaust | Free Speed | Abrasive Capacity Grinder           | Abrasive Capacity Sander          | Weight | Length | Head Height | Air Inlet Size |
|------------|-------------|---------|------------|-------------------------------------|-----------------------------------|--------|--------|-------------|----------------|
|            |             |         | r/min      |                                     |                                   | Lb     | in     | in          | in             |
| 12L1382-30 |             | Rear    | 20000      |                                     | 2" (50 mm) Sanding/Polishing Disc | 1.1    | 7.1    | 3.70        | 1/4 in         |
| 12L1300-36 | 1/4 in      | Front   | 30000      | 1/2" Carbide Burr, 1" Mounted Wheel | 1" (25mm) Sanding/Polishing Disc  | 1.1    | 7.1    | 3.70        | 1/4 in         |
| 12L1301-36 | 1/4 in      | Front   | 25000      | 1/2" Carbide Burr, 1" Mounted Wheel | 2" (50 mm) Sanding/Polishing Disc | 1.1    | 7.1    | 3.70        | 1/4 in         |
| 12L1302-36 | 1/4 in      | Front   | 20000      | 1/2" Carbide Burr, 1" Mounted Wheel | 2" (50 mm) Sanding/Polishing Disc | 1.1    | 7.1    | 3.70        | 1/4 in         |
| 12L1380-36 | 1/4 in      | Rear    | 30000      | 1/2" Carbide Burr, 1" Mounted Wheel | 1" (25mm) Sanding/Polishing Disc  | 1.1    | 7.1    | 3.70        | 1/4 in         |
| 12L1381-36 | 1/4 in      | Rear    | 25000      | 1/2" Carbide Burr, 1" Mounted Wheel | 2" (50 mm) Sanding/Polishing Disc | 1.1    | 7.1    | 3.70        | 1/4 in         |
| 12L1382-36 | 1/4 in      | Rear    | 20000      | 1/2" Carbide Burr, 1" Mounted Wheel | 2" (50 mm) Sanding/Polishing Disc | 1.1    | 7.1    | 3.70        | 1/4 in         |

All tools performance rated @ 90 psi / 620 kPa air pressure.

Standard Equipment:

Applicable collet, collet wrenches

Minimum Hose I.D.: 1/4 in / 4.8 mm



## Cleco Dotco 12-22 Series - Die Grinder - Right Angle - Heavy Duty Head - 200 Series Collet

9,000 - 11,000 RPM 0.6 hp (0.45 kW)

- Composite housing
- Ergonomic and balanced design minimized operator fatigue
- Wide array of speeds; front, side, and rear exhaust models available



| Model      | Collet Size | Exhaust | Free Speed | Abrasive Capacity Grinder           | Weight | Length | Head Height | Air Inlet Size |
|------------|-------------|---------|------------|-------------------------------------|--------|--------|-------------|----------------|
|            |             |         | r/min      |                                     | Lb     | in     | in          | in             |
| 12L2251-01 | 1/4 in      | Side    | 9000       | 3/4" Carbide Burr, 2" Mounted Wheel | 3.31   | 9.3    | 3.90        | 1/4 in         |
| 12L2252-01 | 1/4 in      | Side    | 11000      | 3/4" Carbide Burr, 2" Mounted Wheel | 3.31   | 9.3    | 3.90        | 1/4 in         |

All tools performance rated @ 90 psi / 620 kPa air pressure.  
Standard Equipment:  
Applicable collet, collet wrenches  
Minimum Hose I.D.: 5/16 in / 7.9 mm

## Cleco Dotco 12-27 Series - Die Grinder - Heavy Duty Head - 200 Series Collet

6,000 - 11,000 RPM 0.9 hp (0.67 kW)

- 12L Composite housing
- Front exhaust models
- Robust design perfectly suited for industrial applications



| Model      | Collet Size | Exhaust | Free Speed | Abrasive Capacity Grinder           | Weight | Length | Head Height | Air Inlet Size |
|------------|-------------|---------|------------|-------------------------------------|--------|--------|-------------|----------------|
|            |             |         | r/min      |                                     | Lb     | in     | in          | in             |
| 12L2750-01 | 1/4 in      | Side    | 6000       | 1" Carbide Burr, 1" Mounted Wheel   | 3.31   | 9.8    | 3.90        | 1/4 in         |
| 12L2752-01 | 1/4 in      | Side    | 11000      | 3/4" Carbide Burr, 2" Mounted Wheel | 3.31   | 9.8    | 3.90        | 1/4 in         |

All tools performance rated @ 90 psi / 620 kPa air pressure.  
Standard Equipment:  
Applicable collet, collet wrenches  
Minimum Hose I.D.: 5/16 in / 7.9 mm

## Cleco 216 Series - Inline - 200 Series Collet

25,000 RPM 0.7 hp (0.45 kW)

- Designed for demands of heavy industries, such as shipbuilding, foundries, metal fabrication, etc.
- Rugged advanced alloy housing
- Front and side exhaust models available



Grinders

| Model          | Collet Size | Exhaust | Free Speed | Abrasive Capacity Grinder | Weight | Length | Air Inlet Size |
|----------------|-------------|---------|------------|---------------------------|--------|--------|----------------|
|                |             |         | r/min      |                           | Lb     | in     |                |
| 216GLFB-250-C4 | 1/4 in      | Front   | 25000      | 3/4" Carbide Burr         | 1.32   | 0.63   | 1/4 in         |
| 216GLSB-250-C4 | 1/4 in      | Side    | 25000      | 3/4" Carbide Burr         | 1.32   | 0.63   | 1/4 in         |

All tools performance rated @ 90psi / 620 kPa air pressure.  
Standard Equipment:  
Applicable collet, collet wrenches  
Minimum Hose I.D.: 1/4in / 6.4mm

## Cleco 236 Series - Inline - 200 Series Collet

20,000 - 25,000 0.8hp (0.6kW)

- Designed for severe demands of heavy industries, such as shipbuilding, foundries, metal fabrication, etc.
- Advanced alloy housing
- Front, side, and rear exhaust models available



| Model         | Collet Size | Exhaust | Free Speed | Abrasive Capacity Grinder                       | Weight | Length | Air Inlet Size |
|---------------|-------------|---------|------------|---|--------|--------|----------------|
|               |             |         | r/min      |   | Lb     | in     |                |
| 236GLR-200-C4 | 1/4 in      | Rear    | 20000      | 1" (25mm) Carbide Burr, 2" (50mm) Mounted Wheel | 1.32   | 7.4    | 1/4 in         |
| 236GLF-250-C4 | 1/4 in      | Front   | 25000      | 1" Carbide Burr                                 | 1.32   | 6.8    | 1/4 in         |
| 236GLS-240-C4 | 1/4 in      | Side    | 24000      | 1" Carbide Burr                                 | 1.32   | 6.8    | 1/4 in         |

All tools performance rated @ 90psi / 620 kPa air pressure.  
Standard Equipment:  
Applicable collet, collet wrenches  
Minimum Hose I.D.: 5/16in / 7.9mm

## Cleco 216 Series - Right Angle Heavy Duty Head - Type 27

11,500 RPM 0.6 hp (0.4 kW)

- Rugged and durable aluminum housing
- Robust and long lasting angle head for the most demanding applications
- Powerful motor stays durable in the harshest environments



| Model             | Exhaust | Free Speed | Abrasive Capacity Grinder | Spindle Size | Weight | Length | Head Height | Air Inlet Size |
|-------------------|---------|------------|---------------------------|--------------|--------|--------|-------------|----------------|
|                   |         | r/min      |                           |              | Lb     | in     | in          | in             |
| 216GLF-115A-D3T45 | Front   | 11500      | 4.5" (115mm) Type 27      | 3/8" - 24 e  | 2.65   | 7.1    | 3.20        | 1/4 in         |

All tools performance rated @ 90 psi / 620 kPa air pressure.  
Minimum Hose I.D.: 5/16 in / 7.9 mm  
Standard Equipment:  
Applicable collet, collet wrenches

## Cleco 216 Series - Right Angle Extended - Type 1 and Type 27 DCW

13,500 -16,500 RPM 0.6 hp (0.4 kW)

- Rugged and durable aluminum housing
- Extended head for better reach and accessibility
- Lock-off lever for safe operation
- -D3T4 4" 3/8"-24 Type 27 DCW
- -W3T4 4" 3/8"-24 Type 1 Cut Off Wheel



| Model             | Exhaust | Free Speed | Abrasive Capacity Grinder | Spindle Size | Weight | Length | Head Height | Air Inlet Size |
|-------------------|---------|------------|---------------------------|--------------|--------|--------|-------------|----------------|
|                   |         | r/min      |                           |              | Lb     | in     | in          | in             |
| 216GLSB-135A-W3T4 | Side    | 13500      | 4" (100mm) Type 1         | 3/8" - 24 e  | 2.43   | 9.1    | 2.20        | 1/4 in         |
| 216GLSB-135A-D3T4 | Side    | 13500      | 4" (100mm) Type 27        | 3/8" - 24 e  | 2.43   | 9.1    | 2.20        | 1/4 in         |

All tools performance rated @ 90 psi / 620 kPa air pressure.  
Minimum Hose I.D.: 5/16 in / 7.9 mm  
Standard Equipment:  
Wheel guard, wheel adapter, spindle wrench, Operating instructions & service manual

## 12-22 Series - 300 Series Collet

12,000 - 18,000 RPM 0.6 hp (0.45 kW)

- Ergonomic composite housing
- Heavy duty low profile head for greater accessibility
- High output motor in a lightweight package
- 3" | 75mm Extended head available



| Model       | Collet Size | Exhaust | Free Speed | Abrasive Capacity Grinder              | Abrasive Capacity Sander           | Weight | Length | Head Height | Air Inlet Size |
|-------------|-------------|---------|------------|--|------------------------------------|--------|--------|-------------|----------------|
|             |             |         | r/min      |  |                                    | Lb     | in     | in          | in             |
| 12L2218-36* | 1/4 in      | Rear    | 18000      | 1/2" Carbide Burr   1" Mounted Wheel   | 3" (50mm) Sanding/ Polishing Disc  | 1.76   | 7.5    | 2.70        | 1/4 in         |
| 12L2278-36  | 1/4 in      | Rear    | 14500      | 3/4" Carbide Burr, 1.25" Mounted Wheel | 4" (100mm) Sanding/ Polishing Disc | 2.2    | 10     | 2.70        | 1/4 in         |
| 12L2277-36  | 1/4 in      | Rear    | 12000      | 3/4" Carbide Burr, 1.25" Mounted Wheel | 4" (100mm) Sanding/ Polishing Disc | 2.2    | 10     | 2.70        | 1/4 in         |

All tools performance rated @ 90 psi / 620 kPa air pressure.

Standard Equipment:

Applicable collet, collet wrenches

Minimum Hose I.D.: 5/16 in / 7.9 mm; \* All tools performance rated @ 90psi / 620 kPa air pressure.

Minimum Hose I.D.: 5/16in / 7.9mm

Standard Equipment: Applicable collet, collet wrenches

## Cleco 216 Series - Right Angle Heavy Duty Head - 200 Series Collet

11,500 RPM 0.7 hp (0.4 kW)

- Rugged and durable aluminum housing
- Designed for heavy industries such as shipbuilding, foundries, metal fabrication, etc.
- Robust angle head design provides excellent durability



| Model           | Collet Size | Exhaust | Free Speed | Abrasive Capacity Grinder | Weight | Length | Head Height | Air Inlet Size |
|-----------------|-------------|---------|------------|---------------------------|--------|--------|-------------|----------------|
|                 |             |         | r/min      |                           | Lb     | in     | in          | in             |
| 216GLF-115A-C4  | 1/4 in      | Front   | 11500      | 1" Carbide Burr           | 2.43   | 7.1    | 2.20        | 1/4 in         |
| 216GLFC-165A-C4 | 1/4 in      | Rear    | 16500      | 3/4" Carbide Burr         | 1.76   | 9.1    | 2.20        | 1/4 in         |

All tools performance rated @ 90 psi / 620 kPa air pressure.

