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BOLTING TOOLS & AUXILIARY EQUIPMENT

# Technology & Innovation

### Industry 4.0

- + Software Development
- + Smart Tools
- + IoT
- + Data Analytics
- + Autonomous Control

# Virtual & Augmented Reality

- + Training
- + Support
- + Product Testing
- + Product Development
- + Demonstrations
- + Procedure Validation
- + Assembly Manuals
- + Repair Guides



# The Academy

- + Taylor Made Courses
- + Flexible Plans
- + On-line and Presential
- + Practical Training Modules
- + Different Levels

# CERTIFIED BOLTING QUALIFICATION

25 years offering training courses



+ INFO





# **BOLT PILOT SYSTEM**

COMPLETE PROCESS CONTROL of all bolting activities



### What, Who, When, Where, How

- + Torque and Angle Applied
- + Tension and Residual Elongation
- + Load Calibration Procedures
- + Manufacturer's Specific Procedures



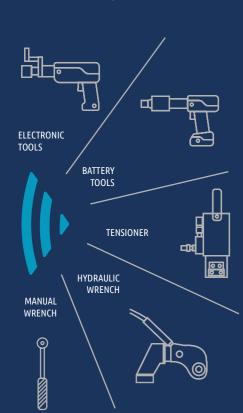
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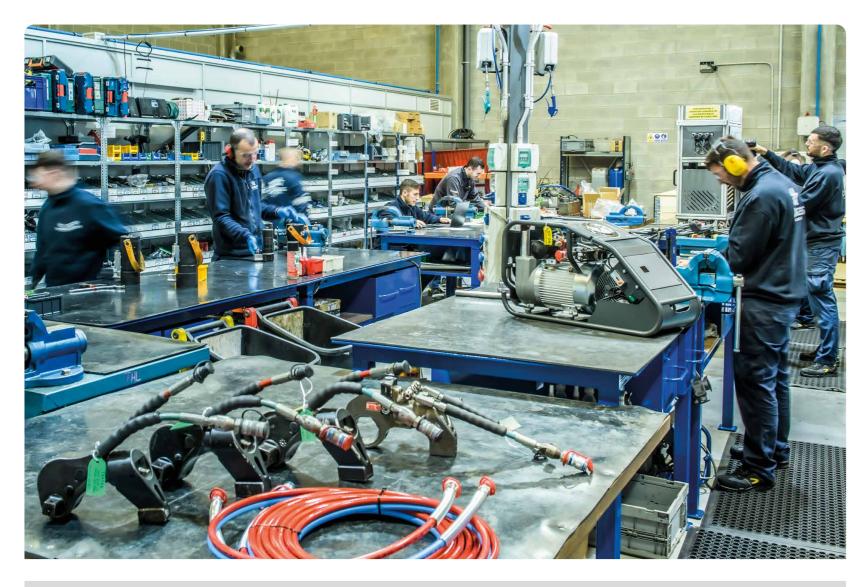
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VERTEX

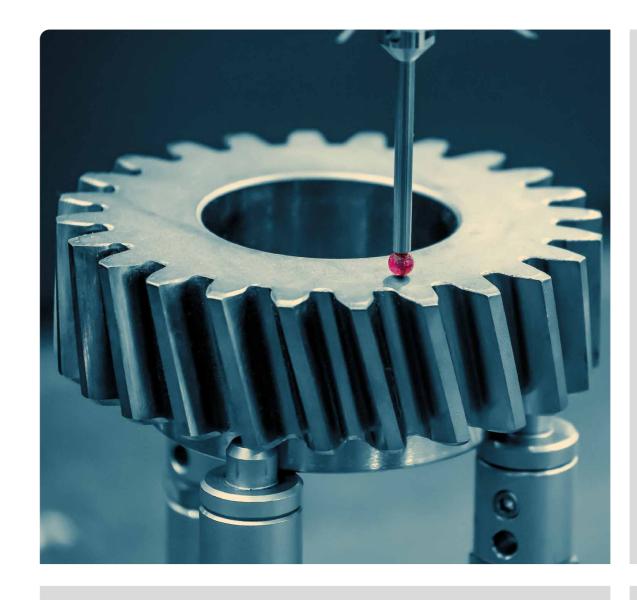


# Our factory in Spain

Our facilities are strategically located to provide excellent service to our customers by sea, air and land freight in the national and international markets

- + More than 3000 m<sup>2</sup> production facilities
- + Modern manufacturing techniques
- + Highly skilled workforce





### Design & Manufactured Tools in our factory in Bergondo

### **International Standards**

- + CE European Certificates
- + UKCA Certificate
- + RoHS Certificate
- + ASME PCC-1
- + ISO 9001
- + ISO 14001
- + ISO 45001
- + Testing & Evaluation

### **HIGH QUALITY CONTROL SYSTEM**

Control of the processes High qualified technicians The highest quality raw materials and components Quality inspection at production

Best-in-Class Quality Assurance System

+ INFO



# Available Techniques

Best

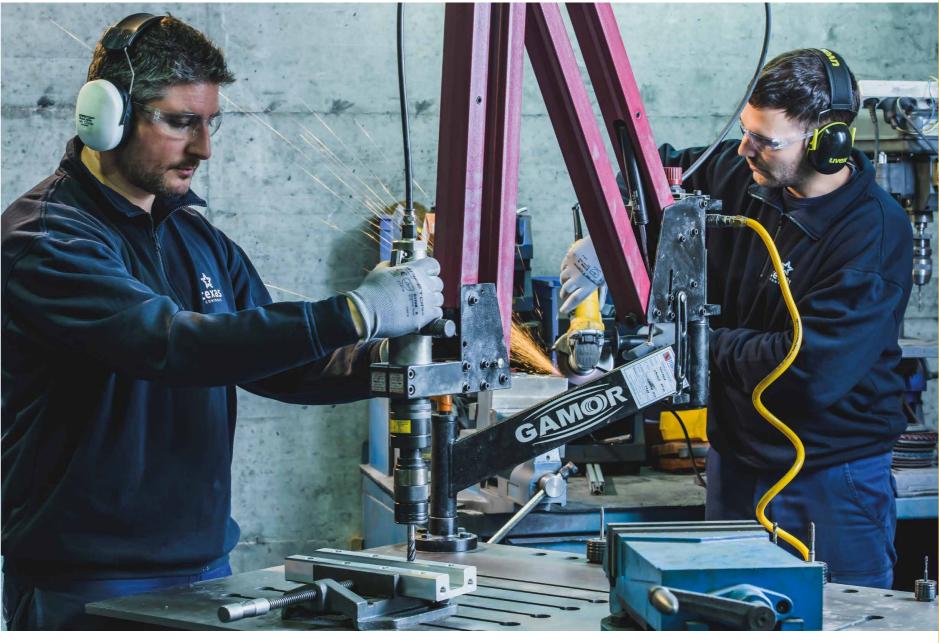
- + CAD, CAM and CAE (Computer-aided design and manufacturing)
- + 3D printing
- + CNC Machining
- + Laser cutting for precise and efficient cutting of tool materials
- + Surface and Heat Treatments
- + Quality Control Systems
- + Automated Processes



# Manufacturing machinery

- + 5-axis Milling Machines
- + CNC Lathes
- + 3D Printers
- + Test & Calibration Benches
- + Laser Engraving Machine
- + Auxiliary Machines





Our manufacturing plant specializes in advanced techniques for producing high-quality tools. Equipped with CAD/CAM software, 3D printing, laser technologies and machining, we create precise tools using composites and special alloys. Our tools are the best on the market, being strong, lightweight, and durable, giving the performance and reliability needed to succeed.

