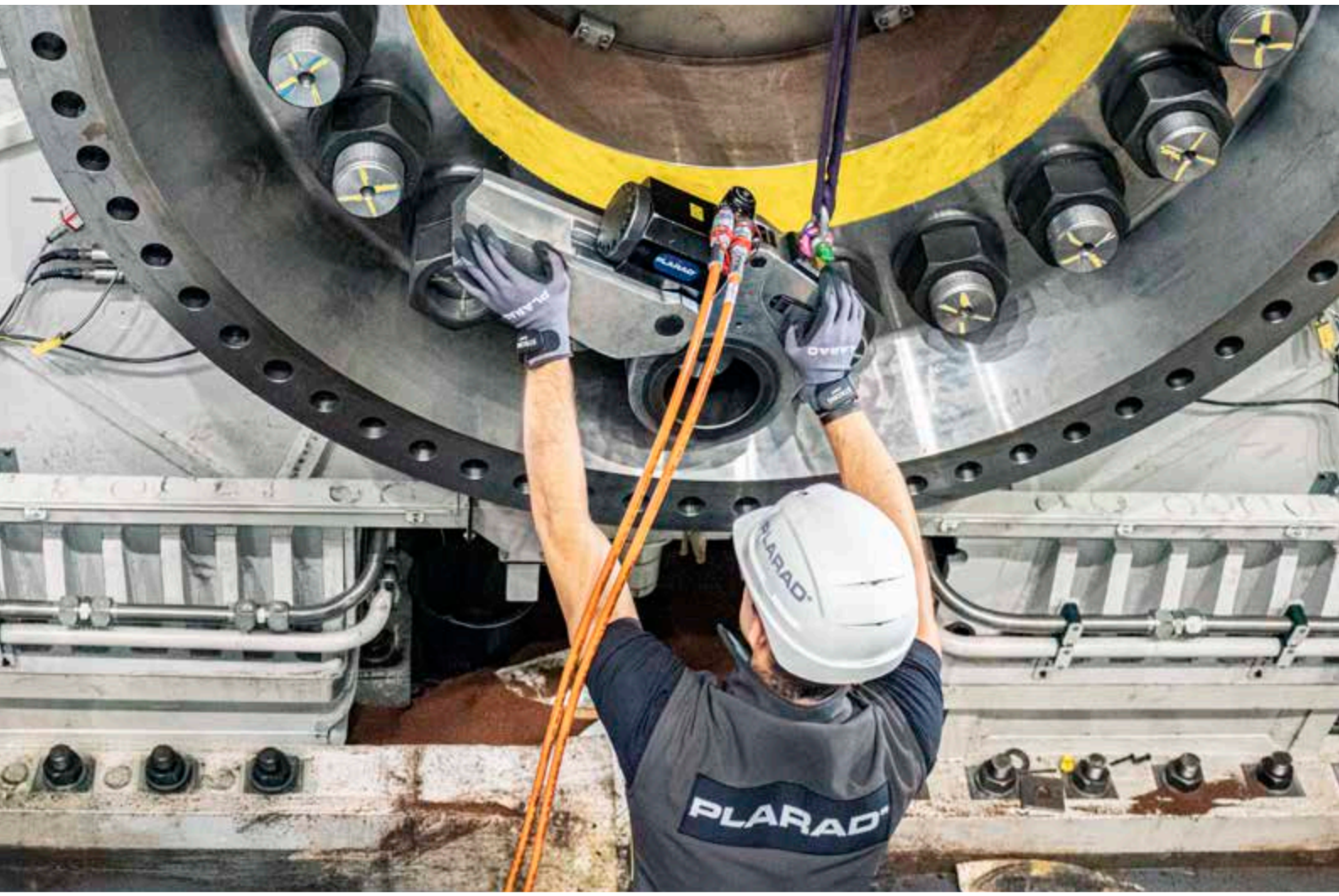
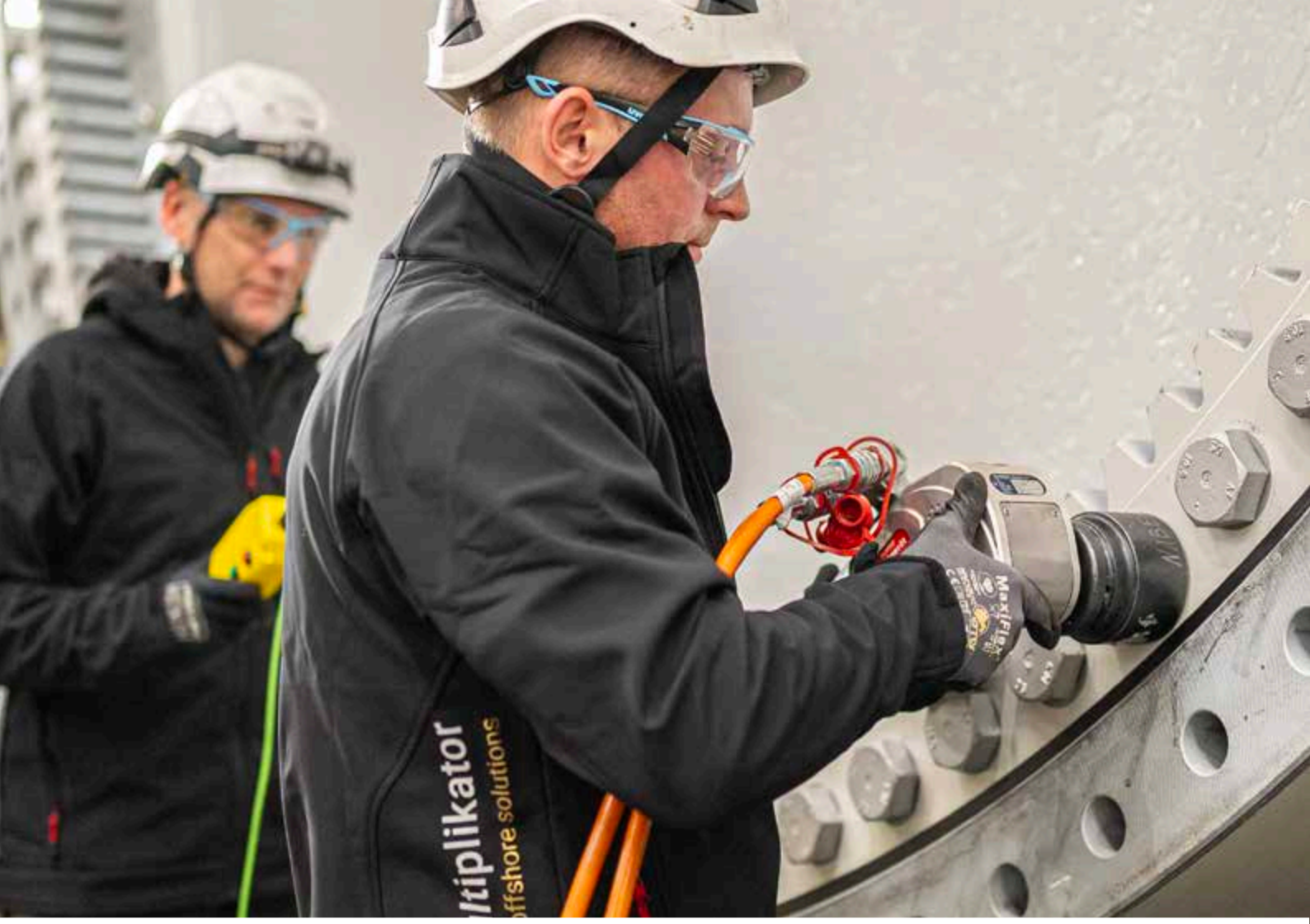
Made in Germany

PLARAD®
Torque & Tension Systems



PRODUCTS

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offshore solutions




PLARAD
XE1
PLARAD



COMPANY

Quality made in Germany



BATTERY NUTRUNNERS

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NTENT





PLARAD®
Torque & Tension Systems

MASCHINENFABRIK WAGNER
FIRST-CLASS BOLTING TECHNOLOGY UP TO 150,000 Nm

As a manufacturer of torque wrenches since 1962, we proudly look back on a rich history marked by continuous innovation and dependable products in the field of bolting technology.

Offering a diverse range of products across eight product lines, from manual torque multipliers to fully automated bolting systems, we provide comprehensive solutions for every need.

With the Plarad brand, Maschinenfabrik Wagner stands for unmatched quality, innovation, and reliability in fastening technology, with capabilities up to 150,000 Nm.

You benefit from seamlessly integrated devices and enjoy the convenience of sourcing all products and services for your bolting applications from a single trusted provider.

With a global presence and deep industry expertise, Maschinenfabrik Wagner has established itself as a leader in bolting technology and a reliable partner for tailor-made solutions.

Our wide-ranging services, including training, on-site support, bolting analysis, and expert advice, complete our offering, ensuring you have everything you need.

DA3Series

PRODUCT LINK

THE NEW BATTERY POWERED TORQUE WRENCH

The **DA**3 battery-powered torque wrench was specially developed for industrial assembly and maintenance teams, as well as service technicians, who need to work on large bolted joints efficiently and flexibly on site.

Thanks to its auto-swivel joint and robust angled design, the **DA**3 operates reliably and powerfully even in confined spaces. The ergonomic dual trigger ensures comfortable and intuitive operation, whilst modern and innovative hardware and software guarantee maximum process reliability. The clear display allows functions such as clockwise/anti-clockwise rotation, metric and imperial units, torque values and the practical auto-loosen mode to be set easily and conveniently.

The **DA**3 is compatible with Bosch AMPShare Alliance batteries and integrates seamlessly into the cross-brand 18V battery system – for maximum flexibility in everyday work.

KEY FEATURES AT A GLANCE

DA3power

Rugged and user-friendly next-generation cordless torque wrenches.

- Torque mode

DA3docu

The *docu* version enables the documentation and transmission of tightening results via Wi-Fi

- Documentation
- Wi-Fi compatible
- Torque mode

DA3control

Also features torque and rotation angle modes

- Torque/rotation angle mode
- Rotation angle mode
- Documentation
- Wi-Fi compatible
- Torque mode

DA3Series

THE FEATURES





Also available in an angle version

INTUITIVE MENU NAVIGATION USING START AND DIRECTION BUTTONS

1 **OPTIMISED GEARBOX**
Gearbox designed for continuous load: even slimmer, shorter and lighter

2 **SWIVEL JOINT**
Automatic, step-free, 360° swivel joint, minimises the risk of injury

3 **4-SPEED GEARBOX**
Ensures an optimal working speed

4 **DUAL TRIGGER**
Intuitive, safe and convenient operation

5 **BLDC-MOTOR-TECHNOLOGY**
Long service life, high energy efficiency and excellent control of speed and torque.

6 **AMP SHARE PRO CORE BATTERY**
Compatible with Bosch AMPShare Alliance batteries. Guaranteed to provide long operating times.

DA3*power*

PRECISION, DURABILITY AND EFFICIENCY FOR PROFESSIONAL USE

The **DA**3*power* cordless torque wrench is the powerful entry-level model for precise bolting in professional environments. It enables precisely controlled tightening with high torque accuracy and, thanks to its sturdy design, is ideally suited for tough construction site use. Durable components ensure reliable performance even under demanding conditions.

Operation is convenient and intuitive via an integrated display, which allows the target torque to be entered directly and enables quick and precise adjustment of the settings. The modern BLDC motor technology also ensures high efficiency, low maintenance and a long life – ideal for everyday use.



DISPLAY

Display of all tightening information via a multifunctional OLED display

BOLTING METHOD

Torque-controlled bolting



- Sturdy carry case included

Torque mode

Documentation

Wi-Fi compatible

DA3*docu*

FOR ANYONE WHO WANTS TO GET THE FULL PICTURE

The **DA**3*docu* cordless torque wrench combines powerful, precise fastening with state-of-the-art digital documentation. In addition to the tried-and-tested features of the DA3power – torque tightening mode, forward/reverse operation, error message display, release mode and OTA updates – this model enables the transfer of tightening data via Wi-Fi to all common digital devices such as tablets or smart-phones.

This allows work processes to be documented in a traceable manner and evaluated efficiently directly on the construction site. The robust design is specifically engineered for demanding applications. An automatic swivel joint prevents jamming, whilst the two-hand operation reduces the risk of injury and ensures additional safety.



DOCUMENTATION
Transfer bolt data via Wi-Fi
to all standard digital devices

PRODUCT LINK

Torque mode | Rotation angle mode | Torque/angle of rotation mode | Documentation | Wi-Fi compatible

DA3*control*

A CONTROLLED BOLTING SYSTEM THAT TICKS ALL THE BOXES

The **DA**3*control* is the smart cordless torque wrench for demanding industrial applications where precision, control and documentation are essential. In addition to the features of the **DA**3*power* and **DA**3*docu* models, it offers advanced tightening methods for greater flexibility.

With torque mode, torque/rotation angle mode, rotation angle mode, Wi-Fi and integrated documentation, the **DA**3*control* ensures safe, efficient and traceable fastening processes – ideal for assembly, service and maintenance.



TORQUE MODE

- Setting torque levels precisely

ROTATION ANGLE MODE

- Limiting of the maximum total torque (to protect the tool and prevent the fastening from being overtightened) is possible
- Precise setting of the joining torques
- Setting of the angle of rotation up to 999°

TORQUE/ANGLE OF ROTATION MODE

- Consistent clamping force even with fluctuating coefficients of friction
- High repeatability
- Better usage of the bolt's strength



- Compatible with Bosch AMPShare ProCORE batteries in two capacity options: 8 Ah and 12 Ah. The **DA**3 comes as standard with a high-performance 8 Ah battery.

CONTROL

- Dual trigger for intuitive, safe and convenient operationg
- OTA software update via Wi-Fi
- Direct torque input
- Metric or imperial values
- Auto-release mode





BATTERY & CHARGING

- With Bosch AmpShare Alliance Pro Core 8 Ah battery
- One battery system, two versions (8/12 Ah)
- Compatible with over 300 tools from more than 36 partners.
- Full battery charge in under 30 minutes thanks to the high-performance charger
- Charge level indicator

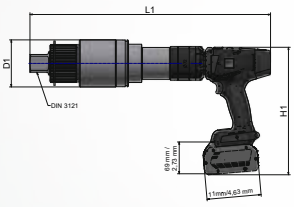
FEATURES

- Automatic relief of the reaction arm
- Automatic locking when in contact
- Maximum freedom of movement
- Angled version optional
- Rust-free gearbox thanks to a nickel-plated surface



DA3

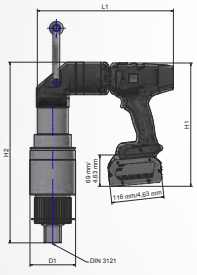
Typ *Type*	Min. Drehmoment *Min. torque*		Max. Drehmoment *Max. torque*		L1		D1		H1		Drehzahl *Max. speed*		Gewicht* *Weight**		Vierkant *Squaredrive*	
	Nm	ft-lbs	Nm	ft-lbs	mm	inch	mm	inch	mm	inch	U/min	rpm	kg	lbs	Zoll	inch
DA3power-05	130	96	550	410	360	14.2	68,5	2.70	273	10.7	71,6		5,3	11.7	3/4"	
DA3power-10	180	133	1.000	740	360	14.2	68,5	2.70	273	10.7	48,0		5,3	11.7	3/4"	
DA3power-20	220	162	2.000	1,480	400	15.7	80,0	3.15	273	10.7	24,6		6,8	15.0	1"	
DA3power-30	330	243	3.000	2,210	400	15.7	80,0	3.15	273	10.7	20,9		6,8	15.0	1"	
DA3power-36	380	280	3.600	2,660	400	15.7	80,0	3.15	273	10.7	15,3		6,8	15.0	1"	
DA3power-48	500	369	4.800	3,540	432	17.0	86,0	3.39	273	10.7	12,9		7,8	15.0	1 1/2"	
DA3power-80	700	516	8.000	5,900	516	20.3	101,0	3.98	273	10.7	5,7		12,5	27.6	1 1/2"	



Wiederholgenauigkeit: ≤ 4%, in Abhängigkeit des Schraubfalles.
Technische Daten ohne Gewähr. *Angabe ohne Reaktionsarm.

