

# **Product information**

# Universal testing machine inspekt blue

20kN and 30kN







#### General product description

The material testing machines of the series inspekt blue are especially suitable for standard applications in quality assurance. Due to the high demand for cost-efficient testing machines, inspekt blue has been equipped with a simple, but multifunctional load frame. The inspekt blue is suitable for tensile, compression, peel 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.

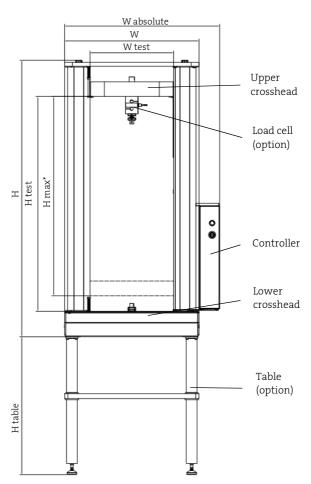
#### **Essential characteristics**

- 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
- Designed for both standing (with optional workbench) and seated working
- Various adaptation of accessories and additional load cells

#### **Dimensions:**

|                                 | mm   |
|---------------------------------|------|
| H (height)                      | 1420 |
| H test (test room height)       | 1100 |
| H max * (max. test stroke)      | 1005 |
| W absolute (width with control) | 750  |
| W (width)                       | 685  |
| W test (test room width)        | 420  |
| D (depth)                       | 450  |
| H table (height table)          | 685  |

<sup>\*</sup> Crosshead travel without grips, adapter and load cell



View universal testing machine with dimensions



# Technical data\*:

| Test force tension/compression   | 20kN  | 30kN                     |  |
|--|---|--------------------------|--|
| Stiffness load frame<br>incl. deformation of the load cell<br>and tool adapter | 35kN/mm   | 30kN: 40kN/mm            |  |
| Test speed   | 0.0003mm/min - 400mm/min  | 0.0002mm/min - 240mm/min |  |
| max. resolution of crosshead<br>travel measurement                             | <0,005μm <0,003μm   |                          |  |
| Mechanical construction  | 2 backlash-free recirculating ball screws, brushless drive  |                          |  |
| Measuring range force  | In the range 0.4 - 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)                                    |                          |  |
| Electrical connection  | 230 VAC, 0.5 kVA, 50 Hz, 10- 30°C, 20- 80 % humidity  |                          |  |
| Weight   | 140kg   |                          |  |
| Data processing  | USB 2.0 interface or LAN, data transfer rate to PC: 200 Hz (50Hz standard), internal data processing rate 1000 Hz (1ms)   |                          |  |
| Controller   | EDC 2   |                          |  |
| Application  | Testing of metals, wire testing Testing of plastics, lightweight materials and components Component and creep testing, elastomer tensile tests Spring testing, foils, textile testing |                          |  |
| Hint   | This testing machine series is not designed for connecting external electrical devices (e. g. temperature chambers) to the emergency stop circuit of the machine.                     |                          |  |

<sup>\*</sup> Subject to technical changes.



#### **Necessary accessories**







R-load cell (for cl. 0.5 ISO 7500)

#### 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<br>range | S-load cell | R-load cell<br>cross load stability up to 100%<br>up to class 1 acc. to ISO 7500 | R-load cell<br>cross load stability up to 50%<br>up to class 0.5 acc. to ISO 7500 |
|-----|--------------------------|-------------|--|---|
| -   | ION                      | 11-001-343  |  |   |
| 2   | 20N                      | 11-001-348  |  |   |
|     | 50N                      | 11-002-343  |  |   |
|     | 100N                     | 11-003-343  |  |   |
| - 2 | 200N                     | 11-003-348  |  |   |
|     | 500N                     | 11-004-343  | 11-004-305   |   |
| -   | LkN                      | 11-005-343  | 11-005-350   |   |
| 2   | 2kN                      | 11-005-345  | 11-005-352   |   |
| 2   | 2.5kN                    | 11-005-347  |  | 11-005-325  |
| 1   | 3kN                      | 11-006-340  |  |   |
|     | 5kN                      | 11-007-340  | 11-007-350   | 11-007-300  |
| -   | 10kN                     | 11-009-340  | 11-009-355   | 11-009-305  |
| 2   | 20kN                     | 11-010-340  | 11-010-500   | 11-010-305  |
| 1   | 30kN                     |             | 11-018-300   | 11-010-365  |

# **Adapters**

|          | Item number | 12-xxx-001 for S-load cells on crosshead to connector R20/8 up to 20kN  |
|----------|-------------|---|
| )        |             | 12-xxx-002 for R- load cells on crosshead to connector R20/8 up to 20kN |
| <u> </u> |             | 12-xxx-005 for load cells on crosshead to connector R36/18 up to 50kN   |

# Optional accessories



To ensure the protection of the operator at any time, the load frames of the universal testing machine inspekt blue can be equipped with different safety devices. They are especially important when working with splintering, flogging or exploding samples. The safety door for the inspekt duo testing machine is made of transparent material. It is available on the front side for sliding to the left and at the sides.

| Item   | for inspekt blue 20/30 |
|--|------------------------|
| Safety door, front side                            | 19-030-020             |
| Safety door, front side with software surveillance | 19-030-022             |
| Safety door, back side and at the sides            | 19-030-008/011         |

# **Extensometers and holders**

| Item number  | Item   | Extensometer holder                  |  |
|--|--|--------------------------------------|--|
| 15-024-021   | Long distance extensometer L700, Series table/BLUE/solo/duo 15-010-004 |                                      |  |
| 15-024-020   | Long distance extensometer L1100, Series table/BLUE/solo/duo           |                                      |  |
| 15-012-400/-410/-420   | Video extensometer   | 15-012-931                           |  |
| 15-100-060   | Long distance extensometer MFX200                                      | 15-010-004                           |  |
| 15-100-068         Long distance extensometer MFX500           15-100-025         Long distance extensometer MFE |  | (15-010-004<br>(15-010-001 optional) |  |
|  |  | - (15-010-001 optional)              |  |
| Others on request  |  |                                      |  |

#### T-groove plates

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



#### 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 | 10-030-807 |  |  |
|-------------|------------|--|--|

# Hand panel

| Item number | Item             |
|-------------|------------------|
| 10-030-896  | Hand panel RMC 6 |