Standard Equipment:

Applicable collet, collet wrenches

Minimum Hose I.D.: 1/4 in / 4.8 mm

## Cleco 236 Series - Right Angle Heavy Duty Head - 200 Series Collet

11,500 - 16,500 RPM 0.8 hp (0.6 kW)

- Rugged and durable aluminum housing
- Designed for heavy industries such as shipbuilding, foundries, metal fabrication, etc.
- Robust angle head design provides excellent durability



| Model           | Collet Size | Exhaust | Free Speed | Abrasive Capacity Grinder                       | Weight | Length | Head Height | Air Inlet Size |
|-----------------|-------------|---------|------------|---|--------|--------|-------------|----------------|
|                 |             |         | r/min      |   | Lb     | in     | in          | in             |
| 236GLSC-115A-C4 | 1/4 in      | Side    | 11500      | 1" (25mm) Carbide Burr, 2" (50mm) Mounted Wheel | 1.98   | 9.6    | 2.20        | 1/4 in         |

All tools performance rated @ 90 psi / 620 kPa air pressure.  
Standard Equipment:  
Applicable collet, collet wrenches  
Minimum Hose I.D.: 5/16 in / 7.9 mm

## Cleco 2260 Series - Right Angle Grinder

8,400 RPM 2.2 hp (1.6 kW)

- High performance 2.2HP motor, Governed at 8,000 rpm
- Available with 6", 7" guard options
- Reversible safety lever throttle
- Dual auxiliary handle positions
- Maximum material removal for a right angle grinder



| Model      | Exhaust | Free Speed | Abrasive Capacity Grinder | Spindle Size | Weight | Length | Head Height | Air Inlet Size |
|------------|---------|------------|---------------------------|--------------|--------|--------|-------------|----------------|
|            |         | r/min      |                           |              | Lb     | in     | in          | in             |
| 2260AGL-06 | Side    | 8400       | 6" (150mm), Type 27/42    | 5/8" - 11 e  | 7.3    | 12.1   | 2.90        | 1/2 in         |
| 2260AGL-07 | Side    | 8400       | 7" (180mm), Type 27/42    | 5/8" - 11 e  | 7.3    | 12.1   | 2.90        | 1/2 in         |

All tools performance rated @ 90 psi / 620 kPa air pressure.  
Minimum Hose I.D.: 3/4 in / 19 mm  
Standard Equipment:  
Wheel guard, adapters, spindle wrenches, operating instructions & service manuals

## Cleco 236 Series - Right Angle Heavy Duty Head Type 1 and Type 27

- Rugged and durable aluminum housing
- Heavy duty and extended head models available
- Designed for heavy duty material removal applications
- -D3T4 3/8"-24E Type 27DCW 4" Guard , -D3T45 3/8"-24E Type 27DCW 4.5" Guard, -D3T5 3/8"-24E Type 27DCW 5" Guard
- -W3T4 3/8"-24 Type 1 4" Guard



| Model             | Exhaust | Free Speed | Abrasive Capacity<br>Grinder | Spindle Size | Weight | Length | Head Height | Air Inlet Size |
|-------------------|---------|------------|------------------------------|--------------|--------|--------|-------------|----------------|
|                   |         | r/min      |                              |              | Lb     | in     | in          | in             |
| 236GLR-115A-D3T45 | Rear    | 11500      | 4.5" (115mm) Type 27         | 3/8" - 24 e  | 2.43   | 8.3    | 3.20        | 1/4 in         |
| 236GLR-115A-D5T45 | Rear    | 11500      | 4.5" (115mm) Type 27         | 5/8" - 11 e  | 2.43   | 8.3    | 3.20        | 1/4 in         |
| 236GLR-115A-W3T4  | Rear    | 11500      | 4" (100mm) Type 1            | 3/8" - 24 e  | 2.43   | 8.3    | 3.20        | 1/4 in         |
| 236GLR-115A-D3T4  | Rear    | 11500      | 4" (100mm) Type 27           | 3/8" - 24 e  | 2.43   | 8.3    | 3.20        | 1/4 in         |
| 236GLR-115A-D3T5  | Rear    | 11500      | 5" (150mm) Type 27           | 3/8" - 24 e  | 2.43   | 8.3    | 3.20        | 1/4 in         |

All tools performance rated @ 90 psi / 620 kPa air pressure.  
Minimum Hose I.D.: 1/2 in / 12.7 mm  
Standard Equipment:  
Wheel guard and flange wrench

## Cleco C31 Right Angle Grinder

12,000 - 13500 RPM 1.7 hp (1.25 kW)

- High-performance 1.7Hp motor delivers maximum power
- Quick change spindle lock for fast and easy abrasive changes
- Quieter operation with rear exhaust overhose standard
- Ergonomic, anti-vibration handle for increased comfort and less operator fatigue
- Dual-layer, high-impact composite housing for extreme durability
- Versatile 270° adjustable guard for easy access to tight spaces



| Model          | Exhaust | Free Speed | Abrasive Capacity Grinder | Spindle Size | Weight | Length | Head Height | Air Inlet Size |
|----------------|---------|------------|---------------------------|--------------|--------|--------|-------------|----------------|
|                |         | r/min      |                           |              | Lb     | in     | in          | in             |
| C3120A45-58OH  | Rear    | 12000      | 4.5" Type 1 and Type 27   | 5/8" - 11    | 3.98   | 8.95   | 3.03        | 3/8 in         |
| C3120A45-M14OH | Rear    | 12000      | 4.5" Type 1 and Type 27   | M14 x 2      | 3.98   | 8.95   | 3.03        | 3/8 in         |
| C3120A5-58OH   | Rear    | 12000      | 5" Type 1 and Type 27     | 5/8" - 11    | 4.05   | 8.95   | 3.03        | 3/8 in         |
| C3120A5-M14OH  | Rear    | 12000      | 5" Type 1 and Type 27     | M14 x 2      | 4.05   | 8.95   | 3.03        | 3/8 in         |
| C3135A4-38OH   | Rear    | 13500      | 4" Type 1 and Type 27     | 3/8" - 24    | 3.78   | 8.95   | 3.03        | 3/8 in         |

## Cleco 236 Series - Right Angle Extended Head - Type 1 and Type 27

13,500 - RPM 0.8 hp (0.6kW)

- Rugged and durable aluminum housing
- Heavy duty and extended head models available
- Designed for heavy duty material removal applications
- -D3T4 3/8"-24E Type 27DCW 4" Guard , -D3T45 3/8"-24E Type 27DCW 4.5" Guard
- -W3T4 3/8"-24 Type 1 4" Guard



| Model             | Exhaust | Free Speed | Abrasive Capacity Grinder | Spindle Size | Weight | Length | Head Height | Air Inlet Size |
|-------------------|---------|------------|---------------------------|--------------|--------|--------|-------------|----------------|
|                   |         | r/min      |                           |              | Lb     | in     | in          | in             |
| 236GLFB-135A-W3T4 | Front   | 13500      | 4" (100mm) Type 1         | 3/8" - 24 e  | 1.98   | 9.6    |             | 1/4 in         |
| 236GLRB-135A-W3T4 | Rear    | 13500      | 4" (100mm) Type 1         | 3/8" - 24 e  | 1.98   | 7.6    |             | 1/4 in         |
| 236GLSB-135A-W3T4 | Side    | 13500      | 4" (100mm) Type 1         | 3/8" - 24 e  | 1.98   | 9.6    |             | 1/4 in         |
| 236GLFB-135A-D3T4 | Front   | 13500      | 4" (100mm) Type 27        | 3/8" - 24 e  | 1.98   | 9.6    | 2.20        | 1/4 in         |
| 236GLRB-135A-D3T4 | Rear    | 13500      | 4" (100mm) Type 27        | 3/8" - 24 e  | 1.98   | 7.6    | 2.20        | 1/4 in         |

All tools performance rated @ 90psi / 620 kPa air pressure.  
Minimum Hose I.D.: 1/2in / 12.7mm  
Standard Equipment: Wheel guard and flange wrench



## 236 Series - Extended - 200 Series Collet

18,000 - 24,000 RPM 0.9 hp (0.6 kW)

- Rugged all aluminum housing
- Heavy industrial use for shipyards, foundries, metal fabrication, rail yards, etc.
- 5" Extended housing for hard to reach areas
- Offers higher horsepower and torque levels than similar competitive tools
- C4 = 200 Series Collet, P3T 3/8"-24



| Model         | Collet Size | Exhaust | Free Speed | Abrasive Capacity Grinder         | Weight | Length | Air Inlet Size |
|---------------|-------------|---------|------------|-----------------------------------|--------|--------|----------------|
|               |             |         | r/min      |                                   | Lb     | in     | in             |
| 236GEL-240-C4 | 1/4 in      | Side    | 24000      | 1" Carbide Burr, 2" Mounted Wheel | 2.2    | 12.4   | 1/4 in         |

All tools performance rated @ 90psi / 620 kPa air pressure.

Standard Equipment:

Applicable collet, collet wrenches

Minimum Hose I.D.: 5/16in / 7.9mm

## Cleco 25 Series - Grinder - Inline Extended

14,000 - 18,000 RPM 1.4 hp (1.3 kW)

- Rugged and durable aluminum housing
- Governor speed control maintains RPM under load
- Safety- lock throttle lever prevents accidental start up



| Model            | Collet Size | Exhaust | Free Speed | Abrasive Capacity Grinder            | Spindle Size | Weight | Length | Air Inlet Size |
|------------------|-------------|---------|------------|--------------------------------------|--------------|--------|--------|----------------|
|                  |             |         | r/min      |                                      |              | Lb     | in     | in             |
| 25GELC-180-C4    | 1/4 in      | Side    | 18000      | 1.25" Carbide Burr, 2" Mounted Wheel |              | 3.09   | 14.5   | 3/8 in         |
| 25GELC-120-C4    | 1/4 in      | Rear    | 12000      | 1.25" Carbide Burr, 2" Mtd. Wheel    |              | 3.09   | 14.5   | 3/8 in         |
| 25GELC-120-W3T25 | 3/8 in-24e  | Side    | 12000      | 2.5" (63mm) Type 1                   | 3/8" - 24 e  | 3.31   | 14.4   | 3/8 in         |
| 25GELC-180-P3T   | 3/8 in-24e  | Side    | 18000      | 2" (50mm) Cone or Plug Wheel         | 3/8" - 24 e  | 3.09   | 14.5   | 3/8 in         |
| 25GELC-180-P5T   | 5/8 in-11e  | Side    | 18000      | 2" (50mm) Cone or Plug Wheel         | 5/8" - 11 e  | 3.31   | 14.9   | 3/8 in         |
| 25GELC-120-W3T3  | 3/8 in-24e  | Side    | 12000      | 3" (75mm) Type 1                     | 3/8" - 24 e  | 3.75   | 14.4   | 3/8 in         |
| 25GELC-180-W3T3  | 3/8 in-24e  | Side    | 18000      | 3" (75mm) Type 1                     | 3/8" - 24 e  | 3.75   | 14.9   | 3/8 in         |
| 25GELC-120-W3T4  | 3/8 in-24e  | Side    | 12000      | 4" (100mm) Type 1                    | 3/8" - 24 e  | 3.75   | 14.4   | 3/8 in         |

All tools performance rated @ 90 psi / 620 kPa air pressure.

Minimum Hose I.D.: 3/8 in / 9.5 mm

Standard Equipment:

Wheel guard, flange wrench, Operating instructions & service manual

## Cleco 3060 Series - 3hp Vertical Grinder

6,000 RPM 3.0 hp (2.3 kW)

- Powerful, governed motor
- Ideally suited for the most rugged environments
- Maximum material removal in an ergonomic package



| Model      | Exhaust | Free Speed | Abrasive Capacity Grinder | Spindle Size | Weight | Air Inlet Size |
|------------|---------|------------|---------------------------|--------------|--------|----------------|
|            |         | r/min      |                           |              | Lb     | in             |
| 3060AVL-06 | Side    | 6000       | 6" (150mm) Type 11        | 5/8" - 11 e  | 10.1   | 1/2 in         |
| 3060AVL-07 | Side    | 6000       | 7" (180mm) Type 27        | 5/8" - 11 e  | 9.7    | 1/2 in         |
| 3060AVL-09 | Side    | 6000       | 9" (230mm) Type 27        | 5/8" - 11 e  | 10.4   | 1/2 in         |

All tools performance rated @ 90 psi / 620 kPa air pressure.

Minimum Hose I.D.: 3/4 in / 19 mm

Standard Equipment:

Wheel guard, adapters, spindle wrenches, operating instructions & service manuals

## Cleco 4060 Series - 4hp Vertical Grinder

6,000 RPM 4.0 hp (3.1 kW)

- Maximum material removal in any application
- Powerful motor delivering ultimate torque



| Model      | Exhaust | Free Speed | Abrasive Capacity Grinder | Spindle Size | Weight | Air Inlet Size |
|------------|---------|------------|---------------------------|--------------|--------|----------------|
|            |         | r/min      |                           |              | Lb     | in             |
| 4060AVL-06 | Side    | 6000       | 6" (150mm) Type 11        | 5/8" - 11 e  | 11.7   | 1/2 in         |
| 4060AVL-07 | Side    | 6000       | 7" (180mm) Type 27        | 5/8" - 11 e  | 11     | 1/2 in         |
| 4060AVL-09 | Side    | 6000       | 9" (230mm) Type 27        | 5/8" - 11 e  | 11.9   | 1/2 in         |

All tools performance rated @ 90 psi / 620 kPa air pressure.