DA3 WINKELVERSION

Typ *Type*	Min. Drehmoment *Min. torque*		Drehmoment *Max. torque*		L1		H1		H2		D1		Drehzahl *Max. speed*		Gewicht* *Weight**		Vierkant *Squaredrive*	
	Nm	ft-lbs	Nm	ft-lbs	mm	inch	mm	inch	mm	inch	mm	inch	U/min	rpm	kg	lbs	Zoll	inch
DA3power-05-W	130	96	550	410	300	11.8	273	10.7	245,0	9.65	68,5	2.70	71,6		6,2	13.7	3/4"	
DA3power-10-W	180	133	1.000	740	300	11.8	273	10.7	245,0	9.65	68,5	2.70	48,0		6,2	13.7	3/4"	
DA3power-20-W	220	162	2.000	1,480	300	11.8	273	10.7	285,0	11.22	80,0	3.15	24,6		7,8	17.2	1"	
DA3power-30-W	330	243	3.000	2,210	300	11.8	273	10.7	285,0	11.22	80,0	3.15	20,9		7,8	17.2	1"	
DA3power-36-W	380	280	3.600	2,660	300	11.8	273	10.7	285,0	11.22	80,0	3.15	15,3		7,8	17.2	1"	
DA3power-48-W	500	369	4.800	3,540	300	11.8	273	10.7	316,5	12.44	86,0	3.39	12,9		9,5	20.9	1 1/2"	
DA3power-80-W	700	516	8.000	5,900	300	11.8	273	10.7	400,5	15.77	101,0	3.98	5,7		13,5	29.8	1 1/2"	



Wiederholgenauigkeit: ≤ 4%, in Abhängigkeit des Schraubfalles.
Technische Daten ohne Gewähr. *Angabe ohne Reaktionsarm.

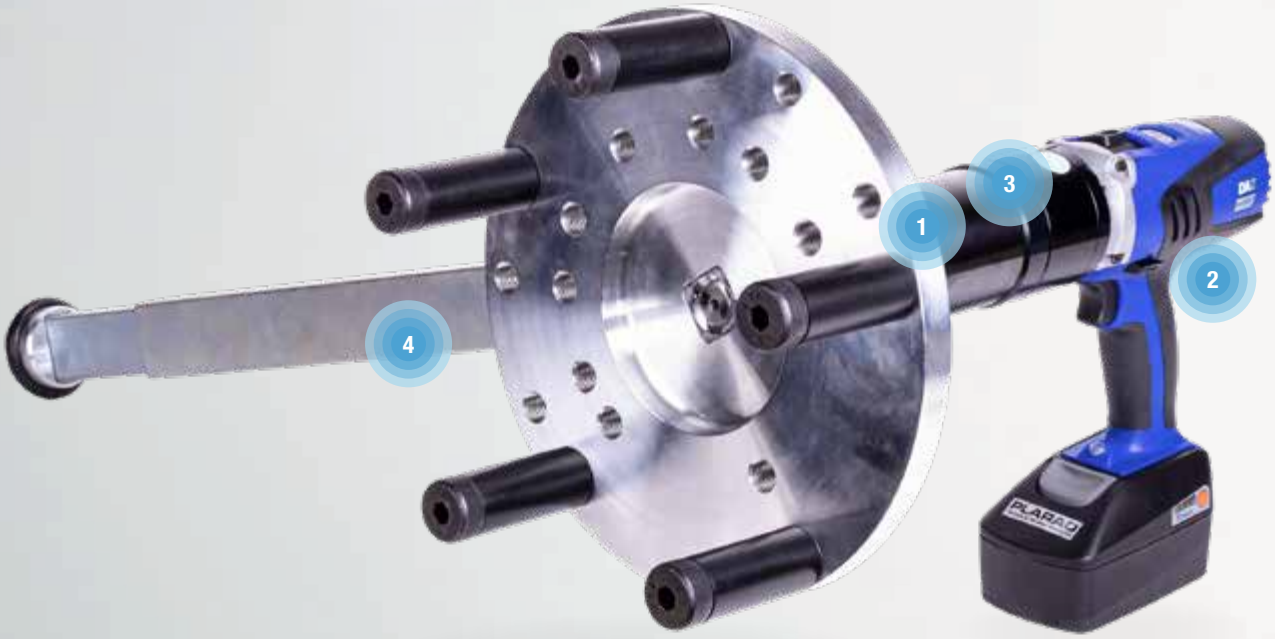
DA2*motion*

THE BATTERY-POWERED VALVE ACTUATOR FOR EVERY ROTATIONAL MOVEMENT

In the water or energy industry, in transport or in the chemical industry, the DA2*motion* guarantees fast and safe work.

With the high output speed of the **DA2***motion*, you can achieve fast results thanks to its 4-speed gearbox. A patented fully automatic locking mechanism and the digital counter ensure precision and safety.

The stop buffer on the reaction arm and ‘smooth start and stop feature’ guarantee gentle and quiet handling. Ideal for all industries thanks to precisely fitting accessories and high mobility.





Hardcase trolley,
protection class IP 67

1 **FLEXIBLE**
Two versions,
up to 550 Nm or 1000 Nm

2 **FAST**
High output speed

3 **ERGONOMIC**
360° swivel joint without detent steps
0% kickback at end of force

4 **PRECISE FIT**
Telescopic reaction arm
with digital counter

YOUR ADVANTAGES

ERGONOMIC

- Low-vibration and low-noise operation thanks to brushless precision drive
- Reaction arm with stop buffer: Pressure-sensitive surfaces are protected



SAFETY

- Smooth starting and braking behaviour
- No damage to surfaces
- Digital counter with high resolution avoids damage



PERFORMANCE

- Patented fully automatic swivel joint lock: Prevents blows to the wrist or arms, no tearing of the nutrunner
- Precisely fitting accessories for every application thanks to extensive extension packs
- Fast working thanks to 4-speed gearbox







DATA // MODELS

Typ *Type*	Drehmoment *Max. torque*		L1		H1		Drehzahl *Max. speed*		Gewicht* *Weight**		Vierkant *Squaredrive*	
	Nm	ft-lbs	mm	inch	mm	inch	U/min	rpm	kg	lbs	Zoll	inch
DA2-05motion	550	410	395	15.55	253	9.96	11,1		5,1	11.2	3/4"	
DA2-10motion	1.000	740	395	15.55	253	9.96	6,8		5,9	13.0	3/4"	

Technical data without guarantee. *Details without reaction arm and battery. Battery weight: 0.75 kg

DE1*Series*

PRODUCTLINK

ELECTRIC NUTRUNNERS

The torque nutrunners of the **DE1***Series* represent modern bolting technology in a modular system that can be flexibly adapted to different requirements.

It is available in three versions: The **DE1***power* offers a robust, reliable entry-level solution for basic bolting tasks. The **DE1***docu* version expands the range of functions to include Wi-Fi connectivity and integrated documentation of the bolting processes. Finally, the **DE1***control* also includes all common tightening methods, making it ideal for demanding applications with high quality requirements.

FEATURES AT A GLANCE

POWER

Robust and user-friendly next-generation devices.

These devices set new standards in terms of precision, speed and ergonomics.

- Torque mode

DOCU

The upgrade to the *docu* version:

Documents the tightening results and transmits them via Wi-Fi.

- Documentation
- WiFi-compatible
- Torque mode

CONTROL

Extends the range of functions to include all common bolting methods:

- Torque/rotation angle mode
- Rotation angle counting mode
- Rotation angle mode
- Test mode
- Documentation
- WiFi-compatible
- Torque mode

DE1*Series*

THE FEATURES

All torque nutrunners in the **DE1***Series* have the following basic features



1 DISPLAY

Display of all bolted joint and device information in the multifunction display

2 DRIVE

High repeat accuracy, temperature monitoring with overheating cut-off and automatic adjustment to the mains frequency thanks to modern motor control.

3 ROTATING JOINT

Features a stepless, 360° rotating joint

4 OPTIMISED GEARBOX

The gearbox, designed for continuous load, is even slimmer, shorter and lighter.

5 ERGONOMICS

The low-vibration technology protects muscles and joints. Easy to operate with gloves. Suitable for right- and left-handed users.

▸ Also available as an angle version



▸ Sturdy transport case included

DE1*power*

WHEN STRENGTH AND SPEED MATTER

The rugged one – for quantitative applications up to 8,000 Nm. Strong and reliable, it can handle any challenge.

BOLTING PROCESS
Tightening connections using the torque method



SUITABLE FOR CONSTRUCTION SITES
Rugged entry-level device with highest quality, offering the most important functions for daily use



Torque mode

Documentation

WiFi-compatible

DE1*docu*

SMART, BACKED BY CONVINCING ARGUMENTS

The advanced model – for demanding applications up to 8,000 Nm. High torque accuracy is achieved by compensating for voltage fluctuations and temperature changes.



DISPLAY

Indicates all bolting case information via a multifunctional OLED display

SMART DEVICE

Complete recording and evaluation of bolting results via the integrated web server, accessible on mobile devices through Wi-Fi (not included in delivery).

FEATURES

- Torque-based bolting
- Documentation of bolting operations via Wi-Fi
- Torque lock
- Storage space for 50 programmable bolting operations

Torque mode | Rotation angle mode | Torque/rotation angle mode | Rotation angle counting mode | Test mode | Documentation | WiFi-compatible

DE1*control*

THE COMPLETE RANGE OF FUNCTIONS

The **DE1***control* sets standards in precision and versatility. Its innovative software enables additional features in the area of various bolting processes.

The torque/rotation angle mode (combined process) can be carried out in a single step. Alternatively, the joining torque and the subsequent rotation angle can be applied in pure rotation angle mode.

TORQUE MODE

- Two-digit torque value 00-99 can be set using the push buttons
- Set torque (according to the enclosed torque table) can optionally be displayed

ROTATION ANGLE MODE

- Limitation of the maximum total torque possible (protection of the tool, protection of the bolt connection against overtightening)
- Adjustment of the joining torque in 100 adjustment steps according to the torque table
- Adjustment of the angle of rotation up to 999°

TORQUE/ROTATION ANGLE MODE

- Adjustment of the joining torque in 100 adjustment steps according to the torque table
- Adjustment of the angle of rotation up to 999°

ROTATION ANGLE COUNTING MODE

- The nutrunner is switched off by torque control.
- The angle of rotation is counted from the minimum torque of the respective power class and serves as a control variable.

TEST MODE

- Checking pre-tightened bolts without overtightening
- Up to size 36 and not for 110V and angle versions



COMBINED TORQUE/ ROTATION ANGLE MODE

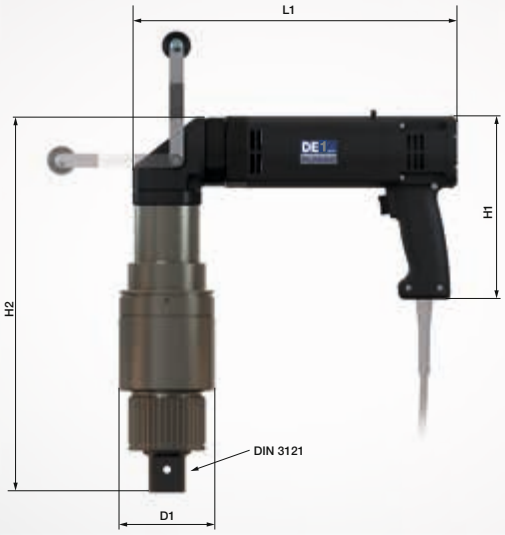
MODELS // DATA



DE1

Typ *Type*	min. Drehmoment *min. torque*		max. Drehmoment *max. torque*		L1		H1		D1		Drehzahl *Max. speed*		Gewicht* *Weight**		Vierkant *Squaredrive*	
	Nm	ft-lbs	Nm	ft-lbs	mm	inch	mm	inch	mm	inch	U/min 110 V	rpm 230 V	kg	lbs	Zoll	inch
DE1-10	150	111	1.000	740	425	16.73	195	7.68	68,5	2.70	9,0	12,0	5,9	13.0	3/4"	
DE1-20	250	184	2.000	1,480	449	17.68	195	7.68	80,0	3.15	5,9	8,0	7,0	15.4	1"	
DE1-30	450	332	3.000	2,210	465	18.31	195	7.68	80,0	3.15	4,5	5,2	7,2	15.9	1"	
DE1-36	500	369	3.600	2,660	465	18.31	195	7.68	80,0	3.15	3,5	4,6	7,2	15.9	1"	
DE1-48	700	516	4.800	3,540	497	19.57	195	7.68	86,0	3.39	2,0	2,5	9,1	20.1	1 1/2"	
DE1-80	1.200	885	8.000	5,900	565	22.24	195	7.68	101,0	3.98	0,7	0,7	13,2	29.1	1 1/2"	

Repeat accuracy: 4%, depending on the bolting application.
Technical data subject to change without notice. *Specification without reaction arm.



DE1 ANGLE VERSIONS

Typ *Type*	min. Drehmoment *min. torque*		max. Drehmoment *max. torque*		L1		H1		H2		D1		Drehzahl *max. speed*		Gewicht* *weight**		Vierkant *Squaredrive*	
	Nm	ft-lbs	Nm	ft-lbs	mm	inch	mm	inch	mm	inch	mm	inch	U/min 110 V	rpm 230 V	kg	lbs	Zoll	inch
DE1-10-W	150	111	1.000	740	342	13.46	195	7.68	253,0	9.96	68,5	2.70	9,0	12,0	7,1	15,6	3/4"	
DE1-20-W	250	184	2.000	1,480	342	13.46	195	7.68	277,5	10.92	80,0	3.15	5,9	8,0	8,3	18.3	1"	
DE1-30-W	450	332	3.000	2,210	342	13.46	195	7.68	293,5	11.55	80,0	3.15	4,5	5,2	8,6	18.9	1"	
DE1-36-W	500	369	3.600	2,660	342	13.46	195	7.68	293,5	11.55	80,0	3.15	3,5	4,6	8,6	18.9	1"	
DE1-48-W	700	516	4.800	3,540	342	13.46	195	7.68	326,0	12.83	86,0	3.39	2,0	2,5	10,2	22.5	1 1/2"	
DE1-80-W	1.200	885	8.000	5,900	342	13.46	195	7.68	393,0	15.47	101,0	3.98	0,7	0,7	14,5	31.9	1 1/2"	

Repeat accuracy: 4%, depending on the bolting application.
Technical data subject to change without notice. *Specification without reaction arm.

Torque mode

DP2*power*

IT DOESN'T BLOW BUBBLES – THE ERGONOMIC POWER NUTRUNNER

The **DP2***power* pneumatic nutrunner is powerful, robust and easy to use: Simply set the pressure on the maintenance unit using the values in the torque chart and get straight to work.

