

## universal testing machine

### single spindle testing machine inspekt S 5kN



The Universal Testing Machine *inspekt S* is an electromechanical desktop machine for loads up to 5kN and was designed for testing foams, plastics, light-weight materials and components. The test frame is divided into base plate and portal frame with a single-spindle-actuation-unit in the centre. The test area (between the base plate and moving traverse) corresponds to the standard test area provided for the application, which can withstand the machine load of 5kN.

The illustration above shows a specific configuration for testing flexible cellular materials, bonded and molded foams in accordance with the standards ASTM D 3574-B1 and ISO 3386-1 (load deflection). The upper circular compression pad has a diameter of 203mm and is directly attached on the load cell by using an universal joint. The lower base plate is made of Aluminium and comes with a breadboard in centre.

<b>mechanical design</b>	central actuation-unit with ball screw, portal frame made of aluminium profiles, driven by a DC-servomotor, F <sub>max</sub> =5kN, stiffness (system load frame-load cell max.capacity-adapter) 5 kN/mm, one testing room (up to nominal load), test area width (clearance): 810mm, crosshead travel (without grips): 490mm
<b>standard functions</b>	<b>operation mode: stand alone or PC-control</b> programmable control at selected load, stroke or strain values over-load protection, automatic calibration sample-break-detector, return-function, precise manual crosshead control by control panel with display (force, stroke)

<b>capacity</b>	5kN
<b>testing speed</b>	0,05 - 800 mm/min
<b>return speed</b>	V <sub>max</sub>
<b>force measurement range</b>	in range of 0,8 - 100 % of load cell capacity class 1 (optional class 0,5) according EN 10002-2, ASTM E4, DIN EN ISO 7500 class 1)
<b>force resolution</b>	+/- 60.000 digits at integration time 20ms (standard)
<b>stroke measurement</b>	incremental input with sensor monitoring, storing of stroke position
<b>stroke resolution</b>	< 1µm
<b>software-interface</b>	USB 2.0 - Interface and LAN
<b>data transfer rate</b>	50Hz (standard)
<b>optional card</b>	1 analog or digital in- and output for load, strain or additional measuring devices are possible, +/-10V input for external devices, in- and output-card for controlling of external devices, card for safety-devices
<b>power consumption</b>	115/230 VAC, 0,7 kVA, 50/60 Hz, 5- 40°C, 20- 80 % humidity
<b>dimensions w x d x h</b>	1020 x 810 x 1460 mm
<b>weight</b>	80 kg
<b>noise emission</b>	max. 65 dB

<b>options:</b>	<ul style="list-style-type: none"> <li>- load cell 100N / 500N / 1kN / 3kN / 5kN</li> <li>- testing instruments (grips) for tensile tests</li> <li>- compression plates, flexure test kits, special fixtures, external devices</li> <li>- PC (current standard), operating system Windows® 2000 / XP</li> <li>- Software <b>LABMASTER</b> version: BASIC / SCIENCE</li> </ul>
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<b>main connection for grips (coupling)</b>	R20/8 (standard)
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