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#### **TEXAS CONTROLS**

Catalogue 2023

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### **INDEX**



### Torque Tightening Equipment

- ✔ Hydraulic Torque Wrenches✔ Electrical & Battery RAD Torque Systems
- ✓ Torque Wrenches: Manual Series



### **Smart Tools & Systems**

- ✓ Smart Tensioning System✓ Trolleys✓ Shrink Disc Tightening System



### Tensioning Equipment

- → Hydraulic Bolt Tensioners→ Hydraulic Nuts



### Measurement, Calibration & Verification

- ✓ Test & Calibration Systems✓ BoltPilot® Load Calibrator
- ✓ Ultrasonic: BoltPilot Monitor®
- ✓ Control Devices
- ✓ Test systems



### **Hydraulic Pumps**

- ✓ Compact Pumps (Torque)
- ✓ Compact Pumps (Tensioning)
- ✓ Compact Pumps (Torque & Tensioning)
- ✓ Factory Pumps
- ✔ Hydraulic Cilinders & Pumps



### Services

- ✔ Rental
- ✔ Repair and Afters Sales

- ✓ Analysis, Diagnose and Solutions
   ✓ Measurements Prototyping
   ✓ Ultrasonic Bolt Load Measurement
- ✓ Fleet Management
- ✓ Supervision
- ✓ Training The Academy®

# Hydraulic Torque Wrenches

/01

**SL** SERIES · **RSL HEX** SERIES



Simple design
Ultra resistant and durable
Reduce tightening times

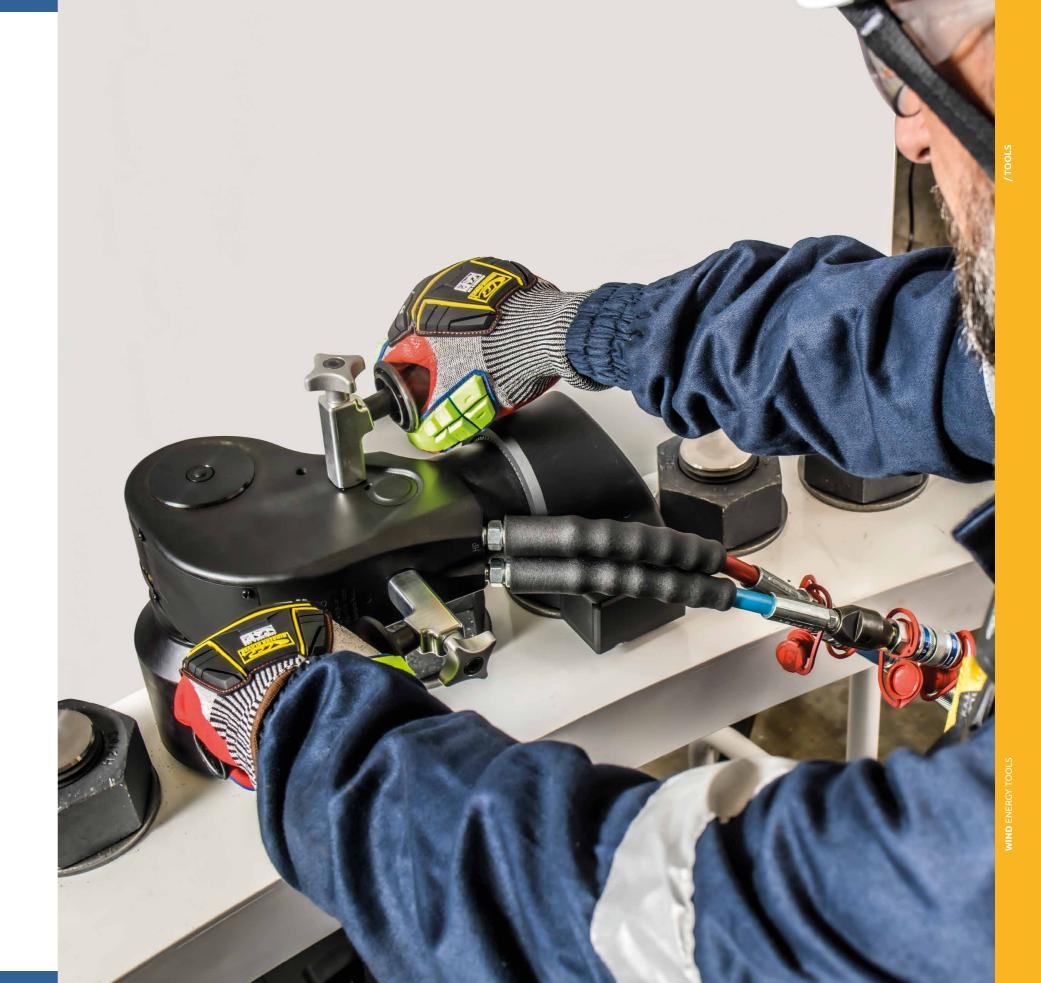
Max Pressure 800 bar

Transport Kit

Best torque dimensions/weight ratio Heavy duty Extremely versatile

**RSL HEX SERIES** 

Max Pressure 690 bar





Model	Max Torque	Min Torque	SQ Drive	Weight
	Nm	Nm	in	Кд
SL1	2185	266	3/4"	3,5
SL3	4203	507	1"	6,05
SL5	5835	709	11/2"	7,95
SL7	8094	914	11/2"	9,75
SL9	12216	1551	11/2"	12,5
SL13	14898	1879	11/2"	18
SL21	26638	3405	21/2"	29
SL31	44935	6179	21/2"	41

# **SL** SERIES

Square Drive Units













# Patented Retraction System

The most robust and reliable wrench in the market





Patented **Anti-break** Retract System

TEXAS Retract System™



Fast speed & Optimized Design



BoltPilot® Inside



>> Download here the Data Sheet



# **SL** SERIES

SWIVEL OPTION

Optionally, it can include double rotating elbows that allow a combined rotation of the hoses of 360°



3609



>> Download here the Data Sheet











# Tool Pressure Calculator



- · Work without Mistakes
- · Get the Exact Pressure Value
- · Automatic Alerts







- + It allows to obtain the pressure value at which a pump must be regulated.
- + Efficient management, without mistakes in the change and with automatic warnings of adequate pressure.







# AUXILIARY PRODUCTS FOR **SL** SERIES

# Accessories



Handle Kit



Angle Control Device (A-CoD)



Transport Kit



Safety Trigger Control Device (ST-CoD)



Trolley



Special Reaction Arms



Impact Sockets

# On request

- + Direct Socket Drives
- + Adapted Reaction Arms
- + Allen/Hex Inserts/Drives
- + For other accessories please contact us: texas@texascontrols.com

# **Compatible Equipments**

### **Pumps**



MK 21



MK31 & MK31c



MK51 & MK51c

### Hoses



Double Hose



Double Hose with data cable



**Hose Bag** 

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### Ultra Heavy duty

- + Simplicity
- + Quickness
- + Best torque-dimensions /Weight ratio



Interchangeable HEX heads

+ Heavy duty



Low Profile Units











Extremely versatile: It allows to interchange hex cassettes for very space restrictive applications & different bolt sizes

Model	Max Torque	Min Torque	SQ Drive	Weight
	Nm	Nm	in	Кд
RSL2	1787	266	3/4"	3,3
RSL4	3921	606	1"	5,9
RSL6	6751	994	1 1/2"	10
RSL8	10008	1530	11/2"	12
RSL14	14178	2091	11/2"	16,6
RSL20	24003	3928	21/2"	29,4
RSL30	35677	5113	21/2"	32,9



>> Download here the Data Sheet

# **RSL HEX** · ONLY 3 MOVING PARTS· OPTIMUM SIZE-WEIGHT



**SPEED INCREASE** during tightening processes



**HEAVY DUTY** High resistance materials



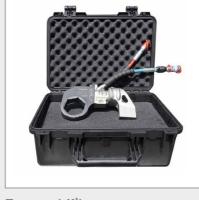


# **AUXILIARY PRODUCTS FOR RSL HEX** SERIES

# **Accessories**



Handle Kit



Transport Kit



Safety Trigger Control Device (ST-CoD)



Special Reaction Arms

# On request

- + Direct Socket Drives
- + Adapted Reaction Arms
- + Allen/Hex Inserts/Drives
- + For other accessories please contact us: texas@texascontrols.com

# **Compatible Equipments**

### **Pumps**





MK51 & MK51c

### Hoses

MK 21



Double Hose



Double Hose with data cable

MK31 & MK31c



Hose Bag

# Electric · Battery RAD Torque Systems













# E-RAD

### **ELECTRONIC SERIES**

Ultra Heavy Duty tools Highest speed & accuracy Advanced data logging

Up to 16.500 Nm







### **BATTERY SERIES**

The best cost / quality ratio Heavy Duty tools Light & portable Brushless motor

Up to 15.000 Nm



Handle kit & lifting devices available





# **ELECTRONIC** SERIES

### Torque range: 135 – 16.500 Nm

# E-RAD Blu



Model	Square Drive	Torque range	RPM	Weight
E-RAD BLU 950	3/4"	135-950 Nm	30	5,4 Kg
E-RAD BLU 2000	1"	270-2.000 Nm	9	5,9 Kg
E-RAD BLU 3400	1"	340-3.400 Nm	10	8,1 Kg
E-RAD BLU 3400-90°	1"	340-3.400 Nm	11	8,3 Kg
E-RAD BLU 4000	1"	675-4.050 Nm	8	10,6 Kg
E-RAD BLU 4000	1 1/2"	675-4.500 Nm	8	10,6 Kg
E-RAD BLU 8000	1 1/2"	1.385-8.100 Nm	4	13,0 Kg
E-RAD BLU 10K	1 1/2"	2.034-10.000 Nm	2	15,0 Kg
E-RAD BLU 15K	1 1/2"	4.050-15.000 Nm	2	20,1 Kg
E-RAD BLU 15K	2 1/2"	4.050-16.500 Nm	2	20,3 Kg

# **ELECTRONIC** SERIES

### Torque range: 135 – 16.500 Nm

# E-RAD Blu-S



#### **CONTROL BOX**

The E-RAD BLU-S Series control box provide the interface for all E-RAD BLU-S Tools. Whichever E-RAD is connected, the control box recognizes the model and calibration data of the tools. This allows the user to switch between multiple key tools and ensure error-free operation. Unlike conventional systems, no conversion tables are required for the tightening torque, the tightening torque is set directly on the control box.