With the **DP2***power*, you have the perfect nutrunner at hand when it's not just about precision, but also about power and performance in continuous use.



POWER
Nominal torque at low pressure

COMPACT DESIGN
Especially compact and lightweight design

ERGONOMIC
Low-noise and low-vibration operation

ALSO AVAILABLE AS AN ATEX VERSION

Ex II 2 G EX H IIB T6 GB
II 2 D EX H IIIC DB 85 °C



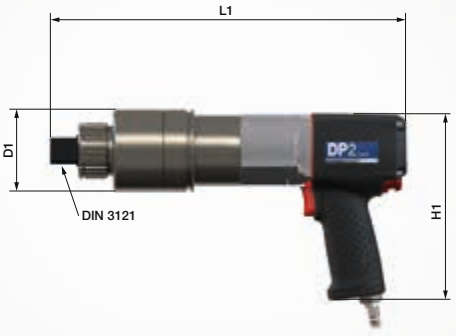
YOUR ADVANTAGES

POWER
- Torque up to 8,000 Nm
- Durable and robust thanks to high-quality components, suitable for continuous use
- Nominal torque is reached at low pressure

ERGONOMIC
- 360° rotatable drive
- Low noise and low vibration: Ergonomic working and minimal strain on the user
- Compact dimensions thanks to short drive unit – for low weight and high performance

BONUS
- Torque accuracy through compensation of pressure fluctuations
- Also available as an ATEX version for use in potentially explosive atmospheres

MODELS // DATA



DP2

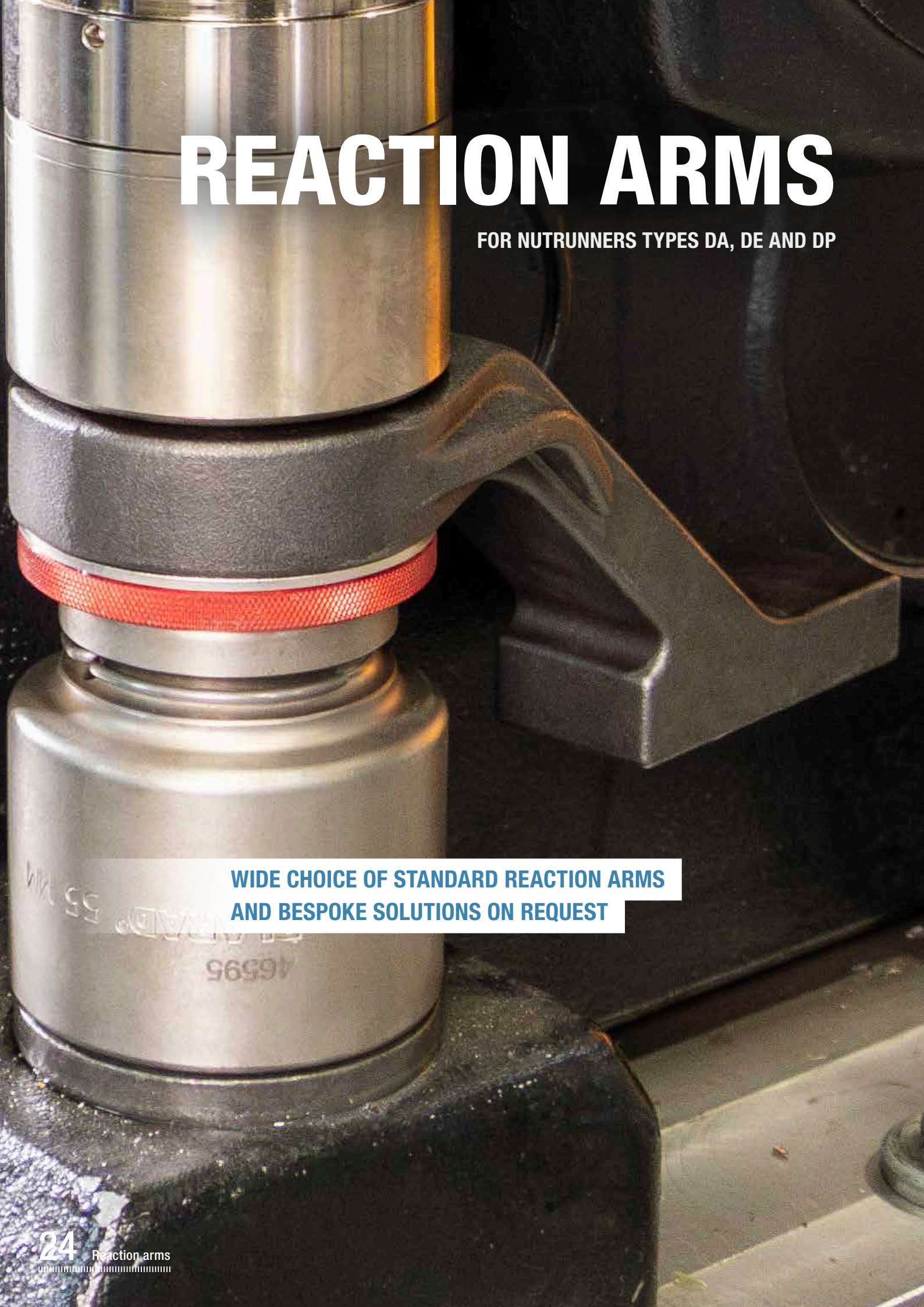
Typ *Type*	Max. Drehmoment *Max. torque*		Max. Betriebsdruck *Max. pressure*		L1		H1		D1		Z	Drehzahl *Max. speed*	Gewicht* *Weight**		Vierkant *Square-drive*
	Nm	ft-lbs	bar	psi	mm	inch	mm	inch	mm	inch		U/min rpm	kg	lbs	Zoll inch
DP2-05	550	406	6	87	290	11.42	181	7.13	68,5	2.70	26	26,7	4,7	10.4	3/4"
DP2-10	1.000	740	6	87	306	12.05	181	7.13	68,5	2.70	26	11,9	4,9	10.8	3/4"
DP2-20	2.000	1,480	6	87	330	12.99	181	7.13	80,0	3.15	26	5,4	6,0	13.2	1"
DP2-30	3.000	2,210	6	87	346	13.62	181	7.13	80,0	3.15	26	3,4	6,6	14.6	1"
DP2-36	3.600	2,660	6	87	346	13.62	181	7.13	80,0	3.15	26	3,1	6,6	14.6	1"
DP2-48	4.800	3,540	6	87	378	14.88	181	7.13	86,0	3.39	45	1,1	8,6	19.0	1 1/2"
DP2-80	8.000	5,900	6	87	446	17.56	181	7.13	101,0	3.98	39	1,1	12,7	28.0	1 1/2"



DP2 ANGLE VERSION

Typ *Type*	Max. Drehmoment *Max. torque*		Max. Betriebsdruck *Max. pressure*		L1		H1		H2		D1		Z	Drehzahl *Max. speed*	Gewicht* *Weight**		Vierkant *Squaredrive*
	Nm	ft-lbs	bar	psi	mm	inch	mm	inch	mm	inch	mm	inch		U/min rpm	kg	lbs	Zoll inch
DP2-05-W	550	406	6	87	220	8.66	181	7.13	237	X.XX	68,5	2.70	26	26,7	4,7	10.4	3/4"
DP2-10-W	1.000	740	6	87	220	8.66	181	7.13	253	X.XX	68,5	2.70	26	11,9	4,9	10.8	3/4"
DP2-20-W	2.000	1,480	6	87	226	8.90	181	7.13	277	X.XX	80,0	3.15	26	5,4	6,0	13.2	1"
DP2-30-W	3.000	2,210	6	87	226	8.90	181	7.13	292	X.XX	80,0	3.15	26	3,4	6,6	14.6	1"
DP2-36-W	3.600	2,660	6	87	226	8.90	181	7.13	292	X.XX	80,0	3.15	26	3,1	6,6	14.6	1"
DP2-48-W	4.800	3,540	6	87	229	9.02	181	7.13	324	X.XX	86,0	3.39	45	1,1	8,6	19.0	1 1/2"
DP2-80-W	8.000	5,900	6	87	236	9.29	181	7.13	392	X.XX	101,0	3.98	39	1,1	12,7	28.0	1 1/2"

Repeat accuracy: ≤ 4%, depending on the bolted joint. Technical data without guarantee.
*Specification without reaction arm.



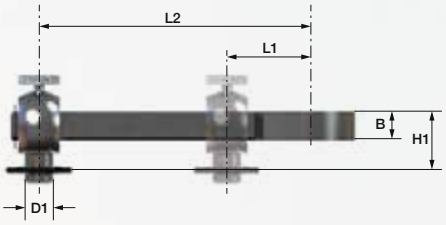
REACTION ARMS

FOR NUTRUNNERS TYPES DA, DE AND DP

WIDE CHOICE OF STANDARD REACTION ARMS AND BESPOKE SOLUTIONS ON REQUEST

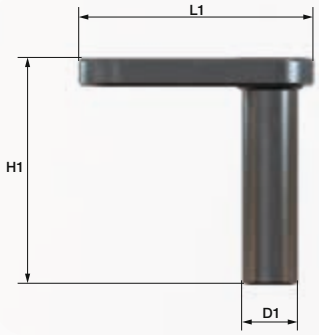
MODELS // DATA

SLIDING REACTION ARMS



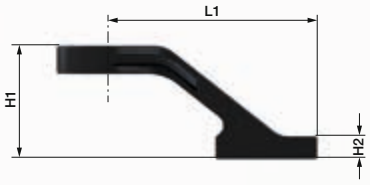
Typ *Type*	L1		L2		H1		D1	B		Gewicht *Weight*	
	mm	inch	mm	inch	mm	inch	Zoll/inch	mm	inch	kg	lbs
DE/DA/DP-05	70	2.76	400	15.75	51,7	1,93	1"	25	0,98	3,2	7,05
DE/DA/DP-10	70	2.76	400	15.75	51,7	1,93	1"	25	0,98	3,2	7,05
DE/DA/DP-20	68	3.15	400	15.75	51,7	2,04	1"	25	0,98	2,5	7,72
DE/DA/DP-30	75	3.15	400	15.75	51,7	2,04	1"	25	0,98	2,4	7,72
DE/DA/DP-36	65	3.15	400	15.75	48,0	2,04	1"	25	0,98	5,5	8,16
DE/DA/DP-48	115	4.53	400	15.75	68,2	2,69	1 1/2"	30	1,18	5,6	12,13
DE/DA/DP-80	168	6.30	400	15.75	75	2,95	1 1/2"	50	1,97	–	–

PIN REACTION ARMS



Typ *Type*	L1		H1		D1		Gewicht *Weight*	
	mm	inch	mm	inch	mm	inch	kg	lbs
DE/DA/DP-05	250	9.84	220	8.66	20	0.79	3,3	5.5
DE/DA/DP-10	250	9.84	250	9.84	30	1.18	3,9	5,.5
DE/DA/DP-20	250	9.84	250	9.84	40	1.57	4,5	5.5
DE/DA/DP-30	250	9.84	250	9.84	40	1.57	4,8	5.5
DE/DA/DP-36	250	9.84	250	9.84	50	1.97	5,6	5.5
DE/DA/DP-48	250	9.84	270	10.63	60	2.36	6,6	5.5
DE/DA/DP-80	on request							

BASIC REACTION ARMS



Typ *Type*	L1		H1		H2		Gewicht *Weight*	
	mm	inch	mm	inch	mm	inch	kg	lbs
DE/DA/DP-05	150	5.90	80	3.15	15	0.59	1,2	2.64
DE/DA/DP-10	150	5.90	80	3.15	15	0.59	1,2	2.64
DE/DA/DP-20	150	5.90	100	3.94	20	0.79	1,9	4.19
DE/DA/DP-30	190	7.48	100	3.94	20	0.79	2,1	4.63
DE/DA/DP-36	210	8.27	130	5.12	15	0.59	2,9	6.39
DE/DA/DP-48	210	8.27	130	5.12	15	0.59	2,9	6.39
DE/DA/DP-80	250	9.84	165	6.50	25	0.98	6,6	14.55

OFFSET GEARBOXES

FOR DA, DE AND DP SERIES NUTRUNNERS

COMPATIBLE WITH ALL PLARAD NUTRUNNERS FROM P. 8

STX

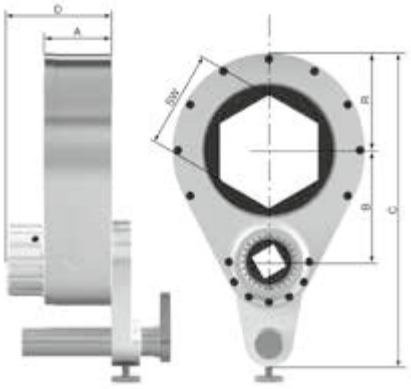
OFFSET GEARBOX FOR NUTRUNNERS UP TO 6,000 NM / SW 150

The **STX** offset gearbox has been specially designed to meet the needs of our customers.
Robust and powerful up to 6,000 Nm.
Classic applications are found in all bolting cases with long threaded rods such as plate heat exchangers or bolted connections in places that cannot be reached directly with a nutrunner.



VERSATILE
Interchangeable inserts available in various designs and sizes

LONG DISTANCE RUNNER
The STX enables driving on long threaded spindles, nuts up to SW 150



MODELS // DATA

Typ Type	Für Schrauber ab dem Modell *For wrenches from model*	Vierkant *Square drive* Zoll / *in*	Drehmoment *Max. Torque* Nm	A mm	B mm	C mm	D mm	R mm	SW/AF mm	Gewicht *Weight* kg
STX 05-02 TL	DA2/DE1/DP1-05, -10	¾	500	42	70	170	80	60	45	2.00
STX 22-02 TL	DA2/DE1/DP1-20, -30,	1	2,200	66	81	190	104	64	55	3.20
STX 36-02 TL	DA2/DE1/DP1-36	1	3,600	68	111	254	106	97	100	5.20
STX 60-02 TL	DA2/DE1/DP1-48, -80	1½	6,000	74	162	365	115	135	150	12.00

PRODUCT LINK

ST2

OFFSET GEARBOX FOR NUTRUNNERS UP TO 3.600 Nm / SW 60

Thanks to its small yet robust design, the newly developed **ST2** offset gearbox is perfect for all bolting applications with long threaded rods, such as plate heat exchangers or for bolted joints in hard-to-reach places.



1

REACTION ARM

The pin reaction arm can be customised and we offer various lengths. We are also happy to develop customised solutions for your bolting applications.

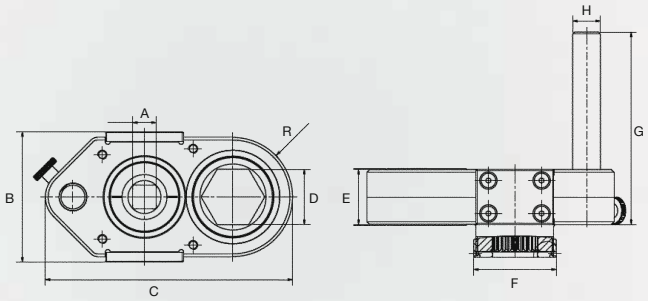
2

REDUCER INSERTS

Our reducer inserts allow you to use the offset gearbox flexibly and economically. No matter which spanner width you use, our extensive range of reducers gives you maximum flexibility at minimum cost.







