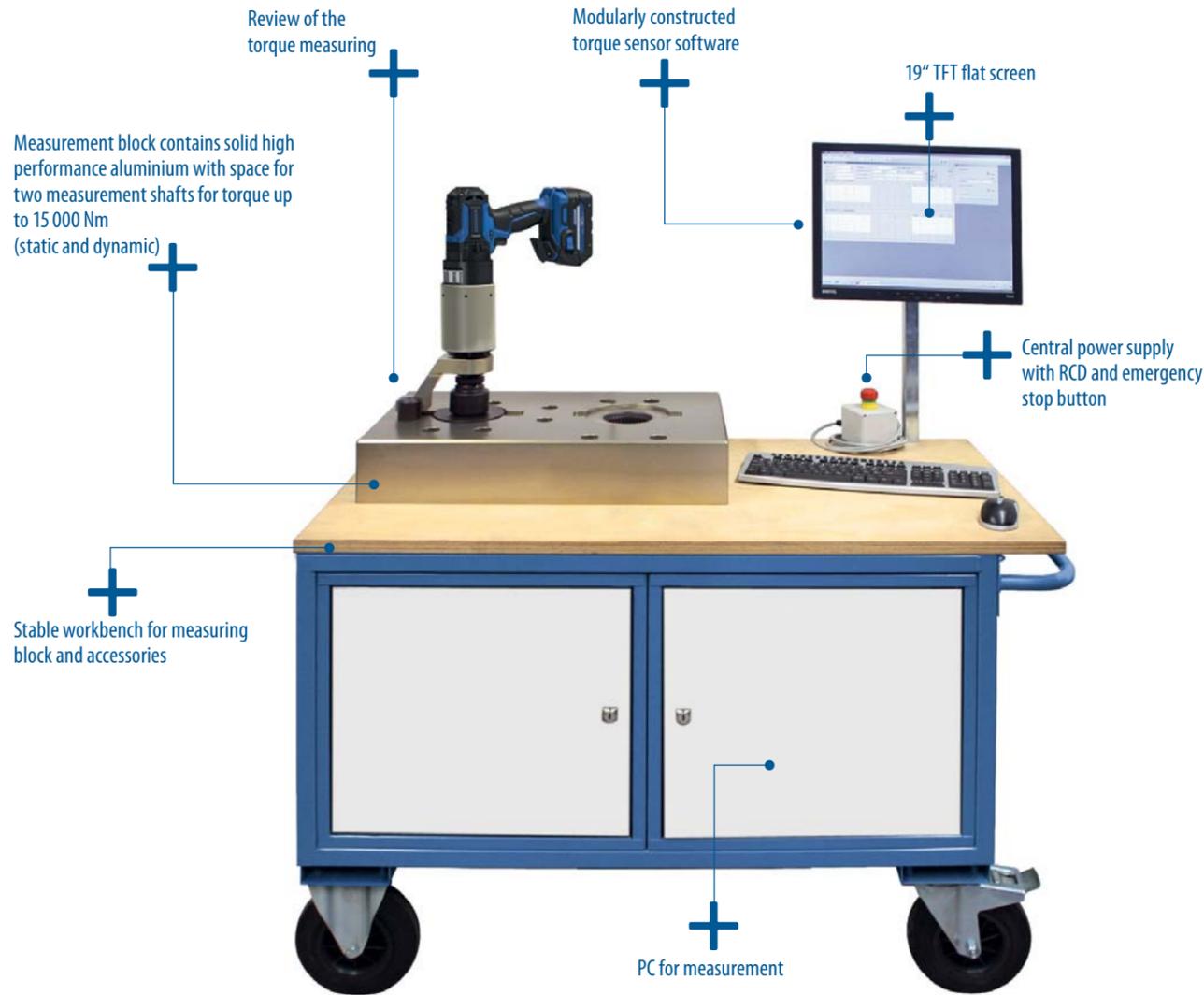


THE TORQUE TESTING BENCH TECHNOLOGY

LDP SERIES, 100 - 15000 Nm



Optional accessories - Bolt adapter



DYNAMIC TORQUE MEASUREMENT

If one considers the influencing factors that arise during the production of a correct bolted connection, it can be seen that the greatest influence is spread to the following factors based on the bolt itself: thread type and condition, grade, diameter, length, rotation speed – the list could be continued indefinitely.

For this reason, there are still no recommended measurement regulations from any of the official bodies for the traceable determination of dynamic torques. Torque measurements in which the resistance of the bolt connection is simulated via mechanical brake systems or similar, don't take into account significant influencing factors.

Static and dynamic torque measurement up to 15000 Nm

The torque testing bench system takes the actual aspects of your bolting applications in practice into account as much as is feasible. Original bolts with all the influencing factors that act on them are measured to determine the dynamic torques.

Correction factors are not necessary

The value determined during measurement is actually equivalent to the dynamic torque applied to the bolted connection. Subsequent addition of correction factors for hard or soft bolting operations is not necessary. This allows you to implement rational and error-free measurement in all application cases.

