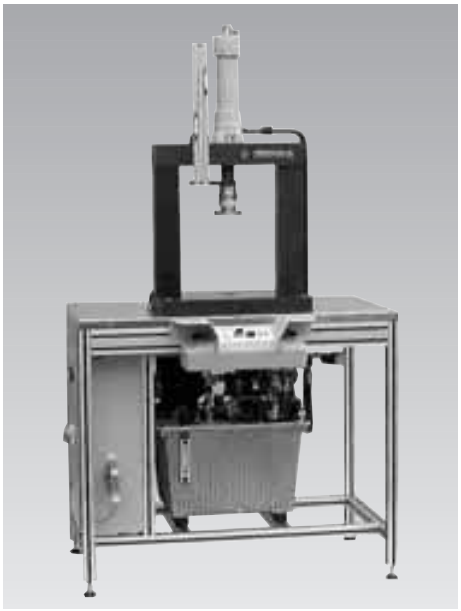
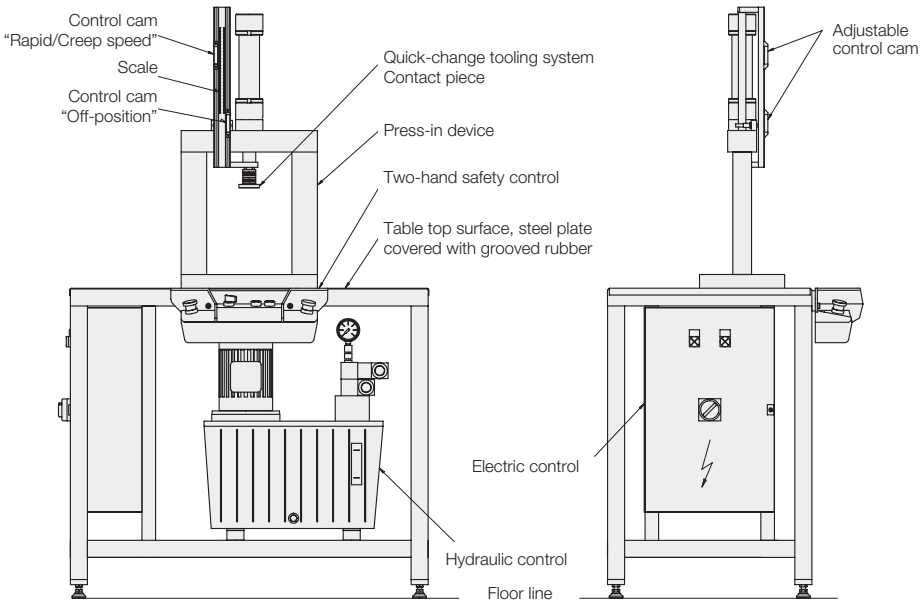
ROEMHELD

M 6.6055

Press-In Devices 25-150 kN
Bench devices with electro-hydraulic control





Application

Press-in devices for assembly are preferably used in assembly processes for production of longitudinal pressed joints. In addition, the assembly conditions require frequently a rigid O-shaped press-in frame.

Advantages

- High flexibility in assembly
- Improved ergonomics
- Quality assurance of operation
- Reduction of assembly time
- Short time of amortization
- Closed force-loop
- Defined joining forces
- Light component load
- Quick-change tooling system

Industry/applications (selection)

– Drive technology, gears box assembly
– Couplings, cardan shafts
– Compressors, pumps, hydraulic elements
– Industrial fittings
– Materials-handling technology
– Automotive industry and their suppliers
– Machine tool building
– Building and agricultural machines
– Electronics