MODELS // DATA

Typ Type	Für Schrauber ab dem Modell *For wrenches from model*	A Vierkant / Zoll *Square drive in*	B mm	C mm	D mm	ØF mm	G mm	ØH mm	R mm	Gewicht *Weight* kg
ST2 10	DA2/DE1/DP1-05, -10	¾	98	205	41	82	225	30	45	4.30
ST2 36	DA2/DE1/DP1-20, -30, -36	1	142	269	60	90	246	30	65	9.15

EFFICIENTLY COMBINING FORCES



LINK TO THE WRENCHES

LINK TO THE POWER PACKS

HYDRAULIC BOLTING SYSTEMS

POSSIBLE COMBINATIONS AT A GLANCE



K



LT



MX-EC



FSX









ECO

Reliable Plarad quality

Economical entry-level models that fulfil their promises: durability and functionality

- Test mode
- Torque mode

POWER

Robust and user-friendly tools of the next generation

These automatic tools set new standards in terms of precision, speed and ergonomics

Upgradeable to the *docu* and *control* versions

- Test mode
- Torque mode

DOCU

The upgrade to the *docu* version

Test mode, bolting case definition and documentation

Upgradeable to the *control* version

- Documentation
- Test mode
- Torque mode

CONTROL

The upgrade to the *control* version also features torque and rotation angle mode

- Torque/angle of rotation mode
- Rotation angle counting mode
- Documentation
- Rotation angle mode
- Test mode
- Torque mode

MX-EC

THE ALL-ROUNDER IN FLEXIBILITY AND DURABILITY

With its fine-toothed ratchet system and quick-change mechanism for the square drive, it is perfect for versatile and demanding bolted joints.

Power ranges from 50 to 65,000 Nm and the smallest dimensions open up new possibilities for the **MX-EC**, even in hard-to-reach work areas.

ALSO AVAILABLE AS AN ATEX VERSION

EXII 2 GD
Ex h IIB T4 Gb X
Ex h IIIC T110°C Db X



1 **FLEXIBLE**
2-axis hose connection (rotatable and swivelling)

2 **ROBUST**
Extremely flat, lightweight and high-strength housing

3 **SAFE & COMFORTABLE**
360° adjustable reaction arm

4 **FAST**
High speed thanks to optimised compatibility with Plarad power packs

SQS SAFETY QUALITY SERVICE SYSTEM



SQS Safety Quality Service system

Plarad hydraulic devices offer the reliability that is essential for absolute precision, high availability, and cost-effectiveness.

- Special high-pressure safety chamber with an operating pressure of up to 800 bar.
- Maximum torque accuracy and no jamming thanks to special drive system
- Integrated release shock absorber

YOUR ADVANTAGES

QUALITY

- Durable fine-toothed ratchet system
- No jamming of the torque wrench regardless of the piston position
- Replaceable wear parts for effortless maintenance



OPTIONAL

- Available as a single hose system
- Various insertion tools with quick-change system available
- Wide range of customised reaction arms available



UPGRADE
Combined with Plarad power packs suitable for documentation, torque and angle of rotation mode

SAFETY

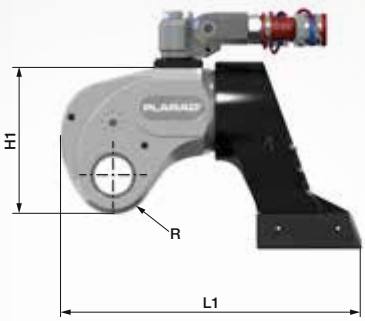
- SQS system: Hydraulic system encapsulated in a hardened steel cylinder for housing protection
- Protection against housing damage thanks to integrated release shock absorber
- The safety latch prevents unintentional unlocking of the support





Various inserts available as accessories





MODELS // DATA

Typ *Type*	Drehmoment *Torque max.*		max. Betriebsdruck *Pressure max.*		L1		H1		R		B1		Gewicht* *Weight**		Vierkant *Squaredrive*		Material
	Nm	ft-lbs	bar	psi	mm	inch	mm	inch	mm	inch	mm	inch	kg	lbs	Zoll	inch	
MX-EC 5 TSM	500	369	800	11,600	138,0	5.43	47,0	1.85	16,0	0.63	35	1.38	1,65	3.64	1/2"		Steel
MX-EC 10	1.000	738	800	11,600	166,0	6.54	78,5	3.09	20,5	0.81	40	1.57	2,60	5.73	3/4"		Steel
MX-EC 20	2.100	1,549	800	11,600	194,5	7.66	93,0	3.66	24,0	0.94	50	1.97	2,50	5.51	1"		Aluminium
MX-EC 45	4.500	3,319	800	11,600	255,8	10.07	127,0	5.00	32,0	1.26	67	2.64	4,90	10.80	1"		Aluminium
MX-EC 75	7.500	5,532	800	11,600	304,0	11.97	108,5	4.27	37,5	1.48	80	3.15	7,30	16.09	1 1/2"		Aluminium
MX-EC 95	9.500	7,007	800	11,600	301,5	11.87	156,0	6.14	42,0	1.65	85	3.35	9,50	20.94	1 1/2"		Aluminium
MX-EC 120	12.000	8,851	800	11,600	341,0	13.43	169,0	6.65	46,0	1.81	93	3.66	10,50	23.15	1 1/2"		Aluminium
MX-EC 155	15.500	11,433	800	11,600	360,0	14.17	181,0	7.13	49,0	1.93	100	3.94	13,50	29.76	1 1/2"		Aluminium
MX-EC 200	20.500	15,121	800	11,600	394,0	15.51	213,0	8.39	55,0	2.17	112	4.41	20,50	45.19	2 1/2"		Aluminium
MX-EC 300	30.000	22,128	800	11,600	436,0	17.17	245,0	9.65	61,5	2.42	130	5.12	35,50	78.26	2 1/2"		Aluminium
MSX/T 400	40.000	29,504	800	11,600	453,0	17.83	273,5	10.77	66,5	2.62	136	5.35	49,30	108.69	2 1/2"		Aluminium
MSX/T 650	65.000	47,944	800	11,600	431,0	16.97	329,5	12.97	84,0	3.31	155	6.10	77,70	171.30	2 1/2"		Aluminium

All appliances with twin swivel (double-acting - TS) and 2-axis hose connection (2AS)
Repeat accuracy: ≤ 4%, depending on the bolted joint. Technical data without guarantee. *Specification with reaction arm.

FSX

LOW PROFILE WRENCH FOR UNUSUAL FLANGES

Thanks to its lightweight, slim design and fine-toothed ratchet system, the **FSX** is perfect for tight, sensitive and hard-to-reach areas. The easy transition from tightening to loosening mode, its high bolting speed and the ease with which the cassette can be changed make the **FSX** the ultimate tool.

ALSO AVAILABLE AS AN ATEX VERSION

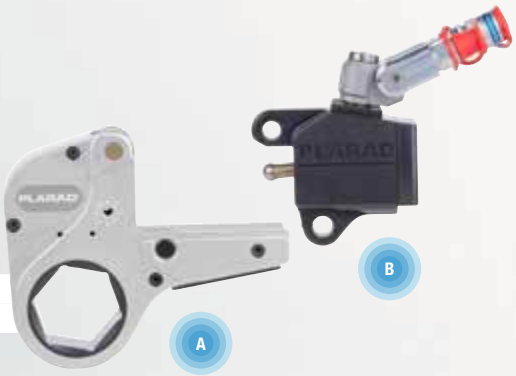
EXII 2 GD
Ex h IIB T4 Gb X
Ex h IIIC T110°C Db X



1 **PROTECTION**
Integrated release shock absorber

2 **SAFETY**
Overpressure safety valve

3 **LIGHT WEIGHT**
Housing made of high-resistant aluminium



Several inserts optionally available

A **Cartridge HSX**
- Comfortable and safe working thanks to 360° adjustable handle
- Sustainable and durable thanks to replaceable spare parts
- Also available to suit ANSI flanges

\+

B **Drive unit SX/SX-EC**
- Easy assembly/disassembly thanks to patented connection of piston and ratchet system
- Also available as a single-hose version - for even better handling

= **FSX**

YOUR ADVANTAGES

ADAPTABILITY

- Quick and safe change of the output unit thanks to automatic separation of piston and ratchet system
- Rotatable 2-axis hose connection (rotatable and swivelling)



UPGRADE

- Combined with Plarad power packs suitable for documentation, torque and rotation angle mode
- Bolting parameters can be preset



QUALITY

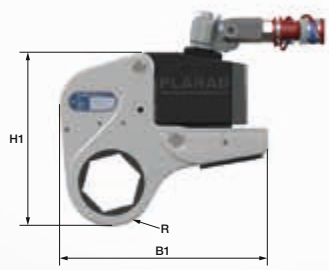
- Durable fine-toothed ratchet system
- No jamming of the wrench regardless of the piston position
- SQS system: Hydraulic system encapsulated in a hardened steel cylinder for housing protection

SQS
SAFETY QUALITY SERVICE SYSTEM





Absorber protects the housing from damage in the case of a release shock





MODELS // DATA

Typ FSX-Kombination *Type FSX-Combination*	max. Drehmoment *Torque max.*		max. Betriebsdruck *Pressure max.*		L1		H1		R		B2		Gewicht* *Weight**		Material
	Nm	ft-lbs	bar	psi	mm	inch	mm	inch	mm	inch	mm	inch	kg	lbs	
SX-EC 1** / HSX	1.000	738	800	11,600	149	5.87	116	4.57	29,5	1.16	32,0	1.26	1,60	3.5	Aluminium
SX-EC 2 / HSX	2.500	1,844	800	11,600	173	6.81	141	5.55	38,0	1.50	41,0	1.61	2,75	6.1	Aluminium
SX-EC 5 / HSX	5.500	4,057	800	11,600	221	8.70	184	7.24	46,0	1.81	50,0	1.97	5,85	12.9	Aluminium
SX-EC 8 / HSX	8.500	6,270	800	11,600	250	9.84	207	8.15	55,0	2.17	55,0	2.17	6,40	14.1	Aluminium
SX-EC 12 / HSX	12.000	8,851	800	11,600	298	11.73	232	9.13	66,5	2.62	64,0	2.52	7,90	17.4	Aluminium
SX-EC 20 / HSX	20.000	14,752	800	11,600	360	14.17	299	11.77	87,5	3.44	80,0	3.15	16,50	36.4	Aluminium
SX 30 TST / HSX	30.000	22,128	800	11,600	389	15.31	328	12.91	99,5	3.92	102,5	4.04	26,50	58.4	Aluminium
SX 45 TST / HSX	45.000	33,192	800	11,600	426	16.77	376	14.80	119,0	4.69	111,0	4.37	35,00	77.2	Aluminium

Repeat accuracy: ≤ 4%, depending on the bolted joint. Technical data without guarantee.
*Specification without reaction arm.
**Supplied with TSM connection.

K Series

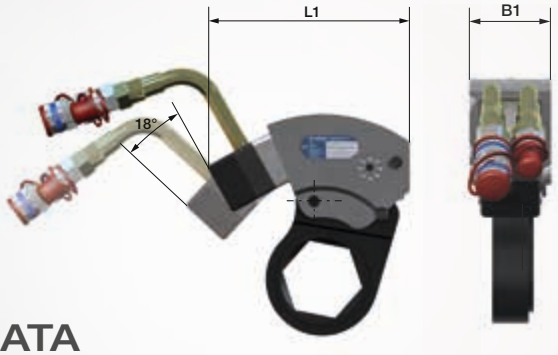
THE ULTIMATE PROBLEM SOLVER FOR SPECIAL CASES AND CONFINED SPACES

- One product, hundreds of possible uses: quick and easy change of the ring spanner for customised applications
- The special device from Plarad: no comparable tool system on the market
- Tightest diameters and high insertion depths of the spanner inserts
- Open and split ring spanners for special applications
- Wide range of bolting options thanks to large range of accessories
- Low weight with high performance
- Torque range from 300 to 30,000 Nm
- Up to 800 bar system pressure





Various inserts available as accessories





MODELS // DATA

Typ *Type*	max. Drehmoment *Torque max.*		max. Betriebsdruck *Pressure max.*		SW *A/F*		L1		B1		Gewicht* *Weight**	
	Nm	ft-lbs	bar	psi	min	max	mm	inch	mm	inch	kg	lbs
K 30 TF	3.000	2,213	800	11,600	24	90	163,0	6.42	25	0.98	6,0	13.2
K 60 TF	6.600	4,868	800	11,600	24	90	170,0	6.69	30	1.18	7,3	16.1
K 150 TF	11.000	8,114	800	11,600	27	110	180,0	7.09	45	1.77	11,6	25.6
K 200 TF	20.000	14,752	800	11,600	60	135	248,5	9.78	70	2.76	30,5	67.2
K 300 TF	30.000	22,128	800	11,600	80	150	319,0	12.56	120	4.72	38,0	83.8

Repeat accuracy: ≤ 4%, depending on the bolted joint. Technical data without guarantee.

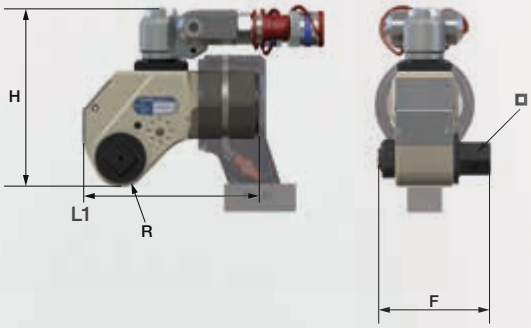
LT Series

STRONG, PRECISE, ROBUST: THE HANDY BOLTING SYSTEM

The ‘MS’ single-hose system offers convenient handling and reduces weight – also available as a two-hose system ‘TS’.

SQS – Safety-Quality-Service System. Thanks to the SQS high-pressure safety chamber, the housing is free of oil pressure and can be used for support, no additional reaction arm is required. If support is needed, the quick-release fastener with safety latch makes it easy.





MODELS // DATA

Typ *Type*	Schlauch-System *Hose system*	max. Drehmoment *Torque max.*		max. Betriebsdruck *Pressure max.*		L1		H1		R		F		Gewicht* *Weight**	
		Nm	ft-lbs	bar	psi	mm	inch	mm	inch	mm	inch	mm	inch	kg	lbs
LT 5 MS	single	500	369	800	11,600	127,0	5.00	78,0	3.07	17,0	0.67	71,5	2.81	1,5	3.3
LT 10 TS	double	1.000	738	800	11,600	132,0	5.20	89,0	3.50	22,0	0.87	84,0	3.31	2,3	5.1
LT 10 MS	single	1.000	738	800	11,600	132,0	5.20	89,0	3.50	22,0	0.87	84,0	3.31	1,8	4.0
LT 20 TS	double	2.200	1,623	800	11,600	166,5	6.56	100,0	3.94	29,5	1.16	104,0	4.09	4,0	8.8
LT 20 MS	single	2.200	1,623	800	11,600	147,0	5.79	109,0	4.29	29,0	1.14	104,0	4.09	3,3	7.3
LT 50 TS	double	5.000	3,688	800	11,600	211,5	8.33	128,5	5.06	37,0	1.46	134,0	5.28	7,0	15.4
LT 50 MS	single	5.000	3,688	800	11,600	189,5	7.46	132,0	5.20	37,0	1.46	134,0	5.28	6,2	13.7
LT 100 TS	double	10.000	7,376	800	11,600	243,7	9.59	159,0	6.26	49,0	1.93	147,0	5.79	11,1	24.5

Repeat accuracy: ≤ 4%, depending on the bolted joint. Technical data without guarantee.
*Specification without reaction arm.

