



Freedom 4 Solution



SCS Concept, 09 March 2017

Edition 1

HERMES 
THE TOOL COMPANY

Kompania Narzędziowa "HERMES" Sp. z o.o.
ul. Sarni Stok 73 a, 43-300 Bielsko-Biała, Polska; tel: +48 33 821 41 90-91
e-mail: biuro@hermestools.eu www.hermestools.eu



Product presentation



- **Industrial Tools:**
 - Light, Robust, Can be use on all circumstance
 - Barcode reader / Positioning System, all option can be integrated
 - Industry 4.0, Full data traceability with our Wireless communication
- **Safety Solution**
 - Obstacle detection, we provide the tools who can detect if the torque is apply on the screw or on an obstacle
 - Hand Position Alarm, we detect if the operator position well is hand on the wrench
 - End Fitting recognition, We can detect if the operator select the right End-fitting
- **Productivity/ Accuracy**
 - High accuracy $>0.5\%$ if the read value
 - Ergonomic, we use all your senses to Apply the right tightening
 - Led's / Vibration / Bip / Large screen
- **Easy to use**
 - User friendly software
 - Full functionalities
 - Full compatibility with VPG, FIM and all our software





Freedom 4 Obstacle detection

New

- **Obstacle detection**
 - Eliminate Damage of your parts
 - Protect your wrench
 - Detect automatically if the tools touch an obstacle during tightening





Freedom Production

Hand position detection to ensure correct operation



Obstacle Detection "Patented"
Eliminate Damage of your parts and protect your wrench



Guidance solution

Standard End-fitting
End Fitting Recognition



Carbon extension

Features

Autonomy : Up to 8 hours
Torque Accuracy : 0.5% of the read value
Torque range : 10 to 100%
Angle Accuracy : $\pm 1^\circ$ over 360°
Memory : 1000 Tightening programs
20 000 results
20 000 curves
Wireless communication
Start in less than 5 seconds

Barcode reader
in option



Wireless charger

USB connection for
data traceability

Large screen, 7 LEDs, vibration and Buzzer to
communicate with the operator

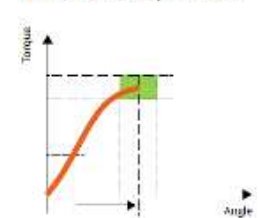
PRW & LAB

Production tightening
Wireless management
Data traceability
Barcode reader/Vin management
Prototype / Joint Analysis

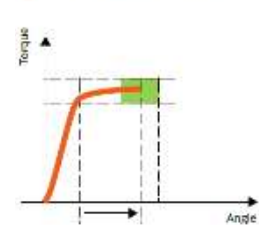
Tightening Strategy

Fastening torque driven
Fastening torque/angle
Fastening yield
Fastening yield/angle
Prevailing torque

Tightening torque • Angle



Tightening Yield • Angle



Rubber protection



PRW wrench is delivered with :

Rubber protection
Wireless radio wings





Freedom Quality Solution

LAB

- Joint analysis
- Production strategy
- Prototype
- Material studies
- Results and trace analysis on SCS explorer software
- Production tightening strategy
- Data traceability
- Barcode reader/Vin management

Freedom 4 Quality



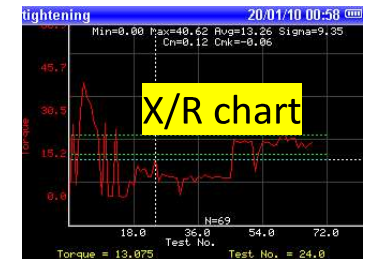
Statistic 20/01/10 00:40			
No.	Torque	Angle	M
1	1.44	10.7	
2	25.74	4.8	
3		7	
4			
5			
6	35.37	15.9	
7	32.35	36.3	
8			

SPC

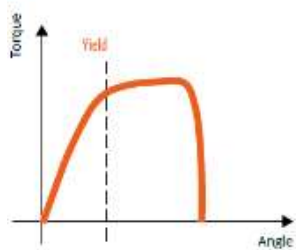
- Residual torque check on production line
- Route and Job management with Sqnet software
- Wireless programming
- Data treatability
- Statistic analysis
- Barcode reader / VIN management

Statistic

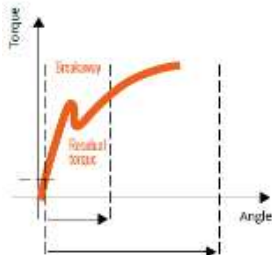
Cm / Cmk
X/R charts



Joint Analysis



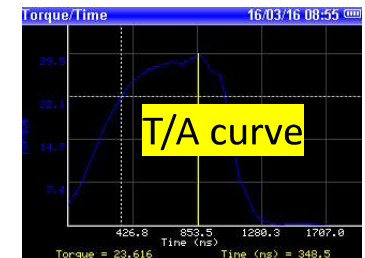
Smart Breakaway



Quality Strategy

- Smart breakaway
- Breakaway peak
- Breakaway angle
- Loosen/tighten
- Minimum torque
- Loose torque

Root management





Alert Management and new functionalities



Alert management / Auto diagnostic:

