

Freedom EAS

Battery Power Tools

From clutch to transducerized battery tools



- Productivity
- Tightening accuracy
- Robust & ergonomic
- Compliant to industry 4.0

SCS Concept Group

www.scsconcept.com

Freedom EAS

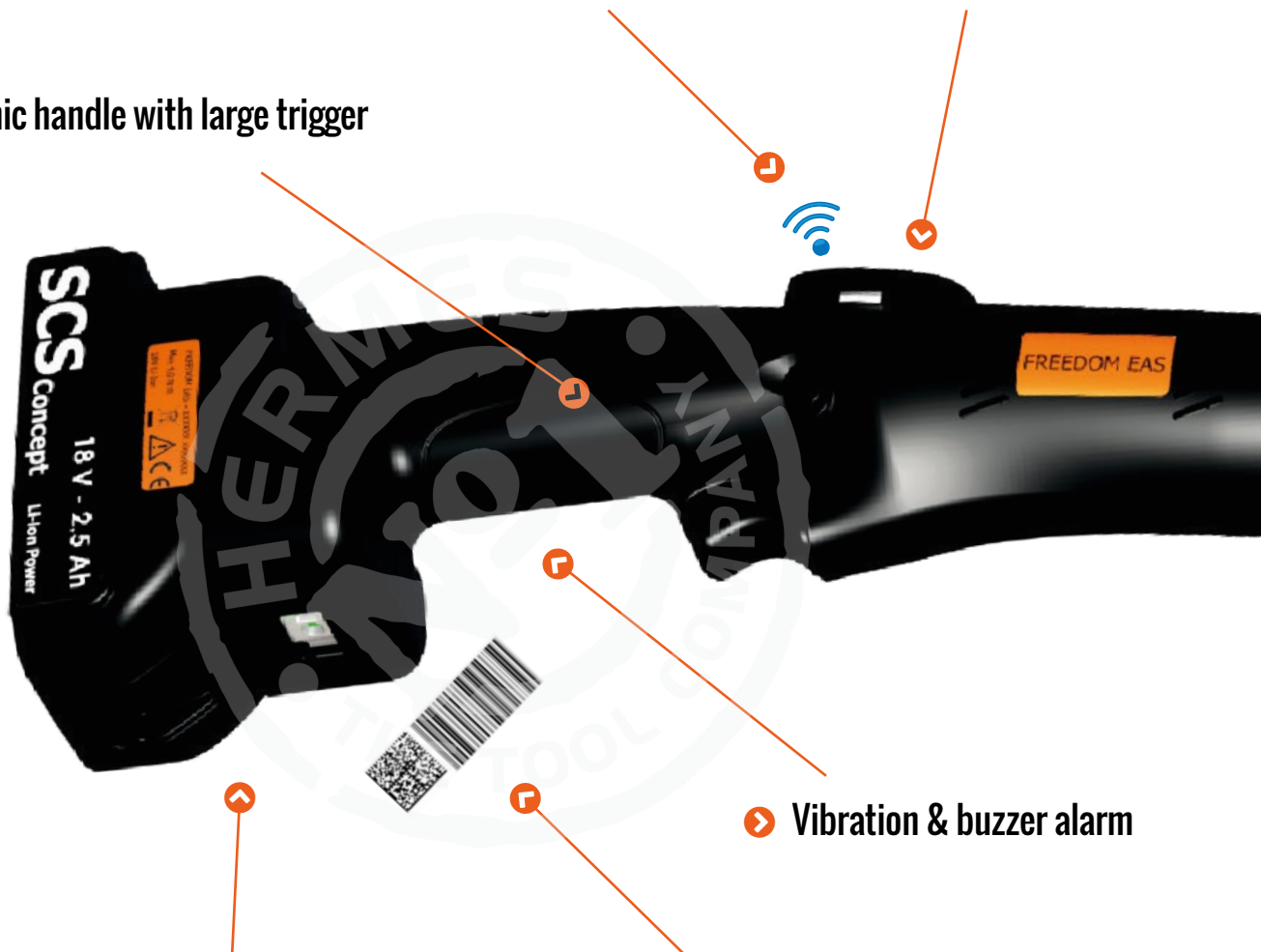


➤ **No information loss with our WiFi 2.4 or 5 GHz**

- Automatic roaming to select the best access point
- Full security management

➤ **Status with multi-color LED and color screen**

➤ **Ergonomic handle with large trigger**



➤ **Vibration & buzzer alarm**

➤ **Up to 7 000 tightening with advanced battery thanks to brake energy recovery**

