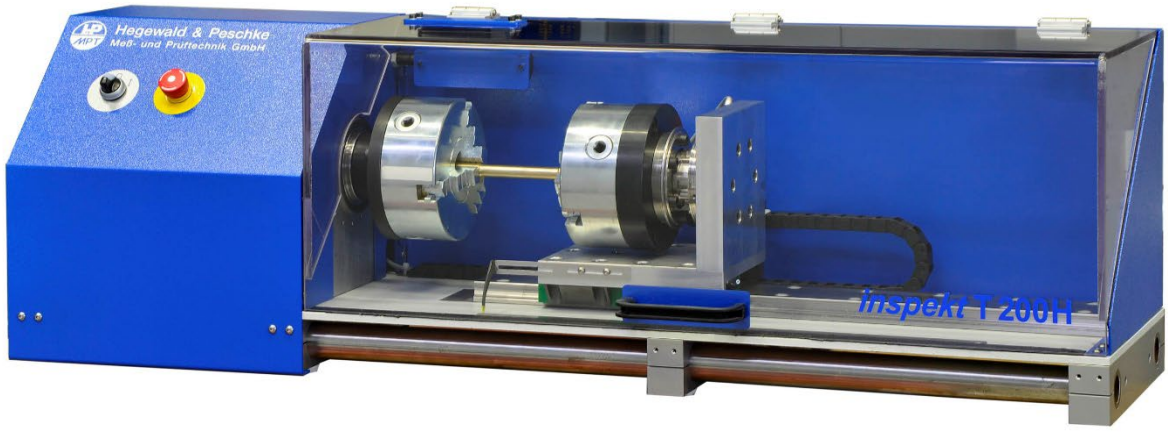
Hegewald & Peschke
Meß- und Prüftechnik GmbH

Product Information

Torsion testing devices

with controller



zertifiziert nach DIN EN ISO 9001
TÜV CERT
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Fields of application

Torsional load on specimens made of different materials e. g.:

- plastic materials, composite materials
- srews, drive shafts
- static and dynamic test procedures
- cyclic load tests
- calibration of torque sensors

The torsion testing device is used in science, research and teaching, in test laboratories and in the production accompanied control.

Advantages

- high torsional stiffness and high angular resolution
- infinite number of revisions possible
- electrical overload protection
- possible locking of mobile carriage
- variable testing speed area
- maintenance-free AC servo drive with a planetary gear set free of play
- operation with customary PC and material testing software LabMaster
- protection of the operating staff by a coverage of the workroom with an electromagnetic locking

Torque measurement

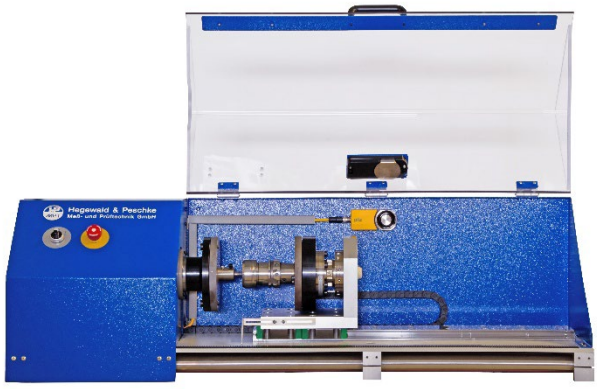
The torque measurement will be in the measuring range 1 to 100 % of nominal capacity at a torsional resolution of 24 bit.
The torque sensor will be calibrated by the producer (according to DIN 51309).

Mechanical design

The system is based on a base frame consisting of 4 fixed bearings (inspekt T-200H and inspekt T-200H-XL) or 6 fixed bearings (inspekt T-500H), which are connected to each other through two hollow shafts made of stainless steel. Thus, a high torsional stiffness is achieved.

