



## Product information

# Universal testing machine inspekt duo





### General product description

With regards to standard-compliant material and component testing in the low load range Hegewald & Peschke MPT GmbH has developed the inspekt duo universal testing machine with two different test room heights. The inspekt duo is a cost-effective table-top machine of low weight and high bending stiffness suitable for tensile, compression and bending tests on various materials. In combination with the ergonomic design and the new brushless drive concept, a safe and fast measurement is guaranteed with the simplest operation both in the harsh production environment and in the sterile laboratory area.

#### Application:

- testing of plastics, elastomer tensile tests
- lightweight materials and components, component tests
- spring testing, foils, textile testing

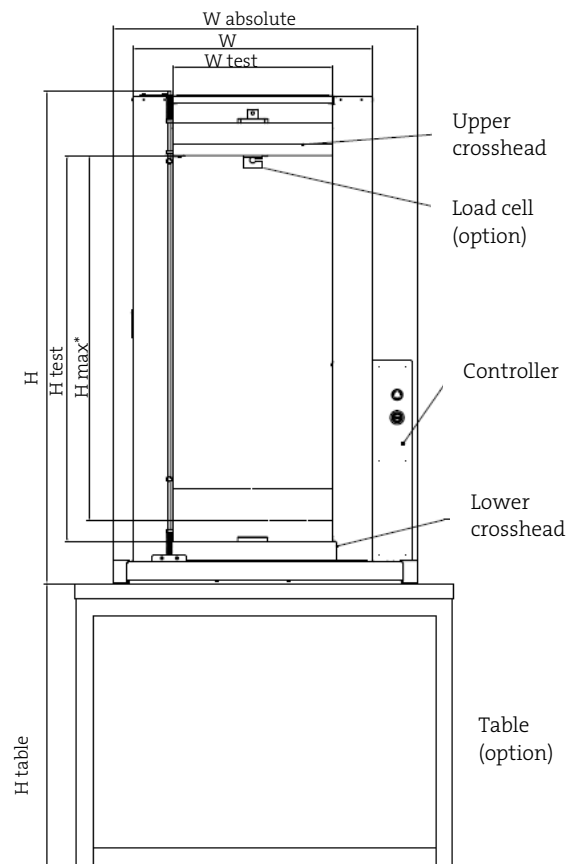
### Essential characteristics

- Innovative brushless drive without gear drive
- Reduced noise pollution due to low engine speed and optimized frequency range
- Freely selectable control of crosshead travel, force or elongation
- High-precision force measurement by strain gauge load cell
- Compact workplace design
- Designed for both standing and seated work at the worktable due to very flat lower traverse and lateral arrangement of electronics
- Large machine base plate for the adaptation of accessories and the storage of tools or specimen
- Easy cleaning of the machine

### Dimensions in [mm]:

	inspekt duo M	inspekt duo L
<b>H (height)</b>	1305	1605
<b>H test (test room height)</b>	1025	1325
<b>H max * (max. test stroke)</b>	970	1270
<b>W absolute (width with control)</b>	804	
<b>W (width)</b>	631	
<b>W test (test room width)</b>	420	
<b>D (depth)</b>	640	
<b>H table (height table)</b>	750-1050	

\* Crosshead travel without grips, adapter and load cell



View universal testing machine with dimensions



### Frame and test room height

The two-spindle universal testing machine inspekt duo has two backlash-free ball screws in H-frame design with spindle protection and innovative brushless drive motor.

The newly developed testing machine is available in two different test room heights and can thus be optimally adapted to individual requirements.

inspekt duo M (item no. 10-008-x11)

Test room height: 1025 mm

Especially tensile tests on plastics, metals (medium elongation) as well as compression and bending tests



inspekt duo L (item no. 10-008-x21)

Test room height: 1325 mm

Especially tensile tests on plastics, silicones, elastomers (very high elongations)

