

5-axis module clamping system 50



Technical information for 5-axis module clamping system 50

Features	Description
Functionality	Functional slides are closed by the manual rotary movement of a threaded spindle with RH/LH threads and lock the clamping pin with frictional force.
Self-locking	After closing, the clamping pin remains in the tensioned clamping module, even if the external tensile force exceeds the retraction force.
Actuation torque	10 Nm
Repeat accuracy: with clamping pin Form A	< 0,005 mm
Short cone centring	Precise centring with radii to ease insertion
Milling application	The clamping modules are generally not approved for turning applications.
Temperature range	+5°C to +60°C

Retraction force in axial direction

Retraction force by 10 Nm actuation torque = 10,000 N



Axial load and retraction path

Axial load $F_{\text{Axial}} = 25,000 \text{ N (2.5 t)}$

Retraction travel = 0.3 mm

Tilt/torque single module

$M_{\text{tilt module}} = 150 \text{ Nm (empirically determined)}$

$M_{\text{rotation module}} = 25 \text{ Nm}$

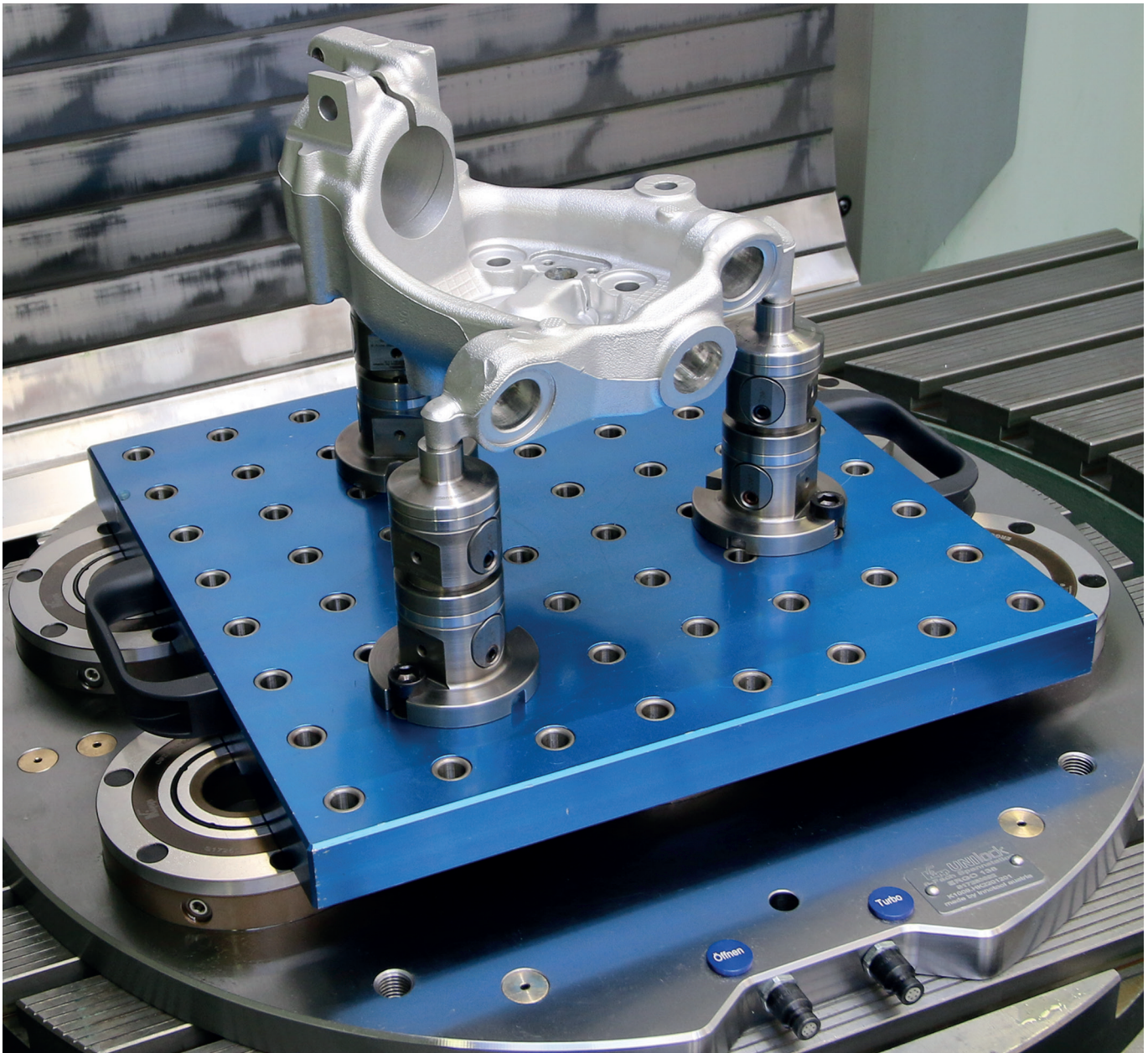
$F_{\text{lateral force}} = 1,000 \text{ N [lateral force without relative movement]*}$



* The correct function of the clamping modules, in particular the repeat accuracy, is guaranteed up to a lateral force of 1,000 N. The failsafe and personal safety of the clamping modules is assured up to a critical lateral force of 7,000 N.

Function

The UNILOCK clamping system 50 mm has been developed specifically for 5-side machining of small workpieces.



Advantages:

- 5-side machining with no protruding edges
- Modular construction guarantees maximum flexibility
- Can be combined with the UNILOCK modular system 80 mm
- Small gauges for modules from 40 mm possible
- Small clamping pin, D 25 mm, for workpieces with smaller dimensions
- Variable workpiece fastening
- The workpiece is simply positioned and clamped with screws or seatings
- High module clamping force
- Very high repeat accuracy