Model	Square Drive	Torque range	RPM	Weight
E-RAD BLU 950-S	3/4"	135 - 950 Nm	15	8,1 Kg
E-RAD BLU 3400-S	1"	340 - 3.400 Nm	10	10,8 Kg
E-RAD BLU 4000-S	1"	675 - 4.050 Nm	8	13,3 Kg
E-RAD BLU 8000-S	1 1/2"	1.385 - 8.100 Nm	4	15,7 Kg
E-RAD BLU 10K-S	1 1/2"	2.034 - 10.000 Nm	2	17,7 Kg
E-RAD BLU 15K-S	1 1/2"	4.000 - 15.000 Nm	2	22,8 Kg

# BATTERY SERIES NEW

Torque range: 700 – 15.000 Nm

# **B-RAD X**



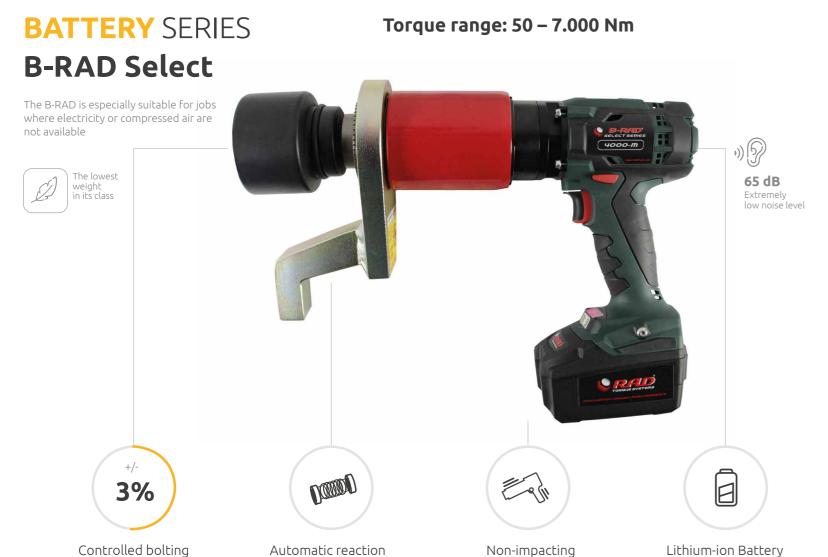
Model	Square Drive	Torque range	RPM	Weight
B-RAD X 7000-M	1,5"	700-7.000 Nm	2,4	10,5 Kg
B-RAD X 10K-M	1,5"	1.000-11.000 Nm	1,7	13,8 Kg
B-RAD X 15K-M	1,5"	1.500-15.000 Nm	1,2	19,3 Kg



The B-RAD X was born out of demand from our customers who wanted and needed more portability in a higher performing torque wrench.

- → Brushless DC motor for added
- durability and accuracy.

  ✓ Redesigned anti-fatigue trigger switch.
- Standard handguard for added operator protection.
- Two-hand start option.
- ✓ Latch lock to protect battery from falling.
- 4-button interface with highcontrast LED display provides feedback during operation.



Model	Square Drive	Torque range	RPM	Weight
B-RAD Select 275	1/2" or 3/4"	50-270 Nm	47	3,2 Kg
B-RAD Select 700	3/4"	170-700 Nm	21	3,5 Kg
B-RAD Select 1400	3/4"	300-1.400 Nm	10	3,5 Kg
B-RAD Select 1400-2	3/4"	300-1.400 Nm	71	4,3 Kg
B-RAD Select 2000	1"	400-2.000 Nm	6	4,0 Kg
B-RAD Select 2000-2	1"	400-2.000 Nm	19	4,9 Kg
B-RAD Select 4000	1"	800-4.000 Nm	3	6,0 Kg
B-RAD Select 4000-2	1"	800-4.000 Nm	19	6,7 Kg
B-RAD Select 7000	1,5"	1.400-7.000 Nm	2	8,8 Kg

arm release



Model	Square Drive	Torque range	RPM	Weight
MB-RAD 300	1/2"	30-300 Nm	48	3,5 Kg
MB-RAD 700	3/4"	70-700 Nm	21	3,5 Kg
MB-RAD 1400	3/4"	140-1.400 Nm	10	3,7 Kg
MB-RAD 2000	1"	200-2.000 Nm	6	4,3 Kg
MB-RAD 4000	1"	400-4.000 Nm	3	6,0 Kg
MB-RAD 7000	1,5"	700-7.000 Nm	2	8,7 Kg

# **AUXILIARY PRODUCTS FOR RAD TORQUE SYSTEMS**

### **Reaction Arms**



Standard Reaction Arm



Deep Reaction Arm



Double Ended Reaction Arm



Blank Reaction Arm



Double Ended Blank Reaction Arm



Safety Sliding On Request

# Lifting Handle



Tool Handle

### On request

- + Bespoken designs under request
- + For other accessories
  please contact us: texas@texascontrols.com



Sliding Arm



Socket-type Arm



Second Bolt Reaction Arm

# **SMART SOCKETS**

### Torque range: 200-16.200 Nm

### Revolutionizing Home Automation and Convenience

The RAD Smart Socket™ Series, patented impact sockets from 27 mm – 110 mm. These sockets are able to measure the actual torque applied to the bolted joint with a maximum deviation of 1%.



#### **Features**

- + Measures and displays peak torque.
- + Built-in rechargeable li-ion battery "Pass"/ "Fail", Track and Peak function
- + Data logging download logs (XLS, CSV, PDF).
- + Full traceability of bolted joints.
- + Bluetooth connectivity.
- + Graphics live view function.
- + Preinstalled tablet with RAD Connect PRODOCS App.



1%



Non-impacting





Software Data Exchange



### All RAD Smart Socket™ include:

Locking pin and o-ring Weatherproof storage case User manual

USB charger Preinstalled tablet Calibration certificate

# Torque Wrenches

**MANUAL** SERIES

**730N** Wide Range. Standard and Digital Options







#### WITH TRIGGERING

When the set value is reached, the manoscope emits a clearly audible double stop signal



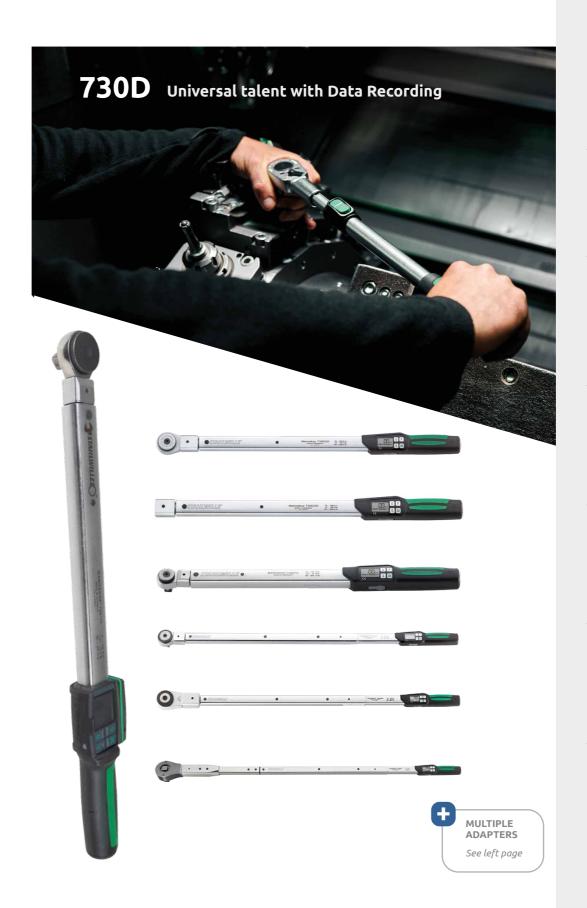






### Multi-purpose

- + Extremely wide measuring range.
- + For precise applications up to 1000 Nm.
- + When the set value is reached, a clearly audible double stop signal is emitted.
- + Easy handling.
- + Quick adjustment from the outside without the need to disassemble the key.
- + With security locking "QuickRelease".
- + Wear resistant. Wear-free triggering system with flexion rod. Unlike conventional torque wrenches, a reset to 0 to release the spring is not necessary. The consequence is a correct and safe long-term measurement result, obtained quickly.
- + Clear assignment of the position setting.