Test mode

Torque mode

XE1*eco*

POWERFUL BASIC PUMP

The entry-level power pack for manual operation of hydraulic tools. With an optional 2-stage version for high bolting speed, it delivers optimal performance. The user-friendly remote control allows monitoring of key operating parameters, such as motor/oil temperature, operating hours, and power consumption.

Thanks to patented motor-under-oil technology, it operates efficiently and reliably. Its robust design and optimised maintenance intervals ensure high cost-effectiveness.



1 EFFICIENCY

External oil filter and service-friendly design for simplified maintenance work

2 ROBUST

Steady and robust industrial frame protects against damage

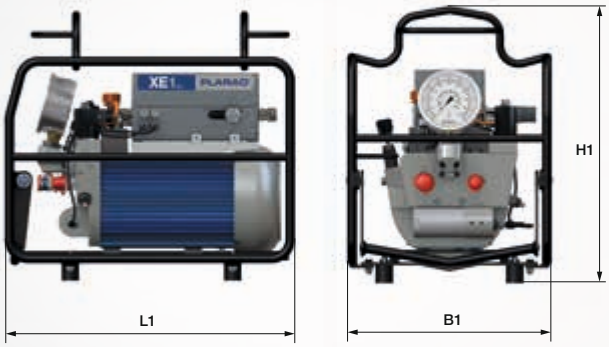
3 FLEXIBLE

Use of single or multiple hydraulic wrenches in single and dual-hose technology



2-STAGE-UPGRADE

OPTIONAL GEAR PUMP FOR MAXIMUM FLOW RATE



MODELS // DATA

Typ *Type*	Betriebsart *Operation mode*	max. Betriebsdruck *Pressure max.*		max. Durchfluss *flow max.*		max. Durchfluss *flow* max. (2-Stage Upgrade)		Motorleistung *Motor power*		Maße (L1 x B1 x H1) *Dimensions (L1 x B1 x H1)*	Gewicht* *Weight**	
		bar	psi	l/min	gal/min	l/min	gal/min	kW	hp		kg	lbs
XE1*eco* 10	Manuell *manual*	800	11,600	0,8	0.21	5,4	1.43	0,8	1.07	455 x 286 x 449 mm 17.91 x 11.26 x 17.68 in	22	48.5
XE1*eco* 20	Manuell *manual*	800	11,600	1,2	0.32	8,0	2.11	1,1	1.48	500 x 343 x 465 mm 19.69 x 13.50 x 18.31 in	29	63.9
XE1*eco* 30	Manuell *manual*	800	11,600	3,0	0.79	13,2	3.49	2,2	2.95	500 x 343 x 465 mm 19.69 x 13.50 x 18.31 in	35	77.2

Repeat accuracy: ≤ 4%, depending on the bolted joint. Technical data without guarantee.
Units available in the following voltages: 110V 50Hz, 110V 60Hz, 230V 50Hz, 230V 60Hz, 400V 50Hz, 400V 60Hz. Others on request.

Test mode

Torque mode

XE1*power*

FULLY AUTOMATIC WITH THE PUSH OF A BUTTON

The **XE1***power* sets new standards in hydraulic bolting technology. The fully automatic system enables fast and precise bolting results with the push of a button. The work process is greatly simplified by the automatic switch-off once the final torque is reached. This innovative power pack combines efficiency, precision and convenience for demanding bolting applications.

Upgradeable to the *docu* and *control* model variants, the **XE1***power* is the entry point to the smart pump generation.





1

PERFORMANCE

High fastening speeds with the optional 2-stage version

2

COMFORT

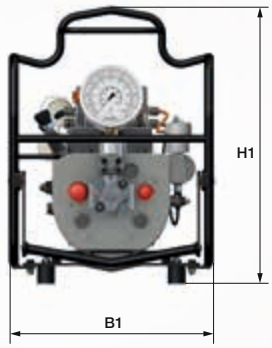
Fully automatic bolting allows for comfortable handling up to the preset hydraulic pressure

3

INFORMATION

Remote control with colour display: important operating parameters always in view (pressure, status message, motor/oil temperature, operating hours, power consumption and much more)





MODELS // DATA

Typ *Type*	Betriebsart *Operation mode*	max. Betriebsdruck *Pressure max.*		max. Durchfluss *flow max.*		max. Durchfluss *flow max.* (2-Stage Upgrade)		Motorleistung *Motor power*		Maße (L1 x B1 x H1) *Dimensions (L1 x B1 x H1)*	Gewicht* *Weight**	
		bar	psi	l/min	gal/min	l/min	gal/min	kW	hp		kg	lbs
XE1*power* 10	Automatik *automatic*	800	11,600	0,8	0.21	5,4	1.43	0,8	1.07	455 x 286 x 449 mm 17.91 x 11.26 x 17.68 in	24	52.9
XE1*power* 20	Automatik *automatic*	800	11,600	1,2	0.32	8,0	2.11	1,1	1.48	500 x 343 x 465 mm 19.69 x 13.50 x 18.31 in	34	75.0
XE1*power* 30	Automatik *automatic*	800	11,600	3,0	0.79	13,2	3.49	2,2	2.95	500 x 343 x 465 mm 19.69 x 13.50 x 18.31 in	36	79.4

Repeat accuracy: ≤ 4%, depending on the bolted joint. Technical data without guarantee.
Units available in the following voltages: 110V 50Hz, 110V 60Hz, 230V 50Hz, 230V 60Hz, 400V 50Hz, 400V 60Hz. Others on request.

Documentation

Test mode

Torque mode

XE1*docu*

PRECISION MEETS POWER

Based on the **XE1***power*, the **XE1***docu* offers a wide range of additional features for seamless documentation. The data can be easily transferred to all standard digital devices, ensuring transparent documentation of bolting operations. Fully automatic tightening and automatic switch-off once the final torque is reached make this power pack especially user-friendly.

The remote control with colour display allows users to keep an eye on important operating parameters at all times.



The control unit saves all tightening torques and rotation angles that have been performed



INDIVIDUAL

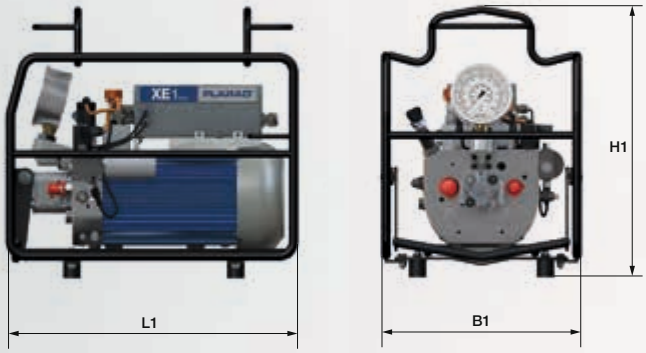
Fast and reliable work thanks to predefined bolting cases

PERFORMANCE

The 2-stage version is the fastest documentable unit on the market

HIGH TECH

Patented algorithms control the bolting procedure using various methods



MODELS // DATA

Typ *Type*	Betriebsart *Operation mode*	max. Betriebsdruck *Pressure max.*		max. Durchfluss *flow max.*		max. Durchfluss *flow* max. (2-Stage Upgrade)		Motorleistung *Motor power*		Maße (L1 x B1 x H1) *Dimensions (L1 x B1 x H1)*	Gewicht* *Weight**	
		bar	psi	l/min	gal/min	l/min	gal/min	kW	hp		kg	lbs
XE1*docu* 10	Automatik *automatic*	800	11,600	0,8	0.21	5,4	1.43	0,8	1.07	455 x 286 x 449 mm 17.91 x 11.26 x 17.68 in	24	52.9
XE1*docu* 20	Automatik *automatic*	800	11,600	1,2	0.32	8,0	2.11	1,1	1.48	500 x 343 x 465 mm 19.69 x 13.50 x 18.31 in	34	75.0
XE1*docu* 30	Automatik *automatic*	800	11,600	3,0	0.79	13,2	3.49	2,2	2.95	500 x 343 x 465 mm 19.69 x 13.50 x 18.31 in	36	79.4

Repeat accuracy: ≤ 4%, depending on the bolted joint. Technical data without guarantee.
Units available in the following voltages: 110V 50Hz, 110V 60Hz, 230V 50Hz, 230V 60Hz, 400V 50Hz, 400V 60Hz. Others on request.



XE1*control*

THE EFFICIENT MASTERPIECE

The **XE1***control* is the ultimate all-rounder for torque and rotation angle bolting with an integrated documentation features. Based on the **XE1***docu*, it offers a comprehensive range of features for maximum versatility and efficiency.

With predefined bolting cases, automatic bolting, and documentation of torque and angle of rotation, it ensures fast, safe, and user-friendly operation.

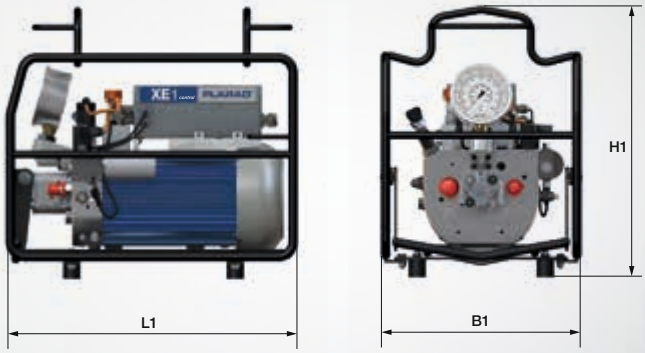


SMART
Data transfer to digital end devices for seamless documentation

POWER
High fastening speeds with the optional 2-stage version

COMFORTABLE
Fully automatic bolting up to the preset hydraulic pressure with the push of a button





MODELS // DATA

Typ *Type*	Betriebsart *Operation mode*	max. Betriebsdruck *Pressure max.*		max. Durchfluss *flow max.*		Motorleistung *Motor power*		Maße (L1 x B1 x H1) *Dimensions (L1 x B1 x H1)*	Gewicht* *Weight**	
		bar	psi	l/min	gal/min	kW	hp		kg	lbs
XE1*control* 10	Automatik *automatic*	800	11,600	0,8	0.21	0,8	1.07	455 x 286 x 449 mm 17.91 x 11.26 x 17.68 in	26	57,3
XE1*control* 20	Automatik *automatic*	800	11,600	1,2	0.32	1,1	1.48	500 x 343 x 465 mm 19.69 x 13.50 x 18.31 in	31	68,3
XE1*control* 30	Automatik *automatic*	800	11,600	3,0	0.79	2,2	2.95	500 x 343 x 465 mm 19.69 x 13.50 x 18.31 in	35	77,2

Repeat accuracy: ≤ 4%, depending on the bolting case. Technical data without guarantee. *
Units available in the following voltages: 110V 50Hz, 110V 60Hz, 230V 50Hz, 230V 60Hz, 400V 50Hz, 400V 60Hz. Others on request.

XA2 Series

PRODUCTLINK

THE NEW BATTERY-POWERED HYDRAULIC UNIT

Lightweight. Powerful. Smart. Weighing just 13 kg, the **XA2** is the lightest cordless hydraulic power unit on the market – ideal for mobile use. You can tighten up to 160 bolted joints on a single battery charge, with full control at all times via the digital display. Choose from three variants: *power, docu* and *control* – and they can be upgraded at any time, so you can grow with your requirements!

SYSTEM VARIANTS AT A GLANCE

The Plarad XA2 series for all applications – the right choice for your fastening needs

POWER

Rugged and user-friendly next-generation devices.

These devices set new standards in terms of precision, speed and ergonomics

- Torque mode

DOCU

Upgrading to the *docu* version:

Pre-defining fastening cases using presets, documentation of fastening results

- Documentation
- Wi-Fi compatible
- Preset
- Torque mode

CONTROL

It also features a torque-angle mode and a rotation-angle mode

- Torque/angle of rotation mode
- Rotation angle counting mode
- Rotation angle mode
- Documentation
- Wi-Fi compatible
- Preset
- Torque mode


PLARAD

XA2*power*

THE WORLD'S LIGHTEST BATTERY-POWERED HIGH-PERFORMANCE PUMP WITH AUTOMATIC FUNCTION

The **XA2***power* is the ideal entry-level model in our range of cordless hydraulic pumps: lightweight, portable, fast and robust for everyday use. It is incredibly easy to operate via a menu-driven display with direct Newton metre input – the desired torque can be set in seconds, with no faff. Thanks to the wired remote control, you retain full control even from a distance.

At its heart lies the precise torque-based tightening process: this guarantees reproducible, reliable fastening results. This makes the **XA2***powerr* the perfect foundation, which can be upgraded to the '*docu*' or '*control*' models at any time.



1 **DISPLAY**
Direct entry of fastening parameters

2 **REMOTE CONTROL**
Easy to use, even in confined spaces; automatic or manual operation

3 **BATTERY**
8AH high-performance battery for up to 160 tightening cycles; spare battery included

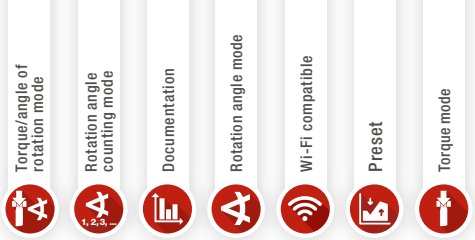
4 **OIL VOLUME**
2.5-litre oil capacity, meaning even larger tools can be used



XA2*docu*

YOUR BOLTING JOBS, FULLY DOCUMENTED

The **XA2***docu* builds on the **XA2***power* and adds three powerful functions. Every bolting operation is fully documented – for quality records that are truly convincing. Thanks to Wi-Fi connectivity, your data can be conveniently transferred and managed. And with handy presets, you can access your bolting parameters at any time at the touch of a button. In this way, the **XA2***docu* combines the power of the basic model with smart quality assurance.



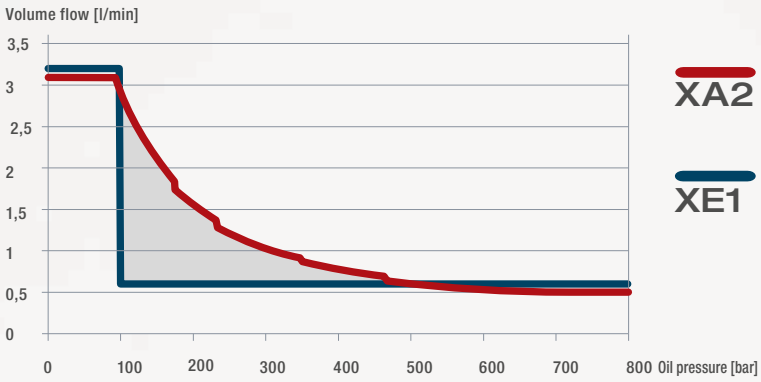
XA2*control*

MAXIMUM PRECISION WITH EVERY JOINT

The **XA2***control* is the top-of-the-range model in our range of cordless hydraulic pumps and combines all the advantages of the **XA2***docu* and the **XA2***power*. New additions include the angle-of-rotation and combined torque-angle-of-rotation tightening methods – ensuring maximum precision even for the most demanding bolting applications. This allows you to maintain full control over torque and angle at all times and reliably meet even the most stringent quality requirements.

XA2 VERSUS XE1

The comparison shows that, across the entire pressure range, the **XA2***series* delivers significantly higher flow rates than a two-stage, mains-powered unit. The latter drops immediately to a low level after the stage change – whereas the performance of the **XA2***series* declines gradually, meaning it remains noticeably faster.