Minimum Hose I.D.: 3/4 in / 19 mm

Standard Equipment:

Wheel guard, adapters, spindle wrenches, operating instructions & service manuals

## Cleco Wheel Guards



| Model       | Description                 | Tool Series      | Size           |
|-------------|-----------------------------|------------------|----------------|
| 202227      | Type 27 Wheel               | 216RA, 236RA     | 4"   100mm     |
| 202245      | Type 1 Wheel                | 236,25           | 4"   100mm     |
| 202278      | Type 1 Wheel                | 236, 25          | 3"   75mm      |
| 203142      | Type 27 Wheel               | 216RA, 236RA     | 5"   125mm     |
| 203382      | Type 27 Wheel               | 236V             | 4"   100mm     |
| 207750PT    | Type 6 & 11 (Cup) Wheel     | 3060AVL, 4060AVL | 6"   150mm     |
| 207751PT    | Type 27 Wheel               | 3060AVL, 4060AVL | 7"   180mm     |
| 207752PT    | Type 27 Wheel               | 3060AVL, 4060AVL | 9"   230mm     |
| 208011PT    | Type 27 Wheel               | 2260AGL          | 6"   150mm     |
| 208012PT    | Type 27 Wheel               | 2260AGL          | 7"   180mm     |
| 849760      | Type 28 Wheel               | 25V              | 7"   180mm     |
| 861893      | Type 6 & 11 (Cup) Wheel     |                  | 6"   150mm     |
| 865986      | Type 28 Wheel               | 25RA             | 7"   180mm     |
| 865993      | Type 1 Wheel                | 500BH            | 6"   150mm     |
| 881608      | Type 1 Wheel                | 500BH            | 4"   100mm     |
| 889208      | Type 27 Wheel               | 216RA, 236RA     | 4"   100mm     |
| T50-1000430 | Type 1 Wheel, Type 27 Wheel | C3 Grinder       | 4"   100mm     |
| T50-1000455 | Type 1 Wheel, Type 27 Wheel | C3 Grinder       | 4 1/2"   100mm |
| T50-1000467 | Type 1 Wheel, Type 27 Wheel | C3 Grinder       | 5"   125mm     |

Wheel Guards Cleco Dotco

For Use with Cleco Dotco Grinders Only

- For Type 1 and Type 27 abrasives and Cup Wheels only
- Available in various sizes
- Meets all safety standards



Grinders

| Model   | Abrasive Capacity<br>Grinder | Tool Series       |
|---------|------------------------------|-------------------|
| 14-1258 | 3" x 3/16"                   | 12-22, 12-27 (LP) |
| 14-1259 | 4" x 3/16"                   | 12-22, 12-27 (LP) |
| 14-2123 | 7"                           | 12-42             |
| 14-2562 | 4"                           | 12-22, 12-27      |
| 14-2594 | 4"                           | 12-22, 12-27 (LP) |
| 14-2623 | 4" x 3/16"                   | 12-25             |
| 14-2624 | 3" x 3/16"                   | 12-20, 12-25      |
| 14-2672 | 4.5"                         | 12-27             |
| 14-4074 | 4" x 1"                      | 12-41             |

## 10/12-04 Series HG Collets - Cleco Dotco

### Cleco Dotco Pencil Grinder collets

- Used on 10 and 12 series Pencil grinders
- Fit various Burr sizes
- Available in Metric and Imperial sizes

| Model | Tool Termination | Tool Series         | Collet Size | Length  |
|-------|------------------|---------------------|-------------|---------|
|       |                  |                     | in          | in / mm |
| 100   | -08 or -18       | 10-04, 10-90, 12-04 | 1/8 in      | 321 mm  |
| 102   | -06 or -16       | 10-04, 10-90        | 3/32 in     |         |
| 103   | -04 or -14       | 10-04, 10-90        | 1/16 in     |         |
| 146   | -00 or -10       | 10-04, 10-90        | 1mm         |         |
| 148   | -03 or -13       | 10-04, 10-90, 12-04 | 3mm         |         |

## 12-03 Series /12R0380 Collets - Cleco Dotco

### Cleco Dotco Pencil Grinder collets

- Used on Cleco Dotco 12-03 Right Angle Pencil grinders
- sizes

| Model   | Tool Termination | Tool Series | Collet Size |
|---------|------------------|-------------|-------------|
|         |                  |             | in          |
| 01-0100 | -18              | 12-03       | 1/8 in      |
| 01-0102 | -16              | 12-03       | 3/32 in     |
| 01-0148 | -13              | 12-03       | 3mm         |

## Universal Collets - Cleco Dotco

- For use with 12-05, 12-22, 12-27 grinders

| Model  | Tool Termination | Tool Series         | Collet Size |
|--------|------------------|---------------------|-------------|
|        |                  |                     | in          |
| 7808PT | -45              | 12-05, 12-22, 12-27 | 1/4 in      |



## Termination 01 - Series 200 Collets Cleco Dotco

- Series 200 Collet



| Model | Description       | Tool Termination | Tool Series                                     | Collet Size |
|-------|-------------------|------------------|---|-------------|
|       |                   |                  |   | in          |
| 204   | COLLET 1/8" E200  | -0108            | 12-20, 12-25, 12-21, 12-22, 12-26, 12-27, 12-31 | 1/8 in      |
| 205   | COLLET 5/32" E200 | -0110            | 12-20, 12-25, 12-21, 12-22, 12-26, 12-27, 12-31 | 5/32 in     |
| 206   | COLLET 3/16" E200 | -0112            | 12-20, 12-25, 12-21, 12-22, 12-26, 12-27, 12-31 | 3/16 in     |
| 207   | COLLET 7/32" E200 | -0114            | 12-20, 12-25, 12-21, 12-22, 12-26, 12-27, 12-31 | 7/32 in     |
| 208   | COLLET 1/4" E200  | -01              | 12-20, 12-25, 12-21, 12-22, 12-26, 12-27, 12-31 | 1/4 in      |
| 209   | COLLET 9/32" E200 | -0118            | 12-20, 12-25, 12-21, 12-22, 12-26, 12-27, 12-31 | 9/32 in     |
| 210   | COLLET 5/16" E200 | -0120            | 12-20, 12-25, 12-21, 12-22, 12-26, 12-27, 12-31 | 5/16 in     |
| 212   | COLLET 3/8" E200  | -0124            | 12-20, 12-25, 12-21, 12-22, 12-26, 12-27, 12-31 | 3/8 in      |
| 213   | COLLET 6MM E200   | -01M6            | 12-20, 12-25, 12-21, 12-22, 12-26, 12-27, 12-31 | 6mm         |
| 216   | COLLET 8MM E200   | -01M8            | 12-20, 12-25, 12-21, 12-22, 12-26, 12-27, 12-31 | 6mm         |



## Termination 36 - Series 300 Collets Cleco Dotco

- Series 300 Collet



| Model | Description       | Tool Termination | Tool Series  | Collet Size |
|-------|-------------------|------------------|--|-------------|
|       |                   |                  |  | in          |
| 301   | Series 300 Collet | -3603            | 12-10, 12-11, 12-12, 12-20, 12-25                      | 3/64 in     |
| 302   | Series 300 Collet | -3605            | 12-10, 12-11, 12-12, 12-20, 12-25                      | 5/64 in     |
| 303   | COLLET 3/32" E300 | -3606            | 12-10, 12-11, 12-12, 12-20, 12-25                      | 3/32 in     |
| 304   | COLLET 1/8" E300  | -3608            | 10-95, 12-10, 12-11, 12-12, 12-20, 12-25               | 1/8 in      |
| 305   | COLLET 5/32" E300 | -3610            | 12-10, 12-11, 12-12, 12-20, 12-25                      | 5/32 in     |
| 306   | COLLET 3/16" E300 | -3612            | 12-10, 12-11, 12-12, 12-20, 12-25                      | 3/16 in     |
| 307   | COLLET 7/32" E300 | -3612            | 12-10, 12-11, 12-12, 12-20, 12-25                      | 7/32 in     |
| 308   | COLLET 1/4" E300  | -36              | 10-95, 12-10, 12-11, 12-12, 12-20, 12-25               | 1/4 in      |
| 310   | COLLET 6MM E300   | -36M3            | 12-10, 12-11, 12-12, 12-20, 12-25                      | 6mm         |
| 311   | COLLET 3MM E300   | -36M6            | 12-10, 12-11, 12-12, 12-20, 12-25, 12-05, 12-22, 12-27 | 3mm         |

## Termination 62 - Series K Collets

- Series K Collet
- For Use with 10T/11T Routers



| Model | Description           | Tool Termination | Tool Series  | Collet Size |
|-------|-----------------------|------------------|--------------|-------------|
|       |                       |                  |              | in          |
| 120   | COLLET 1/8" K SERIES  | -6208            | 10-43, 11-43 | 1/8 in      |
| 122   | COLLET 1/4" K SERIES  | -6216            | 10-43, 11-43 | 1/4 in      |
| 123   | COLLET 5/16" K SERIES | -6220            | 10-43, 11-43 | 5/16 in     |
| 124   | COLLET 3/8" K SERIES  | -62              | 10-43, 11-43 | 3/8 in      |
| 126   | COLLET 1/2" K SERIES  | -6232            | 10-43, 11-43 | 1/2 in      |
| 135   | COLLET 10MM K SERIES  | -6270            | 10-43, 11-43 | 10mm        |

Spiral Cool Sanding Kits

Sanding backing Pads for Grinders

| Model  | Description         | Tool Series               | Size |
|--------|---------------------|---------------------------|------|
| 861655 | Grinder Accessories | 25RA, 15V, 1200V, 2260AGL | 7"   |
| 861792 | Grinder Accessories | 216RA, 236RA, C3          | 5"   |



Grinders

Type 27 & 28 Wheel Adapter Kit

Used for with Type 27 & Type 28 Wheels

| Model  | Tool Series                            |
|--------|--|
| 849269 | 15V, 1200V, 1700V, 1900V, 3060V, 4060V |



Noise Suppressor Guard Cleco Dotco

For use with 12-10 front exhaust tools only

- Completely covers the collet
- For use with 12-10 front exhaust tools only
- Limits the diameter of the cutting tool used to 1/2"
- Air is exhausted at an angle

| Model   | Tool Series         |
|---------|---------------------|
| 14-2188 | 12-10 Front Exhaust |



Depressed Center Wheel Adapter

Adaptor Kit for 7" and 9" Depressed Center Wheels

- Adapt a 7/8" arbor abrasive to a 5/8"-11 threaded spindle

| Model   |
|---------|
| 14-5008 |



## 12LF Series - Sander - Right Angle - 300 Series Collet - Cleco Dotco

12,000 - 20,000 RPM 0.4 hp (0.29 kW)

- Composite housing
- 12000rpm or 20000rpm, front and rear exhaust models available
- Ergonomic and balanced design minimized operator fatigue
- Tool not supplied with backing pad as shown
- Conversion kits available to add OH Overhose on rear exhaust tools for additional noise suppression



| Model      | Collet Size | Exhaust | Free Speed | Abrasive Capacity Grinder           | Abrasive Capacity Sander          | Weight | Length | Head Height | Air Inlet Size |
|------------|-------------|---------|------------|-------------------------------------|-----------------------------------|--------|--------|-------------|----------------|
|            |             |         | r/min      |                                     |                                   | Lb     | in     | in          | in             |
| 12LF281-36 | 1/4 in      | Rear    | 20000      | 1/2" Carbide Burr, 1" Mounted Wheel | 2" (50 mm) Sanding/Polishing disc | 1.1    | 6.6    | 2.70        | 1/4 in         |
| 12LF280-36 | 1/4 in      | Rear    | 12000      | 1/2" Carbide Burr, 1" Mounted Wheel | 3" (75 mm) Sanding/Polishing disc | 1.1    | 6.6    | 2.70        | 1/4 in         |
| 12LF201-36 | 1/4 in      | Front   | 20000      | 1/2" Carbide Burr, 1" Mounted Wheel | 2" (50 mm) Sanding/Polishing disc | 1.1    | 6.6    | 2.70        | 1/4 in         |
| 12LF200-36 | 1/4 in      | Front   | 12000      | 1/2" Carbide Burr, 1" Mounted Wheel | 3" (75 mm) Sanding/Polishing disc | 1.1    | 6.6    | 2.70        | 1/4 in         |
| 12LF201-32 | 1/4 in-28i  | Front   | 20000      | 2" (50 mm) Sanding/Polishing disc   | 2" (50 mm) Sanding/Polishing disc | 1.1    | 6.6    | 2.70        | 1/4 in         |
| 12LF200-32 | 1/4 in-28i  | Front   | 12000      | 3" (75 mm) Sanding/Polishing disc   | 3" (75 mm) Sanding/Polishing disc | 1.1    | 6.6    | 2.70        | 1/4 in         |

All tools performance rated @ 90 psi / 620 kPa air pressure.

