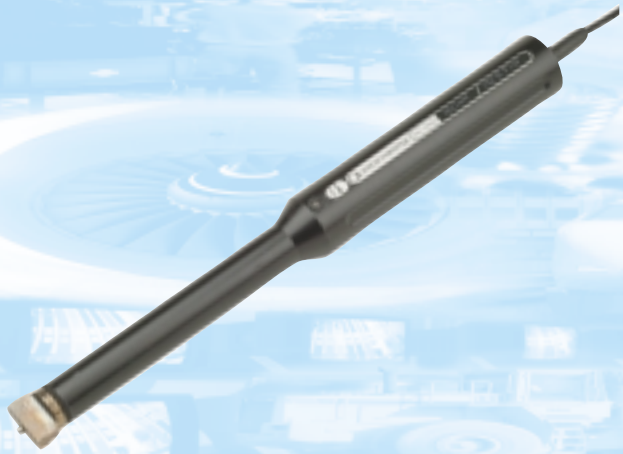
UTA / IS WrenchMaster

Transducerised torque wrench with interchangeable heads



Key Features

- **Measures torque applied during fastening operation or inspection overcheck**
- **Point of load insensitive**
- **Plug & Play with Crane display systems (Auto ID)**
- **Wide range of interchangeable attachments**
- **Selection of heavy-duty versions available**

Product Overview

Crane's WrenchMaster offers the flexibility of interchangeable heads combined with point of load insensitivity and the reassurance of the Crane UTA torque system.

WrenchMaster measures the torque applied directly to the fastener during the assembly operation or inspection overcheck, communicating the data to a suitable indicator for immediate verification and subsequent data collection.

The WrenchMaster range is designed to be point of load insensitive, which means that the operator can be assured of a correct measurement however the wrench is held and torque applied – particularly useful in limited access situations.

WrenchMaster is a key part of the Crane UTA torque system, enabling plug and play operation with Crane readout devices. On board intelligence means the UTA wrench is automatically recognised by the Crane readout device, eliminating set-up errors and enabling logging of serial number against measurements for complete traceability.

An Industry Standard (IS) version is also available, without Auto ID, where a user needs the features of the Crane wrench but already has a readout device from another manufacturer.

WrenchMasters are equipped with a dovetail (Sturtevant Richmont) interchangeable head fitting, giving a wide range of head attachments to meet the assembly requirement. Attachments available include: flare nut, box head, square drive ratchet and open ended (additional cost items).

Specifications

Functional Attributes

Special features	Slim body design helps with joints that have difficult access
Physical measurements	Bi-directional torque (clockwise calibration unless otherwise requested)
Plug & Play transducer data	UTA system indicators read the following information from the UTA chip incorporated in the transducer device: Torque range, serial number, calibration due date
Cycle status indication	UTA: Tri-colour LED gives HI/OK/LO torque status indication when used with a suitable Crane readout
Interchangeable attachments	Equipped with a dovetail (Sturtevant Richmont) interchangeable head fitting, giving a wide range of head attachments to meet the assembly requirement.

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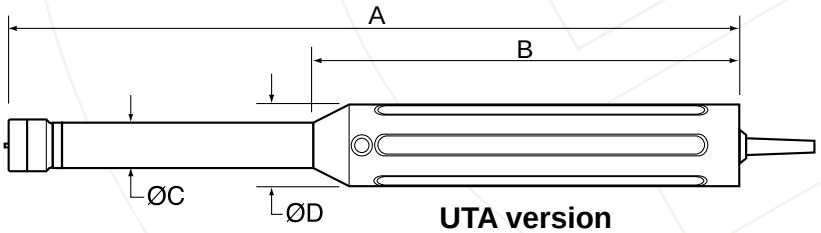
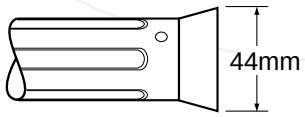
Physical Attributes