### Technical data:

<b>Test force tension/compression</b>	5 kN	10 kN
<b>Test speed V</b>	0.8 µm/min up to 1200 mm/min	0.8 µm/min up to 600 mm/min
<b>Max. resolution of crosshead travel measurement</b>	<0.025 µm	<0.012 µm
<b>Mechanical construction</b>	2 backlash-free recirculating ball screws, brushless drive	
<b>Stiffness of the test frame</b> incl. deformation of the load cell and tool adapter	10 kN/mm	
<b>Measuring range force</b>	In the range 0.1 - 100 % of nominal load class 1 (optional class 0.5) depending on the force sensor used (according to DIN EN ISO 7500-1, ASTM E4)	
<b>Force measurement resolution</b>	24 bit (±8,388,608 Digits)	
<b>Measurement and control electronics</b>	Force and crosshead travel channel integrated Additionally 3 free slots for expansion cards for analog/digital inputs/outputs for force, displacement, strain gauges, as well as +/- 10V input for external measuring devices, safety door connection	
<b>Electrical connection</b>	230 VAC, 0.5 kVA, 50 Hz, 10 - 30 °C, 20 - 80 % humidity	
<b>Weight</b>	inspekt duo M: 83 kg	inspekt duo L: 88 kg
<b>Data processing</b>	Ethernet (LAN) or USB, 50Hz (Standard) <i>optional increased data acquisition rates</i>	
<b>Hint</b>	This testing machine series is not designed for connecting external electrical devices (e. g. temperature chambers) to the emergency stop circuit of the machine.	



## Necessary accessories



### Standard load cells

including H&P-factory calibration class 1 acc. to DIN EN ISO 7500 with protocol (Class 0.5 optional, DAkkS calibration optional).

Force measuring range	S-load cell	R-load cell cross load stability up to 100% up to class 1 acc. to ISO 7500	R-load cell cross load stability up to 50% up to class 0.5 acc. to ISO 7500
10 N	11-001-343		
20 N	11-001-348		
50 N	11-002-343		
100 N	11-003-343		
200 N	11-003-348		
500 N	11-004-343	11-004-305	
1 kN	11-005-343	11-005-350	
2 kN	11-005-345	11-005-352	
2.5 kN	11-005-347		11-005-325
3 kN	11-006-340		
5 kN	11-007-340	11-007-350	11-007-300
10 kN	11-009-340	11-009-355	11-009-305

### Adapters

Item number	
12-xxx-001	für S-load cell
12-xxx-002	für R-load cell

## Optional accessories



### Safety doors

The safety door for the inspekt duo testing machine is made of transparent material. It is available in round design covering the whole test room (see left) or as front door sliding to the left.

Item	for inspekt duo M	for inspekt duo L
Sliding door, round, closed on all sides	19-008-210	19-008-220
Sliding door, round, closed on all sides, software surveillance	19-008-212	19-008-222
Sliding door, round, closed on all sides, safe electrical locking	19-008-214	19-008-224
Safety door, front and sides	19-008-310	19-008-320
Safety door, front and sides, software surveillance	19-008-312	19-008-322
Safety door, front and sides, safe electrical locking	19-008-314	19-008-324
Safety door, back side and at the sides	19-008-340	19-008-350

### Extensometers and holders

Item number	Item	Extensometer holder
15-024-031	Long distance extensometer L700, Series table/blue/solo/duo	
15-024-030	Long distance extensometer L1100, Series table/blue/solo/duo	15-008-200
15-012-6x0	Videextensometer ONE1	15-008-230
15-100-1x0	Long distance extensometer MFX200	
15-100-1x2	Long distance extensometer MFX500	15-008-220
15-100-180	Long distance extensometer MFE	
Others on request		

### T-groove plates

The T-groove plates are used for larger specimens and for specimens requiring variable mounting points.

Item number	Item
14-075-142	T-groove plate



### Workbenches

An ergonomically designed workplace with functional equipment is the basis for an efficient performance of tasks. In order to facilitate the design of the measuring workplace, we offer you the following accessories.

Item number	Item
19-008-804	Color frame RAL 9006, 40 mm strong bench wood panel, cable gland, cable duct, working height adjustable from 0.75 to 1.05 m, load capacity up to 500 kg area load <b>W 1 m x D 0,9 m</b>
19-008-810	Color frame RAL 9006, 40 mm strong beech wood panel, computer holder, cable gland, cable duct, working height adjustable from 0.75 to 1.05 m, load capacity up to 1250 kg area load <b>W 1.5 m x D 0,9 m</b>
19-008-820	Color frame RAL 9006, 40 mm strong beech wood panel, computer holder, cable gland, cable duct, working height adjustable from 0.75 to 1.05 m, load capacity up to 1250 kg area load <b>W 2 m x D 0,9 m with base unit</b>

### Hand panel

Item number	Item
10-030-880	Hand panel RMC 6