Description

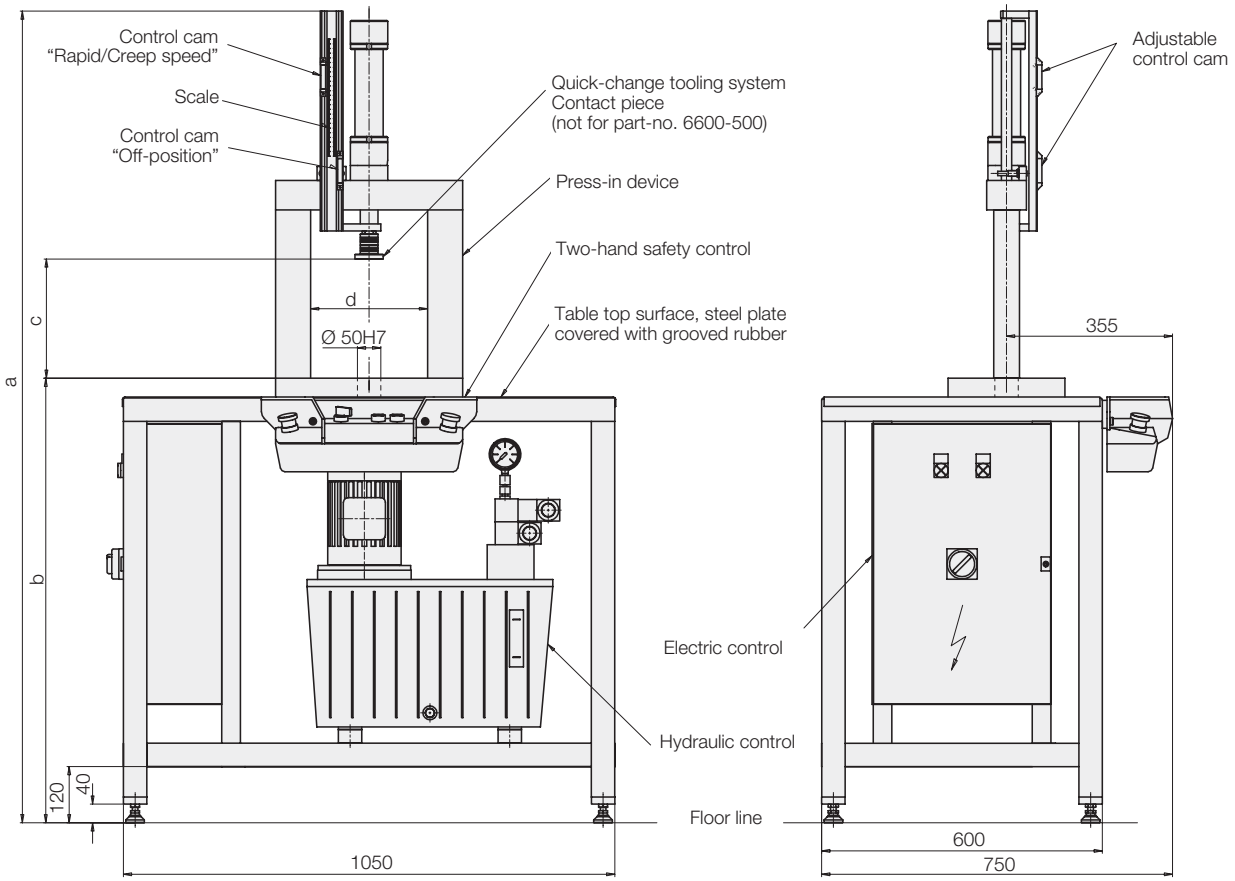
Press-in devices as bench devices are complete functional units and consist of 3 basic components: mechanical press-in device, electro-hydraulic control and underframe for tables. Above the table plate there are – according to the application of ergonomic design rules – the mechanical press-in device and at the table frame the two-hand safety control. The electric control box and the hydraulic power unit are installed in the lower table area. Due to safety reasons, operation of the hydraulic cylinder is always made by a two-hand safety control. The press-in device is equipped with a rapid and creep speed control and a return stroke limitation.

Application and installation instructions

When installing the press-in device it has to be considered that it will be installed on a plain surface and will be carried by all 4 legs. According to the operating instructions the electric connection has to be effected and the hydraulic power unit must be filled with mineral oil.

Aplication example

This installation is adapted to the assembly process of electric motors: with a triple press-in device 3 stator bushings are pressed in into the housings in one cycle.
This corresponds to the assembly sequence of the preceding and following assembly steps in production, so that there will not be any waiting times.
The press-in device realizes in each press-in axis a press-in force control, thereby the quality of the operation and a reliable further processing are guaranteed.