➤ **Integrated barcode reader for high durability**

EAS tools can manage all operations in Stand alone or as a slave to SCS FIM EVO and VPG+ system management

➤ From 1 to 120 N·m
Pistol, Angle head, Straight



➤ Durability and high speed
with brushless motor

➤ Accurate and durability
with our spiroidal gear and angle



➤ Illuminate part with intergated flashlight

➤ Dual trigger detection (option)



➤ Open & Closed crowfoot (option)



➤ Integrated control

- ✓ Full tightening strategy
- ✓ Prevailing torque capability
- ✓ Barcode reader to start the sequence
- ✓ Joint condition monitoring
 - Trace comparison
 - Current, torque, angle, gradient, time monitoring
 - Rehit detection
- ✓ Full traceability with WiFi communication
- ✓ Compatible with open and close crowfoot dual hands detection

Define the correct tools based on your needs

Tools developed with a complete range to fulfill your industry standard and define the level of control, monitoring and traceability that you need.

XXC - Clutch

Accurate clutch tools to fulfill to your tightening strategy and productivity

XXC - Clutch advanced control

Features of XXC with data acquisition, WiFi communication option and barcode reader to select and link all tightening to your product

XXCT - Clutch with Torque transducer

Features of XXCC with a torque transducer that you can use to monitor the clutch or control the shutoff

XXT - Torque transducer

Full tightening strategy available to manage all your requirements



These industrial battery tools are designed to meet all your requirements based on the version selected. The status of each tightening is feedback to the operator by integrated multi-LED's, a vibration device, an illuminated display and a buzzer.



Freedom EAS	XXC	XXCC	XXCT	XXT
	Clutch Tools	Clutch adv Control	Clutch with Torque transducer	Torque transducer Shutoff
Strategy	Torque	Torque	Torque or Angle	Torque or Angle
Torque Accuracy	+/- 5%	+/- 5%	+/- 5%	+/- 4%
Torque repeatability *	+/- 10%	+/- 10%	+/- 10%	+/- 7%
Setup				
Torque Control	Clutch	Clutch	Clutch	Torque
Angle Control			Yes	Yes
Current Control	Yes			
Torque Monitoring			Yes	Yes
Angle Monitoring	Yes	Yes	Yes	Yes
Speed Management	Yes	Yes	Yes	Yes
Current Monitoring		Yes	Yes	Yes
Time Monitoring		Yes	Yes	Yes
Multi-Step	Yes	Yes	Yes	Yes
Memory				
Data + Trace	No	150.000	150.000	150.000
Operation	1	100	100	100
Wifi 2.4 & 5 Ghz	No	Option	Option	Option
Bacode reader	No	Option	Option	Option

* According to VDI/VDE 2647

Understand the configuration of your battery power tools

Design



➤ Freedom EAS-S for Straight



➤ Freedom EAS-P for Pistol



➤ Freedom EAS-A for Angle Head

Gear

Depending on the target torque, you have access to two different levels of gearing and torque multipliers. (Standard or High Torque)

Standard	High Torque
Freedom-EAS-XST	Freedom-EAS-XHT
Up to 120 N·m	Up to 1 250 N·m

Control & Monitoring

By default, we control and manage the angle, current consumption, speed and time to give you the possibilities to define precisely when the result is ok and adjust the speed depending on your assembly joint.

	Clutch Tools	Clutch advance Control	Clutch with Torque Transducer	Torque Transducer
Freedom-EAS	XXXC	XXXCC	XXXCT	XXXT

To understand quickly the configuration of the tool, you will find the maximum torque of the tool and the driver type (hex or square) and size (1/4", 1/2" etc).

	Torque (N·m)	Hex Female	Square	Size
Freedom-EAS-	XXXX13	XXXX13H	XXXX13S	XXXX13H14

Torque & Drive

Depending on the needs, you can add a barcode reader and/or a WiFi communication module on your tools.