Standard Equipment:

Applicable collet, collet wrenches

Minimum Hose I.D.: 1/4 in / 4.8 mm

## 10LF Series - Sander - Right Angle - 300 Series Collet - Cleco Dotco

12,000 - 20,000 RPM 0.4 hp (0.29 kW)

- Aluminum housing for high durability
- 12000rpm or 20000rpm, front and rear exhaust models available
- Ergonomic and balanced design minimized operator fatigue
- Tool not supplied with backing pad as shown
- Conversion kits available to add OH Overhose on rear exhaust tools for additional noise suppression



| Model      | Collet Size | Exhaust | Free Speed | Abrasive Capacity Grinder           | Abrasive Capacity Sander          | Weight | Length | Head Height | Air Inlet Size |
|------------|-------------|---------|------------|-------------------------------------|-----------------------------------|--------|--------|-------------|----------------|
|            |             |         | r/min      |                                     |                                   | Lb     |        |             |                |
| 10LF281-36 | 1/4 in      | Rear    | 20000      | 1/2" Carbide Burr, 1" Mounted Wheel | 2" (50 mm) Sanding/Polishing Disc | 1.1    | 6.6    | 2.70        | 1/4 in         |
| 10LF200-36 | 1/4 in      | Front   | 12000      | 1/2" Carbide Burr, 1" Mounted Wheel | 3" (75 mm) Sanding/Polishing Disc | 1.1    | 6.6    | 2.70        | 1/4 in         |
| 10LF280-36 | 1/4 in      | Rear    | 12000      | 1/2" Carbide Burr, 1" Mounted Wheel | 3" (75 mm) Sanding/Polishing Disc | 1.1    | 6.6    | 2.70        | 1/4 in         |
| 10LF201-36 | 1/4 in      | Front   | 20000      | 1/2" Carbide Burr, 1" Mounted Wheel | 2" (50 mm) Sanding/Polishing Disc | 1.1    | 6.6    | 2.70        | 1/4 in         |
| 10LF201-32 | 1/4 in-28i  | Front   | 20000      | 2" (50 mm) Sanding/Polishing Disc   | 2" (50 mm) Sanding/Polishing Disc | 1.1    | 6.6    | 2.90        | 1/4 in         |
| 10LF200-32 | 1/4 in-28i  | Front   | 12000      | 3" (75 mm) Sanding/Polishing Dis    | 3" (75 mm) Sanding/Polishing Disc | 1.1    | 6.6    | 2.90        | 1/4 in         |

All tools performance rated @ 90 psi / 620 kPa air pressure.

Standard Equipment:

Applicable collet, collet wrenches

Minimum Hose I.D.: 1/4 in / 4.8 mm

## 12-13 Series - Sander - Right Angle - Gearless - 300 Series Collet - Cleco Dotco

20,000 - 30,000 RPM 0.3 hp (0.22 kW)

- Composite housing
- Wide array of speeds offered; front and rear exhaust models available
- Suitable for a wide range of finishing and deburring applications
- Tool not supplied with backing pad as shown



| Model      | Collet Size | Exhaust | Free Speed | Abrasive Capacity Grinder           | Abrasive Capacity Sander          | Weight | Length | Head Height | Air Inlet Size |
|------------|-------------|---------|------------|-------------------------------------|-----------------------------------|--------|--------|-------------|----------------|
|            |             |         | r/min      |                                     |                                   | Lb     | in     | in          | in             |
| 12L1300-32 | 1/4 in-28i  | Front   | 30000      |                                     | 1" (25mm) Sanding/Polishing Disc  | 1.1    | 7.1    | 3.70        | 1/4 in         |
| 12L1301-32 | 1/4 in-28i  | Front   | 25000      |                                     | 2" (50 mm) Sanding/Polishing Disc | 1.1    | 7.1    | 3.70        | 1/4 in         |
| 12L1300-36 | 1/4 in      | Front   | 30000      | 1/2" Carbide Burr, 1" Mounted Wheel | 1" (25mm) Sanding/Polishing Disc  | 1.1    | 7.1    | 3.70        | 1/4 in         |
| 12L1380-36 | 1/4 in      | Rear    | 30000      | 1/2" Carbide Burr, 1" Mounted Wheel | 1" (25mm) Sanding/Polishing Disc  | 1.1    | 7.1    | 3.70        | 1/4 in         |
| 12L1381-36 | 1/4 in      | Rear    | 25000      | 1/2" Carbide Burr, 1" Mounted Wheel | 2" (50 mm) Sanding/Polishing Disc | 1.1    | 7.1    | 3.70        | 1/4 in         |
| 12L1382-36 | 1/4 in      | Rear    | 20000      | 1/2" Carbide Burr, 1" Mounted Wheel | 2" (50 mm) Sanding/Polishing Disc | 1.1    | 7.1    | 3.70        | 1/4 in         |
| 12L1302-36 | 1/4 in      | Front   | 20000      | 1/2" Carbide Burr, 1" Mounted Wheel | 2" (50 mm) Sanding/Polishing Disc | 1.1    | 7.1    | 3.70        | 1/4 in         |
| 12L1301-36 | 1/4 in      | Front   | 25000      | 1/2" Carbide Burr, 1" Mounted Wheel | 2" (50 mm) Sanding/Polishing Disc | 1.1    | 7.1    | 3.70        | 1/4 in         |

All tools performance rated @ 90 psi / 620 kPa air pressure.

Standard Equipment:

Applicable collet, collet wrenches

Minimum Hose I.D.: 1/4 in / 4.8 mm

## Cleco Dotco 12-22 Series - Right Angle - Grinder/Sander - Extended Head 300 Series Collet

18,000 RPM 0.6 hp (0.45 kW)

- Ergonomic composite housing
- Heavy duty low profile head for greater accessibility
- High output motor in a lightweight package
- 3" | 75mm Extended head



## Cleco Dotco 12-22 Series - Right Angle - Grinder/Sander - Standard Head

9,000 RPM 0.6 hp (0.45 kW)

- Ergonomic composite housing
- Short Angle Head
- High output motor in a lightweight package



| Model      | Collet Size | Exhaust | Free Speed | Abrasive Capacity Grinder            | Abrasive Capacity Sander          | Weight | Length | Head Height | Air Inlet Size |
|------------|-------------|---------|------------|--------------------------------------|-----------------------------------|--------|--------|-------------|----------------|
|            |             |         | r/min      |                                      |                                   | Lb     | in     | in          | in             |
| 12L2218-36 | 1/4 in      | Rear    | 18000      | 1/2" Carbide Burr   1" Mounted Wheel | 3" (50mm) Sanding/ Polishing Disc | 1.76   | 7.5    | 2.70        | 1/4 in         |

All tools performance rated @ 90psi / 620 kPa air pressure.  
Minimum Hose I.D.: 5/16in / 7.9mm  
Standard Equipment: Applicable collet, collet wrenches

## Cleco Dotco 10-27 & 12-27 Series - Heavy Duty Head - Sander/Grinder - 5/8"-11 Threaded Spindle

850 - 11,000 RPM 0.9 hp (0.67 kW)

- Aluminum 10L and Composite 12L housing options
- High output motor for demanding sanding applications
- Heavy duty low profile head for superior durability
- Tool not supplied with backing pad as shown



| Model      | Exhaust | Free Speed | Abrasive Capacity Sander           | Spindle Size | Weight | Length | Head Height | Air Inlet Size |
|------------|---------|------------|------------------------------------|--------------|--------|--------|-------------|----------------|
|            |         | r/min      |                                    |              | Lb     | in     | in          | in             |
| 10L2750-80 | Front   | 6000       | 7" (178 mm) Sanding/Polishing Disc |              | 3.09   | 8.5    | 3.90        | 1/4 in         |
| 10L2751-80 | Front   | 9000       | 5" (127 mm) Sanding/Polishing Disc |              | 3.09   | 8.5    | 3.90        | 1/4 in         |
| 12L2750-80 | Front   | 6000       | 7" (178 mm) Sanding/Polishing Disc |              | 3.31   | 9.8    | 3.90        | 1/4 in         |
| 12L2751-80 | Front   | 9000       | 5" (127 mm) Sanding/Polishing Disc |              | 3.31   | 9.8    | 3.90        | 1/4 in         |
| 12L2752-80 | Front   | 11000      | 4" (102 mm) Sanding/Polishing Disc |              | 3.31   | 9.8    | 3.90        | 1/4 in         |
| 12L2760-80 | Front   | 3300       | 7" (178 mm) Sanding/Polishing Disc |              | 3.97   | 10.5   | 3.90        | 1/4 in         |
| 12L2762-80 | Front   | 4500       | 7" (178 mm) Sanding/Polishing Disc |              | 3.97   | 10.5   | 3.90        | 1/4 in         |
| 12L2788-80 | Front   | 2200       | 7" (178 mm) Sanding/Polishing Disc |              | 3.97   | 10.5   | 3.90        | 1/4 in         |

All tools performance rated @ 90 psi / 620 kPa air pressure.  
Minimum Hose I.D.: 5/16 in / 7.9 mm  
Standard Equipment:  
Applicable collet, collet wrenches



## Cleco Dotco 12-12 Series - Belt Sander

12,000 - 20,000 RPM 0.3 hp (0.22 kW)

- Grind, debur, strap polish, blend
- Choice of geared or gearless
- Ergonomic housing reduces cold air transmission to operator



| Model        | Exhaust | Free Speed | Abrasive Capacity Grinder   | Weight | Length | Air Inlet Size |
|--------------|---------|------------|-----------------------------|--------|--------|----------------|
|              |         | r/min      |                             | Lb     | in     | in             |
| 12L1280-36B2 | Rear    | 12000      | 1/2" W x 12" L Sanding Belt | 1.32   | 11.3   | 1/4 in         |
| 12L1281-36B2 | Rear    | 20000      | 1/2" W x 12" L Sanding Belt | 1.32   | 11.3   | 1/4 in         |

All tools performance rated @ 90psi / 620 kPa air pressure.

Minimum Hose I.D.: 1/4in / 4.8mm

Standard Equipment: No.80 and No.120 grit sanding belt or one medium grit non-woven belt, applicable wrenches, grease gun, gear lube

## Cleco Dotco 12LF Series - Belt Sander

12,000 - 20,000 RPM 0.4hp (0.29 kW)

- Grind, debur, strap polish, blend
- Based on 12LF Grinder



| Model        | Exhaust | Free Speed | Abrasive Capacity Grinder | Weight | Length | Air Inlet Size |
|--------------|---------|------------|---------------------------|--------|--------|----------------|
|              |         | r/min      |                           | Lb     | in     | in             |
| 12LF280-36B2 | Rear    | 12000      | 1/2"W x 12"L Sanding Belt | 1.32   | 11.3   | 1/4 in         |
| 12LF281-36B2 | Rear    | 20000      | 1/2"W x 12"L Sanding Belt | 1.32   | 11.3   | 1/4 in         |

All tools performance rated @ 90psi / 620 kPa air pressure.

Minimum Hose I.D.: 1/4in / 4.8mm

Standard Equipment: No.80 and No.120 grit sanding belt or one medium grit non-woven belt, applicable wrenches, grease gun, gear lube

## Cleco Dotco 12-23 Series - Gearless - Woven or Non-Woven Sanding Belt

20,000 RPM 0.5 hp (0.38 kW)

- Grind, debur, strap polish, blend
- Choice of geared or gearless
- Ergonomic housing reduces cold air transmission to operator



| Model      | Exhaust | Free Speed | Abrasive Capacity Grinder           | Weight | Length | Air Inlet Size |
|------------|---------|------------|-------------------------------------|--------|--------|----------------|
|            |         | r/min      |                                     | Lb     | in     |                |
| 12L2384-B1 | Front   | 20000      | 5/8" or 3/4" W x 18" L Sanding Belt | 2.43   | 15     | 1/4 in         |

All tools performance rated @ 90 psi / 620 kPa air pressure.

Minimum Hose I.D.: 1/4 in / 4.8 mm

Standard Equipment:

No.80 and No.120 grit sanding belt or one medium grit non-woven belt, applicable wrenches, grease gun, gear lube

## Cleco Dotco 12-10 Series - Buffer - 200 Series Collet

3,200 - 5,000 RPM 0.3 hp (0.22 kW)

- Ergonomic composite housing
- Parts interchangeable with numerous other Dotco products
- Lightweight and compact design with powerful geared motor



| Model      | Collet Size | Exhaust | Free Speed | Abrasive Capacity Grinder                       | Spindle Size | Weight | Length | Air Inlet Size |
|------------|-------------|---------|------------|---|--------------|--------|--------|----------------|
|            |             |         | r/min      |   |              | Lb     |        |                |
| 12L1092-01 | 1/4 in      | Rear    | 3200       | 3" (75 mm) Wire Brush   3" (75mm) Buffing Wheel | 5/8" - 11 e  | 1.54   | 7.2    | 1/4 in         |
| 12L1093-01 | 1/4 in      | Rear    | 5000       | 3" (75 mm) Wire Brush   3" (75mm) Buffing Wheel | 5/8" - 11 e  | 1.54   | 7.2    | 1/4 in         |

All tools performance rated @ 90 psi / 620 kPa air pressure.