# **SMART** WRENCH

### Part of our Smart Tensioning System















**The intelligent module** converts a standard torque wrench into a Smart Wrench, that can communicate with a Smart Pump through radio frequency signals.



### Multi-purpose

- + This Smart Tool is part of our BoltPilot® ecosystem, and allows complete process control by confirming that the target torque is applied to the nut during a bolt tensioning process.
- + The operator doesn't have to activate any button or make something different from the usual. Simply place the wrench in the tensioner gearbox and operate it as usual, and it will automatically control the nut tightening process and send the corresponding signal to the pump when the nut is tightened.



### **SENSORIZATION**

THE SMART MODULE DETECTS WHEN THE **NUT IS TIGHTENED** 

(detect nut movement and/or angle of rotation).









User Application



# Hydraulic Bolt Tensioners

/01

**BR** SERIES · **GR** LD SERIES **GR** SERIES · **CG** SERIES























**GR SERIES** 



**GR LD SERIES** 



Handle kit & lifting devices available

**PD SERIES** 



**CG SERIES** 







# The Most Advanced Industrial Tightening Tools

Innovative Design & High Quality Standards



**Multi-Face** Socket



BoltPilot® Inside



**Robust Gear** Design



**Anti-Projection** Mechanism



**Quick Connect**Coupling



**Custom** Designs





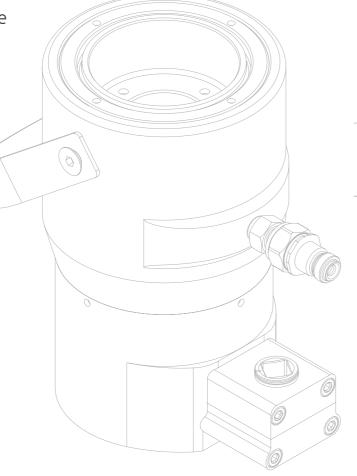






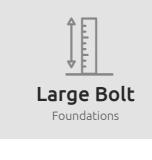
### Main features

- + Anti-Corrosion surface treatment
- + Max. stroke up to 15 mm
- + High pressure quick connect couplings + Max Stroke indicator
- + Disc spring return system + Over stroke limiter
- + Ergonomic Handle



From Design





To the Market



# Hollow tensioner

# for WTG foundations

Suitable for long protusion or special threads



Max. Stroke up to 15 mm



Anti-Corrosion Surface Treatment

Model	Bolt Size	Max. Pressure	Load capacity	Hydraulic Pressure Area	Weight
		bar	kN	mm²	Кд
BRW75	Williams #108 #11 75ksi	1.350	473	3.499	7,3
BRW150	Williams #108 #11 150 ksi	1.350	763	5.648	10,7
BR2 LS	M39	1.500	654	4.359	9,2
BR2 LS	M42	1.350	762	5.648	12,5
BR2 LS	M48	1.500	831	5.541	14,0

# **GR LD** SERIES



Dual Stage Tensioner.
Designed for **Blade & Tower**and highly space restrictive
bolting applications













#### Main features

- + Quick and reliable pistons return system
- + Positive stop to avoid over stroking
- + Ergonomic handle
- + Easy to maintain and repair
- + Stroke indicator
- + Socket position in sight
- + The smallest diameter tensioners
- + Puller anti-projection system
- + Available with cycle counter
- + Special threads available under request

Model	Bolt Size	Max. Pressure	Load capacity	Hydraulic Pressure Area	Weight
		bar	kN	mm²	Кд
GR20 LD	M20	1.500	196	1309,65	3,5
GR24 LD	M24	1.500	285	1.901,84	4,3
GR30 LDB	M30	1.350	462,5	3.426,00	6,5
GR33 LD	M33	1.350	562,1	4.163,63	7,1
GR36 LD	M36	1.350	674,4	4.995,65	8,8
GR39 LD	M39	1.350	803,5	5.952,13	10
GR42 LD	M42	1.500	974,5	6.496,84	13
GR45 LD	M45	1.500	1105	7.366,50	14
GR48 LD	M48	1.500	1193,7	7.957,95	15,8
GR52 LD	M52	1.500	1424,3	9.495,13	19
GR56 LD	M56	1.500	1671,5	11.143,61	25
GR64 LD	M64	1.500	2244,9	14.965,84	30,5
GR64 OS	M64	1.500	2408,4	16055,94	32,5



# The smallest Diameter

Which favours its use in applications with limited radial space



Metrics from M20 to M64



Anti-Corrosion Treatment



# **GR** SERIES

Dual Stage Tensioner Designed for Standard Bolting Applications











#### Main features

+ Max stroke 7/8 mm
+ Stroke indicator
+ Disc spring return system
+ Metric & special threads available under request
+ Positive Stop
+ Puller anti-projection system
+ Tested and approved to run over 10.000 cycles minimum
+ Available with cycle counter

# **Durability Performance**

Robust for standard applications. Provides greater durability



Greater Durability



Anti-Corrosion Treatment

Model	Bolt Size	Max. Pressure	Load capacity	Hydraulic Pressure Area	Weight
		bar	kN	mm²	Кд
GR16	M16	1.350	132,53	981,8	3,5
GR27	M27	1.350	392,9	2911	5,5
GR30	M30	1.350	454,4	3366	6,4
GR33	M33	1.350	564,4	4.181	7,6
GR36	M36	1.350	672,7	4.983	8,5
GR36 HD	M36	1.350	672,9	4.985	8,9
GRS36	M36	1.500	672,1	4.481	7,6
GR39 HL	M39	1.400	798,8	5.706	9,4
GR39 HD	M39	1.400	798,8	5.706	12,0
GR42	M42	1.400	910,4	6.503	11,4
GRS48	M48	1.500	2.408,4	16055,94	32,5

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# **PD** SERIES

### Foundation Tensioner, designed to stretch bars with a high protrusion













### Optimized design

- + Max. Stroke 15 mm
- + Puller anti-projection system
- + Positive Stop
- + Slim design
- + Laser engraved elongation scale
- + Gear box
- + Improved square drive design
- + Disc spring return system
- + Special threads available under request

Model	Bolt Size	Max. Pressure	Load capacity	Hydraulic Pressure Area	Weight
		bar	kN	mm²	Кд
GRB36	M36	1.350	657,8	4.872,61	10,3
GRB36os	M36	1.350	657,8	4.872,61	10,5
GRB42	M42	1.350	877,9	6.502,96	11,5
PD36	M36	1.500	579,9	3.866,28	10,3
PD39	M39	1.500	702,9	4.685,70	10,0
PD42	M42	1.500	787,6	5.250,56	11,3
PD48	M48	1.500	1.060,7	7.071,16	17,0
PD56	M56	1.500	1.461,6	9.744,14	25,0



# **Optimized Design**

# Double hydraulic chamber

Ensures a high load in a smaller diameter



Favours its use in appplications with limited radial space



Anti-Corrosion Treatment



Suitable for Max. Stud Protrusion PD SERIES + E-CoD

# Elongation **Control Device**

Measures foundation bars elongation automatically and effortlessly



Wireless



Long Battery Life



### **Key Features**

- + Option to work with 4 devices simultaneously.
- + Easy to use without interfering with the tensioning process.
- + Minimises human error in taking measurements.





**3** 



# **CG** SERIES

Triple Stage Tensioner Slim Design for Tower Connections











### Main features

+ Max stroke 10 mm + Max stroke indicator + Disc spring return system + Positive Stop + Puller anti-projection system + Special tooling for crane lifting under request

Model	Bolt Size	Max. Pressure	Load capacity	Hydraulic Pressure Area	Weight
		bar	kN	mm²	kg
CG64	M64	1500	2245,5	14971	31
CG36 HL	M36	1750	735	4200	14
CG42 HL	M42	1750	1009,43	5768,2	17
CG48 HL	M48	1750	1325,8	7576	21,5
CG56 HL	M56	1750	1827,65	10443,69	32,6
CG64 HL	M64	1750	2408,1	13760,6	39
CG72 HL	M72	2000	3115,33	15576,63	45,3





# **AUXILIARY PRODUCTS FOR TENSIONERS**

### Accessories



Elongation Control Device (E-CoD)



External Elongation Sensor



Nut Control Device (N-CoD)



Puller Drive



Auxiliary lifting system



Multiple Pressure Connections Available



Digital Cycle Counter

# Compatible equipments

### Kits



Transport Kit

### Trolley



Trolley

### C-Frame



Tighten from underneath the flange

### Stud Setters



Different bolt sizes

# Compatible Equipments

### Factory Pumps



MK45



MK41 Max Twin

### **Compact Pumps for tensioning**



MK41x & MK41xc



MK41RC (BoltPilot for Smart Tensioner)



MK51 & MK51c

# Hoses



Simple hose



Hose with data cable



Hose Bag



# **Hydraulic** Nuts

/02

### **CUSTOM** DESIGNS

Ideal for heavy-duty applications









- + Available as bottom collar, top collar and shim type.
- + Supplied up to M250 in size (to date) (larger sizes under request).
- + Substitutes original nut, like combining a tensioner and permanent nut.
- + Low loss of applied load.
- + Special designs available.
- + High temperature solutions available.
- + Ideal for Tight Spaces.
- + Special threads and sizes available on request.