This information is shown by the last letters:
B for Barcode reader, W for WIFI

Option

Freedom-EAS-PSTT14H14BW

Transducerized pistol tool for 14 Nm with Hex 1/4" drive including barcode reader & WiFi

Example



Freedom EAS

➤ FIM EVO The solution to manage up to 12 tools with one Industrial device

FIM EVO is designed to manage and collect data from SCS Concept production tools and all other brands

- ✓ Manage up to 12 tools
- ✓ 6 station at the same time (option)
- ✓ Unlimited sequences and operations
- ✓ Large memory to store all results and traces sent from your tools
- ✓ Multi-Protocol solution with :
Open protocol, ToolsNet, IPM, VW XML
- ✓ 16 IO24V to manage your stations
- ✓ Manage barcode reader / printer
- ✓ Manage socket tray
- ✓ Industrial Fieldbus (option)
- ✓ Setup the tightening strategies directly for your tools



Use our battery power tools with WiFi to connect to our systems and communicate easily with your MES. The FIM EVO and VPG+ are designed to manage your assembly processes, manage accessories like socket tray, barcode reader, fieldbus, etc.



➤ VPG+ the solution for operation guidance and data collection



- ✓ Station operator visual guide
- ✓ Training tool for new operator
- ✓ Multi-brand tools capability
- ✓ 12 different tools can be connected to a station (Multi-brand solutions)
- ✓ Simple error proofing on production station for all tools
- ✓ Collect and manage all stations with VPG+ server
- ✓ Multi-Protocol solution with : Open protocol, ToolsNet, IPM, VW XML
- ✓ Manage accessories like barcode reader, socket tray, etc
- ✓ Setup the tightening strategies directly for your tools

Freedom EAS Clutch Tools

Simple and accurate clutch tool



This real industrial battery clutch tool gives you access to a high level of joint management. You will be able to adjust the speed and manage current consumption to improve the quality and productivity of your assembly process.

Main advantages

- High durability and low maintenance
 - Brushless motor
 - Highly durable gear and angle head
- Designed for high productivity
- Robust and ergonomic
- Accurate clutch mechanism with 5% accuracy
- Human interface machine
 - Vibration, buzzer and alarm
 - LED
- Tightening strategy
 - Clutch control

Features

- Torque accuracy: +/- 5%,
- Torque repeatability: +/- 10% with Cm/Cmk better than 2
- Speed management
- Open/closed crowfoot option
 - Up to 6 speed management
- Angle & current monitoring
- Re-tightening detection
- Up to 7 000 tightening with one battery

▶ Human interface machine

- Vibration, buzzer and alarm
- LED



➤ Clutch Tools with Speed management

References	Torque *	Lenght	Weight	Speed	Drive
	N·m (lbf·in)	mm	kg (Lbs)	rpm	
Pistol					
EAS-PSTC4H14	4 (35.4)	230	1.2 (2.65)	1300	Hex 1/4"
EAS-PSTC6H14	6.5 (57.53)	230	1.2 (2.65)	1040	Hex 1/4"
EAS-PSTC9H14	9 (79.66)	230	1.2 (2.65)	740	Hex 1/4"
EAS-PSTC13H14	13 (115.06)	230	1.2 (2.65)	530	Hex 1/4"
Angle head					
EAS-ASTC9S14	9 (79.66)	440	1.5 (3.31)	700	SQ 1/4"
EAS-ASTC9H14	9 (79.66)	440	1.5 (3.31)	700	Hex 1/4"
EAS-ASTC13S38	13 (115.06)	455	1.51 (3.33)	480	SQ 3/8"
EAS-ASTC20S38	20 (177.01)	455	1.51 (3.33)	340	SQ 3/8"
EAS-ASTC30S38	30 (265.52)	510	2.2 (4.85)	200	SQ 3/8"
EAS-ASTC55S38	55 (486.79)	580	2.6 (5.73)	120	SQ 3/8"
EAS-ASTC55S12	55 (486.79)	580	2.6 (5.73)	120	SQ 1/2"
EAS-ASTC85S12	85 (752.31)	630	3 (6.61)	80	SQ 1/2"
EAS-ASTC100S12	100 (885.07)	960	3.6 (8.09)	70	SQ 1/2"
Straight					
EAS-SSTC4H14	4 (35.4)	410	1.3 (2.87)	1300	Hex 1/4"
EAS-SSTC6H14	6.5 (57.53)	410	1.3 (2.87)	1040	Hex 1/4"
EAS-SSTC9H14	9 (79.66)	410	1.3 (2.87)	740	Hex 1/4"
EAS-SSTC13H14	13 (115.06)	410	1.3 (2.87)	530	Hex 1/4"