Minimum Hose I.D.: 1/4 in / 6.4 mm

Standard Equipment:

Applicable collet, collet wrenches

## Cleco Dotco 12-42 Series - External Threaded Spindle

3,400 RPM 1.7 hp (1.27 kW)

- High output motor for the most demanding applications
- Comfortable and ergonomic composite handle
- Includes auxiliary handle for optimum operator control
- Tool not supplied with backing pad as shown



| Model      | Exhaust | Free Speed | Abrasive Capacity Grinder | Weight | Length | Head Height | Air Inlet Size |
|------------|---------|------------|---------------------------|--------|--------|-------------|----------------|
|            |         | r/min      |                           | Lb     | in     | in          | in             |
| 12L4207-80 | Side    | 7200       | 7" (175mm)Sanding Disc    | 6.4    | 13.6   | 3.90        | 1/2 in         |
| 12L4206-80 | Side    | 6000       | 9"(225mm) Sanding Disc    | 6.4    | 13.6   | 3.90        | 1/2 in         |

All tools performance rated @ 90 psi / 620 kPa air pressure.  
Minimum Hose I.D.: 1/2 in / 12.7 mm  
Standard Equipment:  
Nut, washer, spacer and wrenches

## Cleco C31 Right Angle Sander

- High-performance 1.7Hp motor delivers maximum power
- Quick change spindle lock for fast and easy abrasive changes
- Quieter operation with rear exhaust overhose standard
- Ergonomic, anti-vibration handle for increased comfort and less operator fatigue
- Dual-layer, high-impact composite housing for extreme durability



| Model           | Exhaust | Free Speed | Spindle Size | Weight | Length | Head Height | Air Inlet Size |
|-----------------|---------|------------|--------------|--------|--------|-------------|----------------|
|                 |         | r/min      |              | Lb     | in     | in          | in             |
| C3120AS-DR-58OH | Rear    | 12000      | 5/8" - 11    | 4.05   | 8.95   | 3.03        | 3/8 in         |

## Sanding Belts - Non-Woven

Used on Cleco Dotco Belt Sanders

- Minimum order - 10 of any one belt



| Model   | Abrasive Capacity<br>Grinder | Grit Size  |
|---------|------------------------------|------------|
| 14-1728 | 1/4" x 18"                   | Extra Fine |
| 14-1729 | 1/4" x 18"                   | Fine       |
| 14-1730 | 1/4" x 18"                   | Medium     |
| 14-1731 | 1/4" x 18"                   | Coarse     |
| 14-2327 | 3/4" x 18"                   | Medium     |

Minimum order: 10 of any one belt

## Sanding Belts - Aluminum Oxide, Resin Bond

Used on Cleco Dotco Belt Sanders

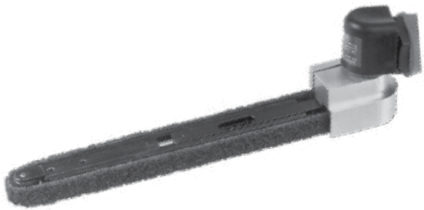
- Minimum order - 10 of any one belt



| Model   | Description | Abrasive Capacity<br>Grinder | Grit Size |
|---------|-------------|------------------------------|-----------|
| 14-1344 |             | 1/2" x 12"                   | 40        |
| 14-1345 |             | 1/2" x 12"                   | 50        |
| 14-1346 |             | 1/2" x 12"                   | 60        |
| 14-1348 |             | 1/2" x 12"                   | 80        |
| 14-1350 |             | 1/2" x 12"                   | 100       |
| 14-1352 |             | 1/2" x 12"                   | 120       |
| 14-1355 |             | 1/2" x 12"                   | 150       |
| 14-1358 |             | 1/2" x 12"                   | 180       |
| 14-1360 |             | 1/2" x 12"                   | 240       |
| 14-1362 |             | 1/2" x 12"                   | 320       |
| 14-1582 |             | 1" x 12"                     | 60        |
| 14-1583 |             | 1" x 12"                     | 80        |
| 14-1585 |             | 1" x 12"                     | 120       |
| 14-1591 |             | 1/4" x 12"                   | 80        |
| 14-1593 |             | 1/4" x 12"                   | 120       |
| 14-1648 |             | 1" x 24"                     | 180       |

Cleco Dotco Belt Sander Attachments

Used on Cleco Dotco Belt Sanders - 12LF



| Model   | Description                 | Sanding Area | Abrasive Capacity<br>Grinder | Tool Series  | Collet Size | Spindle Size     |
|---------|-----------------------------|--------------|------------------------------|--------------|-------------|------------------|
|         |                             | in           |                              |              | in          |                  |
| 14-1301 | Coated Abrasive Attachments | 1/2" x 4"    | 1/2" x 12" Sanding Belt      | 12-12, 12-13 |             | 1/4"-28 Internal |
| 14-1316 | Coated Abrasive Attachments | 1/2" x 4"    | 1/2" x 12" Sanding Belt      | 12-12, 12-13 | 300 in      |                  |
| 14-1473 | Coated Abrasive Attachments | 1" x 4"      | 1" x 12" Sanding Belt        | 12-12, 12-13 | 300 in      |                  |
| 14-1639 | Coated Abrasive Attachments | 1/4" x 4"    | 1/4" x 12" Sanding Belt      | 12-12, 12-13 | 300 in      |                  |



## Cleco Dotco PSA Disc Holders

PSA Disco Holders Mount in Collet Output

- For Collet Chuck 1/4" Shank
- 1", 2" and 4" OD



| Model   | Shank Diameter Capacity | Diameter | Spindle Size   |
|---------|-------------------------|----------|----------------|
|         |                         | in       |                |
| 14-1110 | 1/4 in                  | 1        | 5-40 Female    |
| 14-1112 | 1/4 in                  | 2        | 1/4"-20 Female |
| 14-1114 | 1/4 in                  | 4        | 1/4"-20 Female |



Sanding Pad Nut

For use with Cleco Dotco sanders with 5/8"-11 threaded spindles

- For use with Cleco Dotco sanders with 5/8"-11 threaded spindles



| Model   | Spindle Size             |
|---------|--------------------------|
| 14-2118 | 5/8"-11 Threaded Spindle |

Spindle Adapter

Adapts Female to Male Thread

- Female to Male Adaptor



| Model   | Diameter | Spindle Size                |
|---------|----------|-----------------------------|
|         | in       |                             |
| 14-1144 | 4        | 1/4"-28 Male / 1/4"-20 Male |



## Cleco MP Series Pencil Grinders

70,000 RPM 0.06 hp (0.044 kW)

- Cleco MP series are industrial grade medium duty tools suitable for a wide range of production and MRO applications.
- Ideal for precision deburring, blending and smoothing applications
- Rear exhaust directs air away from work
- Standard with 5 ft air hose and 1 ft overhose
- Ideal for tight spots
- Slim comfortable design with ergonomic grip for operator comfort



| Model  | Collet Size | Exhaust | Free Speed | Abrasive Capacity Grinder           | Overhose     | Weight | Length | Air Inlet Size |
|--------|-------------|---------|------------|-------------------------------------|--------------|--------|--------|----------------|
|        |             |         | r/min      |                                     |              | Lb     | in     | in             |
| MP4200 | 1/8 in      | Rear    | 70000      | 1/4" Carbide Burr, 1/4" Diamond Pin | 1 ft   0.3 m | 0.441  | 5.4    | 1/8 in         |
| MP4201 | 1/8 in      | Rear    | 70000      | 1/4" Carbide Burr, 1/4" Diamond Pin | 1 ft   0.3 m | 0.441  | 5.9    | 1/8 in         |

General: Air Inlet 1/4" NPT. Use 1/4" (6.4 mm) I.D. hose.  
 All tools performance rated @ 90psi (620 kPa) air pressure.  
 Optional: MP4200 - 70617600 1/8" collet kit (5 pcs.), 70620200PT - 3mm collet kit (5 pcs.)  
 MP4201 - 70618800 1/8" collet kit (5 pcs.), 70620400PT - 3mm collet kit (5 pcs.)

## Cleco MP Series Die Grinder - Inline and Right Angle

20,000 RPM 0.3 hp (0.223 kW)

- MP4424 is Angle grinder; MP4430 and MP4458 are In line grinders
- Ergonomic grip for operator comfort
- MP Series for MRO and lower duty production



| Model  | Collet Size | Exhaust | Free Speed | Abrasive Capacity Grinder           | Weight | Length | Air Inlet Size |
|--------|-------------|---------|------------|-------------------------------------|--------|--------|----------------|
|        |             |         | r/min      |                                     | Lb     | in     | in             |
| MP4424 | 1/4 in      | Rear    | 20000      | 1/2" Carbide Burr, 1" Mounted Wheel | 1.32   | 6.4    | 1/4 in         |
| MP4430 | 1/4 in      | Rear    | 23000      | 1/2" Carbide Burr, 1" Mounted Wheel | 0.88   | 6      | 1/4 in         |
| MP4458 | 1/4 in      | Front   | 25000      | 1" Carbide Burr, 1.5" Mounted Wheel | 1.32   | 6.1    | 1/4 in         |

General: Air Inlet 1/4" NPT. Use 1/4" (6.4 mm) I.D. hose.

All tools performance rated @90psi (620 kPa) air pressure.

Optional: MP4424 & MP4430: 70610500 1/4" collet; 70610600 6 mm collet; MP4424

## Cleco Dotco 10-10 & 12-10 Series - Inline Router

30,000 - 34,000 RPM 0.3 hp (0.22 kW)

- 10 L Aluminum Handle, 12L Composite Handle
- Compact router - based on standard grinder
- Router guides sold separately



| Model        | Exhaust | Shank Diameter Capacity | Free Speed | Type Housing | Weight | Length | Air Inlet Size |
|--------------|---------|-------------------------|------------|--------------|--------|--------|----------------|
|              |         | in                      | r/min      |              | Lb     | in     | in             |
| 12L1000-36RT | Front   | 1/4 in                  | 30000      | Composite    | 1.32   | 6.7    | 1/4 in         |
| 12L1001-36RT | Front   | 1/4 in                  | 34000      | Composite    | 1.32   | 6.7    | 1/4 in         |

All tools performance rated @ 90psi / 620 kPa air pressure.  
Minimum Hose I.D.: 1/4in / 6.4mm  
Standard Equipment: Collet, applicable wrenches

## Cleco Dotco 10-20 & 12-20 Series - Inline Router

20,000 - 25,000 RPM 0.6 hp (0.45 kW)

- 10 L Aluminum Handle, 12L Composite Handle
- Compact router - based on standard grinder
- Router guides sold separately



| Model        | Exhaust | Shank Diameter Capacity | Free Speed | Type Housing | Weight | Length | Air Inlet Size |
|--------------|---------|-------------------------|------------|--------------|--------|--------|----------------|
|              |         | in                      | r/min      |              | Lb     | in     | in             |
| 10L2000-01RT | Front   | 1/4 in                  | 25000      | Aluminum     | 1.76   | 0.63   | 1/4 in         |
| 12L2000-01RT | Front   | 1/4 in                  | 25000      | Composite    | 1.98   | 7.5    | 1/4 in         |
| 12L2001-01RT | Front   | 1/4 in                  | 20000      | Composite    | 1.98   | 7.5    | 1/4 in         |
| 12L2080-01RT | Rear    | 1/4 in                  | 25000      | Composite    | 1.98   | 7.5    | 1/4 in         |
| 12L2081-01RT | Rear    | 1/4 in                  | 20000      | Composite    | 1.98   | 7.5    | 1/4 in         |

All tools performance rated @ 90psi / 620 kPa air pressure.  
Minimum Hose I.D.: 5/16in / 7.9mm  
Standard Equipment:  
Collet, applicable wrenches

## Cleco Dotco 10-25 & 12-25 Series - Inline Router

18,000 - 23,000 RPM 0.9 hp (0.67 kW)

- 10 L Aluminum Handle, 12L Composite Handle
- Higher power motor for faster routing
- Router guides sold separately



| Model          | Exhaust | Shank Diameter Capacity | Free Speed | Type Housing | Weight | Length | Air Inlet Size |
|----------------|---------|-------------------------|------------|--------------|--------|--------|----------------|
|                |         | in                      | r/min      |              | Lb     | in     | in             |
| 10L2500-01RT   | Front   | 1/4 in                  | 23000      | Aluminum     | 2.43   | 6.9    | 1/4 in         |
| 10L2580-01RT   | Rear    | 1/4 in                  | 23000      | Aluminum     | 2.43   | 6.9    | 1/4 in         |
| 12L2500-01RT   | Front   | 1/4 in                  | 23000      | Composite    | 2.65   | 7.1    | 1/4 in         |
| 12L2502-01RT   | Front   | 1/4 in                  | 18000      | Composite    | 2.65   | 7.1    | 1/4 in         |
| 12L2580-0124RT | Rear    | 3/8 in                  | 23000      | Composite    | 2.65   | 7.1    | 1/4 in         |
| 12L2580-01RT   | Rear    | 1/4 in                  | 23000      | Composite    | 2.65   | 7.1    | 1/4 in         |
| 12L2582-0124RT | Rear    | 3/8 in                  | 18000      | Composite    | 2.65   | 7.1    | 1/4 in         |
| 12L2582-01RT   | Rear    | 1/4 in                  | 18000      | Composite    | 2.65   | 7.1    | 1/4 in         |