Calibration	Issued with calibration certificate traceable to National and International Standards. IS transducers are normalised calibration unless indicated in table. **Standard Crane calibration:** 10 points; single direction (clockwise unless otherwise requested); 10% to 100% of nominal torque. **Bi-direction Crane calibration:** 10 points; each direction; from 10% to 100% of nominal torque. **UKAS calibration:** calibration to ISO 26789 Recalibration is recommended every 12 months
Transducer types	UTA: incorporate data chip enabling Plug & Play operation with compatible Crane readouts IS: 'Industry Standard' version. Bridge resistance: 350 Ohms. Sensitivity: see table on page 3.
Construction	Utilises bending beam technology to achieve point of load insensitivity Wrench material: aluminium. Selection of heavy duty versions available with all steel construction. Shaft material: Stainless Steel Overload capacity: 125% rated torque Dovetail (Sturtevant Richmont) interchangeable head fitting
Connections	UTA version: 1m integral cable with strain relief; 25-pin 'D' port (male) for connection to Crane's UTA system readouts IS version: output connector to MIL-C 26482 / BS 9522 FOO 17; shell size 8-4P
Zero stability	< ± 0.1% FSD/°C
Static accuracy	± 0.5% FSD
Operating environment	Temperature: 5 – 40°C Humidity: 10 – 75% non-condensing Ingress Protection: IP40 Designed for indoor use only.
Warranty	12 months parts and labour against faulty workmanship or materials
Dimensions & weights	



UTA version

Dimensions in mm					
Torque Capacity	A	B	C	D	Weight (Kg)
10Nm	279.8	108	19	34	0.75
25Nm	279.8	108	19	34	0.75
75Nm	331	158	22	34	1
180Nm	439	267	25.4	34	1



IS version detail

Shipping list	Wrench unit Integral cable (UTA versions only) Blow moulded storage case Calibration certificate User manual

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Order Codes

Order Code	Drive	Nominal torque	
		Nm	*Imperial (inlbf)*
UTA WrenchMaster			
UTA-119-1-35	1/4"	10	7.4
UTA-118-1-25	1/4"	25	18
UTA-117-1-25	3/8"	75	55
UTA-116-1-25	1/2"	180	133
IS WrenchMaster – 2 mV/V Sensitivity			
IS-513-0-10-0-NRM	1/4"	10	7.4
IS-514-0-25-0-NRM	1/4"	25	18
IS-515-0-75-0-NRM	3/8"	75	55
IS-516-0-180-0-NRM	1/2"	180	133
IS WrenchMaster – 2 mV/V Sensitivity; 2.5V Excitation			
IS-545-0-10-0-NRM	1/4"	10	7.4
IS-546-0-25-0-NRM	1/4"	25	18
IS-547-0-75-0-NRM	3/8"	75	55
IS-548-0-180-0-NRM	1/2"	180	133
IS WrenchMaster – 2 mV/V Sensitivity; Heavy Duty			
IS-881-03CR-75-NRM	3/8"	75	55
IS-881-04CR-180-NRM	1/2"	180	133

Accessories List

Item	Description	Order code
IS Wrench to Crane indicator cable	Connect IS transducer to TorqueStar *Opta*	700-1500
IS Wrench to Crane indicator curly cable	Connect IS transducer to TorqueStar *Opta*	CBL-760-0-0-0-0

Crane's UTA Wrenches have an integral cable for Plug & Play connection to Crane readouts.
Various other cables available for connecting IS transducers to 3rd party indicators – see separate cables datasheet for information.

System Components

Crane's UTA / IS Wrenches may be used in conjunction with the following items:

Item	Description
TorqueStar *Opta*	In-line torque measurement, break-away torque measurement and joint analysis

Calibration service

Crane Electronics Ltd operates a calibration laboratory accredited by UKAS, the UK Accreditation Service. All Crane products are issued with a calibration certificate traceable to National and International Standards. It is recommended that torque instrumentation is recalibrated at least every 12 months.

Crane Electronics Ltd operates a policy of continuous product development and improvement, and so technical specifications may change without notice. Please clarify with Crane or your distributor that you are referring to the latest technical data sheet.

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crane

The force in torque management

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