### **PRECISION TIGHTENING**

High Load Capacity Uniform clamping force Corrosion Resistance Easy installation

Reducing installation time and effort







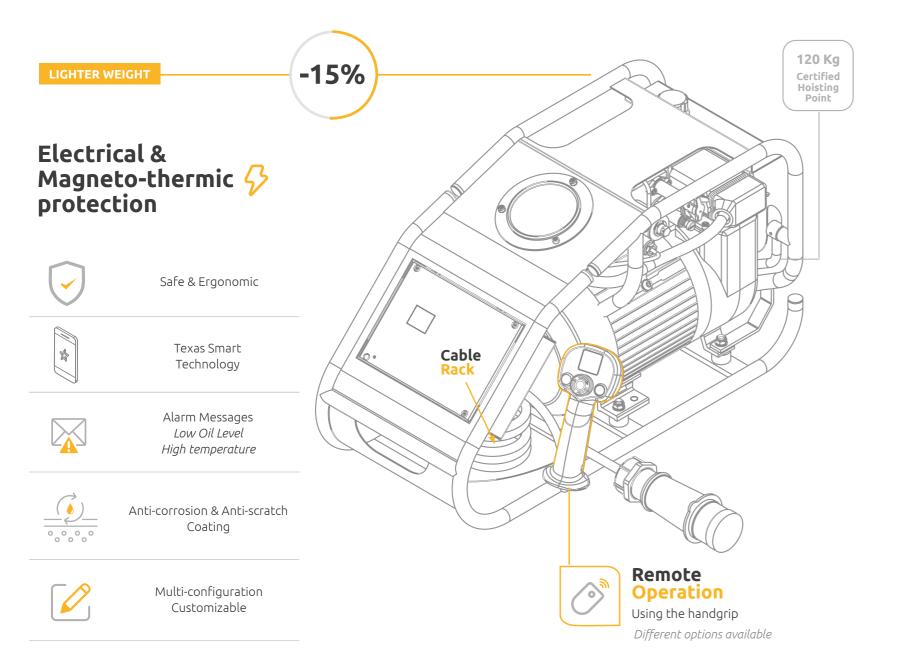


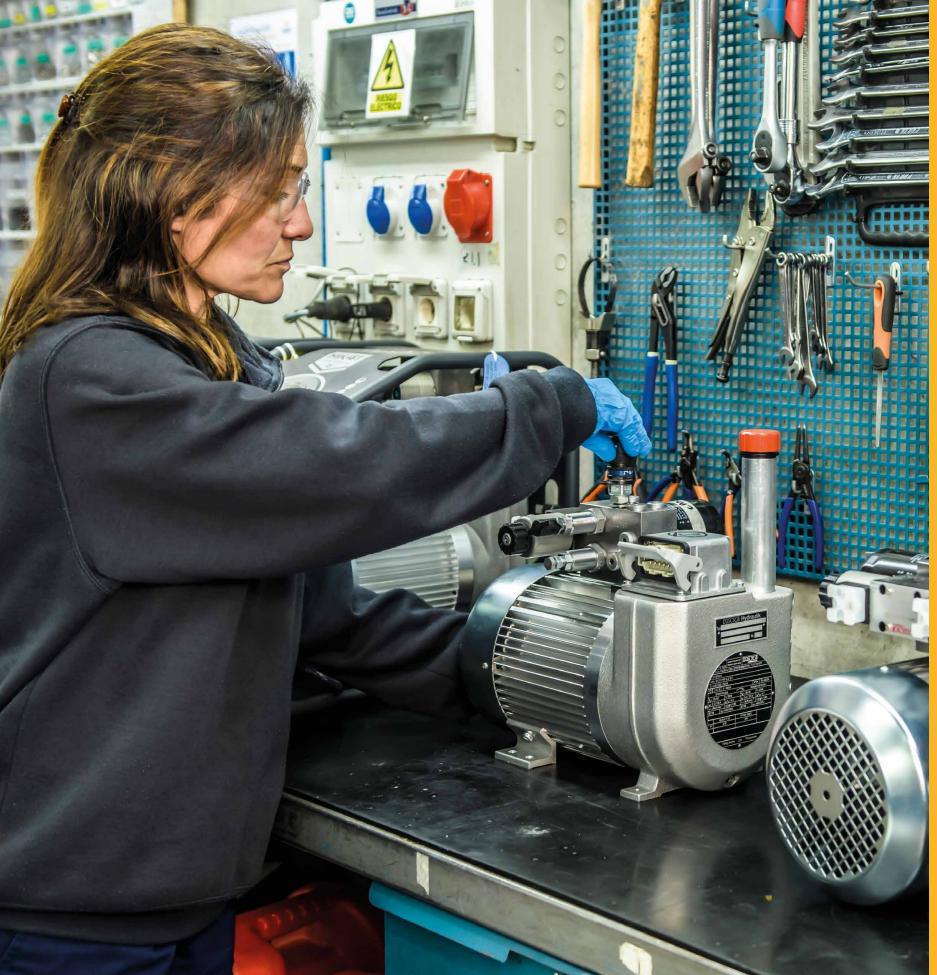
# **Hydraulic** Packs

Design & Control

Our pumps are capable of reaching pressures **up to 2500 bar very quickly** 







Compact Pumps TORQUE

/01

### OPTIONAL MULTI-PORT MultiTorque™

7

Registered TEXAS MultiTorque System™

# **MK Series**

It is capable of reaching pressures up to 800 bar very quickly



















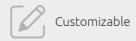


# **NEW! Smart Edition MK**31C BoltPilot®



**MK**21 Semiautomatic pump

**MK**31 Automatic pump



- + Can be manufactured for different power supplies
- + Quick or threaded connectors
- + Different languages
- + Maintenance
- + Multi-Port & coaxial connectors



#### Customizable

- + Data logging
- + Tightening sequences
- + Specific procedures
- + Pressure percentages
- + Previously pre-set torque and angle procedures



### **SMART** Handgrip



- + Guided tightening
- + On-Screen Instructions
- + On screen results
- + Customization per menu

### **Native features**

### Handgrip REMOTE OPERATION





+ Compact & Resistant

- + Two stage pump. High Flow & High Pressure
- + Ergonomic Remote Control
- + Certified Hoisting Point
- + Electronic Control System
- + Easier and faster way to assemble/disassemble
- + Remote operation using the handgrip
- + Oil, voltage, current and temperature control



ST-CoD compatible

# **Smart Tightening** Algorithm

# Control

Automatic



A-CoD compatible



**BoltPilot®** Compatible

- + Automatic torque wrench recognition
- + Compatible with control devices



Advanced automatic **Tightening** Algorithm

- + Fully and semi-automatic modes + Semi-automatic mode
- - + Angle and torque modes + Tightening modes

+ Check mode

### Compact Pumps Tensioning

/02

### **MK**41x

It is capable of reaching pressures **up to 2.500 bar very quickly** 















RoHS

#### **Smart Features**

- + New electronic control board designed to on site work. Higher resistant to current peaks.
- + Easier and faster way to assemble/disassemble
- + Relief pressure time selected by the operator.
- + High flow/fast.
- + Electronic control system.
- + Firmware updates available.
- + New "no leak" oil cap available.
- + No extra cooler needed.
- + Certified hoisting point up to 120 kg.