* Min torque value dependent on the applied standard

Tools accessories

References	Designation
EASCST	Freedom EAS Clutch Setting Tool
EAS-PC	Cover EAS-P Pistol Tools
EAS-AC20	Cover EAS-A Angle Tools 20 N·m
EAS-AC30	Cover EAS-A Angle Tools 30 N·m
EAS-AC55	Cover EAS-A Angle Tools 55 N·m
EAS-AC85	Cover EAS-A Angle Tools 85 N·m
EAS-PTH	Pistol tool holder
EAS-THS	Angle and Straight tool holder set



➤ Tool accessories

The tool is delivered with the adjustment key, the software to setup the tool, the calibration certificate, and the manual in multi-language. The battery and charger are not included.

Freedom EAS Clutch Tools Advanced Control

Start to manage your results with these connected tools



This advanced control gives you access to Industry 4.0 and allows you to store all the results sent from the tools and link it to a barcode reader. Connected to our system, you will have access to different protocols to communicate with your MES.

Main advantages

- High durability and low maintenance
 - Brushless motor
 - Highly durable gear and angle head
- Designed for high productivity
- Robust and ergonomic
- Accurate clutch mechanism with 5% accuracy
- Human interface machine
 - Vibration, buzzer and alarm
 - LED
 - Oled display
- Up to 7 000 tightening with one battery
- Current & angle monitoring to validate all your tightening
- Batch count function and error proofing management
- WiFi to communicate with your MES *
- Barcode reader to link all results to your VIN number *
- Tightening strategy
 - Clutch control with angle & current monitoring

Features

- Torque accuracy: +/- 5%,
- Torque repeatability: +/- 10% with Cm/Cmk better than 2
- Speed management
- Angle & current monitoring
- Re-tightening detection and batch count
- Up to 7 000 tightening with one battery
- Memory: Up to 150 000 results store on the EAS (current, speed, angle)
- WiFi 2.4 & 5 GHz *
- Barcode reader *



➤ Human interface machine

- Vibration, buzzer and alarm
- LED
- Oled display

* Optional. Add B for barcode reader and W for WiFi

➤ Clutch Tools with Oled Display

References	Torque *	Lenght	Weight	Speed	Drive
	N·m (lbf·in)	mm	kg (Lbs)	rpm	
Pistol					
EAS-PSTCC4H14	4 (35.4)	230	1.2 (2.65)	1300	Hex 1/4"
EAS-PSTCC6H14	6.5 (57.53)	230	1.2 (2.65)	1040	Hex 1/4"
EAS-PSTCC9H14	9 (79.66)	230	1.2 (2.65)	740	Hex 1/4"
EAS-PSTCC13H14	13 (115.06)	230	1.2 (2.65)	530	Hex 1/4"
Angle head					
EAS-ASTCC9S14	9 (79.66)	440	1.5 (3.31)	700	SQ 1/4"
EAS-ASTCC9H14	9 (79.66)	440	1.5 (3.31)	700	Hex 1/4"
EAS-ASTCC13S38	13 (115.06)	455	1.51 (3.33)	480	SQ 3/8"
EAS-ASTCC20S38	20 (177.01)	455	1.51 (3.33)	340	SQ 3/8"
EAS-ASTCC30S38	30 (265.52)	510	2.2 (4.85)	200	SQ 3/8"
EAS-ASTCC55S38	55 (486.79)	580	2.6 (5.73)	120	SQ 3/8"
EAS-ASTCC55S12	55 (486.79)	580	2.6 (5.73)	120	SQ 1/2"
EAS-ASTCC85S12	85 (752.31)	630	3 (6.61)	80	SQ 1/2"
EAS-ASTCC100S12	100 (885.07)	960	3.6 (8.09)	70	SQ 1/2"
Straight					
EAS-SSTCC4H14	4 (35.4)	410	1.3 (2.87)	1300	Hex 1/4"
EAS-SSTCC6H14	6.5 (57.53)	410	1.3 (2.87)	1040	Hex 1/4"
EAS-SSTCC9H14	9 (79.66)	410	1.3 (2.87)	740	Hex 1/4"
EAS-SSTCC13H14	13 (115.06)	410	1.3 (2.87)	530	Hex 1/4"

