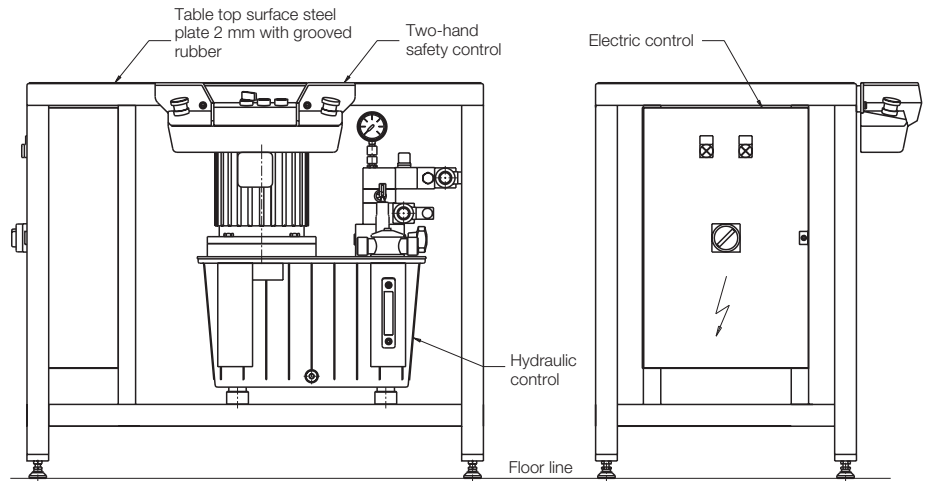


Drive Units for Press-In Devices

Bench devices with electro-hydraulic control and two-hand safety control



Application

Drive units with electro-hydraulic control are preferably used within manually operated press-in devices with two-hand safety control.

The drive units are used as basis and location units with complete control for press-in devices with one hydro-cylinder.

The customer mounts an available press-in device adapted to the corresponding task onto the table plate.

Description

Drive units with electro-hydraulic control are complete functional units and consist in principle of the basic elements electro-hydraulic control and the underframe for the table with two-hand safety control at the table frame. Design of the drive units is made considering the ergonomic design rules. Electric control box and hydraulic power unit are mounted in the lower table area; they are cabled and tubed ready for use. The hydraulic ports are placed up to the lower edge of the table plate. Due to safety reasons, operation of the hydraulic cylinder is always made by a two-hand safety control. In the control a position dependant rapid and creep speed control as well as a return stroke limitation of the hydro-cylinder are provided. Reversing from extending to retracting is made as a function of the pressure in the extended cylinder position.

Advantages

- High flexibility
- Compact functional unit
- Improved ergonomics
- Short time of amortization
- Control with integrated CE safety standards
- Simple installation of the built-on design
- Universal use