All tools performance rated @ 90psi / 620 kPa air pressure.  
Minimum Hose I.D.: 5/16in / 7.9mm  
Standard Equipment:  
Collet, applicable wrenches

## Cleco Dotco 12-40 Series - Inline Router

18,000 RPM 1.7 hp (1.27 kW)

- Maximum power for larger routing application
- Tremendous power for the toughest portable routing operations
- Unique governor design assures minimum air consumption, maximum power at correct speed and long motor life
- All models oil free



| Model      | Exhaust | Shank Diameter Capacity | Free Speed | Type Housing | Weight | Length | Air Inlet Size |
|------------|---------|-------------------------|------------|--------------|--------|--------|----------------|
|            |         | in                      | r/min      |              | Lb     | in     | in             |
| 12L4018-01 | Front   | 1/4 in                  | 18000      | Composite    | 4.19   | 11.3   | 1/2 in         |
| 12L4018-03 | Front   | 3/8 in                  | 18000      | Composite    | 4.19   | 11.3   | 1/2 in         |

All tools performance rated @ 90psi / 620 kPa air pressure.  
Minimum Hose I.D.: 1/2in / 12.7mm  
Standard Equipment: Wheel guard and flange wrench

## Cleco Dotco 12-13 Series - Right Angle Routers

20,000 - 30,000 RPM 0.3 hp (0.22 kW)

- Gearless tool, direct drive motor in angle head
- Front and rear exhaust



| Model        | Exhaust | Shank Diameter Capacity | Free Speed | Drive                     | Weight | Length | Air Inlet Size |
|--------------|---------|-------------------------|------------|---------------------------|--------|--------|----------------|
|              |         | in                      | r/min      |                           | Lb     | in     | in             |
| 12L1300-36RT | Front   | 1/4 in                  | 30000      | Gearless 0.3 hp (0.22 kw) | 1.54   | 7.4    | 1/4 in         |
| 12L1380-36RT | Rear    | 1/4 in                  | 30000      | Gearless 0.3 hp (0.22 kw) | 1.54   | 7.4    | 1/4 in         |
| 12L1381-36RT | Rear    | 1/4 in                  | 25000      | Gearless 0.3 hp (0.22 kw) | 1.54   | 7.4    | 1/4 in         |

All tools performance rated @ 90psi / 620 kPa air pressure  
Minimum hose I.D.: 1/4in | 6.4 mm  
Standard Equipment:  
Collet, applicable wrenches

## Cleco Dotco 12-12 Series - Right Angle Routers

20,000 - 30,000 RPM 0.3 hp (0.22 kW)

- Available in both geared and gearless
- Multiple speed and power options available to find the right tool for the application



| Model        | Exhaust | Shank Diameter Capacity | Free Speed | Drive                   | Weight | Length | Air Inlet Size |
|--------------|---------|-------------------------|------------|-------------------------|--------|--------|----------------|
|              |         | in                      | r/min      |                         | Lb     | in     | in             |
| 12L1201-36RT | Front   | 1/4 in                  | 20000      | Geared 0.3 hp (0.22 kw) | 1.76   | 6.5    | 1/4 in         |
| 12L1281-36RT | Rear    | 1/4 in                  | 20000      | Geared 0.3 hp (0.22 kw) | 1.76   | 6.5    | 1/4 in         |

All tools performance rated @ 90psi / 620 kPa air pressure  
Minimum hose I.D.: 1/4in | 6.4 mm  
Standard Equipment:  
Collet, applicable wrenches

## Cleco Dotco 10-43 Series - Base Mount Router

9,000 - 18,000 RPM 1.7 hp (1.27 kW)

- Roll valve gives easy, convenient operation
- Cool running governed pneumatic motor - Stays cool even under heavy load
- Easy-to-use thumb throttle can be operated without releasing hand from handle
- Smooth accurate cuts - assured by precision spindle
- Uses K style colets - 3/8" Collet Supplied
- Uses third party base with aftermarket guides readily available



| Model      | Exhaust | Shank Diameter Capacity | Free Speed | Type Housing | Weight | Length | Air Inlet Size |
|------------|---------|-------------------------|------------|--------------|--------|--------|----------------|
|            |         | in                      | r/min      |              | Lb     | in     | in             |
| 10T4309-62 | Side    | 1/2 in                  | 9000       | Aluminum     | 7.5    | 7.1    | 1/2 in         |
| 10T4316-62 | Side    | 1/2 in                  | 16000      | Aluminum     | 7.5    | 7.1    | 1/2 in         |
| 10T4318-62 | Side    | 1/2 in                  | 18000      | Aluminum     | 7.5    | 7.1    | 1/2 in         |

All tools performance rated @ 90psi / 620 kPa air pressure.  
Minimum Hose I.D.: 1/2in / 12.7mm  
Standard Equipment: Wheel guard and flange wrench

## Cleco Dotco 11-43 Series - Mountable Power Unit

18,000 RPM 1.7 hp (1.27 kW)

- Cool running pneumatic motor stays cool even under heavy load
- Flat top provides firm setting for changing cutters and making adjustments
- Smooth accurate cuts - assured by precision spindle
- 3/8" Collet Supplied



| Model      | Exhaust | Shank Diameter Capacity | Free Speed | Type Housing | Weight | Length | Air Inlet Size |
|------------|---------|-------------------------|------------|--------------|--------|--------|----------------|
|            |         | in                      | r/min      |              | Lb     | in     | in             |
| 11T4309-62 | Side    | 1/2 in                  | 9000       | Aluminum     | 5.5    | 7.1    | 1/2 in         |
| 11T4316-62 | Side    | 1/2 in                  | 16000      | Aluminum     | 5.5    | 7.1    | 1/2 in         |
| 11T4318-62 | Side    | 1/2 in                  | 18000      | Aluminum     | 5.5    | 7.1    | 1/2 in         |

All tools performance rated @ 90psi / 620 kPa air pressure.  
Minimum Hose I.D.: 1/2in / 12.7mm  
Standard Equipment: Wheel guard and flange wrench

## Cleco Dotco Router Assemblies

For use with Cleco Dotco Inline Grinders

- For use with Cleco Dotco 10-10,12-10, 10-20,12-20 and 10-25, 12-25 series Inline Grinders
- Converts grinder to a router
- Thread mount with locking screw
- Router guides sold separately



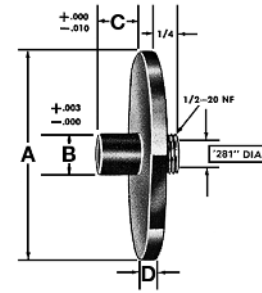
| Model   | Shank Diameter Capacity | Tool Series  |
|---------|-------------------------|--------------|
| 14-2180 | 1/4 in                  | 12-20, 12-25 |
| 14-2187 | 1/4 in                  | 12-10        |
| 14-2429 | 3/8 in                  | 12-20, 12-25 |





## Router Guides For Router Bits with 3/8" Shanks

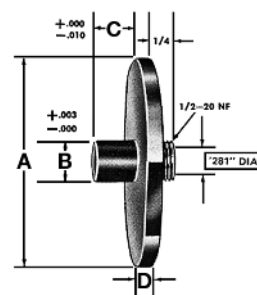
- For use on Dotco 12-10, 12-20, 12-20, 12-25 and 12-40 series.
- The minimum router bit length (OAL) to be used is determined by the formula:  
OAL = 1-13/16"+C+P (series 12-10); OAL = 2"+C+P (series 12-20 & 12-25).  
"C" is the "C" dimension of the router guide and "P" is the desired protrusion of the router bit.
- Important: Insert bit into collet as far as possible, then pull out 1/16" and tighten collet.
- In an emergency, if it is necessary to pull out the bit more than 1/4", be sure to insert a short length of blank shank (not to exceed 5/8" long) in the bottom of the collet before inserting the bit.
- May be subject to Minimum Order Quantities



| Model   | Dimension A | Dimension B | Dimension C | Dimension D |
|---------|-------------|-------------|-------------|-------------|
|         | in          | in          | in          | in          |
| 14-2240 | 2-1/2       | 3/8         | 3/8         | 1/8         |
| 14-2243 | 2-1/2       | 5/8         | 3/8         | 1/8         |
| 14-2531 | 1-1/2       | 1/2         | 3/8         | 1/8         |
| 14-2538 | 1-1/2       | 1/2         | 1/2         | 1/8         |
| 14-2539 | 1-1/2       | 1/2         | 5/8         | 1/8         |
| 14-2540 | 1-1/2       | 9/16        | 3/8         | 1/8         |
| 14-2541 | 1-1/2       | 9/16        | 1/2         | 1/8         |
| 14-2542 | 1-1/2       | 9/16        | 5/8         | 1/8         |
| 14-2544 | 1-1/2       | 5/8         | 5/8         | 1/8         |
| 14-2630 | 2-1/2       | 9/16        | 1/2         | 1/8         |
| 14-2631 | 2-1/2       | 5/8         | 5/8         | 1/8         |
| 14-2632 | 2-1/2       | 1/2         | 1/2         | 1/8         |
| 14-2633 | 2-1/2       | 1/2         | 5/8         | 1/8         |
| 14-2634 | 2-1/2       | 9/16        | 3/8         | 1/8         |
| 14-2635 | 2-1/2       | 9/16        | 5/8         | 1/8         |
| 14-2636 | 2-1/2       | 5/8         | 1/2         | 1/8         |
| 14-2893 | 1-1/2       | 5/8         | 3/8         | 1/8         |
| 14-2925 | 1-1/2       | 5/8         | 1/2         | 1/8         |

## Router Guides For Router Bits with 1/4" Shanks

- For use on Dotco 12-10, 12-20, 12-20, 12-25 and 12-40 series.
- The minimum router bit length (OAL) to be used is determined by the formula:  
 $OAL = 1-13/16" + C + P$  (series 12-10);  $OAL = 2" + C + P$  (series 12-20 & 12-25).  
 "C" is the "C" dimension of the router guide and "P" is the desired protrusion of the router bit.
- Important: Insert bit into collet as far as possible, then pull out 1/16" and tighten collet.
- In an emergency, if it is necessary to pull out the bit more than 1/4", be sure to insert a short length of blank shank (not to exceed 5/8" long) in the bottom of the collet before inserting the bit.
- May be subject to minimum order quantities



| Model   | Dimension A | Dimension B | Dimension C | Dimension D |
|---------|-------------|-------------|-------------|-------------|
|         | in          | in          | in          | in          |
| 14-2400 | 1           | 3/8         | 1/8         | 1/8         |
| 14-2401 | 1           | 3/8         | 1/4         | 1/8         |
| 14-2402 | 1           | 3/8         | 3/8         | 1/8         |
| 14-2406 | 1           | 7/16        | 1/8         | 1/8         |
| 14-2407 | 1           | 7/16        | 1/4         | 1/8         |
| 14-2408 | 1           | 7/16        | 3/8         | 1/8         |
| 14-2411 | 1           | 1/2         | 1/4         | 1/8         |
| 14-2412 | 1           | 1/2         | 1/2         | 1/8         |
| 14-2413 | 1           | 1/2         | 5/8         | 1/8         |
| 14-2414 | 1           | 1/2         | 3/4         | 1/8         |
| 14-2417 | 1           | 9/16        | 1/8         | 1/8         |
| 14-2420 | 1           | 5/8         | 1/8         | 1/8         |
| 14-2421 | 1           | 5/8         | 5/8         | 1/8         |
| 14-2500 | 1-1/2       | 3/8         | 1/8         | 1/8         |
| 14-2501 | 1-1/2       | 3/8         | 1/4         | 1/8         |
| 14-2502 | 1-1/2       | 3/8         | 3/8         | 1/8         |
| 14-2505 | 1-1/2       | 7/16        | 1/8         | 1/8         |
| 14-2506 | 1-1/2       | 7/16        | 1/4         | 1/8         |
| 14-2507 | 1-1/2       | 7/16        | 3/8         | 1/8         |
| 14-2510 | 1-1/2       | 1/2         | 1/4         | 1/8         |
| 14-2511 | 1-1/2       | 1/2         | 3/8         | 1/8         |
| 14-2512 | 1-1/2       | 1/2         | 1/2         | 1/8         |
| 14-2600 | 2-1/2       | 1/2         | 1/2         | 3/16        |
| 14-2703 | 3/4         | 3/8         | 1/2         | 1/8         |

## Cleco Dotco Two Handed Router Base - Add On For 10 and 12 Series Inline Grinders

Easy depth adjustment.