For each reference we can add at the end B for Barcode reader & W for Wifi
 Example : EAS-ASTCC30S38BW (B for barcode a W for Wifi)

* Min torque value dependent on the applied standard

Tools accessories

References	Designation
EASCST	Freedom EAS Clutch Setting Tool
EAS-PC	Cover EAS-P Pistol Tools
EAS-AC20	Cover EAS-A Angle Tools 20 N·m
EAS-AC30	Cover EAS-A Angle Tools 30 N·m
EAS-AC55	Cover EAS-A Angle Tools 55 N·m
EAS-AC85	Cover EAS-A Angle Tools 85 N·m
EAS-PTH	Pistol tool holder
EAS-THS	Angle and Straight tool holder set



➤ Tool accessories

The tool is delivered with the adjustment key, the software to setup the tool, the calibration certificate, and the manual in multi-language. The battery and charger are not included.

➤ WiFi tools can be linked to FIM EVO or VPG+

Freedom EAS Transducerized Clutch Tools

Unique Transducerized clutch tools for data traceability



First transducerized clutch tool on the market, with the ability to validate all tightenings and store all data for traceability.

Main advantages

- High durability and low maintenance
 - Brushless motor
 - Highly durable gear and angle head
- Designed for high productivity
- Robust and ergonomic design
- Accurate clutch mechanism with 5% accuracy
- Human interface machine
 - Vibration and acoustic alarm
 - LED
 - Oled display
 - Increased productivity
- Torque transducer is used to validate each tightening or apply the target torque
- Up to 7 000 tightening with one battery
- Batch count function and error proofing management
- WiFi to communicate with your MES *
- Barcode reader to link all results to your VIN number *
- Tightening strategy
 - Clutch control with angle & current monitoring
 - Torque, angle and current monitoring
 - Trace comparison

Features

- Torque accuracy: +/- 5% & 4% with torque transducer
- Torque repeatability: +/- 10% with Cm/Cmk better than 2
- Speed management
- Torque , angle & current control
- Re-tightening detection and batch count
- Up to 7 000 tightening with one battery
- Memory: Up to 150 000 results/traces stored on the EAS (torque, current, speed, angle)
- WiFi 2.4 & 5 GHz *
- Barcode reader *



Human interface machine

- Vibration and acoustic alarm
- LED
- Oled display

* Optional. Add B for barcode reader and W for WiFi

➤ Clutch Tools with Torque Transducer

References	Torque *	Lenght	Weight	Speed	Drive
	N·m (lbf·in)	mm	kg (Lbs)	rpm	
Pistol					
EAS-PSTCT4H14	4 (35.4)	230	1.2 (2.65)	1300	Hex 1/4"
EAS-PSTCT6H14	6.5 (57.53)	230	1.2 (2.65)	1040	Hex 1/4"
EAS-PSTCT9H14	9 (79.66)	230	1.2 (2.65)	740	Hex 1/4"
EAS-PSTCT13H14	13 (115.06)	230	1.2 (2.65)	530	Hex 1/4"
Angle head					
EAS-ASTCT9S14	9 (79.66)	440	1.5 (3.31)	700	SQ 1/4"
EAS-ASTCT9H14	9 (79.66)	440	1.5 (3.31)	700	Hex 1/4"
EAS-ASTCT13S38	13 (115.06)	455	1.51 (3.33)	480	SQ 3/8"
EAS-ASTCT20S38	20 (177.01)	455	1.51 (3.33)	340	SQ 3/8"
EAS-ASTCT30S38	30 (265.52)	510	2.2 (4.85)	200	SQ 3/8"
EAS-ASTCT55S38	55 (486.79)	580	2.6 (5.73)	120	SQ 3/8"
EAS-ASTCT55S12	55 (486.79)	580	2.6 (5.73)	120	SQ 1/2"
EAS-ASTCT85S12	85 (752.31)	630	3 (6.61)	80	SQ 1/2"
EAS-ASTCT100S12	100 (885.07)	960	3.6 (8.09)	70	SQ 1/2"
Straight					
EAS-SSTCC4H14	4 (35.4)	410	1.3 (2.87)	1300	Hex 1/4"
EAS-SSTCC6H14	6.5 (57.53)	410	1.3 (2.87)	1040	Hex 1/4"
EAS-SSTCC9H14	9 (79.66)	410	1.3 (2.87)	740	Hex 1/4"
EAS-SSTCC13H14	13 (115.06)	410	1.3 (2.87)	530	Hex 1/4"