No leaks and no wear on a test of 30000 tightening cycles (Under controlled laboratory conditions)

#### Handgrip REMOTE OPERATION







- + Can be manufactured for different power supplies
- + Different connectors
- + Different languages

Customizable

- + Maintenance
- + Pressure gauge











### **Enhanced Features**

# Smart Tightening Algorithm Control

Automatic system to maintain or cut-off the pressure



### ন্ধ *SMART* Handgrip

- + Guided tightening
- + On-Screen Help





N-CoD compatible E-CoD compatible Smart Wrench compatible

#### MK41xc Standard





### BoltPilot® Inside

- + Standard
- + Automatic tightening control with BoltPilot®
- + Peripheral compatibility
- + Help through the handgrip
- + Guided procedures
- + Uploading and recording data
- + Connectivity

#### MK41rc BoltPilot®



- + Optimised for **2.000 bar** operation
- + Optimised for Smart Tensioners

### Compact Pumps Torque&Tensioning

/03

### DESIGNED FOR Maintenance

### **Duplo MK**51

The unit combines the **speed** of the MK31 and the **proven reliability** of the MK41 tensioning pump, sharing 90% of the spare parts















#### Main Features

- + Rear tensioning connector
- + Quick couplings
- + New control box designed for on site work
- + Higher resistant to current peaks.
- + Easier and faster way to assemble/disassemble
- + High flow / Fast
- + Firmware updates available
- + New "no leak" oil cap available
- + No extra oil cooler needed

No leaks and no wear on a test of 30000 tightening cycles (Under controlled laboratory conditions)

#### Handgrip REMOTE OPERATION







#### ST-CoD compatible



#### Customizable

- + Can be manufactured for different power supplies
- + Quick or threaded connectors
- + Different languages
- + Maintenance

### **Duplo MK**51 **BoltPilot®** Inside



#### **SMART** Handgrip

- + Guided tightening
- + On-Screen Help





A-CoD compatible N-CoD compatible E-CoD compatible Smart Wrench compatible





**BoltPilot®** Inside

+ With the features of MK51 standard and the intelligence of the BoltPilot® technology

# Factory Pumps

/04

- + Robust & heavy duty
- + Intensive use 24/7
- + Designed for factory work
- + Uper tray, ideal to place tools
- + PLC Control
- + Customizable firmware: Specific operation & maintenance programs
- + Emergency push button



TORQUE HYDRAULIC UNIT

**MK35** 





### MK35 SERIES

Designed for very heavy torque work in manufacturing plants

















MK35-I

SINGLE HYDRAULIC UNIT

MK35-II



Remote Control

Two Pendants

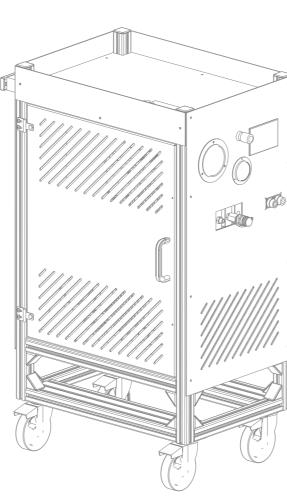
to control Dual Pumps

It allows the use of several wrenches simultaneously This unit allows a much faster tightening operation than standard units on the market.

#### **Key Attribute**

- + Automatic or semiautomatic mode.
- + Max. pressure 800 bar.
- + PLC controlled: Allows the pump to be integrated into complex systems and precise automatic execution of algorithms.
- + HMI devices: Display on the front panel, to allow the user to configure the main parameters of the equipment.
- + Extra strong ventilation: Designed for high ambient temperatures.
- + Ultra high speed. High flow unit, accumulation pressure flow: 2.5 l/min at 800 bar on each motor.
- + Emergency stop push button.
- + Detachable remote control pendant.
- + Additional compressed air connector.
- + Top Tray: Protected with rubber. Ideal for storing tools.





DOUBLE HYDRAULIC UNIT



### MK45 SERIES

Hydraulic Unit with Interactive Screen















Certified

The automatic MK45 Powerpack was designed to operate at factory with a high number of hydraulic tensioners



#### Features

- + Different operational parameters can be set by the operator (pressure ramp, applied pressure time, etc). In addition, the Powerpack allows to maintain the pressure automatically between pre-programmed thresholds.
- + The MK45 includes a handgrip that allows remote control.
- + High Flow Unit. Build-up pressure flow: 10,7 l/min @187 bar/ 1 l/min @1350 bar
- + PLC Controlled
- + Manual mode & Automatic mode.
- + With handgrip for remote control. Automatic release pressure using handgrip.
- + Ramp mode programmable: The user can program different ramps during process.
- + Automatic system to maintain or cut-off the pressure.
- + Maintenance menu.
- + Safety system with enabling switches.



#### MK41x MAX TWIN

Specially designed for factory tensioning applications

















Automatic system to maintain or cut-off the pressure

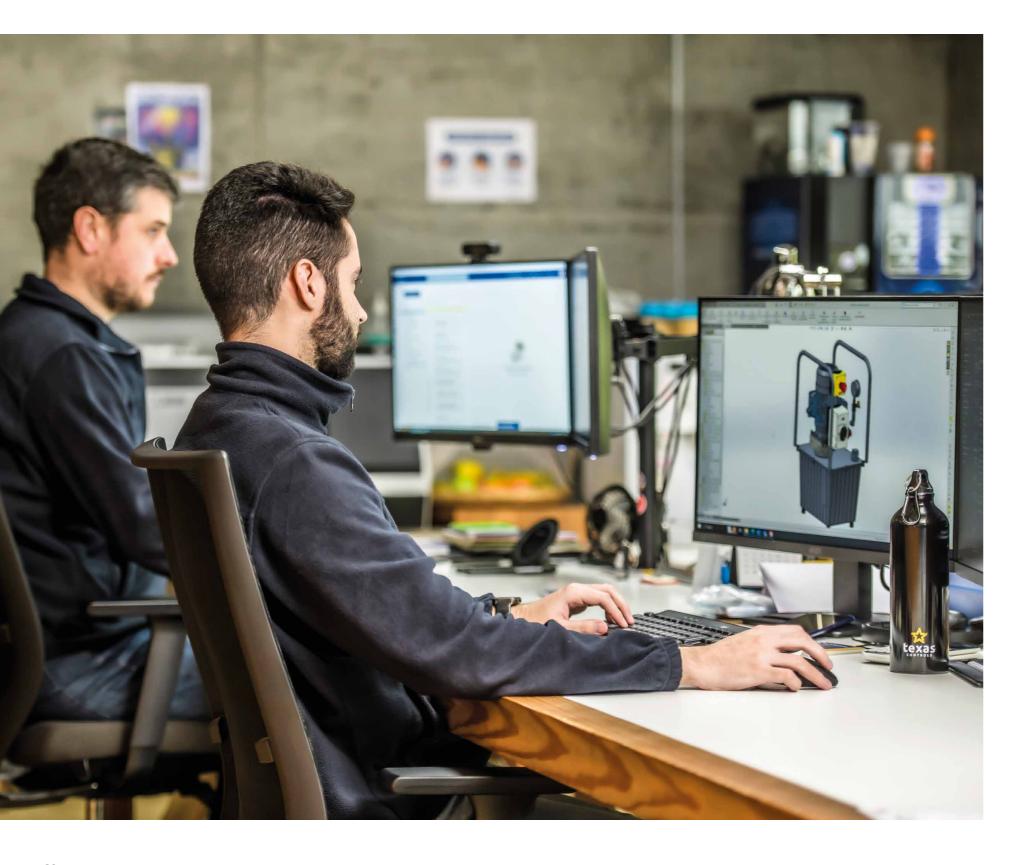
#### Features

- + Special trolley design for manufacturing plants.
- + Ancillary tools storage area included.
- + Control by PLC with miniature LCD screen in control box.
- + Safety High pressure Quick-Couplings included.
- + Build-Up pressure cycle time less than 8 seconds.
- + Customizable Firmware: Specific maintenance programs such as oil changes and filters, optimization of cycle times.
- + Configurable Output (1,2,3 or 4 Pressure Outlets).
- + Safety system with enabling switches (1 per Operator).



Handgrip REMOTE OPERATION
Plug
& Play







# CUSTOM DESIGNS

We Design &
Manufacture
according
the customer's
needs

#### Project development

- + Experienced engineers with extensive field expertise
- + Customized innovative solutions
- + High precision designs
- + 3D simulations
- + From early stage of the joint design to the final solutions

#### **UNIQUE & UNRIVALED PRODUCTS**

All of our products are proudly custom made in Spain.

Our experience is unrivaled and while our products are often imitated, they're never duplicated.

