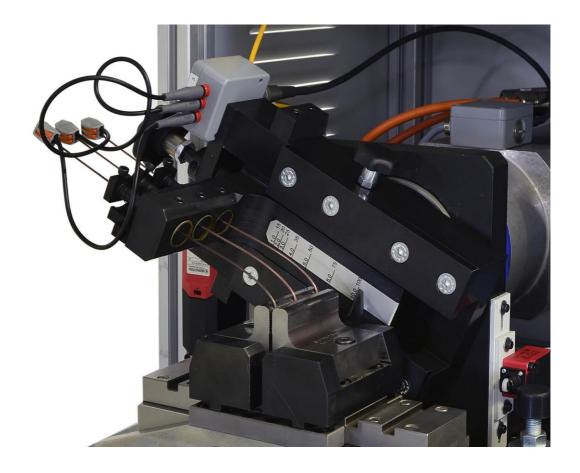


### Application flyer

## Testing of wires



#### Universal Testing Machines with special grips



Wedge type grip with clamping jaw holders for the testing of round and flat wires as well as other semi-finshed specimens



The long design of the clamping jaws allows a soft leading of the clamping force into the specimen, enhancing the tensile test by reducing the stress concentration at the end of the clamping area. It is known that specimen fracture may occur at the clamping jaw, if the cross sectional area of the free length and the clamped specimen is equal. Exactly this effect is prevented by the special jaw design.

#### Pneumatic rope grip



This grip is among others suitable for tensile tests on wires up to 4 mm thickness. The clamping force can be reduced by the bollard grip design. This decreases the risk of fractures at the grips significantly.

#### Enlacement grip for wires





The enlacement clamping device for wires and tapes is designed for tensile tests with specimens up to a maximum load of 1kN. It is suitable for tests in liquid nitrogen down to -196°C.



# Bending Fatigue Testing Maschine 180° for wire specimens according to DIN51211 and ISO7801



#### Functional principle:

The wire samples are of a defined length. They are bent with a 90° angle to the left and to the right. The angle deviates by max. ± 3°.

The lower end of the wire is clamped into a screw terminal and guided through a pair of bending rolls. The bending rolls are made of special hardened material to allow the testing of wires up to 2,000MPa. The rolls ensure defined bending depending on the wire diameter. The bending rolls can be exchanged.

The upper end of the wire is clamped into a movable, servomotor-driven bending arm. The testing facility is adjustable according to the standard indicated above.

The test station allows the simultaneous testing of upt to 3 specimen depending on the wire diameter. Accordingly the test time can be reduced dramatically.





#### **Technical Data:**

**Test materials** Wire samples with a

diameter between 0.3 -12.5 mm and a max. tensile strength of 2,200 MPa

Bending speed ma

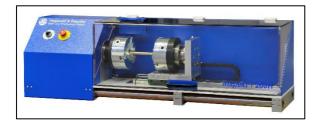
max. 1 s per 180° bending (longer intervals can be set)

Dimensions (WxDxH)/ Weight

1030 mm x 800 mm x 1385 mm/ 300 kg



#### Torsion testing device Inspekt T-200H

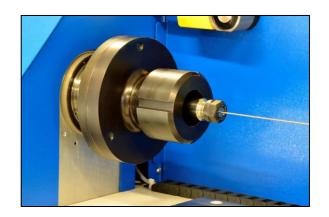


#### Fields of application:

- torsional load on specimens made of different materials at static tests, e. g. torsion tests on wires according to DIN ISO 7800 and ASTM A938 as well as alternating torsion tests on wires according to DIN EN 2002-13
- The torsion testing device is used in science, research and teaching, in test laboratories and in the production accompanying control.

#### Advantages:

- high torsional stiffness and high angular resolution
- electrical overload protection
- variable testing speed
- 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



#### **Technical Data:**

	200 New Address of 100 - 500 New resemble)
Test load	200 Nm (alternative 100 — 500 Nm possible)
Specimen dimensions	Ø40 mm connecting chuck, max. Ø100 mm, max. 300 mm length
Machine dimensions, weight	WxDxH 1200 x 340 x 390 mm; test room without tools: 500 mm ca. 105 kg (movement force of the crosshead 2 0N)
Torque measurement	Measuring range: 1 to 100 % of nominal capacity, Resolution of measurement: +/-180,000 digits at 20 ms integration time, 0,1° Resolution of angel, torque sensor will be calibrated through producer (after DIN 51309)
Testing speed: v	Speed 0.05-25 (optional up to 60) turns per minute or with force control up to nominal torque