For each reference we can add at the end B for Barcode reader & W for Wifi
Example : EAS-ASTCC30S38BW (B for barcode a W for Wifi)

* Min torque value dependent on the applied standard

Tools accessories

References	Designation
EAS-AT	Clutch torque adjustment tool
	Cover index for clutch tool
EAS-P-COVER	Cover for Pistol
EAS-P-COVER20	Cover for Angle head up to 20 N·m
EAS-P-COVER30	Cover for Angle head 30 N·m
EAS-P-COVER55	Cover for Angle head 55 N·m
EAS-P-COVER120	Cover for Angle head 120 N·m



➤ Tool accessories

The tool is delivered with the adjustment key, the software to setup the tool, the calibration certificate, and the manual in multi-language. The battery and charger are not included.



➤ WiFi tools can be linked to FIM EVO or VPG+

Freedom EAS Transducerized Tools

Improve your quality with these accurate tools



Ultimate tightening solution to manage all your assembly joints using one tool and improve your quality and production processes. These advanced tools monitor your assembly joints and give you access to full data traceability. By linking to our FIM EVO or VPG+, you will have full access to a guidance solution, sequence management and a powerful communication to your MES.

Main advantages

- High durability and low maintenance
 - Brushless motor
 - Highly durable gear and angle head
- Designed for high productivity
- Robust and ergonomic design
- Torque transducer
- Human interface machine
 - Vibration, buzzer and alarm
 - LED
 - Oled display
 - Increased productivity
- Up to 7 000 tightening with one battery
- Current & angle control to validate all your tightening
- Batch count function and error proofing management
- WiFi to communicate with your MES *
- Barcode reader to link all results to your VIN number *
- Tightening strategy
 - Torque control with angle & current monitoring
 - Angle control with torque & current monitoring
 - Prevailing torque / gradient / trace comparison

Features

- Torque accuracy: +/- 4%
- Torque repeatability: +/- 7% with Cm/Cmk better than 2
- Full control management and tightening strategy
- Re-tightening detection and batch count
- Up to 7 000 tightening with one battery
- Memory: Up to 150 000 results/traces stored on the wrench (torque, current, speed, angle)
- WiFi 2.4 & 5 GHz *
- Barcode reader *



Human interface machine

- Vibration, buzzer and alarm
- LED
- Oled display

* Optional. Add B for barcode reader and W for WiFi

➤ Static Torque Transducer

References	Torque *	Lenght	Weight	Speed	Drive
	N·m (lbf·in)	mm	kg (Lbs)	rpm	
Pistol					
EAS-PSTT14H14	14 (123.91)	230	1.1 (2.54)	530	Hex 1/4"
Angle head					
EAS-ASTT12S38	12 (106.21)	455	1.45 (3.20)	480	SQ 3/8"
EAS-ASTT20S38	20 (177.01)	455	1.45 (3.20)	340	SQ 3/8"
EAS-ASTT30S38	30 (265.52)	510	2.2 (4.85)	200	SQ 3/8"
EAS-ASTT55S38	55 (486.79)	580	2.6 (5.73)	120	SQ 3/8"
EAS-ASTT55S12	55 (486.79)	580	2.6 (5.73)	120	SQ 1/2"
EAS-ASTT85S12	85 (752.31)	630	3 (6.61)	80	SQ 1/2"
EAS-ASTT120S12	120 (1062.09)	960	3.4 (7.50)	70	SQ 1/2"
Straight					
EAS-SSTT14H14	14 (123.91)	410	1.2 (2.69)	530	Hex 1/4"

