

Air spring test machine

The Ulbrich air spring test machine has been specially developed for the safety control process within the Railway Industry

Technical Data:

Dimensions:

Width: 1,2 m
Height: 3,6 m
Depth: 1,8 m

Air Spring dimensions:

Width, Depth: 830 mm
Clearance height: 940 mm

Press force:

max. 190 kN

Hydraulic cylinder:

Stroke 700 mm
Guide cylinder prevents unwanted rotation
High resolution / fully integrated distance measurement & control
Special servo-cylinder with low friction anti stick-slip seals.
Fast positioning and force stroke for the entire working stroke distance possible

Drive unit:

Compact power pack mounted on upper press frame
Energy efficient control block with volume and pressure regulator
Power 3 kW
Operational pressure proportionally variable 10 to 250 bar
Variable operational speed control
Tank volume approx. 60 Liter
Oil level and temperature control sensors

Control unit:

Touch Panel PC with test machine software.
Additional options: Printer, mouse and keyboard and separate housing upon request.

Operation:

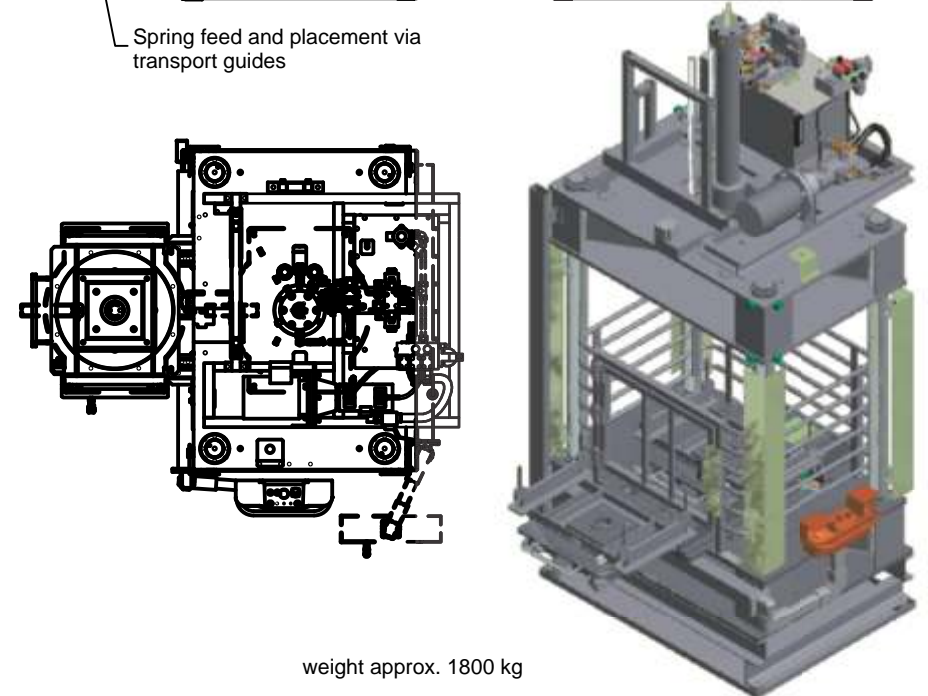
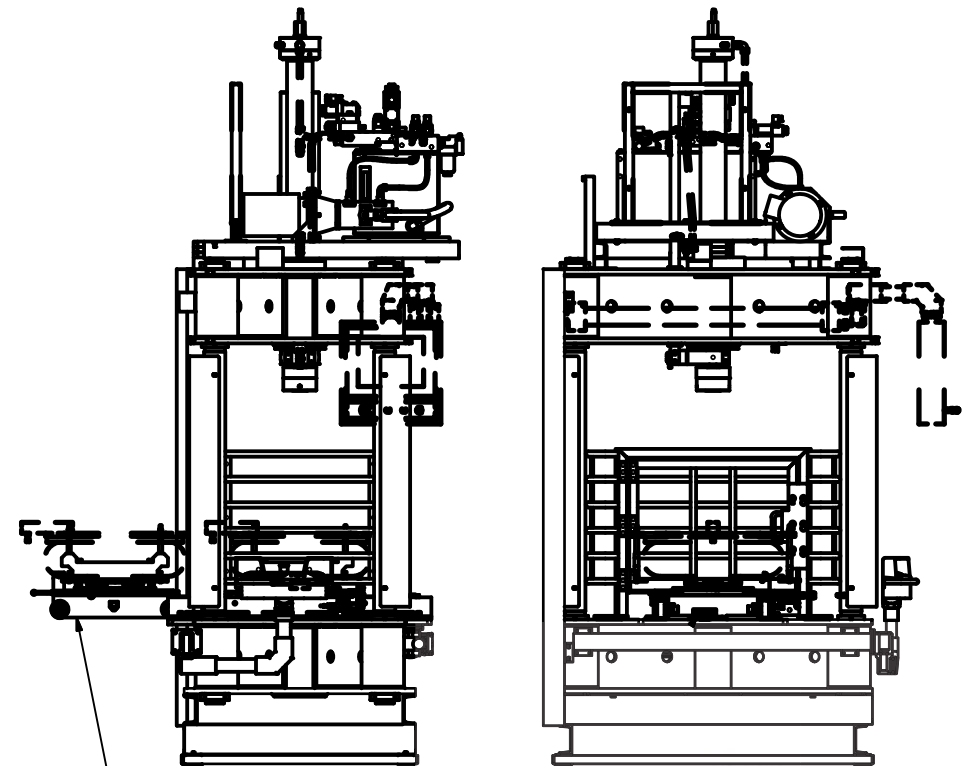
The test cycle is carried out in accordance to specified performance criterion, the actual test run itself is freely programmable thus enabling the test centre to control any number of different spring types.