Unbeatable value

+ INFO



### **PUMPS** ACCESSORIES

#### Accessories







Manifold with 3 ports for tensioning



Muti-Port Manifold for torque

### **Hydraulic Connectors**



**Threaded Couples** 



**Quick Couples** 



**Quick Couples** 



T-coax Couples (torque pumps)

### **Different Cable Options**

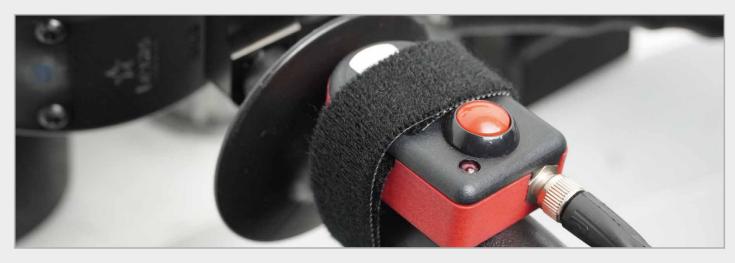


6,5 m



12,5 m

### **Compatible Equipments: Control Devices**





**ST-CoD Torque Pumps**PowerPump's Dead-Man
Safety System



ST-CoD for Plant
PowerPump's Dead-Man
Safety System



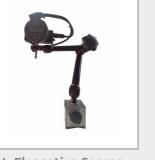
N-CoD Smart GearBox (Nut Rotation Measurement System)



**A-CoD**Angle Control Device
for Torque&Angle Tightening



**E-CoD**Elongation Control Device for WTG Foundation Bolts' Elongation Measurement



**Ext. Elongation Sensor**External Elongation Sensor for Bolts' Elongation Measurement



Smart Wrench

### **Rehobot Pumps**

#### /05

#### **ELECTRIC** PUMPS

Reliable, versatile and easy to use



#### Features

- + Well suited for applications where a stationary pump unit is required.
- + Two-stage operation with automatic switching between high and low pressure at 2 MPa - 6 MPa depending on the pump type.
- + The low-pressure unit is a gear pump that gives a high flow up to the switching pressure. The high-pressure unit is a single or double-piston pump.

### **HAND** PUMPS

Two-Stage PHS hydraulic hand pumps











#### Features

- + Robust and well suited for harsh environments and rough handling as found in workshops and other mobile and industrial environments.
- + Equipped with a pressure gauge as standard. The gauge provides the user with precise control over the pressure being developed.
- + The two stage function makes the pump easier to ope-
- + Robust aluminium tank with low weight and simple oil
- + Needle release valve ensures precise control over lowering operation.
- + Mounting holes for fixed installations and handle locking system for easy carrying.

# Hydraulic Cylinders

Unique

#### A hydraulic standard cylinder or something unique?

REHOBOT cylinders are designed to withstand rough handling in harsh environments. Their use are highly varied. The cylinders can be used wherever there is something which needs to be pulled, pushed or lifted.

#### Main Features

+ Suitable for harsh environments + Threaded or quick connect couplings available + Single acting push or hollow types + Spring return + Compact and standard versions + Steel or aluminium materials + Product cross reference application



# Smart Tools &Systems

- ✓ Smart Tensioners
- ✓ Trolleys
- → Shrink Disc Tightening System

### Smart Tensioners

















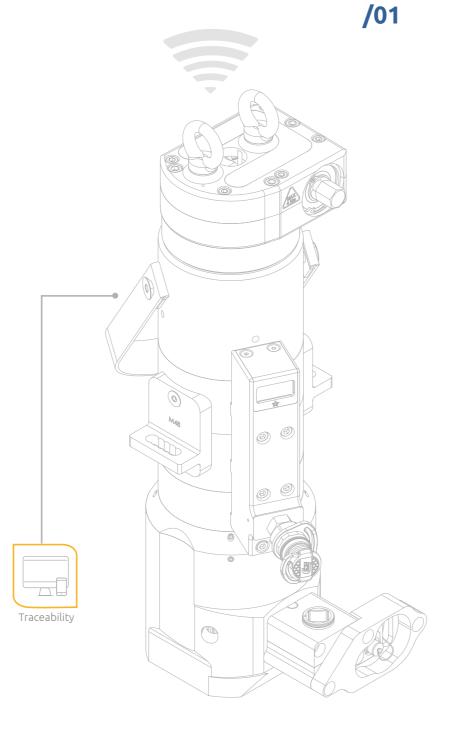






#### Smart Features

- + Traceability
- + Data collection
- + Safe Job, Less Effort
- + Faster
- + Controlled bolting tools
- + Access remotely to the job info
- + Assure correct procedures



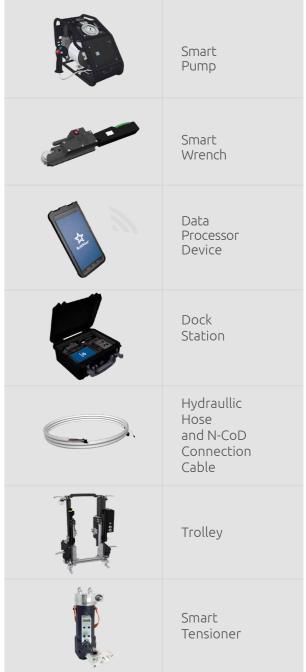


Nut rotation angle · Nut applied torque · Elongation





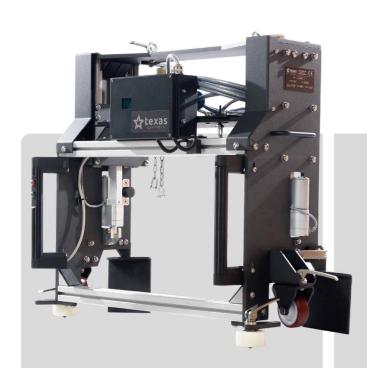




# **Trolleys**

/02

#### **TORQUE SERIES · TENSIONING SERIES**



#### **TORQUE SERIES**

Compatible with SL & RSL Series

\* For any other wrench, please contact us



Safety & Ergonomy



#### Compatible with CG & CG HL Tensioners

**TENSIONING SERIES** 

\* For any other tensioner, please contact us

#### **TORQUE** TROLLEY

#### Automatic lifting system

#### Features

- + Lightweight, fast and ease to assemble.
- + Valid only for flanged connections of the wind turbine tower.
- + Assist the operator to raise/lower and move the hydraulic wrench over the flange.
- + Automatic engagement socket-nut mode (in combination with MK31/MK31c).
- + Control handle to raise or lower the torque wrench.
- + Adjustable anti-fall safety plate.
- + Torque powerpack handgrip support.
- + Adjustable guide wheels to fit different flange geometries.



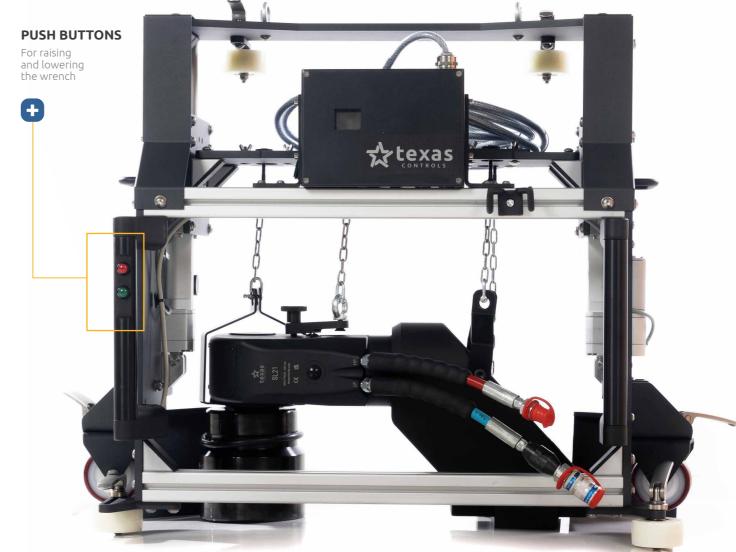












#### **TENSIONING SYSTEM**

#### Automatic lifting system

















- + Lightweight, fast and ease to assembly.
- + Valid only for flanged connections of the wind turbine
- + Assist the operator to raise/lower and move the hydraulic wrench over the flange.
- + Automatic engagement socket-nut mode (in combination with MK31/MK31c).
- + Control handle to raise or lower the torque wrench.
- + Adjustable anti-fall safety plate.
- + Torque powerpack handgrip support.
- + Adjustable guide wheels to fit different flange geo-











188888

#### **PUSH BUTTONS**

For raising and lowering the tensioner





#### Adjustable

to suit different flange geometries



#### Safety Plates

Safety plates to prevent the trolley from accidentally falling down



#### Alarm Messages

Control box with alarm messages



#### **Ergonomic Handles**

For better management



#### Easy fitting

Easy fitting of the tensioner



#### **Robust Actuators**

Extremelly robustness



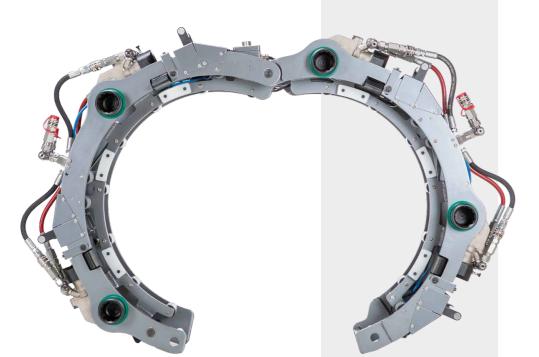
## Shrink Disc Tightening system

PATENTED

Specially designed for high-performance nacelle plants

#### Features

- + Working with the MK35-I and MK35-II pump we get a High Flow PowerPack.
- + PLC controlled programed with SmarTorque algorithm and a Supporting Frame fully customizable for every Shrink Disc Application.
- + There are different versions for 2 a 4 torque wrenches, to be controlled only by a single or two operators.