- Two handed control for router applications.
- Easy depth adjustment.
- Template Guides NOT supplied



| Model   | Tool Series  |
|---------|--------------|
| 14-1577 | 12-10        |
| 14-2577 | 12-20, 12-25 |

## Laminate Trimmer Attachment

For Use on Cleco Dotco 12-20 and 12-25 Series Routers

| Model   | Tool Series  |
|---------|--------------|
| 14-2178 | 12-20, 12-25 |



## Cleco Dotco 12-22 Series - Right Angle - Oscillating Saw

14,000 RPM 0.6 hp (0.45 kW)

- Easy to change blades
- Excellent control and high productivity with minimum fatigue



| Model      | Saw Blade Capacity |      | Free Speed | Type Housing | Maximum Depth of Cut |      | Weight | Length | Air Inlet Size | Exhaust |
|------------|--------------------|------|------------|--------------|----------------------|------|--------|--------|----------------|---------|
|            | in                 | mm   | r/min      |              | in                   | mm   | Lb     | in     | in             |         |
| 12L2240-90 | 2.50               | 63.5 | 14000      | Composite    | 0.56                 | 14.3 | 2.2    | 10.9   | 1/4 in         | Rear    |

All tools performance rated @ 90psi / 620 kPa air pressure.  
Minimum Hose I.D.: 5/16in / 7.9mm  
Standard Equipment:  
Applicable wrenches, oilless blades

## Cleco Dotco 12-22 Series - Straight - Oscillating Saw

14,000 RPM 0.6 hp (0.45 kW)

- Easy to change blades
- Excellent control and high productivity with minimum fatigue



| Model      | Saw Blade Capacity |      | Free Speed | Type Housing | Maximum Depth of Cut |      | Weight | Length | Air Inlet Size | Exhaust |
|------------|--------------------|------|------------|--------------|----------------------|------|--------|--------|----------------|---------|
|            | in                 | mm   | r/min      |              | in                   | mm   | Lb     | in     | in             |         |
| 12L2065-90 | 2.50               | 63.5 | 14000      | Composite    | 0.56                 | 14.3 | 2.2    | 8.9    | 1/4 in         | Rear    |

All tools performance rated @ 90psi / 620 kPa air pressure.  
Minimum Hose I.D.: 5/16in / 7.9mm  
Standard Equipment:  
Applicable wrenches, oilless blades

## Cleco Dotco 12-12 and 12LF Series - Saw

2,400 - 20,000 RPM 0.3 hp (0.22 kW) 0.4hp (.3kW) 12LF

- Vacuum ready
- Compact and easy to use
- Easy to change blades
- Adjustable depth control



| Model      | Saw Blade Capacity |    | Free Speed | Type Housing | Maximum Depth of Cut |    | Weight | Length | Air Inlet Size | Exhaust      |
|------------|--------------------|----|------------|--------------|----------------------|----|--------|--------|----------------|--------------|
|            | in                 | mm |            |              | in                   | mm |        |        |                |              |
| 12LF283-02 | 2.01               | 51 | 20000      | Composite    | 0.43                 | 11 | 1.32   | 7.1    | 1/4 in         | Rear         |
| 12S1206-02 | 2.01               | 51 | 12000      | Composite    | 0.43                 | 11 | 1.32   | 7.1    | 1/4 in         | Front        |
| 12S1207-02 | 2.01               | 51 | 20000      | Composite    | 0.43                 | 11 | 1.32   | 7.1    | 1/4 in         | Front        |
| 12S1274-03 | 2.01               | 51 | 20000      | Composite    | 0.43                 | 11 | 2.2    | 7.1    | 1/4 in         | Vacuum Ready |
| 12S1282-02 | 2.01               | 51 | 12000      | Composite    | 0.43                 | 11 | 1.32   | 7.1    | 1/4 in         | Rear         |
| 12S1283-02 | 2.01               | 51 | 20000      | Composite    | 0.43                 | 11 | 1.32   | 7.1    | 1/4 in         | Rear         |
| 12S1289-02 | 2.01               | 51 | 3600       | Composite    | 0.43                 | 11 | 1.54   | 8.9    | 1/4 in         | Rear         |

All tools performance rated @ 90psi / 620 kPa air pressure.  
Minimum Hose I.D.: 1/4in / 6.4mm  
Standard Equipment: Applicable wrenches, oilless blades

### Cleco Dotco 12-27 Series - Saw

430 - 11,000 RPM 0.9 hp (0.67 kW)

- Compact and easy to use
- Excellent control and high productivity with minimum fatigue
- Easy to change blades



| Model      | Saw Blade Capacity |     | Type Housing | Maximum Depth of Cut |      | Weight | Length | Air Inlet Size | Exhaust      |
|------------|--------------------|-----|--------------|----------------------|------|--------|--------|----------------|--------------|
|            | in                 | mm  |              | in                   | mm   |        |        |                |              |
| 12S2748-01 | 4.02               | 102 | Composite    | 1.00                 | 25.4 | 4.9    | 11.4   | 1/4 in         | Front        |
| 12S2749-01 | 3.39               | 86  | Composite    | 1.00                 | 25.4 | 4.9    | 11.4   | 1/4 in         | Front        |
| 12S2774-02 | 3.39               | 86  | Composite    | 1.00                 | 25.4 | 6.4    | 14.1   | 1/4 in         | Vacuum Ready |

All tools performance rated @ 90psi / 620 kPa air pressure.

Minimum Hose I.D.: 5/16in / 7.9mm

Standard Equipment: Applicable wrenches, oilless blades, 3/4in Arbor adapter

## Cleco Dotco 12-42 Series - Saw

5,800 - 8,600 RPM 1.7 hp (1.27 kW)



- Adjustable depth control
- Easy to change blades
- Compact and easy to use

| Model      | Saw Blade Capacity |     | Free Speed | Type Housing | Maximum Depth of Cut |      | Weight | Length | Air Inlet Size | Exhaust |
|------------|--------------------|-----|------------|--------------|----------------------|------|--------|--------|----------------|---------|
|            | in                 | mm  |            |              | in                   | mm   |        |        |                |         |
| 12S4216-01 | 4.02               | 102 | 5800       | Composite    | 1.00                 | 25.4 | 7.9    | 15.5   | 1/4 in         | Front   |
| 12S4218-01 | 4.02               | 102 | 8600       | Composite    | 1.00                 | 25.4 | 7.9    | 15.5   | 1/4 in         | Front   |

All tools performance rated @ 90psi / 620 kPa air pressure.  
 Minimum Hose I.D.: 1/2in / 12.7mm  
 Standard Equipment: Wheel guard and flange wrench



## Saw Blades - 1/4" arbor hole

Used on Cleco Dotco Saws

- Used for sawing non-metallic materials



| Model   | Description  | Maximum Depth of Cut | Speed | Diameter |
|---------|--|----------------------|-------|----------|
|         |  | in                   | r/min | in       |
| 14-1395 | Discontinued   | 7/16" x 3/32"        | 20000 | 2        |
| 14-1875 | 1.25" OD 22T for Aluminum, Laminated Plastics, Pressed Board, Wood | 3/32" x 1/16"        | 12000 | 1-1/4    |
| 14-1890 | 2" OD 22T for Aluminum, Laminated Plastics, Pressed Board, Wood    | 7/16" x 1/16"        | 12000 | 2        |
| 14-1891 | 2" OD 44T for Aluminum, Laminated Plastics, Pressed Board, Wood    | 7/16" x 1/16"        | 12000 | 2        |
| 14-1892 | 2" OD 60T for Aluminum, Laminated Plastics, Pressed Board, Wood    | 7/16" x 1/16"        | 12000 | 2        |
| 14-1895 | 1.5"OD 22T Aluminum, Laminated Plastics, Pressed Board, Wood       | 7/32" x 1/16"        | 12000 | 1-1/2    |

CAUTION: Use only for sawing non-metallic materials

## Saw Blades - 7/16" arbor hole

Used on Cleco Dotco Saws

- Used on Cleco Dotco Saws



| Model   | Description  | Maximum Depth of Cut | Tool Series | Diameter |
|---------|--|----------------------|-------------|----------|
|         |  | in                   |             | in       |
| 14-1888 | 2" OD 44T for Aluminum, Laminated Plastics, Pressed Board, Wood. | 7/16" X 1/16"        | 12S1288-04  | 2        |
| 14-1889 | 2" OD 60T for Aluminum, Laminated Plastics, Pressed Board, Wood  | 7/16" X 1/16"        | 12S1288-04  | 2        |
| 14-2147 | 2 1/2" OD 44T for 1/4" Aluminum, 1/2" Plywood, 1/2" Phenolic     | 9/16                 | 12S2794-01  | 2-1/2    |
| 14-2928 | 3 1/2" OD 60T for 1/4" Aluminum, 1/2" Plywood, 1/2" Phenolic     | 15/16"               | 12S2794-02  | 3-3/8    |

## Saw Blades - 3/4" arbor hole

Used on Cleco Dotco Saws

- Used for sawing non-metallic materials



| Model   | Description  | Maximum Depth of Cut | Diameter |
|---------|--|----------------------|----------|
|         |  | in                   | in       |
| 14-2690 | 4"OD Diamond 60-80 Grit for Fiberglass, Composite, Carbon Fiber                        | 1" x 5/64"           | 4        |
| 14-2700 | 4"OD Carbide Tip 20T for Thicker Fiberglass, Plastic Laminates to 1/2" thick           | 1" x 7/64"           | 4        |
| 14-2710 | 4"OD Carbide Tip 20T special for Thin non-ferrous material (to approx . 1/8" thick)    | 1" x 7/64"           | 4        |
| 14-2711 | 4"OD Carbide Tip 12T Special for Thicker non-ferrous material (to approx . 1/2" thick) | 1" x 7/64"           | 4        |

CAUTION: These carbide chip and tip and diamond blades are not to be used on metallic materials.  
Slim blade for easy cutting of fiberglass, with minimum dust -36 grit on periphery and 80 grit on the sides.

## Saw Blades - oscillating saws with 3/8" arbor hole

Used on Cleco Dotco Oscillating Saw

- Used on 12-22 Series Oscillating saws



| Model   | Description   | Maximum Depth of Cut | Diameter |
|---------|---|----------------------|----------|
|         |   | in                   | in       |
| 14-1740 | 2" OD Carbide Chip 36/80 Grit for Fiberglass                          | 7/16" x 3/32"        | 2        |
| 14-1742 | 2.5" OD 124T for Wood, Uncured or Cured Composites, Aluminum, Plastic | 9/16" x 3/64"        | 2-1/2    |

Use only for sawing non-metallic materials.



## Vacuum Conversion Kits 12-42 series

Converts front exhaust to a one of the configurations shown below

- Refer to the Vacuum Ready 12-42 Models in the catalog



| Model | Description                      | Tool Series |
|-------|----------------------------------|-------------|
| 4133  | Option 3 - Vacuum System Adapter | 12-42       |

To convert an existing Cleco Dotco front exhaust series 12-42 saw to Vacuum operation, order any of the conversion kits listed in the table.  
NOTE: When converting to vacuum, free speed of the tool will be reduced 20%.