Nominal pressure force	[kN]	**25**	**25**	**40**	**40**	**63**	**63**	**100**	**100**
a	[mm]	1735	1970	1735	1970	1820	2175	2044	2480
b	[mm]	950	960	950	960	960	973	973	990
c	[mm]	255	395	255	395	285	455	377	587
d	[mm]	250	350	250	350	330	460	430	600
Cylinder stroke	[mm]	250	320	250	320	250	400	320	500
Flow rate	[l/min]	1.5 / 4.4	1.5 / 4.4	2.0 / 6.8	2.0 / 6.8	3.3 / 11.9	3.3 / 11.9	5.1 / 15.6	5.1 / 15.6
Max. operating pressure	[bar]	200 / 40	200 / 40	200 / 40	200 / 40	200 / 40	200 / 40	200 / 40	200 / 40
Oil volume	[l]	27	27	27	27	40	40	40	40
Rating	[kW]	0.75	0.75	1.1	1.1	1.5	1.5	2.2	2.2
Electrical connection					3/PE (50 Hz 400 V)				
Code class		IP 54	IP 54	IP 54	IP 54	IP 54	IP 54	IP 54	IP 54
v- press-in stroke	[mm/s]	20	20	18	18	18	18	18	18
v- rapids extend	[mm/s]	78	78	75	75	80	80	70	70
v- rapids retract	[mm/s]	130	130	126	126	135	135	115	115
Weight	[kg]	220	260	240	280	290	380	390	580
Part-no.		**6600-100**	**6600-105**	**6600-200**	**6600-205**	**6600-300**	**6600-305**	**6600-400**	**6600-405**

Automatic mode

By operating the mushroom push-buttons at the two-hand operating panel simultaneously, the hydraulic cylinder extends rapidly starting from the retracted off-position. When the 1st proximity switch “rapid/creep speed“ is actuated, the control switches automatically during the motion to creep speed. When the maximum press-in pressure is obtained, reversing to retraction is automatically effected and the hydraulic cylinder retracts rapidly until the 2nd proximity switch “Off-position“ is actuated. The switching points of the proximity switches are continuously adjustable. The lamps at the two-hand safety control indicate if the off-position and the maximum press-in pressure are achieved. The automatic mode can only be started, if the hydraulic cylinder is in the retracted off-position.

Setting mode

In addition, the functions “Extend“ and “Retract“ can be selected by means of a selector switch in the two-hand control. In the setting mode, the press-in device can only be operated in creep speed. The proximity switches are not in operation.

Function triggering is - in all operating conditions - only possible by operating simultaneously both mushroom push-buttons of the two-hand safety control.

Variants (selection)

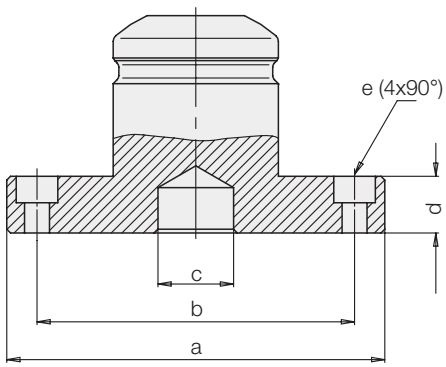
– Base plate additionaly equipped with diagonal slots as per DIN 650
– Table frame out of aluminium
– Contact piece as per DIN 810* (* standard for part-no. 6600-500)
– Press-in frame with additional protection cover
– Additional equipment for press-in force control