/03









# Automatic Tightening System

Custom design & Smart Hydraulics



Customizable



Display & Camera

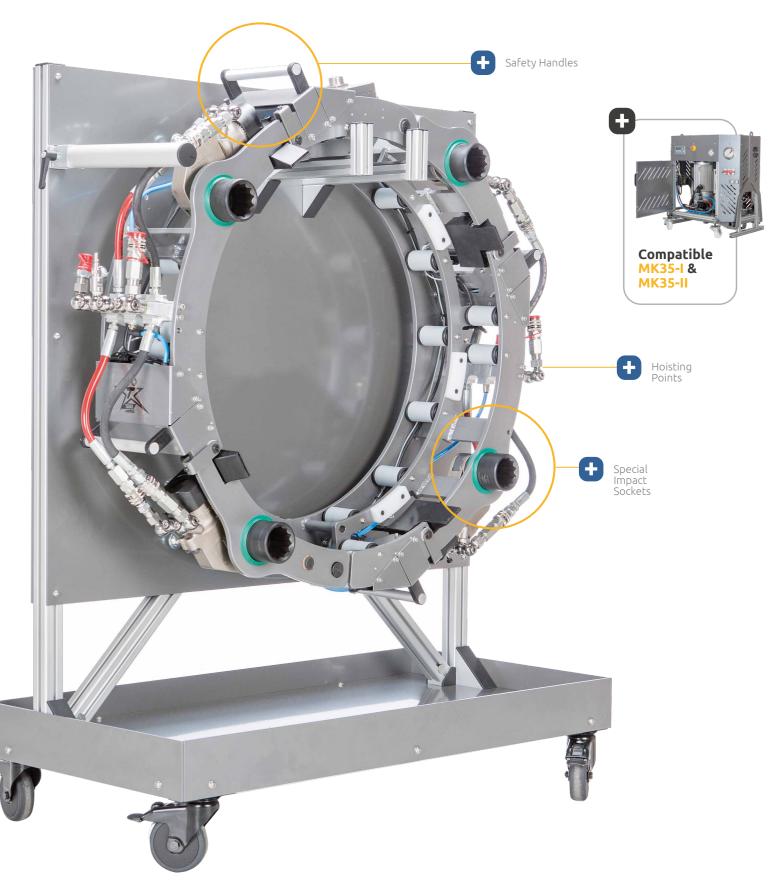
OPTIONAL UNDER REQUEST



Security & Ergonomy



>> Download here the Data Sheet





### Measurement, Calibration & Verification

- ✓ Test & Calibration Systems
- → BoltPilot® Load Calibrator
- ✓ Ultrasonic: BoltPilot Monitor®
- ✓ Control Devices
- ✓ Test Systems



/01

0,1%

# Test&Calibration Systems STC 30 · STC 50



### BoltPilot Load Calibrator

#### Adaptable system for bolts from M36 to M72











Interactive Screen

/02

The display shows the relevant information of the process: current load value in the bolt (kN), applied torque (Nm) and pressure (bar) by/to the wrench respectively



Simulate the joint using the existing bolts and nuts to get the torque value needed to reach the target bolt load





#### Features

- + Compatible with BoltPilot®.
- + Records measurements & provides a report of these calibrations.
- + Different reaction modules are available to adapt the system to the different wrenches in the market
- + Adapters to replicate different clamp lengths and bolt / nut sizes are available.





### **BoltPilot®** Monitor

**Quick, Cost Effective Latest Technology** 







Kit

The BoltPilot® Monitor defines the state of the art in the measurement of the actual elongation produrement is achieved by determining the change in the transit time of an ultrasonic shock wave along the length of the fastener as the fastener is tighte-ned using a mechanical method. The time is then converted to elongation, load, stress, or strain.

#### **Database Software**

- + It measures fastener elongation, load and stress.
- + Data and signal recording.
- + USB Connection & Lithium battery. + Capacity 4 Gb internal & up to 64 Gb External SD slot.
- + It allows to download data in csv format.
- + Measurement range: 25,40 m.



/03





/04

### **Control** Devices

**Sensorized tools** for complete process control

**A**-CoD

**N**-CoD

**E**-CoD

**ST**-CoD



#### Angle Control

- + Full control of the nut rotation angle
- + Measures clockwise and counterclockwise
- + Accuracy ± 0.35°

service procedures

- + Fully automatic operation
- + Wired & wireless versions
- + Compatible with BoltPilot®
- + Suitable for construction or
- + Improves control of the tensioning process



#### **Nut Turning Control**

- + Full control of the nut rotation angle
- + Measures clockwise and counterclockwise
- + Accuracy ± 0.35°

- + Compatible with BoltPilot®
- + Suitable for construction or service procedures
- + Improves control of the tensioning process



+ Measurement range 18 mm

+ Up to 4 E-CoD can be used

#### **Elongation Control**

- - + Precision of 0.03 mm + Can be integrated into Texas Controls tensioners
- + Fully automatic operation
- + Wired & wireless versions simultaneously + Minimises human error
  - + BoltPilot®compatible
    - + Long battery life

+ Easy to use

+ Wireless



#### Safety Trigger

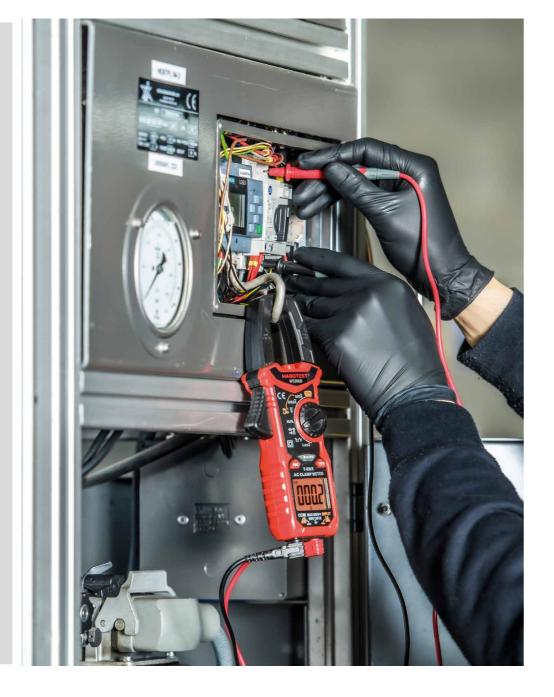
- + Full control of the operation by the technician
- + Easy to integrate + Ergonomic & compact
- + Strong
- + LED indicator
- + Magnetic attachment
- + Velcro strap
- + It avoids accidental actuation of the hydraulic wrench, validating the start



/05

# Test Systems

Tool Testing & Calibration Systems Customised to the customer's needs



#### **TEST** BENCHES







Tensioning

Torque

Mixed

#### **CALIBRATION** BENCHES







Torque



Torque & Load

**Services** 

/06





RENTAL EQUIPMENT

- + Cover Your Complete Tool Needs.
- + 24/7 Availability.
- + Life Cycle Cost Control.
- + Complete Tool Outsource Program.
- + Pay Per Use Resource.

+ More info





#### FLEET MANAGEMENT SOFTWARE

- + In House Software Design.
- + Years of Experience in Tools Management applied to the Software.
- + Documentary, Quality and Cost Control.
- + MultiPlatform, MultiUser, MultiTask.



REPAIRS & MAINTENANCE

- + Torque and Tension Tools repairs.
- + Maintenance Service.
- + Custom Maintenance Programs.



- + Inspection
- + Supervision



- + Ultrasonic bolt load measurement service.
- + Equipment repair and calibration services.

#### CALIBRATION SERVICES

- + Calibration of Torque, Pressure, Load.
- + Traceability to ISO/IEC 17025 Standards.





#### **Knowledge Areas**

- + Technical Knowledge
- + Preventive Strategy
- + Data & Traceability
- + Practical Competence
- + Safety & Quality Awareness
- + Experience Assessment

#### DIFFERENT TRAINING LEVELS

- + 5 Standarized programs and certifications
- + Hands-on practical sessions
- + Examination and proof of experience
- + On-line and face to face courses
- + Virtual reality courses













- ON-LINE
- PRESENTIAL
- VIRTUAL











ASME PCC-1:2019 ISO 9001:2015 ISO 14001: 2015 ISO 45001:2018

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