The press force, compression depth, holding time, air cushion internal pressure, pre-test run compression set, the test protocol form and automatic archiving methodology can all be individually defined for an open ended number of test programs.

The open protection housing enables visual control of the spring and eases the placement and removal of the test object. The internal pressure of the spring is maintained by airlines which allow for the spring movement.

Air pressure is displayed and can be adjusted according to the test criterion.

Safety standards are set up in accordance to customer needs and we carry out a workplace risk analysis taking into account the actual operational environment where the machine will be installed.



weight approx. 1800 kg

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Technical description:

ULBRICH position- and force monitored, additionally position- and force controlled. Test machine for measuring the spring characteristics and sealing properties of air springs to the specifications and drawings.

The press operation is activated via a two handed button control in combination with the touch panel PC. The customer can also decide to have in addition to the PC a printer, mouse, keyboard, WLAN and a key code reader installed.

The test cycles can be directly programmed and saved on the PC. Relevant settings for the air pressure can be chosen and the actual pressure is displayed.

Upon choosing the required „Set time“ ,the resulting pressure drop curve is recorded.

The load force in relation to the position and holding times at each position can be set by the operator and the corresponding results displayed and saved. These force / distance diagrams can be processed using Microsoft Excel in order to fit the customer's internal protocol form.

Our test machine allows the operator to measure Force / Distance or Distance / Force. Following the activation of the press stroke via the two-handed control panel , the test cycle runs automatically. The test values achieved automatically saved; however, should the operator wish to, he can call up and review the tests results following every individual test cycle.

In „manual mode“, it is possible to select all available stroke positions and force levels.

Additional Features:

- Production data entry and saving of the test cycle results in a user friendly format. This can be numeric and also graphically presented, saved and printed
- Barcode prints and other forms of labelling per printer are also possible but not in the standard delivery package
- Access to the control system and software only possible with code entry
- Entering of new test run programmes can be executed via an external PC
- Exit air pressure can be pre-selected
- LAN / WAN connectivity
- On-line diagnostic service available