Special versions on request

Quick-change tooling system

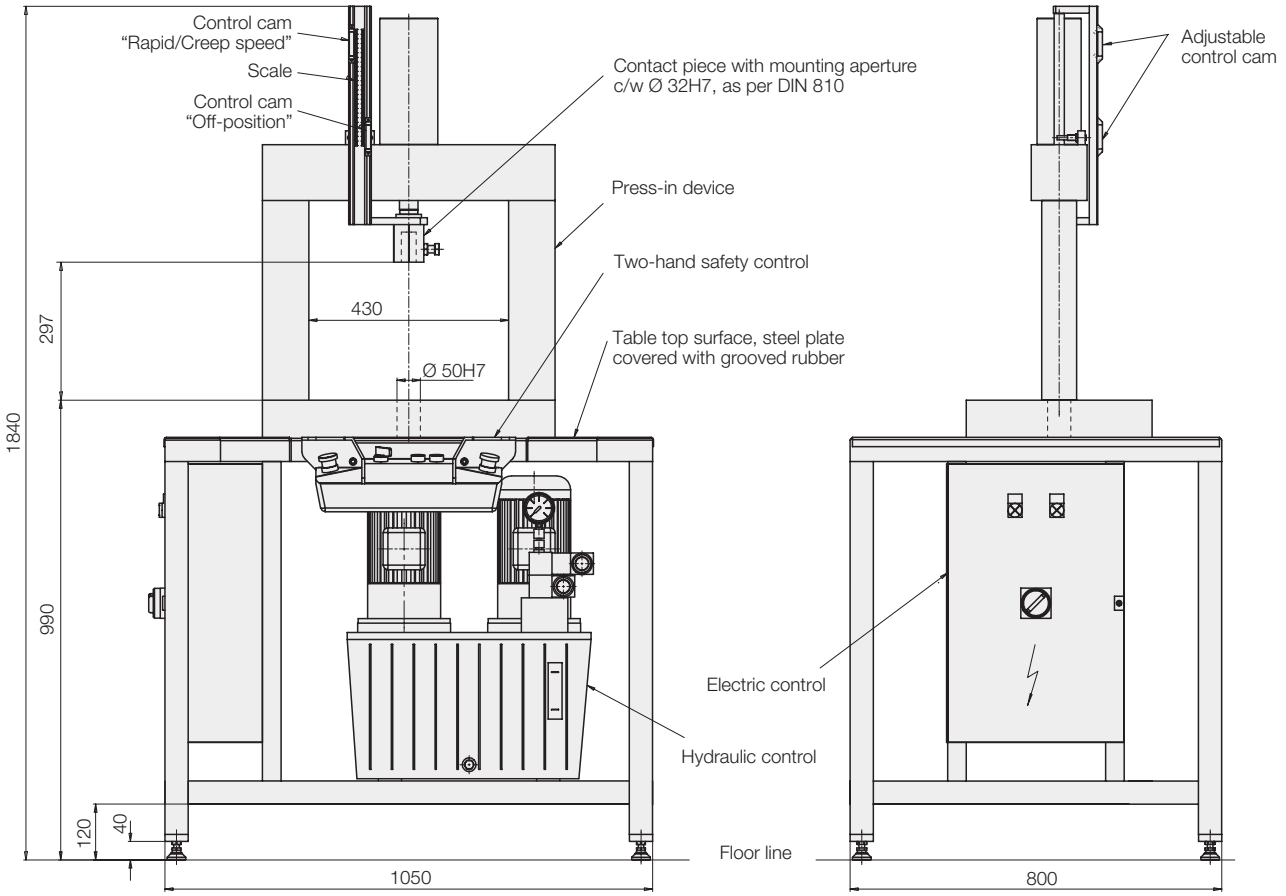
The quick-change tooling system offers the possiblity to change to other press-in contact pieces within a very short time. Uncoupling of the quick-change tooling system is made by lifting of the exterior sleeve only. The contact piece can be detached and changed. After release of the exterior sleeve the quick-change tooling system engages automatically and locates the contact piece in a defined position. In unloaded mode the contact pieces are self-centering. During pressing-in the forces are compensated by the contact pieces and introduced to a spherical surface support, thereby they can allign themselves parallel to the centre line and compensate the elastic deformation of the components. A gentle press-in operation without lateral forces on the workpieces is realized.

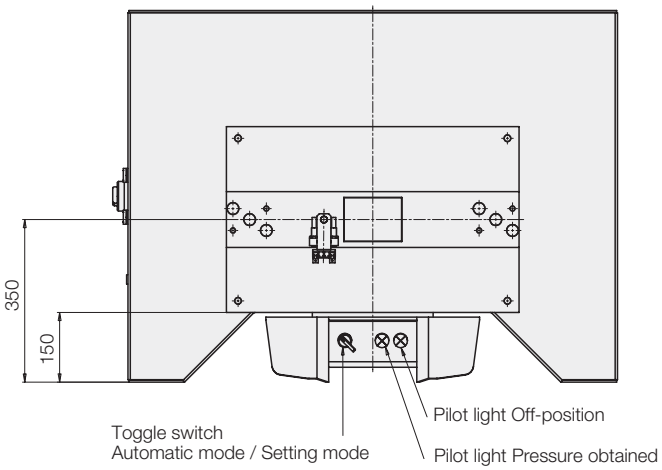
Contact piece



Technical characteristics - Contact pieces

a	[mm]	60	100
b	[mm]	40	84
c	[mm]	12 H7x6	20 H7x10
d	[mm]	10	15
e	[mm]	Jm5 DIN 74	Km6 DIN 74
Weight	[kg]	0.3	1.3
for press-in devices			
		6600-100	6600-300
		6600-105	6600-305
		6600-200	6600-400
		6600-205	6600-405
Part-no.		**6604-161**	**6604-166**





Nominal pressure force	[kN]	**150**
Cylinder stroke	[mm]	200
Flow rate	[l/min]	2.6 / 11.9
Max. operating pressure	[bar]	500 / 40
Oil volume	[l]	40
Rating	[kW]	2.2 / 1.1
Electrical connection		3/PE (50 Hz 400 V)
Code class		IP 54
v- press-in stroke	[mm/s]	14
v- rapids extend	[mm/s]	78
v- rapids retract	[mm/s]	130
Weight	[kg]	440
Part-no.		**6600-500**