DATA

Akkusystem	2 x Akku 28 V 8 Ah (wechselbar)	*Battery system*	*2pc 28 V 8 Ah exchangeable*
Betriebsspannung	25,25 V	*Operating voltage*	*25,25 V*
Akku-Kapazität	8 Ah	*Battery capacity*	*8 Ah*
Motorleistung	0,95 kW	*Motor power*	*1.27 hp*
Max. Druck	800 bar	*Max. pressure*	*11,600 psi*
Max. Volumenstrom	3,2 l/min (bei 100 bar)	*Max. Flow rate*	*0.85 gal/min at 1,450 psi*
Betriebsart	automatisch und manuell	*Operation mode*	*aautomatic and manual*
Ölvolumen	2,5 l	*Oil volume*	*0.66 gal*
Gewicht	13,3 kg inkl. Akku	*Weight*	*29.3 lb incl. battery*
Maße (L x B x H)	520 x 260 x 225 mm	*Dimensions (L x W x H)*	*20.46" x 10.23" x 8.85" in*
Einsatztemperaturen	-20°C bis +55°C	*Temp. Range*	*-4 °F to 131 °F*
Schalldruckpegel	<70 dB	*Sound pressure level*	*<70 dB*

Tensioner mode | Documentation | Test mode | Torque mode

DXE1*docu*

SMART THROUGH CONVINCING ARGUMENST

Based on the **XE1***docu*, the **DXE1***docu* offers a wide range of additional features for seamless documentation.

The data can be easily transferred to all standard digital devices, ensuring transparent documentation of bolting operations. Fully automatic tightening and automatic switch-off once the final torque is reached make this power pack especially user-friendly.

The remote control with colour display allows users to keep an eye on important operating parameters at all times.

DUAL
OUR PUMP SERIES FOR THE OPERATION OF HYDRAULIC WRENCHES AND TENSION CYLINDERS

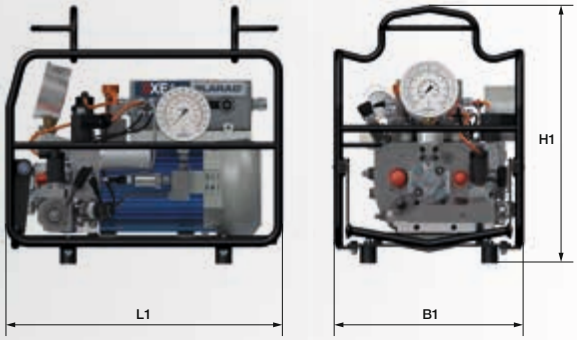




INDIVIDUAL
Fast and reliable work thanks to predefined bolting cases

PERFORMANCE
The 2-stage version is the fastest documentable hydraulic power pack on the market

HIGH TECH
Patented algorithms control the bolting process using various methods



POWER PACKS ALSO AVAILABLE WITH 4 LITRE ADDITIONAL TANK

MODELS // DATA

Typ *Type*	Betriebsart *Operation mode*	max. Betriebsdruck *Pressure max.*		max. Durchfluss *flow max.*		max. Durchfluss *flow* max. (2-Stage Upgrade)		Motorleistung *Motor power*		Maße (L1 x B1 x H1) *Dimensions (L1 x B1 x H1)*	Gewicht* *Weight**	
		bar	psi	l/min	gal/min	l/min	gal/min	kW	hp		kg	lbs
DXE1*docu* 20	Automatik *automatic*	800 / 1,500	11,600 / 21.750	1.2	0.32	8.0	2.11	1.1	1.48	500 x 343 x 465 mm 19.7 x 13.5 x 18.3 in	40	88
DXE1*docu* 30	Automatik *automatic*	800 / 1,500	11,600 / 21.750	3.0	0.79	13.2	3.49	2.2	2.95	500 x 343 x 465 mm 19.7 x 13.5 x 18.3 in	42	93

Repeat accuracy: ≤ 4%, depending on the bolted joint. Technical data without guarantee.
Units available in the following voltages: 110V 50Hz, 110V 60Hz, 230V 50Hz, 230V 60Hz, 400V 50Hz, 400V 60Hz. Others on request.



DXE1*control*

THE EFFICIENT MASTERPIECE

The **DXE1***control* is the ultimate all-rounder for torque and angle bolting with an integrated documentation function. Based on the **DXE1***docu*, it offers a comprehensive range of features for maximum versatility and efficiency.

With predefined bolting cases, automatic bolting and documentation of torque, rotation angle and preload force, this pump enables fast, safe and user-friendly work.



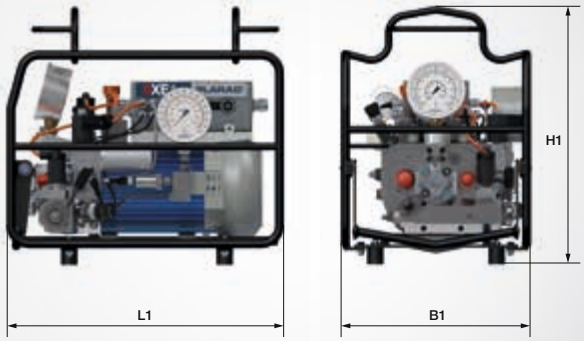
SMART
Data transfer to digital devices for seamless documentation

PRECISE
Rotation angle bolting (+-2°) without additional sensor technology thanks to patented process

COMFORTABLE
Fully automatic bolting up to the preset hydraulic pressure with the push of a button

FOR THE OPERATION OF HYDRAULIC WRENCHES AND TENSIONERS





MODELS // DATA

Typ *Type*	Betriebsart *Operation mode*	Max. Betriebsdruck *Max. pressure*		Max. Durchfluss *Max. flow*		Motorleistung *Motor power*		Maße (L1 x B1 x H1) *Dimensions (L1 x B1 x H1)*	Gewicht *Weight*	
		bar	psi	l/min	gal/min	kW	hp		kg	lbs
DXE1*control* **20**	Automatik *automatic*	800 / 1.500	11,600 / 21,750	1,2	0.32	1,1	1.48	500 x 343 x 465 mm 19.68 x 13.50 x 18.30 in	40	88

Repeat accuracy: ≤ 4%, depending on the bolted joint. Technical data without guarantee.
Units available in the following voltages: 110V 50Hz, 110V 60Hz, 230V 50Hz, 230V 60Hz, 400V 50Hz, 400V 60Hz. Others on request.

TXP1*eco*

THE PURE HYDRAULIC PUMP

The **TXP1***eco* pneumatic hydraulic pump is ideal for simple tensioner applications. With a maximum pressure of up to 1500 bar, it provides the necessary power for challengingh tasks. The handling is easy: pressure build-up and pressure release are performed with the push of a button, and a manual safety release provides additional safety.

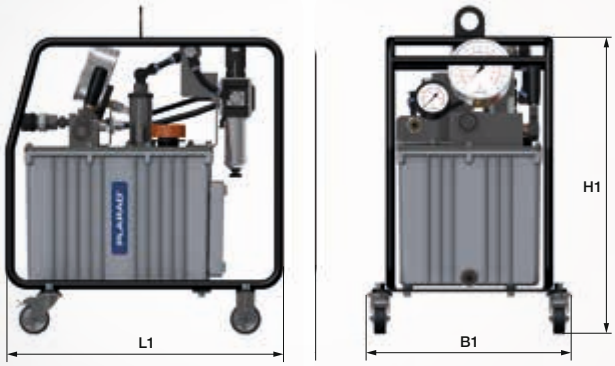
Thanks to the robust protective frame, the **TXP1***eco* is robust and mobile, supported by castors on the frame. With an oil volume of 6 litres, it is also suitable for large or several simultaneously connected tension cylinders. The **TXP1***eco* combines performance, safety and mobility in a user-friendly design.



SOLID
Fast & safe tensioner applications up to 1500 bar

EASY OPERATION
Pressure build-up and pressure relief at the touch of a button and manual safety relief in extreme cases

ROBUST & MOBILE
Under-oil motor technology and robust protective frame with castors



MODEL // DATA

Typ *Type*	Betriebsart *Operation mode*	max. Betriebsdruck *Pressure max.*		max. Durchfluss *flow max.*		pneumatischer Druck *pneumatic pressure*		Maße (L1 x B1 x H1) *Dimensions (L1 x B1 x H1)*	Gewicht* *Weight**	
		bar	psi	l/min	gal/min	bar	psi		kg	lbs
TXP1*eco* 20	manuell *manual*	1,500	21,750	0.7	0.185	3 - 7	43 - 102	457 x 338 x 540 mm 18 x 13.3 x 21.26 in	28	61.7

Repeat accuracy: ≤ 4%, depending on the bolted joint. Technical data without guarantee. *

Test mode

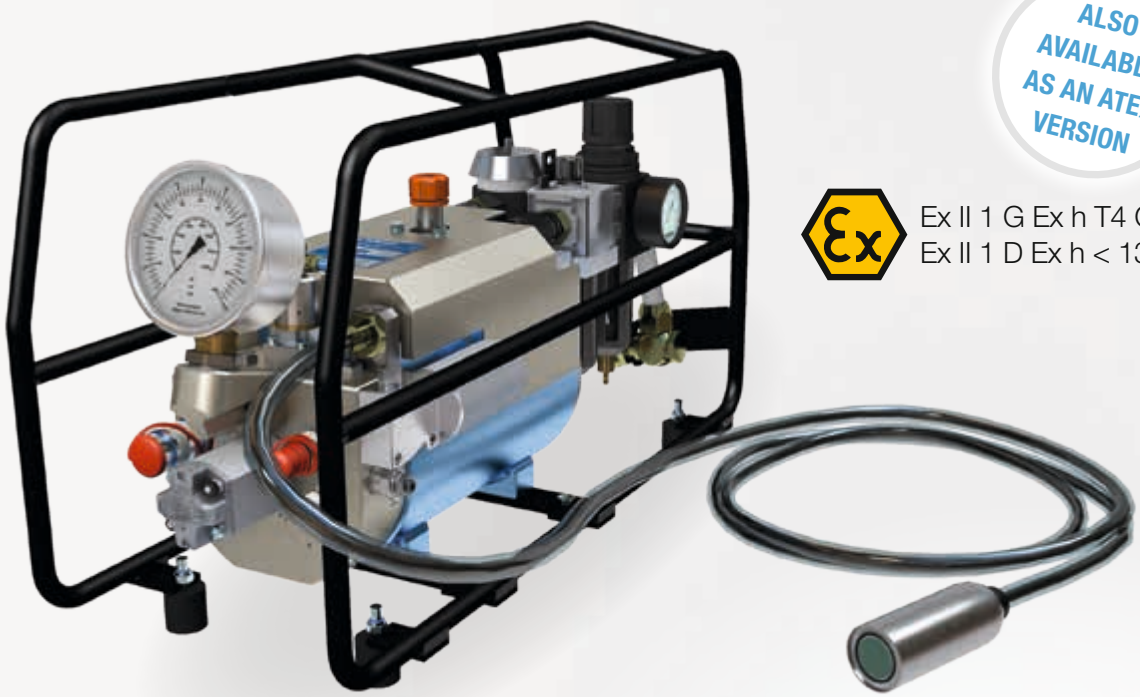
Torque mode

XP1*eco*

CONSTANT UNTIL THE FINAL PRESSURE IS REACHED

Like the electrically powered models, our **XP1***eco* 2-Stage pneumatic hydraulic power pack offers sturdiness, durability and a constant litre output up to the final pressure. The pneumatic motor integrated in the oil tank prevents icing up and cools the hydraulic oil at the same time.

The ATEX model is also suitable for use in potentially explosive areas in zone 1G.



ALSO AVAILABLE AS AN ATEX VERSION

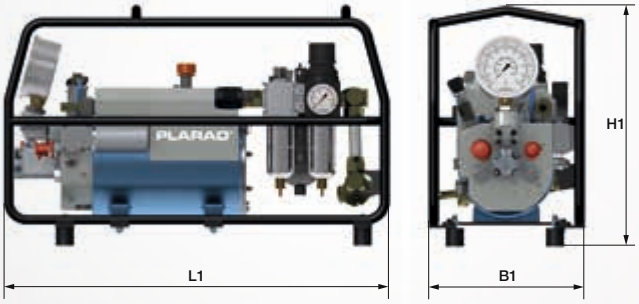
Ex II 1 G Ex h T4 Ga
Ex II 1 D Ex h < 135 °C Da

EASY TO USE

Pressure build-up and relief with the push of a button and manual safety pressure release in extreme cases

POWER

High bolting speeds thanks to the 2-stage design



MODEL // DATA

Typ *Type*	Betriebsart *Operation mode*	max. Betriebsdruck *Pressure max.*		max. Durchfluss *flow max.*		max. Durchfluss *flow* max. (2-Stage Upgrade)		Maße (L1 x B1 x H1) *Dimensions (L1 x B1 x H1)*	Gewicht* *Weight**	
		bar	psi	l/min	gal/min	l/min	gal/min		kg	lbs
XP1*eco* 20 2-Stage	Automatik *automatic*	800	11,600	7.0	1.85	1.6	0.422	634 x 257 x 395 mm 24.96 x 10.12 x 15.55 in	32	70.5

Repeat accuracy: ≤ 4%, depending on the bolted joint. Technical data without guarantee. *

Test mode

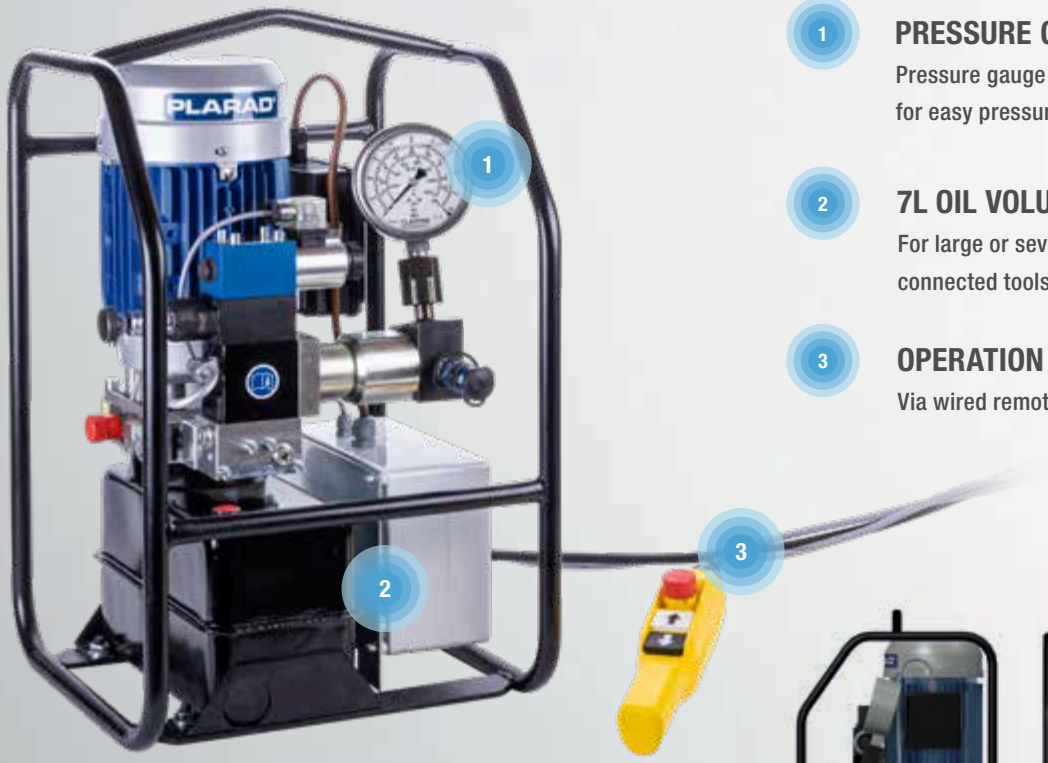
Tensioner mode

TXE1*eco*

THE ROBUST AND RELIABLE BASIC PUMP

The **TXE1***eco* is equipped with a powerful electric motor and can be effortlessly connected to large tension cylinders thanks to the 7-litre tank. It offers a maximum operating pressure of 1,500 bar and a flow rate of up to 3 litres/min. The pump has an integrated pressure gauge for easy reading of the pressure.

