



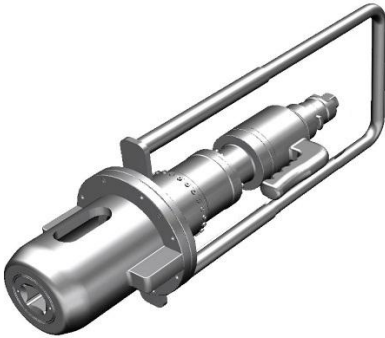
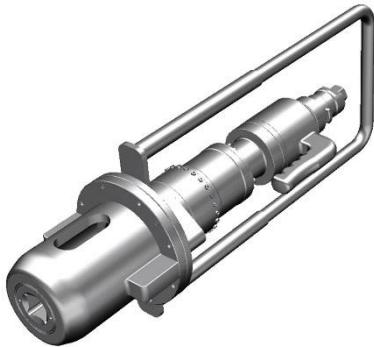


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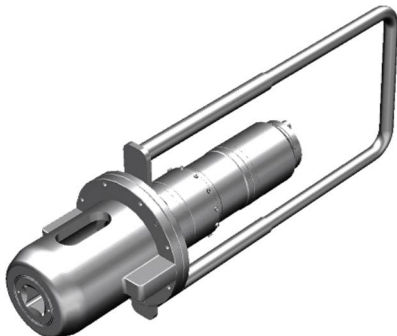
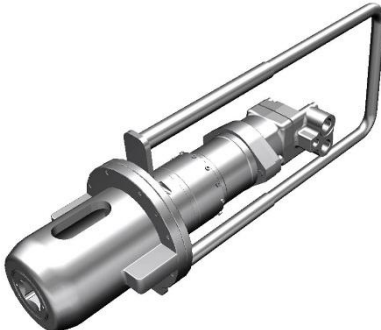


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Key Features

	
Pneumatic Tool	Pneumatic Tool with Transducer
Power Interface: ½" Quick Air Coupler (CW & CCW)	Power Interface: ½" Quick Air Coupler (CW & CCW)
	3000Nm electronic torque transducer with angle and turns counter
	Chargeable T-Box read-out instrument (Instrument for torque only is also available (TTT))
Forward and reverse operation from 200 to 3000Nm	Forward and reverse operation from 200 to 3000Nm
API Class 1-4 nose interface with window for visual turn indicator	
API socket with adaptors for class 1-4	
Low operator fatigue – quiet, non-impacting or pulsing.	
Repeatability of maximum ±1% of reading when a transducer is fitted. (±5% without transducer)	
	
T-Box XL – Read-out instrument	Pelicase 0550
Power: 230V / 115V	Shock, dust and water proof transport and storage case
162x205x60mm – 1,9Kg	800x581x479mm – 15,5Kg

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Remote Pneumatic tool	Remote Hydraulic Tool
Power Interface: 2 x ½" BSP	Power Interface: 2 x ¾" BSP + ⅜" BSP (Standard Parker F10 motor)
Forward and reverse operation from 200 to 3000Nm	
API Class 1-4 nose interface with window for visual turn indicator	
API socket with adaptors for class 1-4	
3000Nm electronic torque transducer with angle and turns counter	
Chargeable T-Box read-out instrument (Instrument for torque only is also available (TTT))	
Low operator fatigue – quiet, non-impacting or pulsing.	
Repeatability of maximum ±1% of reading when a transducer is fitted. (±5% without transducer)	
	
T-Box XL – Read-out instrument	Pelicase 0550
Power: 230V / 115V	Shock, dust and water proof transport and storage case
162x205x60mm – 1,9Kg	800x581x479mm – 15,5Kg

Technical Description

Class 1-4 API Torque Tool

The purpose of the tool is to perform a torque controlled torqued turn on API CL 1-4 applications, powered by air or hydraulic pressure (pending motor alternative). The Tool kit consists of the tool with a fixed transducer and API extension. The pneumatic tools are supplied with an air control unit and a proper pneumatic hose kit. To read the torque, rounds and angle, the kit is supplied with an electronic battery operated read-out instrument in its own dedicated suitcase. This is packed in a shock, dust and waterproof case for easy storage and transportation. The tools fitted with torque transducers will read applied torque independent upon motor alternative. The transducer type is calibrated according to ISO 17025 – BS 7882 requirements class 1.0 or better (which is in comparison, within requirement of aerospace & medical industry for accuracy, repeatability and reproduceability of torque measuring devices).