For each reference we can add at the end B for Barcode reader & W for Wifi
 Example : EAS-ASTCC30S38BW (B for barcode a W for Wifi)

* Min torque value dependent on the applied standard

Tools accessories	
References	Designation
EAS-AT	Clutch torque adjustment tool
	Cover index for clutch tool
EAS-P-COVER	Cover for Pistol
EAS-P-COVER20	Cover for Angle head up to 20 N·m
EAS-P-COVER30	Cover for Angle head 30 N·m
EAS-P-COVER55	Cover for Angle head 55 N·m
EAS-P-COVER120	Cover for Angle head 120 N·m

➤ Tool accessories

The tool is delivered with the software to setup the tool, the calibration certificate, and the manual in multi-language.

The battery and charger are not included.

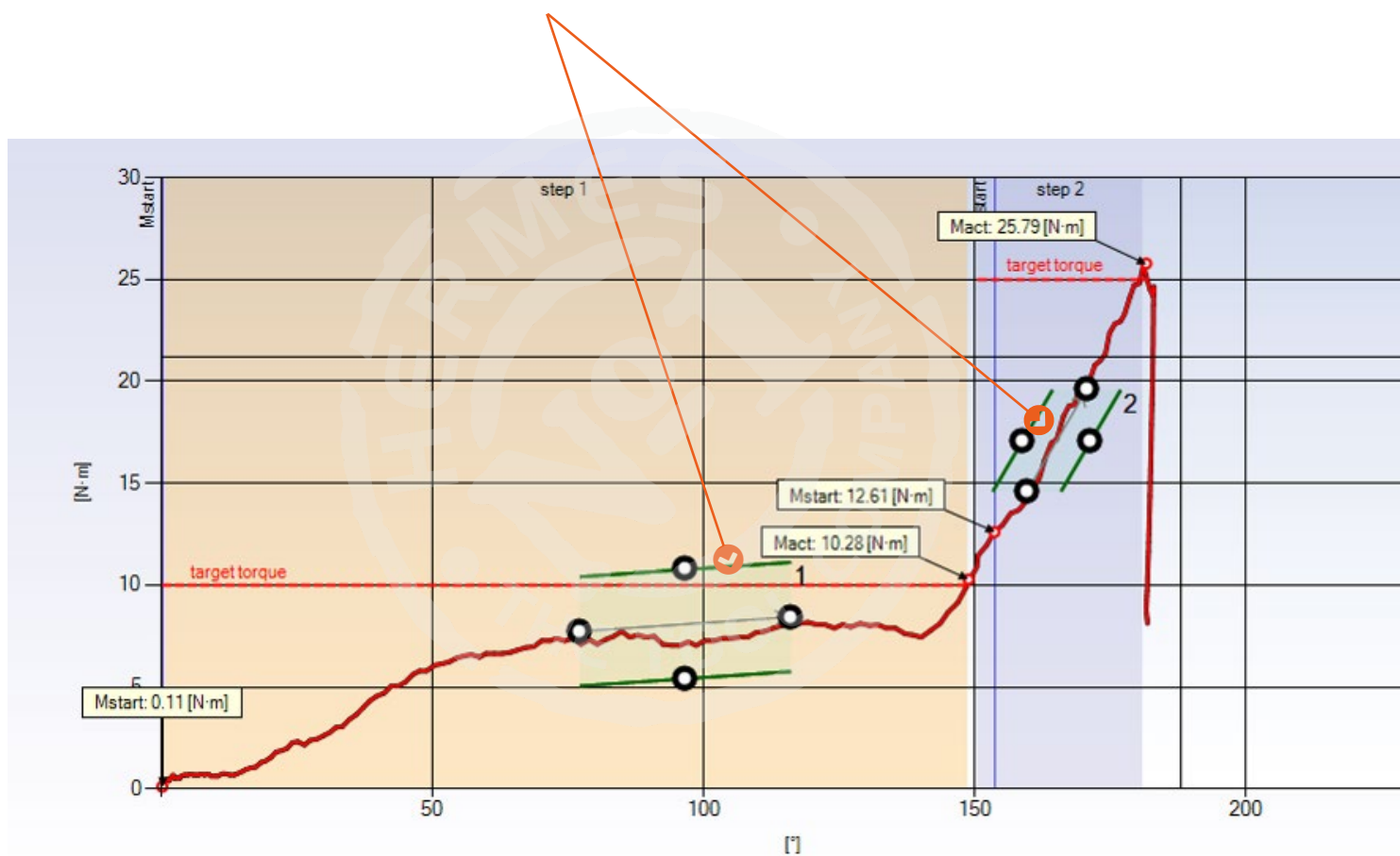


➤ WiFi tools can be linked to FIM EVO or VPG+

Freedom EAS Transducerized Tools

- Unique real time trace comparison to detect any mistakes occurred in the process

➤ Reference trace





➤ Friction torque is too low

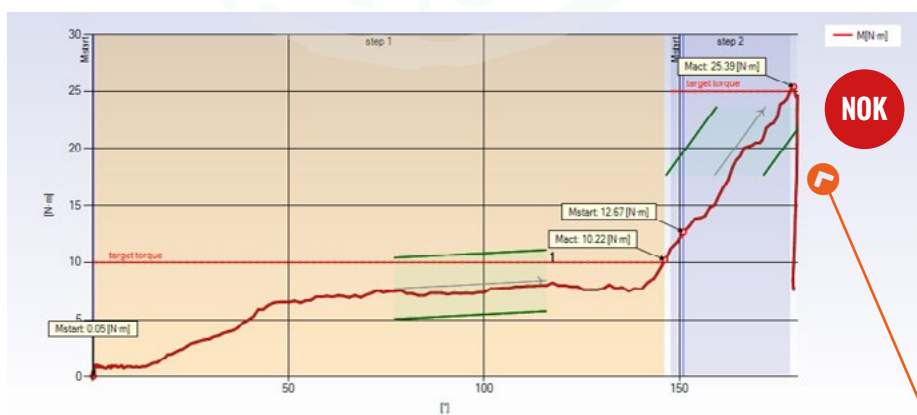
➤ Not ok on the first step

M[N·m]

OK



➤ Not ok on the second step



➤ The tightening crosses the reference trace set by you



THE RINGS COMPANY
THE TOOL COMPANY

10/123181

Tool Accessories



References	Designation