This power pack can be operated by remote control and is perfect for applications where no documentation is required.



1 PRESSURE GAUGE

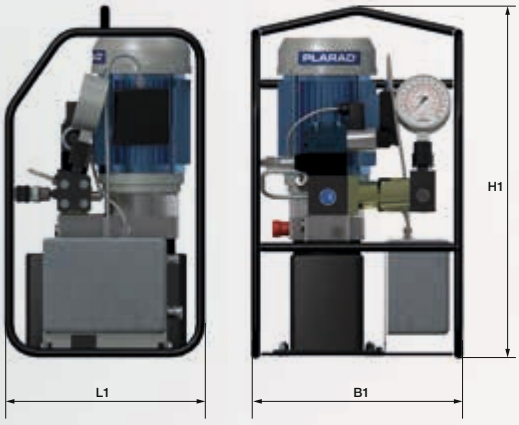
Pressure gauge integrated into the pump for easy pressure control

2 7L OIL VOLUME

For large or several simultaneously connected tools

3 OPERATION

Via wired remote control



MODELS // DATA

Typ *Type*	Betriebsart *Operation mode*	max. Betriebsdruck Pressure max.		Volumenstrom bei 0 - 120 bar *Flow rate at xxx - xxxx psi*		Volumenstrom bei 120 - 1.500 bar *Flow rate at xxx - xxxx psi*		Motorleistung *Motor power*		Spannungsvarianten *Voltage versions*	Maße (L1 x B1 x H1) *Dimensions (L1 x B1 x H1)*	Gewicht* *Weight**	
		bar	psi	l/min	gal/min	l/min	gal/min	kW	hp			kg	lbs
TXE1*eco*	elektrisch + manuell *electric +manual*	1.500	21,756	3,0	0.8	0,35	0.09	1,1	1.48	230V 50/60Hz 110V 50/60Hz 400V 50H	380 x 630 x 360 mm 15.0 x 24.8 x 14.2 in	38	84

Repeat accuracy: ≤ 4%, depending on the bolted joint. Technical data without guarantee.



TXE1*docu*

THE HIGH-END SOLUTION FOR TENSION CYLINDERS

The **TXE1***docu* has numerous additional features to ensure comprehensive documentation. The transfer of data to digital devices enables transparent recording of tensioning processes.

Automatic re-pumping in the event of a pressure drop makes this unit extremely user-friendly. The remote control with colour display allows users to keep an eye on important operating parameters at all times.



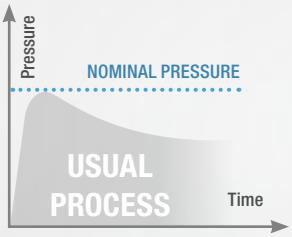
INDIVIDUAL

Fast and reliable work thanks
to predefined bolting cases

HIGH TECH

Automatic re-pumping ensures safe
and qualitative connections

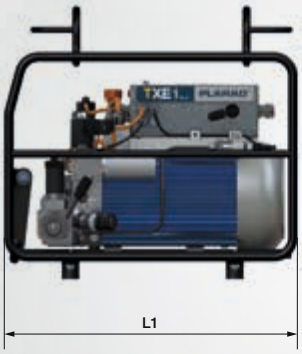


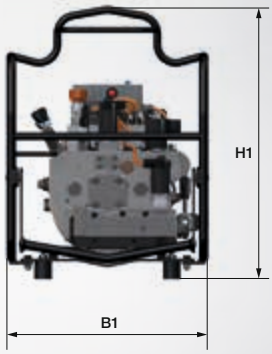


Hydraulic power packs
without tensioner mode



Plarad power packs
with tensioner mode





MODELS // DATA

Typ *Type*	Betriebsart *Operation mode*	max. Betriebsdruck *Pressure max.*		max. Durchfluss *flow max.*		Motorleistung *Motor power*		Maße (L1 x B1 x H1) *Dimensions (L1 x B1 x H1)*	Gewicht* *Weight**	
		bar	psi	l/min	gal/min	kW	hp		kg	lbs
TXE1docu 10	Automatik *automatic*	1.500	21,756	0,8	0.21	0,8	1.07	450 x 317 x 366 mm 17.7 x 12.5 x 14.4 in	38	84
TXE1docu 30	Automatik *automatic*	1.500	21,756	1,0	0.26	2,2	2.95	500 x 343 x 465 mm 19.7 x 13.5 x 18.3 in	41	90

Repeat accuracy: ≤ 4%, depending on the bolted joint. Technical data without guarantee.

MAXIMUM POWER IN SMALL SPACES



LINK TO THE POWER PACKS

LINK TO THE TENSIONERS

TENSIONERS

POSSIBLE COMBINATIONS AT A GLANCE



PSE



PSD



PST



PSQ



TXP1 ECO

The pneumatic hydraulic pump for tensioners

The pneumatic hydraulic pump TXP1*eco* is ideal for simple tensioning applications

Robust and easy to use, up to 1,500 bar

- Tensioner mode



TXE1 ECO

The robust and reliable basic pump

The power pack is equipped with a powerful electric motor and can also be connected to large tension cylinders thanks to the 7 litre oil tank

Perfect for applications where no documentation is required

- Test mode
- Torque mode
- Tensioner mode



TXE1 DOCU

The smart upgrade to the *docu* version: ready for comprehensive documentation on digital devices

Automatic re-pumping in case of a pressure drop makes this unit extremely effective.
The remote control with colour display shows important operating parameters

- Documentation
- Test mode
- Torque mode
- Tensioner mode

TENSIONERS

1-STAGED

PSE

BOLT TENSIONING IN SMALL SPACES

Thanks to its flat design, the **PSE** single-stage hydraulic tension cylinder offers a distinct advantage, particularly in tight, axially confined spaces. The knurled attachment included in the scope of delivery also ensures that the tensioner can be turned open in the case of excessively long bolt protrusions.

The **PSE** also has all the relevant features of the **PSD** (see sectional model, next page).



1 CYCLE COUNTER
Prevention of damage and failures through preventive maintenance

2 FLEXIBLE
Knurled attachment for long bolt protrusions

3 HANDLING
Support bridge 360° rotatable

4 PERFECT FIT
Optimised support surface for tight spaces

5 ERGONOMIC
Quick and easy screw-on of the nut via toothed drive guaranteed

TENSIONERS

2-STAGED 3-STAGED 4-STAGED

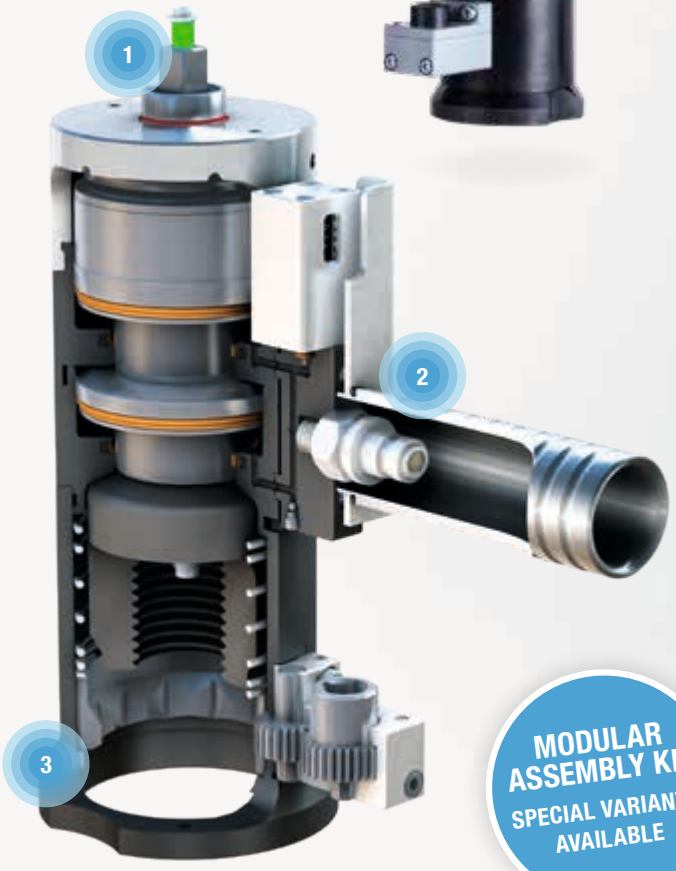
PSD / PST / PSQ

QUICK, SAFE, EASY TO OPERATE

Thanks to their multi-stage design, the tension cylinders provide the required tensile forces with a minimal diameter. They are ideal for use in confined lateral installation spaces.

The preload force can be precisely adjusted, and the modular design allows for optimal customisation to suit your specific bolting application.





MODULAR ASSEMBLY KIT
SPECIAL VARIANTS AVAILABLE

1 **SECURITY INDICATOR**

GREEN: A sufficient bolt insertion depth has been reached

RED: Maximum stroke of the draw bolt has been completed

2 **ERGONOMIC**

The removable handle provides optimum grip and protects the hose connections from damage

3 **FLEXIBLE**

Optimum handling: easy alignment thanks to rotatable support, regardless of the bolt arrangement

EFFECTIVENESS

- Easy to operate with the toothed drive:
  Ensures simple and fast nut tightening using a ratchet or torque wrench



PROCESS RELIABILITY

- Mechanical stroke limiter for enhanced safety:
  The end stop restricts piston lifting for maximum protection



HIGH TECH

- Prevention of assembly damage when fitting the tension cylinder: The rotating sleeve is axially flexible with spring support
- Automatic piston return moves the tension bolt quickly to the starting position after pressure relief



ERGONOMIC

- 'Fail safe system':
  Maximum safety through stroke limitation
- Visual indicator for the end stop
- Detachable handle and carrying strap for maximum comfort and safety





PERFORMANCE

- Suitable for parallel and series-connected tension cylinders
- Fast operation thanks to automatic piston reset
- Tensioning forces of up to 3,000 klb with the smallest dimension

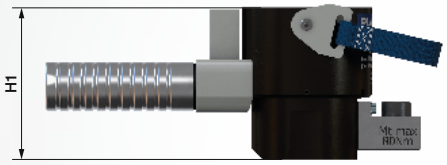
UPGRADE

- Suitable for documenting the preload force when used in combination with Plarad power packs
- Additional rings ensure optimum adaptation to different bolt lengths



MODELS // DATA

MODULAR ASSEMBLY KIT
SPECIAL VARIANTS AVAILABLE





PSE

Typ *Type*	Zugkraft max. *Load max.*		max. Betriebsdruck *Pressure max.*		Regelgewinde *Bolt diameter*		Hub *Stroke*		Betriebszyklen Operation cycles	H1		D1		D2		Gewicht* *Weight**	
	kN	lbf	bar	psi	mm	inch	mm	inch		mm	inch	mm	inch	mm	inch	kg	lbs
PSE 20	212	47,659	1.500	21,756	20	0.79	8	0.31	8.000	100	3.94	64	2.52	48	1.89	2,1	4.63
PSE 24	305	68,567	1.500	21,756	24	0.94	8	0.31	8.000	95	3.74	80	3.15	72	2.83	3,2	7.05
PSE 30	482	108,358	1.500	21,756	30	1.18	10	0.39	8.000	79	3.11	98	3.86	74	2.91	5,1	11.24
PSE 33	573	128,816	1.500	21,756	33	1.30	8	0.31	8.000	125	4.92	106	4.17	90	3.54	6,4	14.11
PSE 36	681	153,095	1.500	21,756	36	1.42	10	0.39	8.000	125	4.92	114	4.49	95	3.74	7,1	15.65
PSE 42	980	220,313	1.500	21,756	42	1.65	10	0.39	8.000	135	5.31	135	5.31	115	4.53	11,1	24.47
PSE 48	1.235	277,639	1.500	21,756	48	1.89	10	0.39	8.000	144	5.67	152	5.98	130	5.12	15	33.07
PSE 52	1.458	327,771	1.500	21,756	52	2.05	10	0.39	8.000	151	5.94	163	6.42	137	5.39	17,6	38.80
PSE 56	1.676	376,780	1.500	21,756	56	2.20	10	0.39	8.000	159	6.26	175	6.89	147	5.79	21,0	46.30
PSE 64	2.259	507,843	1.500	21,756	64	2.52	10	0.39	8.000	197	7.76	205	8.07	170	6.69	27,8	61.29
PSE 72	2.960	665,434	1.500	21,756	72	2.83	10	0.39	8.000	208	8.19	245	9.65	180	7.09	42,5	93.70

PSD // PST // PSQ

Typ *Type*	Zugkraft max. *Load max.*		max. Betriebsdruck *Pressure max.*		Regelgewinde *Bolt diameter*		Hub *Stroke*		Betriebszyklen Operation cycles	H1		D1		D2		Gewicht* *Weight**	
	kN	lbf	bar	psi	mm	inch	mm	inch		mm	inch	mm	inch	mm	inch	kg	lbs
PSD 20	220	49,458	1.350	19,580	20	0.79	8	0.31	4.500	162	6.4	51	2.01	48	1.89	3,2	7.1
PSD 24	313	70,365	1.350	19,580	24	0.94	8	0.31	4.500	196	7.7	58	2.28	55	2.17	4,8	10.6
PSD 27	397	89,249	1.370	19,870	27	1.06	8	0.31	4.500	218	8.6	66	2.60	65	2.56	5,7	12.6
PSD 30	471	105,885	1.500	21,756	30	1.18	8	0.31	4.500	196	7.7	71	2.80	70	2.76	5,7	12.6
PSD 33	581	130,614	1.500	21,756	33	1.30	10	0.39	4.500	215	8.5	79	3.11	80	3.15	7,2	15.9
PSD 36	678	152,420	1.500	21,756	36	1.42	10	0.39	4.500	228	9.0	83	3.27	83	3.27	8,1	17.9
PSD 39	808	181,646	1.500	21,756	39	1.54	10	0.39	4.500	250	9.8	92	3.62	92	3.62	10,4	22.9
PSD 42	937	210,646	1.500	21,756	42	1.65	10	0.39	4.500	263	10.4	98	3.86	98	3.86	12,3	27.1
PSD 45	1089	244,817	1.500	21,756	45	1.77	10	0.39	4.500	256	10.1	106	4.17	100	3.94	14,0	30.9
PSD 48	1278	287,306	1.500	21,756	48	1.89	10	0.39	4.500	269	10.6	112	4.41	112	4.41	16,0	35.3
PSD 52	1476	331,818	1.500	21,756	52	2.05	10	0.39	4.500	293	11.5	120	4.72	120	4.72	19,6	43.2
PSD 56	1695	381,051	1.500	21756	56	2.20	10	0.39	4.500	300	11.8	130	5.12	130	5.12	23,4	51.6
PSD 60	1959	440,401	1.500	21,756	60	2.36	10	0.39	4.500	343	13.5	140	5.51	140	5.51	30,0	66.1
PSD 64	2233	501,998	1.500	21,756	64	2.52	10	0.39	4.500	350	13.8	146	5.75	146	5.75	32,7	72.1
PSD 68	2825	635,085	1.500	21,756	68	2.68	10	0.39	4.500	424	16.7	167	6.57	167	6.57	52,6	116.0
PSD 72	2825	635,085	1.500	21,756	72	2.83	10	0.39	4.500	424	16.7	167	6.57	167	6.57	53,6	118.2
PSD 80	3587	806,390	1.500	21,756	80	3.15	10	0.39	4.500	457	18.0	188	7.40	180	7.09	71,4	157.4
PSD 90	4524	1,017,036	1.500	21,756	90	3.54	10	0.39	4.500	486	19.1	225	8.86	200	7.87	106,7	235.2
PST 48	1404	315,632	1.400	20,306	48	1.89	10	0.39	4.500	380	15.0	112	4.41	112	4.41	23,6	52.0
PST 56	1673	376,105	1.400	20,306	56	2.20	10	0.39	4.500	394	15.5	120	4.72	130	5.12	28,8	63.5
PST 64	2239	503,347	1.500	21,756	64	2.52	10	0.39	4.500	418	16.5	130	5.12	134	5.28	36,8	81.1
PSQ 36	748	168,157	1.400	20,306	36	1.42	10	0.39	4.500	315	12.4	77	3.03	75	2.95	10,3	22.7
PSQ 42	1090	245,042	1.400	20,306	42	1.65	10	0.39	4.500	343	13.5	91	3.58	85	3.35	14,6	32.2
PSQ 48	1450	325,973	1.400	20,306	48	1.89	10	0.39	4.500	372	14.6	105	4.13	98	3.86	20,7	45.6
PSQ 56	1959	440,401	1.400	20,306	56	2.20	10	0.39	4.500	428	16.9	123	4.84	110	4.33	31,5	69.4
PSQ 64	2705	608,108	1.400	20,306	64	2.52	10	0.39	4.500	471	18.5	141	5.55	126	4.96	44,6	98.3

Repeat accuracy: ≤ 4%, depending on the bolted joint. Technical data without guarantee.