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



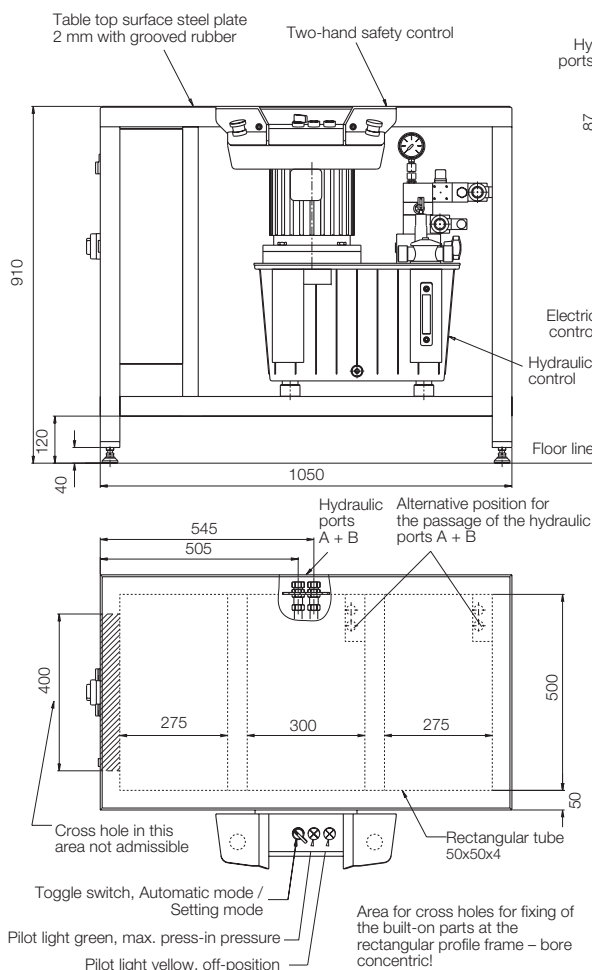
Application example

with closed press-in frame and quick-change tooling system as per data sheet M 6.6055



Application example

Electric control with programmable control (catalogue standard version with relay technics)



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, during the installation the electric connections are completed, the hydraulic power unit is filled with mineral oil and the connections to the hydro-cylinder are made.

Electric connection 3/PE (50 Hz 400 V)
Code class IP 54

Flow rate	[l/min]	1.5/ 4.4	2.0/ 6.8	3.3/ 11.9	5.1/ 15.6
Max. operating pressure	[bar]	200/40	200/40	200/40	200/40
Oil volume	[l]	27	27	40	40
Hydraulic port		G 3/8	G 3/8	G 1/2	G 1/2
Rating	[kW]	0.75	1.1	1.5	2.2
Weight	[kg]	95	100	118	124

Part-no.	6600-140	6600-240	6600-340	6600-440	
Recommended cylinder size	40/25-250	50/32-250	63/40-250	80/50-320	
Nominal pressure force	[kN]	25	40	63	100
Stroke	[mm]	250	250	250	320
v- press-in stroke	[mm/s]	20	18	18	18
v- rapids extend	[mm/s]	78	75	80	70
v- rapids retract	[mm/s]	130	126	135	115
Part-no.	1285-033	1286-033	1287-033	1286-043	

Recommendation for application

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 first proximity switch "rapid/creep speed" is actuated, the control switches automatically during the motion to creep speed.

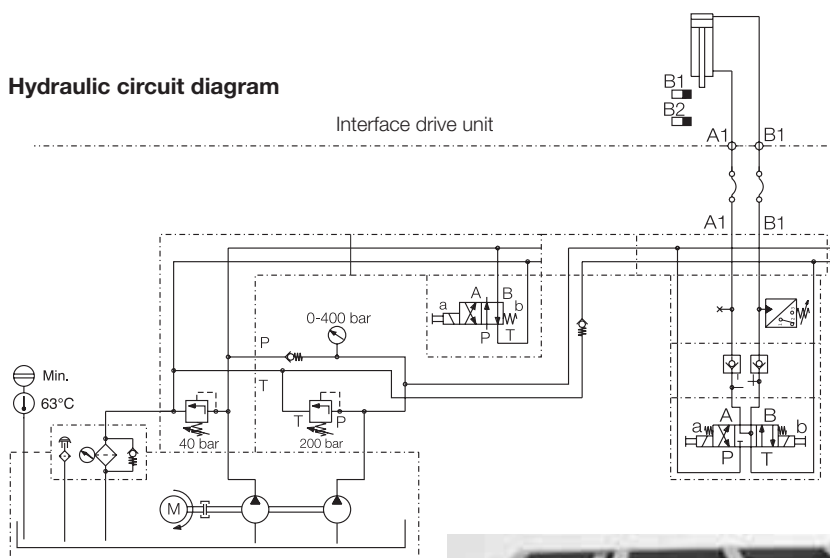
When the maximum press-in pressure is obtained, reversing to retraction is automatically effected and the hydraulic cylinder retracts rapidly until the second proximity switch "Off-position" is actuated.

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 separately 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.

Hydraulic circuit diagram



Application example with programmable control

This drive unit has been adapted to the provided joining process and contains a second function, a sequence control for an additional slide pushing cylinder as well as further component and position controls. The electric control is equipped with a programmable control and the corresponding software. The press-in device has been completed later on by the customer.