Configuration

There are 3 basic versions of this tool. The standard manual operated pneumatic tool, the remote operated pneumatic tool and the remote operated hydraulic except for the first stage of the tool the tools are identical. It consists of the motor, epicyclic gearbox, a transducer, the API extension with an API adaptor for class 1-4. In addition, supplied in a case, there is an electric/battery run read-out instrument.

The torque tool is developed for topside workshop testing / installation of subsea infrastructural equipment. The tool requires external pneumatic compressor for air tools or hydraulic HPU for the hydraulic tools. The hydraulic tool is normally supplied without hoses (Please specify type of couplers when ordering). The tool is virtually maintenance free and can take up to 30.000 cycles without service under normal running conditions. Hence, the tool is more rugged/though than average subsea tool counterparts. The tool is equipped with a very accurate and calibrated torque transducer and read-out instrument (UKAS accredited BS 7882, maximum +/-1% of reading for full dynamic range). The tool is configured/fitted with the torque transducer on the output axle, such that the applied torque is measured independently of power source (air or hydraulic). Hence it is actual applied torque that is constantly measured by the torque transducer in real-time.

The T-Box XL™ is a hand held or bench mounted torque measuring instrument with a user friendly colour touch screen interface. This comprehensive instrument functions in 12 languages, has all common torque units, pre-loaded tool calibration templates and a large memory for storage of results. T-Box XL™ features a USB interface to a PC where the Torque Data Management System (TDMS) software is installed for archiving of test, calibration and graphical results. The tool can also be connected to various sample software such as Lab-view, Catman etc.

Design Rating

Pneumatic Tool	Pneumatic Tool w/ TD
Total air weight with handle: 20,5 Kg	Total air weight with handle: 22,5 Kg
Total weight without handle: 18 Kg	Total weight without handle: 20 Kg
Total length without the handle: 670mm	Total length without the handle: 750mm
Total length of tool with handle: 853mm	Total length of tool with handle: 853mm
Max output torque: 3500	Max output torque: 3000 (Restricted to TD capacity)
Materials used: Structural components: - Stainless steel - Steel (gear train) - Aluminum alloy	Materials used: Structural components: - Stainless steel - Steel (gear train) - Aluminum alloy

Remote Pneumatic tool	Remote Hydraulic Tool
Total air weight with handle: 29 Kg	Total air weight with handle: 29 Kg
Total weight without handle: 27Kg	Total weight without handle: 27 Kg
Total length without the handle: 581mm	Total length without the handle: 608mm
Total length of tool with handle: 853mm	Total length of tool with handle: 853mm
Max output torque: 3500 (3000 if fitted with TD)	Max output torque: 3500 (3000 if fitted with TD)
Materials used: Structural components: - Stainless steel - Steel (gear train) - Aluminum alloy	Materials used: Structural components: - Stainless steel - Steel (gear train) - Aluminum alloy

Installation / Handling

- Lifting via handle

Scope of Supply

Hardware	Documentation for Operation
<ul style="list-style-type: none"> • Pneumatic or Hydraulic API tool • Transportation case • Torque transducer • Read-out Unit • Cable kit 	<ul style="list-style-type: none"> • General Arrangement / Assembly Drawings • User Manual, including: <ul style="list-style-type: none"> – Transport and Handling Instructions (THI) – Operation and Maintenance Manual (OMM) • Certificate of Conformity (COC)

Interfaces

Description

- Input - Pneumatic: Operating Pressure 1,5-6,5 Bar (Max 12 bar) / Hydraulic: Max 207 bar
- Output –API Class 1-4

References

Description

- ISO 9001 – Quality management certificate no. Q6228
- BS EN ISO/IEC 17025:2005 – Calibration laboratory operation / technical competence
- Transducer UKAS calibration (certificate no. 0256) to Class 0,5 – BS7882:2008

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Design Standards and Design Codes

Description

- BS EN ISO/IEC 17025:2005 – Calibration laboratory operation / technical competence
- Transducer UKAS calibration (certificate no. 0256) to Class 0,5 – BS7882:2008
- Gear manufacture to ISO 1328-8 Production of high precision gears