PRODUCT LINK

XVK & XVR

QUICK AND EASY FASTENING WITH BACKSPIN PROTECTION

Our manual torque multipliers give you the freedom to work anywhere without having to rely on a power or compressed air supply. Whether in remote areas, on construction sites or in workshops - devices from the **XVR/XVK** series work anytime, anywhere.



1 **PROCESS RELIABILITY**
Selector lever between clockwise and anti-clockwise rotation

2 **SECURITY**
Overload protection due to easily replaceable shear pin

3 **FLEXIBLE**
Height-adjustable reaction arm for optimum use

FEATURES

- Power ranges from 200 to 10,000 Nm
- Small dimensions
- Low weight
- Low maintenance and durable
- Suitable for all industrial requirements
- Replaces temporary solutions such as pipe extensions and impact spanners

COST EFFICIENCY

Our manual torque multipliers not only guarantee reliable performance, but are also easy on your wallet. With our solution, you not only save time and resources, but also money – without compromising on quality.



FLEXIBILITY

In situations where power or compressed air supply is unreliable or unavailable, a hand-operated tool provides a dependable solution. This is especially crucial in emergencies or areas with limited infrastructure



PERFORMANCE

With our bolting technology, you can easily achieve high torques to master even the most demanding bolted joints.

With an output torque of up to 10,000 Nm, no tightening task is too tough, and no loosening too challenging



SUITABLE TORQUE SPANNERS AS ACCESSORIES PAGE 56

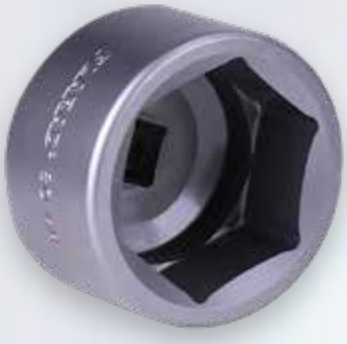
MODELS // DATA

Typ Type	H1		D		Gewicht* *Weight**		Max. Drehmoment *Max. torque*		Übersetzungs-verhältnis *Ratio*	Antriebs-vierkant *Input square*	Abtriebs-vierkant *Output square*
	mm	inch	mm	inch	kg	lbs	Nm	ft-lbs			
XVK 15**	172	6.77	81	3.19	2,6	5.7	1.700	1,254	01:04	¾"	1"
XVR 25	302	11.89	81	3.19	5,2	11.5	2.300	1,696	01:07	¾"	1"
XVR 35	273	10.75	81	3.19	5,0	11.0	3.600	2,655	01:10	¾"	1"
XVR 40	238	9.37	95	3.74	6,1	13.4	4.000	2,950	01:11	¾"	1 ½"
XVR 65	244	9.61	114	4.49	8,4	18.5	6.200	4,573	01:15	¾"	1 ½"
XVR 70	302	11.89	128	5.04	11,4	25.1	6.800	5,016	01:17	¾"	1 ½"
XVR 90	300	11.81	172	6.77	21,8	48.1	8.600	6,343	01:32	¾"	1 ½"
XVR D45 Stage 1 Stage 2	310	12.20	128	5.04	16,0	35.3	 4.700 10.100	 3,466 7,450	 01:13,5 01:22	 ½" SW41	 1 ½" 1 ½"



Repeat accuracy: ≤ 4%, depending on the bolted joint. Technical data without guarantee. *Specification with reaction arm
** Model XVK without backspin protection

ACCESSORIES FOR PLARAD PRODUCTS



SIX POINT SOCKETS

Our slip-on sockets offer a practical solution for fast and efficient fastening in various sizes.

With their versatile range of applications and ease of use, they are an indispensable tool and perfectly complement our wide selection of torque tools. Our socket spanners are compatible with all square-head wrenches.

PRODUKT LINK



TORQUE SPANNER

Our torque spanners are reliable tools for the controlled tightening of nuts and bolts.

They are fully compatible with all manual torque wrenches, meeting your needs for both ergonomics and process reliability..

PRODUKT LINK



BACK UP WRENCH

Our back up wrenches help to ensure safe and effective tightening or loosening of bolts, especially in hard-to-reach places.

The back up wrench is typically used to prevent the bolt head or nut from turning while tightening with high torque.

PRODUKT LINK

EXPAND YOUR OPTIONS



HANDLE

Our in-house developed handles are extremely beneficial for heavy tools as they equalise the weight and reduce the strain on the user.

By keeping a constant balance, they enable effortless handling and increase safety, especially during long work sessions, by preventing fatigue.

PRODUKT LINK



CASE / TROLLEY

Our tool trolley allows you to transport your torque wrench quickly and effortlessly, ergonomically and without straining your back.

You always have quick and easy access to your tool and accessories.

PRODUKT LINK



DIGITAL SOLUTIONS

With our digital solutions, we are revolutionising torque-accurate fastening in three stages.

The basic level saves costs and time by connecting torque wrenches to smart devices via a Wi-Fi chip and innovative documentation software.

The second level enables precise documentation and control of the bolting process via a local network.

The third level allows users to manage their tool inventory web-based and from anywhere.

LINK TO THE DIGITISATION BROCHURE

PLARAD SERVICE

RELY ON OVER 60 YEARS OF EXPERIENCE

REPAIR AND CALIBRATION SERVICE

Despite the highest quality, our products may eventually require repair. To ensure swift service, our experts are always on hand.

We recommend having your bolting devices and accessories inspected at regular intervals.

Devices serviced by us are provided with a new factory test certificate, ensuring that quality is thoroughly documented.





SERVICE FORM LINK

PLARAD ACADEMY

Acquire and deepen your knowledge in handling and maintaining our tools. We will train you in the use of our tools and turn you into a bolting specialist.

USER TRAINING

Teaching the basics of physics, different tightening methods, documentation of your bolting applications and safety-related topics.

SERVICE TRAINING

Avoid defects or total failure of your bolting tools through preventive maintenance.



ON-SITE SERVICE

With our service vehicle, we also offer our service directly at your premises and on the construction site. Our qualified employees calibrate and certify your tools within the shortest possible time and at your desired date.

Our air-conditioned vehicle guarantees optimal test conditions with a constant temperature of 20°C and a humidity of 50 - 60%.

ADVANTAGES

- **Torque measurements up to 20,000 Nm under test bench conditions in a fully air-conditioned vehicle with test laboratory**
- **Creation of certificates for torque tools directly on-site**
- **Certification of hydraulic power packs (manometer calibration)**
- **DGUV V3 testing for electrical devices**
- **Certification of manual torque spanners from 40 - 1,000 Nm**
- **Europe-wide on-site service**
- **Preventive maintenance**
- **Available as an inspection and maintenance package at a fixed price**

RENTAL SERVICE

Need a tool fast? Or have a bolting job that doesn't justify purchasing a new product? No problem!

larad provides the perfect solution for every bolting need with its wide range of rental options.

ADVANTAGES

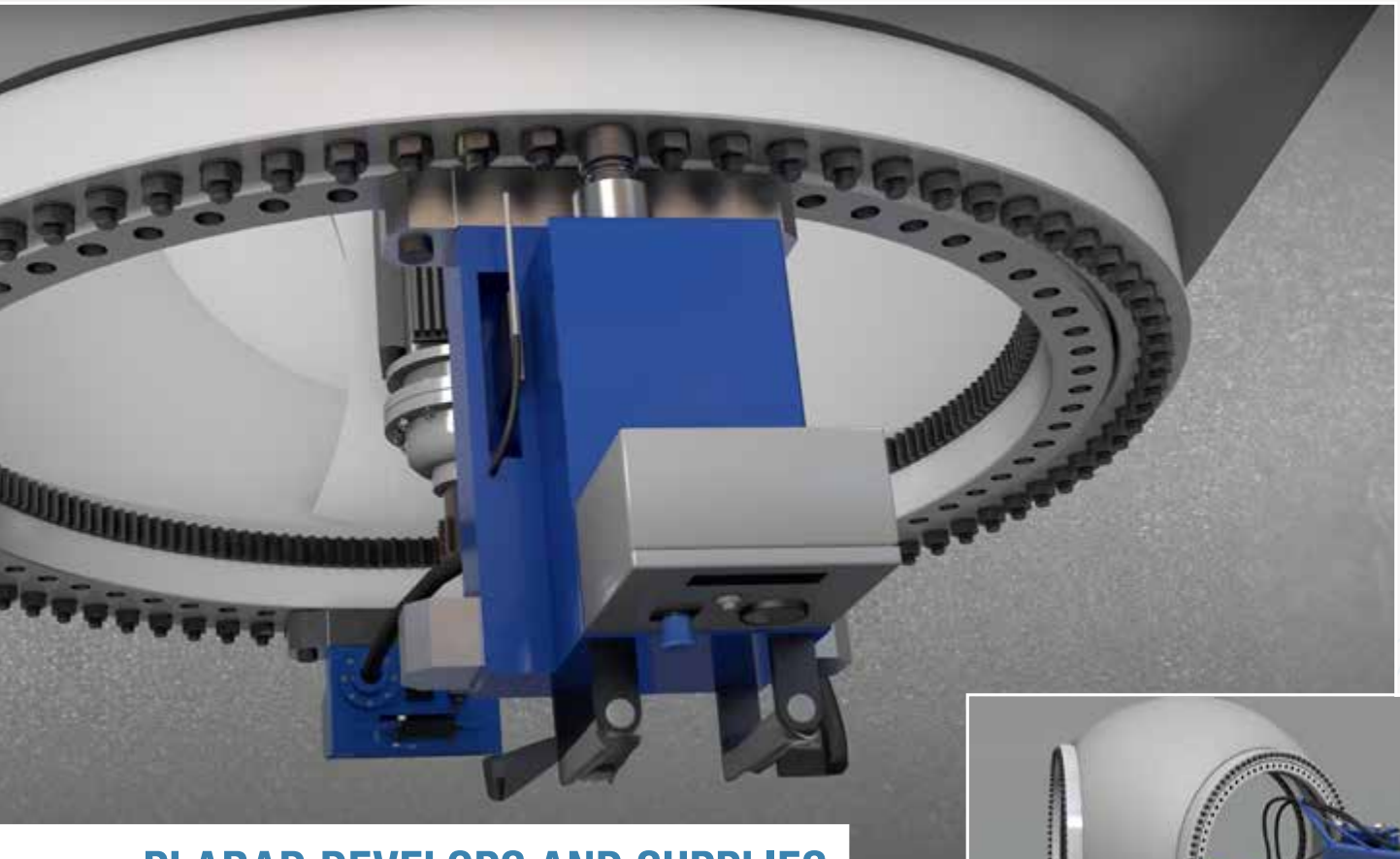
- **Almost 2,000 tools in the well-known Plarad quality always in stock**
- **Fast and easy to hire**
- **Individual contract agreements**
- **Easy rent equipment accessories**
- **Hire purchase option**
- **24-hour ordering service**

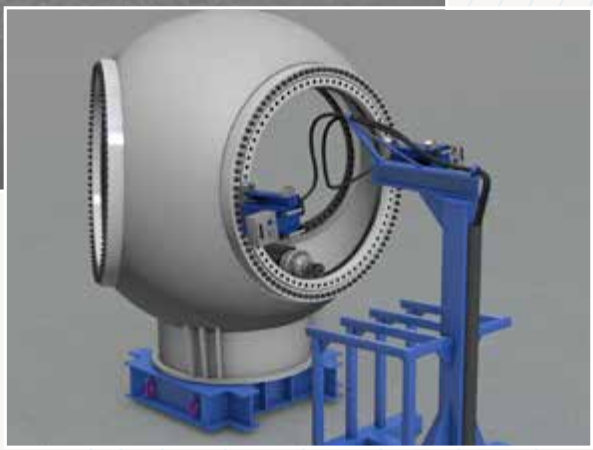


PLARAD®

CONSULTATION FREE OF CHARGE & NON-BINDING

BESPOKE ROBOTIC BOLTING PLANT MACHINERY





PLARAD DEVELOPS AND SUPPLIES CUSTOMISED BOLTING SYSTEMS FOR TORQUES FROM 500 Nm.

The range of services extends from supplementary auxiliary devices for our series products to fully automated bolting systems.

BEFORE PLACING THE ORDER

- Individual personal project-related coordination with the client
- Creation of the project brief: The project brief consolidates all relevant information from emails, telephone calls, notes, and more.
- Development of a specification list with the client
- Based on the requirements specification and project outline, a functional specification is created that outlines in detail how the requirements will be met
- Concept development and coordination with the client, taking into account the client's technical and economic ideas
- Concept presentation and discussion with the client
- Quotation based on the concept

AORDER PLACEDT

Plarad sets clear milestones, ensuring detailed coordination of electrical design and software development, with the respective design freeze approved by the client.

PROJECT PROCESS

- MILESTONE 1: Mechanical engineering
- MILESTONE 2:
  Control concept, control cabinet, electrical planning, packaging
- MILESTONE 3:
  User interface, ergonomics, operating concept

Plarad, in collaboration with Broetje Automation, has developed a mobile platform featuring a Comau NJ-165-3.0 robot arm and the Plarad end effector.



The system can handle loads of up to 165 kg, providing omnidirectional movement at speeds of up to 1.4 m/s, and is autonomously controlled using laser scanners. Devices such as tension cylinders or torque wrenches can be easily attached to the end effector. Its modular design enhances automation processes and drives innovation.

PLARAD®

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