## MP5187 - Lightweight Needle Scaler

Almost half the weight of standard models with similar BPM

- 4200 Blows per minute
- Compact design for work in close quarters
- Almost half the weight of standard models with similar BPM
- Precision heat treated needles for maximum performance



| Model  | Bore    | Stroke (in) | Blows Per Minute | Air Inlet Size | Length | Weight |
|--------|---------|-------------|------------------|----------------|--------|--------|
|        |         |             |                  | in             | in     | Lb     |
| MP5187 | 0.79 in | 0.590 in    | 4200             | 1/4 in         | 8.9    | 2.5    |

General: Air Inlet 1/4" NPT Use 1/4" (9.6mm) I.D. Hose  
All tools performance rated @ 90psi (620 kPa) air pressure.  
Standard Equipment:  
MP5187: 12 needles, 1/8" (3mm) dia., 5" (125mm) long.  
Owners Manual, Parts sheet.  
Optional Equipment:  
MP5187:  
71010300: (12) 3mm x 5" with 3mm needle holder

## B1 Series - Push-Pull Start - Chisel Scaler

### Built-in Chisel Retainer



- Built-in1 Chisel Retainer
- Chisel Type

| Model   | Bore | Chisel  | Stroke (in) | Abrasive Capacity<br>Grinder   | Blows Per<br>Minute | Air Inlet Size | Length | Weight | Retainer Type |
|---------|------|---------|-------------|--------------------------------|---------------------|----------------|--------|--------|---------------|
|         |      |         |             |                                |                     | in             | in     | Lb     |               |
| B1-C-PT | 1 in | .500 in | 1.100 in    | 1/2"   12.7 mm<br>Square Stock | 4600                | 1/4 in         | 12     | 4.41   | Built-in      |

All tools performance rated @ 90psi / 620 kPa air pressure.  
Minimum Hose I.D.: 5/16in / 7.9mm  
Standard Equipment:  
Operating instructions & service manual

## B Series - Lever Start - Chisel Scaler

### Built-in Chisel Retainer



- Built-in Chisel Retainer
- Chisel Type

| Model   | Bore | Chisel  | Stroke (in) | Abrasive Capacity<br>Grinder   | Blows Per<br>Minute | Air Inlet Size | Length | Weight | Retainer Type |
|---------|------|---------|-------------|--------------------------------|---------------------|----------------|--------|--------|---------------|
|         |      |         |             |                                |                     | in             | in     | Lb     |               |
| B1-C-LT | 1 in | .500 in | 1.100 in    | 1/2"   12.7 mm<br>Square Stock | 4600                | 1/4 in         | 10.3   | 4.41   | Built-in      |
| BR-C-LT | 1 in | .625 in | 1.100 in    | 5/8"   16 mm<br>round stock    | 4200                | 1/4 in         | 10.4   | 4.41   | Built-In      |

All tools performance rated @ 90psi / 620 kPa air pressure.  
Minimum Hose I.D.: 5/16in / 7.9mm  
Standard Equipment:  
Operating instructions & service manual

## MP5195 - Long Reach Scaler

Long reach scaler design for quick and easy stripping of dirt, grease, paint, glue, resins, floor coverings and tiles



- 2200 Blows per minute
- For rugged scaling applications
- Long reach scaler design for quick and easy stripping of dirt, grease, paint, glue, resins, floor coverings and tiles

| Model  | Stroke (in) | Blows Per Minute | Length | Weight |
|--------|-------------|------------------|--------|--------|
|        |             |                  | in     | Lb     |
| MP5195 | 1.500 in    | 2200             | 60     | 11.5   |

General: Air inlet 1/4" NPT for MP5195 Model. Use 1/4" (9.6mm) I.D. hose.  
All tools performance rated @ 90psi (620 kPa) air pressure.  
Standard Equipment: 4" 5/8 hex chisel.  
Owners Manual, Parts list

## CH30 Series Chipping Hammer

Heavy duty for rugged use

- Heavy duty for rugged use
- Ring valve hard hitting hammer
- Forged steel hammer
- Heat treated cylinder & piston for reduced wear
- Replaceable bushing



| Model    | Bore     | Chisel  | Stroke (in) | Abrasive Capacity<br>Grinder  | Blows Per Minute | Air Inlet Size | Length | Weight | Retainer Type |
|----------|----------|---------|-------------|-------------------------------|------------------|----------------|--------|--------|---------------|
|          |          |         |             |                               |                  | in             | in     | Lb     |               |
| CH-30-HX | 1.125 in | .580 in | 2.500 in    | .580 in   14.7 mm Hex         | 2200             | 3/8 in         | 17.7   | 15     | Standard      |
| CH-30-RD | 1.125 in | .680 in | 2.500 in    | .680 in   17.3 mm Round Shank | 2200             | 3/8 in         | 17.7   | 15     | Standard      |

All tools performance rated @ 90psi / 620 kPa air pressure.  
Minimum Hose I.D.: 1/2in / 12.7mm  
Standard Equipment: Wheel guard and flange wrench

## F Series Rivet Hammer - Cleco

### Up to 1/4" Rivets

- For driving 1/8"-1/4" (3-6mm) rivets
- Standard beehive retainer
- Built-in air regulator controls power output
- Spool valve for precise speed control.

| Model      | Exhaust | Blows Per Minute | Weight | Weight (kg) | Length | Length (mm) |
|------------|---------|------------------|--------|-------------|--------|-------------|
|            |         |                  | Lb     |             | in     |             |
| F4-PT-RT-B | Rear    | 1700             | 3.31   | 1.5 kg      | 8.7    | 221 mm      |

All tools performance rated @ 90 psi / 620 kPa air pressure.  
Minimum Hose I.D.: 1/4 in / 6.4 mm  
Standard Equipment:  
Operating instructions & service manual



## B1 Series Chisels (Safety Retainer Type)

### For use with B1 Series Chisels

- 

| Model  | Description  | Stock Size | Length |        |
|--------|--------------|------------|--------|--------|
|        |              | in         | in     | mm     |
| 839050 | Spoon Chisel | 1/2 in     | 7.3    | 184.15 |
| 839051 | Cold Chisel  | 1/2 in     | 7.5    | 190.5  |
| 839299 | Spoon Chisel | 1/2 in     | 12     | 304.8  |
| 839334 | Spoon Chisel | 1/2 in     | 18     | 457.2  |
| 839335 | Cold Chisel  | 1/2 in     | 18     | 457.2  |
| 839341 | Cold Chisel  | 1/2 in     | 12     | 304.8  |
| 839467 | Cold Chisel  | 1/2 in     | 8      | 203.2  |
| 839740 | Spoon Chisel | 1/2 in     | 7.3    | 184.15 |





## Overhose Conversion Kits 12 Series and 15 Series - Cleco Dotco

For Use with Cleco Dotco Series rear exhaust tools

- Converts tool to OH Overhose for additional noise suppression
- For Standard 12 Series Grinders and 15 Series Drills
- 01-1030 does not include air hose
- Kits for 1/4" ID and 5/16" ID hose with different OH lengths 2', 4' and 8'



| Model   | Description   | Tool Series   |
|---------|---|---|
| 01-1030 |   | 12-10, 12-11, 12-12, 12-13, 15LF, 15-14   |
| 45-2783 | Inlet Adaptor, 45-2629 Overhose 2', 45-1408 8' Air Hose 1/4"  | 12-10, 12-11, 12-12, 12-13, 15LF, 15-14   |
| 45-2784 | Inlet Adaptor, 45-2687 Overhose 4', 45-1408 8' Air Hose 1/4"  | 12-10, 12-11, 12-12, 12-13, 15LF, 15-14   |
| 45-2785 | Inlet Adaptor, 45-2688 Overhose 8', 45-1408 8' Air Hose 1/4"  | 12-10, 12-11, 12-12, 12-13, 15LF, 15-14   |
| 45-2786 | Inlet Adaptor, 45-2629 Overhose 2', 45-1508 8' Air Hose 5/16" | 10-20, 10-21, 10-22, 10-25, 10-26, 10-27, 12-20, 12-21, 12-22, 12-25, 12-26, 12-27, 12-28, 15LS, 15LN |
| 45-2787 | Inlet Adaptor, 45-2687 Overhose 4', 45-1508 8' Air Hose 5/16" | 10-20, 10-21, 10-22, 10-25, 10-26, 10-27, 12-20, 12-21, 12-22, 12-25, 12-26, 12-27, 12-28, 15LS, 15LN |
| 45-2788 | Inlet Adaptor, 45-2688 Overhose 8', 45-1508 8' Air Hose 5/16" | 10-20, 10-21, 10-22, 10-25, 10-26, 10-27, 12-20, 12-21, 12-22, 12-25, 12-26, 12-27, 12-28, 15LS, 15LN |

## Air Hose and Overhose Kits 10-04, 12-04 Pencil Grinders - Cleco

For Use with 10-04, 12-04 Cleco Dotco Series rear exhaust tools

- Includes Inlet Hose and Overhose Assembly

| Model   | Description         | Tool Series  |
|---------|---------------------|--------------|
| 45-6000 | 5' Hose 4' Overhose | 12-03, 12-04 |
| 45-6012 | 5' Hose 2' Overhose | 12-03, 12-04 |
| 45-6013 | 5' Hose 1' Overhose | 12-03, 12-04 |



### Overhose and Spring - 10-04,12-04 Pencil Grinders - Cleco Dotco

- For use with Dotco 12R04,12R03 and 10R04 Pencil Grinders
- Includes Overhose and Spring
- Air hose shown NOT included see kits 45-6000,45-6012,45-6913

| Model   | Description | Tool Series  | Length | Length |
|---------|-------------|--------------|--------|--------|
|         |             |              | ft     | m      |
| 45-6001 | 4 feet      | 12-03, 12-04 | 4      | 1.2192 |
| 45-6002 | 2 feet      | 12-03, 12-04 | 2      | 0.6096 |
| 45-6003 | 1 foot      | 12-03, 12-04 | 1      | 0.3048 |

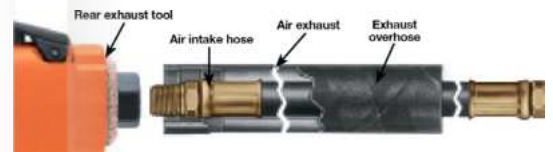


### Air Hose and Overhose Kits - 10-10,10-11 Cleco Dotco

For Use with Cleco Dotco Series rear exhaust tools

- For 10-10 and 10-11 series tools
- Air Hose and Overhose

| Model   | Description                                      | Tool Series         |
|---------|--|---------------------|
| 45-1930 | 45-1904 2' Overhose and 45-1409 8' Air Hose 1/4" | 10-10, 10-11, 10-12 |
| 45-1931 | 45-1901 4' Overhose and 45-1409 8' Air Hose 1/4" | 10-10, 10-11, 10-12 |
| 45-1932 | 45-1902 8' Overhose and 45-1409 8' Air Hose 1/4" | 10-10, 10-11, 10-12 |



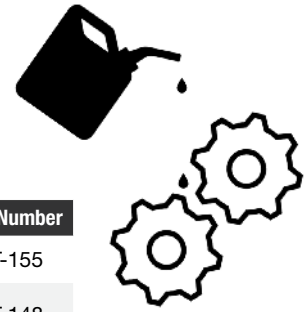
### Activesswivel

Available for 1/4" NPT inlet only

| Model  | Air Flow Volume      | Max Pressure             | Weight |           | Air Inlet Size |
|--------|----------------------|--------------------------|--------|-----------|----------------|
|        | Scfm                 | lb/in <sup>2</sup>   bar | Lb     | kg        | in             |
| SW-102 | 25 m <sup>3</sup> /m | 150                      | 0.2    | 0.0907185 | 1/4 in         |



## Lubricants



| Part Number | Size                      | Description  | MSDS Number |
|-------------|---------------------------|--|-------------|
| 45-0918     | 1 qt. plastic             | Air Tool Oil - Qt.   | CPT-155     |
| 45-0980     | 2 oz. tube                | Cleco Dotco Angle Head Grease Moly-XL 250 for Grinders/Sanders | CPT-148     |
| 45-0983     | 2 oz. tube                | Cleco Dotco Planetary Gear Grease for Grinders & Sanders       | CPT-147     |
| 513156      | 18 oz. can                | Magnalube-G Assembly Tool Teflon Grease                        | CPT-145     |
| 533485      | 1 gal. metal              | Axial Piston Motor Air Tool Oil 1 gal. can                     | CPT-153     |
| 539317      | 1 ct quart plastic bottle | Univis Pulse Tool Hydraulic Oil                                | CPT-157     |
| 540394      | 2.8oz Tube                | Molykote G-N Metal Assembly Paste for Angle & Planetary        | CPT-146     |
| 541445      | 500g Can                  | Rheolube 363AX-1 500g can                                      | CPT-286     |
| A123771     | 1 gal. metal              | Shell Gadus S2 V220 00 16 oz can                               |             |

Under normal conditions of use, lubrication products sold separately for or used within these tools should not cause an exposure hazard. Refer to the Material Safety Data Sheet M.S.D.S. for Safety and Disposal information. M.S.D.S. sheets are available upon request.

## Push Type Grease Gun

**Cleco Dotco Lube sold seperately**

- Push Type Grease Gun
- Use with 45-0983 for Planetary Gears
- Use with 45-0980 for Angle Head Gears

### Model

45-1982

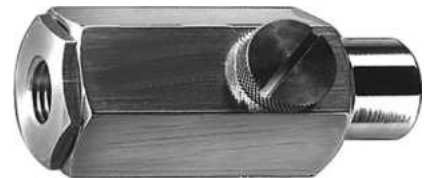


## Airline Filter & Lubricator

**Mounts in Hose Line.**

- One ounce reservoir good for average 8-hour shift.

| Model   | Description                    | Max Pressure                     | Air Inlet Size |
|---------|--------------------------------|----------------------------------|----------------|
|         |                                | lb/in <sup>2</sup>   bar         | in             |
| 45-0201 | 1/4" NPTF Hose Line Lubricator | 100 lb/in <sup>2</sup>   6.9 bar | 1/4 in         |



# Cleco | Tame the Line

## Assembly Tools



## Material Removal



## Drilling & Riveting



To learn more about Cleco's full line of tools, visit [ClecoTools.com](https://www.ClecoTools.com)

**APEX**  
ASSEMBLY & FABRICATION TOOLS

Apex Assembly & Fabrication Tools work hand-in-hand with Cleco tools, delivering innovative solutions for enhanced efficiency, productivity and safety. To learn more about Apex's full line of tools, visit [Apex-Tools.com](https://www.Apex-Tools.com).



**Cleco** | Tame the Line