EASCST	Freedom EAS Clutch Setting Tool
EAS-PC	Cover EAS-P Pistol Tools
EAS-AC20	Cover EAS-A Angle Tools 20 N·m
EAS-AC30	Cover EAS-A Angle Tools 30 N·m
EAS-AC55	Cover EAS-A Angle Tools 55 N·m
EAS-AC85	Cover EAS-A Angle Tools 85 N·m
EAS-PTH	Pistol tool holder
EAS-THS	Angle and Straight tool holder set

Battery Accessories

References	Designation
EASC1EU	1 bay EAS battery Charger 220-240V
EASC1US	1 bay EAS battery charger 110V
EASB1825	Li-Ion battery 18 V , 2.5 Ah
EASB1850	Li-Ion battery 18 V , 5.0 Ah
EASBC1825	Battery cover for 1825
EASBC1850	Battery cover for 1850



Description	FIM_EVO
Number of tools managed	12
Compatible with SCS products	Yes
Manage Sequences, Operations	Unlimited
Manage tightening strategies	Yes
Manage barcode reader	Yes
Manage printer/label printer	USB/serial
Number of result stored	100 000
Number of traces stored	100 000
2 Serial ports, 4 USB, 2 Ethernets, 1 Can bus	Yes
FieldBus compatibility (profinet, etc)	Yes
Number of input/output managed	4 Output



➤ Software module “Universal HUB”

Description	FIM_EVO Standard	Universal HUB
Stations managed by controller	2	6
Multi brand Tools compatibility	No	Yes

Part Number	
153 20 0008	FIM EVO 4 out
153 20 0013	FIM EVO 16 I/O