The modular kit

The interface between bolt and test bench is the so-called bolt adapter. The attachment of the bolt to the bolt adapter is simple. The bolted connection can be changed at any time, even during measurements. Special adaptations are just as easy with this system as the direct use of standard female hexagon inserts for static torque measurement of hydraulic wrenches, torque multipliers and torque wrenches.

Module for different languages

Certificates in various languages are increasingly required due to the international use of bolting systems. This is no longer a problem with the language module. The languages of all previously created factory calibration certificates can be changed during measurement and afterwards. Over 15 European and Asian languages are currently available.

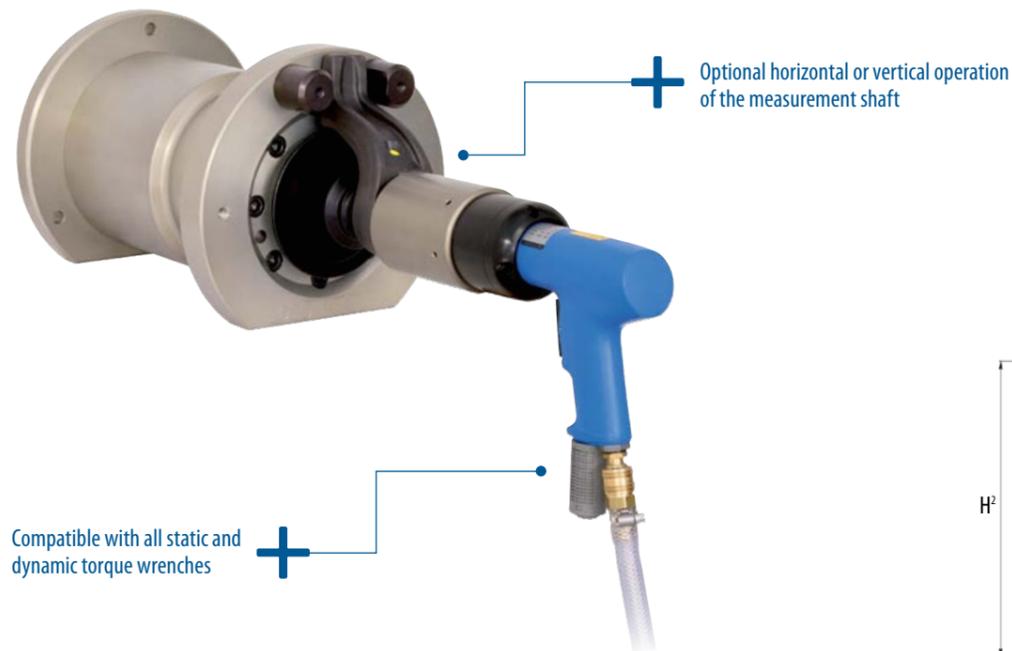
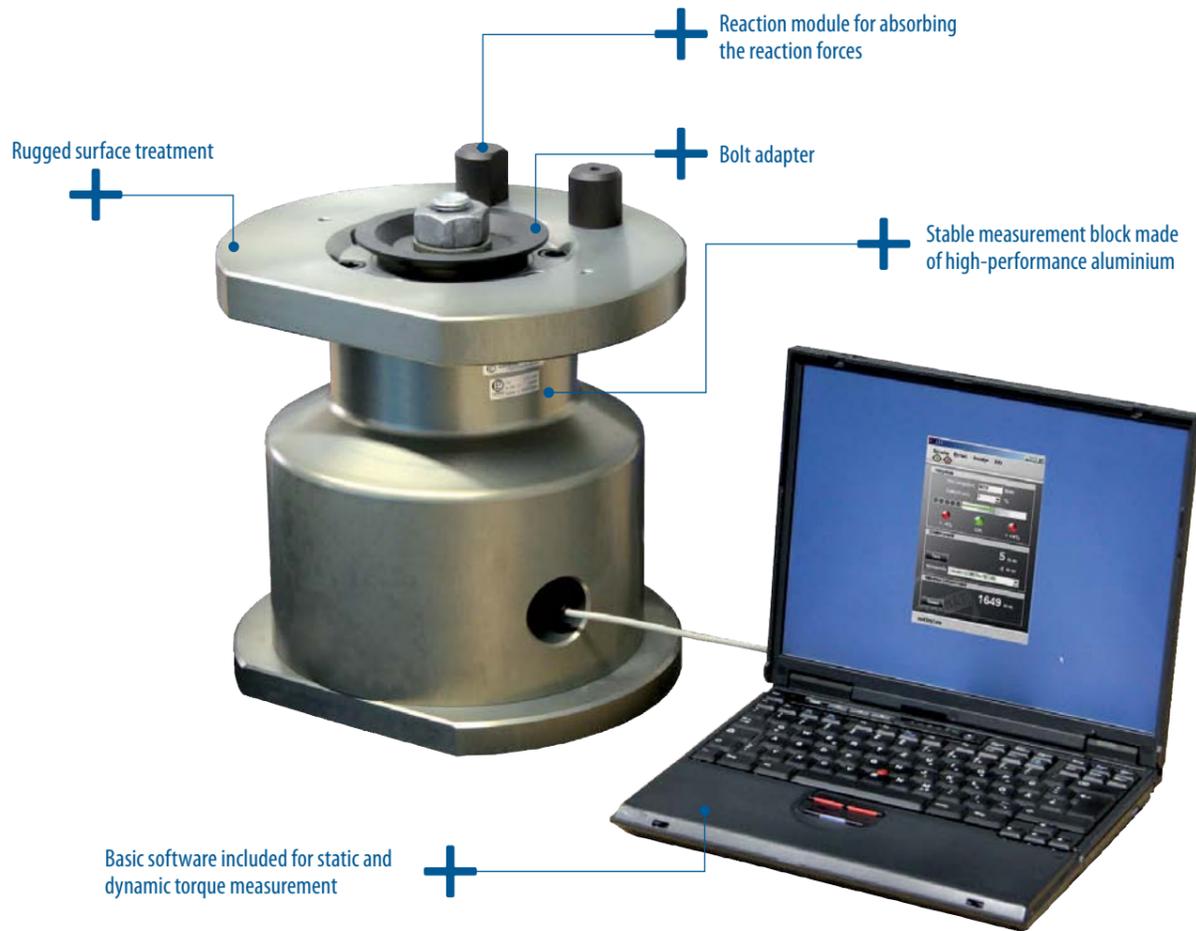