Transducer Alert : Offset comparison

Gyroscope Alert : Stability of 0 speed

Over torque Max value

Over torque List of last 16 over torque & When happen

Maintenance counter with the Alarm number

For PRW Only, on Open protocol, we add the TRACE with MID900





Freedom 4 : Bending comparison F3/F4

9	0.7°	0.3°
12	0.9°	0.3°
15	1.1°	0.4°

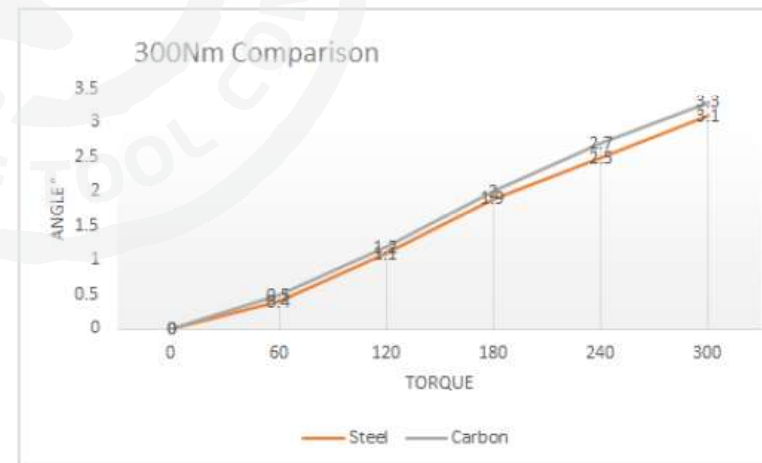
Note:

15Nm Steel tube wrenches have a two-section transducer while 15Nm Carbon tube wrenches have only one, thicker, section for the transducer



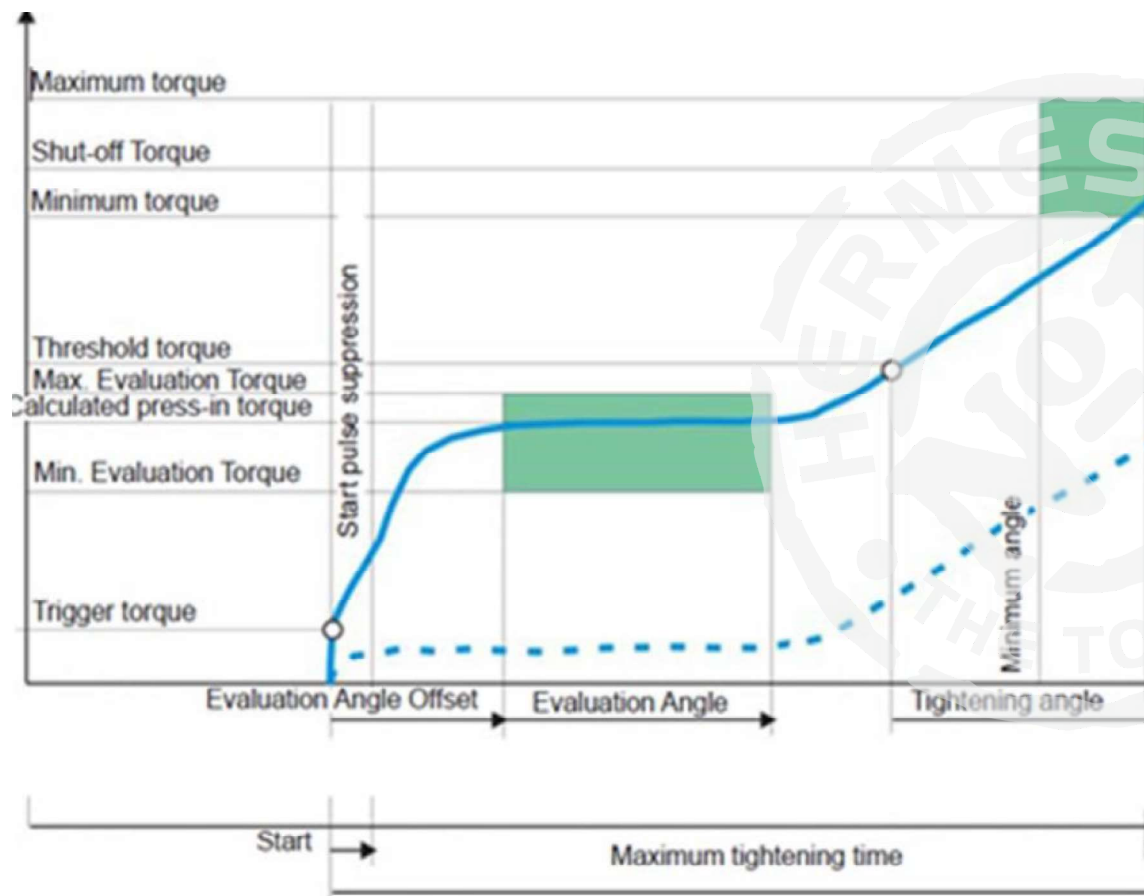
- Test results and comparison of 300Nm wrenches:

Nm	Steel Tube	Carbon Tube
60	0.4°	0.5°
120	1.1°	1.2°
180	1.9°	2.0°
240	2.5°	2.7°
300	3.1°	3.3°





Prevailing torque fonctionnalités



Prevailing torque solution is requiring on tightening strategy at 90% of aerospace market, we have a simple solution today on the Freedom 3 & Freedom 4 that we will need to improve in the near future to take the market share.





Launch date



PRW-LAB-SPC up to 300 Nm => Delivery 4 weeks starting now

PRW-LAB-SPC up to 600 Nm => Delivery 6 weeks starting now

PRW-LAB-SPC up to 1 200 Nm => Iron extension





SCS Concept Group

www.scsconcept.com



Kompania Narzędziowa "HERMES" Sp. z o.o.

ul. Sarni Stok 73 a, 43-300 Bielsko-Biała, Polska; tel: +48 33 821 41 90-91

e-mail: biuro@hermestools.eu

www.hermestools.eu