



TESTit

Clamping force gauge for various applications

PLAY IT SAFE WITH TESTit

A regular check of the clamping force and draw-in force is imperative for a safe, precise, and productive process. These days no one can afford to manufacture with »theoretical clamping forces/draw-in forces«. Not to mention the fact that DIN EN 1550 requires that static clamping force measurements be carried out at regular intervals.

The TESTit clamping force gauge measures and records the clamping force clamping devices, the draw-in force of tool holders, as well as zero-point clamping systems and much more.

TESTit consists of two parts: The basic unit, which is the IT module, and the measuring units, which are the TEST modules. You only need the IT module once – regardless of whether you want to measure the clamping force at O.D. clamping or I.D. clamping or the draw-in force. It is so-to-speak the basis. Depending on the measurement application, there are different TEST modules that you can easily connect to the IT module via plug & play. Even special design TEST modules fit on the IT module.

All aspects have been carefully considered! With TESTit you do not leave clamping force and draw-in force up to chance; you do prevent workpiece deformation and reduce scrap.





Key advantages

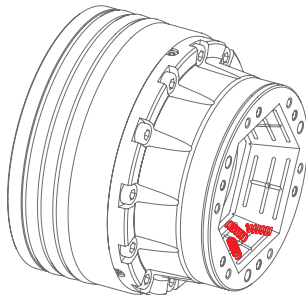
- Clamping force measurement for O.D. and I.D. clamping
- Draw-in force measurement for tool interfaces, zero-point clamping systems and quick change-over systems
- Axial force measurement for service / machine maintenance
- Two units, connected with plug & play IT module – the basic unit
TEST module – add on for various measurement applications
- Can be used rotating [under RPM] and for stationary applications
- Software for visualization and archiving

Why measure?

The clamping or draw-in force can be negatively influenced by various parameters. Contamination of the clamping device, for example, can reduce the clamping force - with direct effects on the machining process. By measuring regularly, you can detect such force losses immediately and thus reduce scrap.

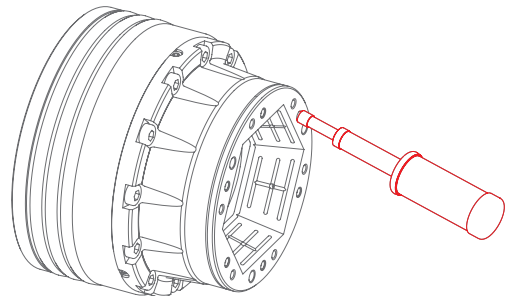
Contamination

Contaminated clamping device
due to e.g. chips



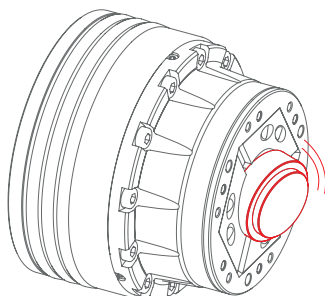
Lubrication condition

Dry clamping device
due to lack of lubrication



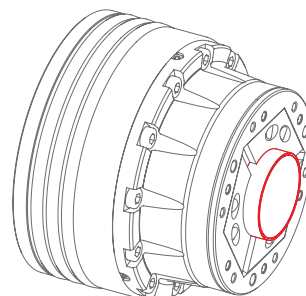
Insufficient clamping force

Workpiece loss
due to insufficient clamping force



Too high clamping force

Workpiece deformation
due to too high clamping force



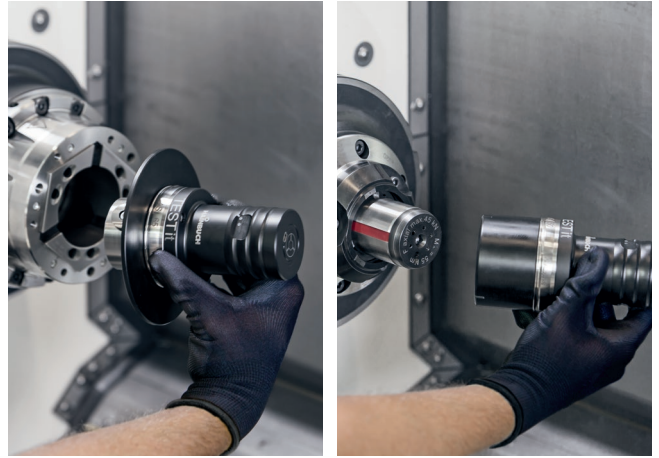
Clamping force measurement

for clamping devices



**TEST module
AS/IS**

- Determination and documentation of ideal clamping force
- Determination of lubrication condition and degree of contamination



Applications

- O.D. clamping / chucks
- I.D. clamping / mandrels

Holding power measurement

for tool interfaces



**TEST module
HSK/SK/Capto**

- Determination of spring fracture or force reduction
- Determination of lubrication condition and degree of contamination



Applications

- Hollow tapered shanks
- Steep taper
- Capto interface

Draw-in force measurement

for quick change-over systems



**TEST module
centroteX S/AC**

- Regular control of the draw-in force in an automated process
- Determination of lubrication condition and degree of contamination



Applications

- Quick change-over system centroteX S
- Automated quick change-over system

Draw-in force measurement

for zero-point clamping systems



**TEST module
ZP**

- Determination of spring fracture or force reduction
- Determination of lubrication condition and degree of contamination



Applications

- Hydraulic zero-point clamping systems
- Pneumatic zero-point clamping systems

Force measurement

for service / machine maintenance



**TEST module
ZB/ZR**

- Ideal clamping, holding or draw force determination
- Helps with preventive maintenance and fault diagnosis



Applications

- Force measurement via draw bolt of the mandrel
- Force measurement directly at the draw tube

Special designs



**TEST module
Special design**

- Individual customer requirements
- Force measurement of special clamping devices



Applications

- 6-jaw chuck
- Diaphragm clamping device

TESTit – MODULAR MEASURING SYSTEM



2000/05.22 part no. 60000458 Subject to technical changes.



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