Module for graphical evaluation

The average values of all measurement series are recorded graphically and shown on the factory calibration certificate. The torque curve is recorded up to the maximum value for hydraulic torque wrenches and manual torque multipliers.

THE TORQUE TESTING BENCH TECHNOLOGY

LTC SERIES, 100 - 5000 Nm



	LTC-10	LTC-30	LTC-50
Ø	276	276	336
H¹	306	336	345
H²	346	376	387

Static and dynamic torque measurements up to 5000 Nm

Static and dynamic bolting systems must be regularly checked for their torque accuracy. The Torque Check (LTC) system was developed for simple, mobile and professional dynamic torque measurement.

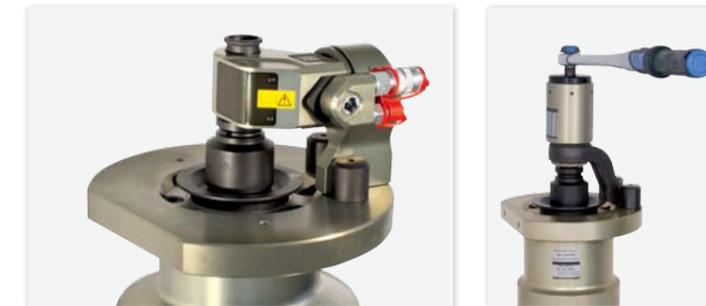
Torque measurement with our system

With this model you can rely on a tried-and-tested, practical measurement of your bolted cases. As in the larger LDP series the dynamic torque is determined using an original bolt. The supplied bolt adapter can be exchanged and replaced.

Basic software with comprehensive utility

The basic software included with the system has comprehensive utilities for rapid static and dynamic torque measurement in metric and imperial units. German and English are available as operating languages. At the end of each measurement, the system signals the operator immediately whether the determined values lie within the specified tolerances or not. The operator is constantly informed visually and numerically about the torque progress. This is particularly helpful when testing torque wrenches.

The basic software can be upgraded modularly to a complete test bench environment. So that the test bench grows from the entry model to a fully professional system together with your requirements.



The torque check is available for the following measuring ranges:

LTC-10	100–1 000 Nm
LTC-30	300–3 000 Nm
LTC-50	500–5 000 Nm

Influencing factors of the bolt connection

The aim of every bolt tightening operation is to achieve the required clamp force that is generated between two components being connected. The clamp force is influenced by numerous factors in the torque process. This means that the expected clamp force may not be reached in the end because other influencing factors have reduced the force. Influencing factors can be the condition of the thread, lubrication, etc. It is therefore very important to know the bolted connection and relevant influencing factors before any bolt is tightened. But how can the required clamp force be achieved with reproducible accuracy? The answer is: calibrate the system settings using original bolts.

Teach-in with original bolts

We know the influencing factors for bolt connections and take them into consideration during the test procedure. Our philosophy is very close to practice. The bolt adapters in the torque testing benches are realised 1:1 with the real application case. All influencing factors are taken into account within this process. Even exotic bolting operations can be individually simulated with our torque testing benches. The entire system reacts flexibly to hard and soft, static and dynamic bolting operations. At the end of measurement, each device receives the individual factory calibration certificate.