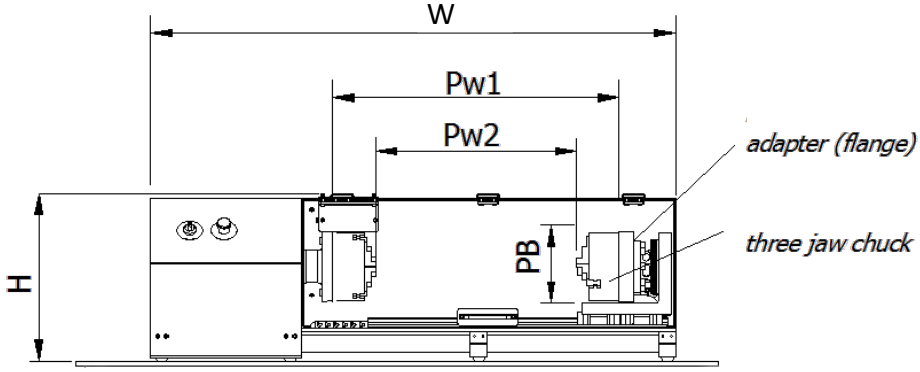
The drive is assembled on the frame of the machine and consists of a servo motor with flanged planetary gear. The mobile carriage with adapted torque sensor is installed at a base plate of steel and directed through a rail guide. The specimen to be tested is clamped between the drive and the mobile carriage using suitable clamping tools (e.g. three-jaw chuck or collet).
The work area is closed by a safety door with electrical monitoring. This door is looked by a magnetic secure switch during the tests. Only for calibration or service functions the safety door can be deactivated.

The machine is intended for installation on a table/workbench (to be provided by the customer or optionally available).

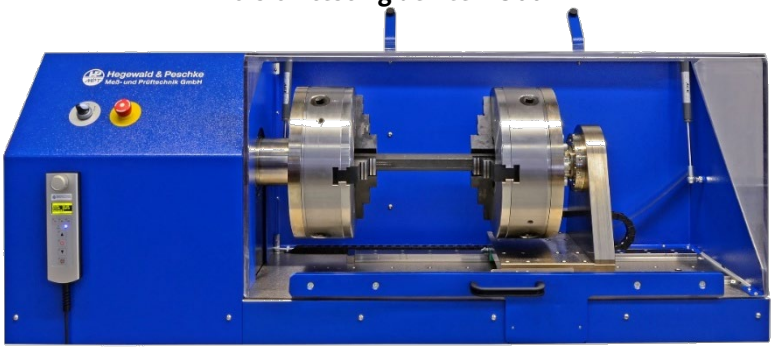


Technical data

	inspekt T-200H 41-031-510	inspekt T-200H 41-031-501	inspekt T-200H-XL 41-031-506	inspekt T-500H 41-031-513
Test load	200 Nm	200 Nm	200 Nm	500 Nm
Machine dimensions (WxDxH)	1200 x 340 x 390 [mm]	1200 x 340 x 390 [mm]	1430 x 450 x 550 [mm]	1430 x 450x 550 [mm]
Weight	approx. 105 kg	approx. 110 kg	approx. 305 kg	approx. 280 kg
Testing speed	0,05 – 25 turns per minute or with force control up to 200 Nm	0,05 – 60 turns per minute or with force control up to 200 Nm	0,05 – 25 turns per minute or with force control up to 200 Nm	0,05 – 25 turns per minute or with force control up to 500 Nm
Max. test chamber length between flanges (Pw1)	670 mm	670 mm	760 mm	720mm
Max. test chamber length between chucks (Pw2*)	470 mm	470 mm	560 mm	47 0mm
Connection	115/230 VAC, 0.7 kVA, 50/60 Hz, 5- 40°C, 20- 80 % humidity	230 VAC, 1.5 kVA, 50/60 Hz, 5- 40°C, 20- 80 % humidity		
Data transmission	Data transfer to PC: Ethernet (LAN) or USB, 50 Hz (*optional higher data acquisition frequency)* Load and crosshead travel channel integrated 3 free slots for expansion cards for additional measurement and control channels available *(optionally expandable to 7)*			
Optional accessory	Torque sensor (42-030-020 or 42-030-021) Clamping tools (see separate flyer) PC/TFT Table/workbench Testing software LabMaster			



Torsion testing device T-500H



Further torsion testers from Hegewald & Peschke

TW-500H torsion testing machine for tests acc. to ISO 7800, ISO 9649, ASTM A938

Torsion testing device inspekt T-5000H with a maximum torque of 5000 Nm