SCHMIDT® ManualPress 300 Series
Manual Presses with Process Monitoring

Process reliability, force/stroke monitoring of the joining process and EN ISO-compatible documentation of the results are becoming the major factors for small and medium production within the manual workplace.

The **SCHMIDT® ManualPress 300 Series** system with **SCHMIDT® PressControl 700** includes:

- Integrated reliable measuring technology
- High resolution of the obtained process data
- Graphical and numerical output of the processing results
- Quality monitoring using freely selectable tolerances

Process reliability – not just a slogan

The system software allows easy setup of quality control criterea for 100 % in-process monitoring.

Assembly system with patented return stroke lock and progammable clutch.

SCHMIDT® ManualPress 300 Series

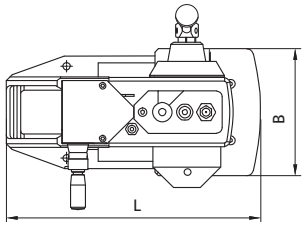
Process reliability for manual workplaces, force range 0.4 kN to 12 kN

Characteristics

- Linear force progression for No. 305 and No. 307
- High force at the end of stroke for No. 311
- Precise adjustment of the press depth via micrometer fine adjustment
- Guides require little maintenance, have little wear and are locked against rotation. This results in precise working and a long service life
- Optimum guidance and clamping due to dovetail guide on the press head
- Quick set-up
  - Exact alignment of ram bore to the table within 0.05 mm
  - Height adjustment using a crank
  - Precision bores in ram and column base plate

Functional components

- Electronic stroke lock
- Integrated transducer
  - Force sensor
  - Incremental encoder
- Integrated signal amplifier
- Programmable overload coupling



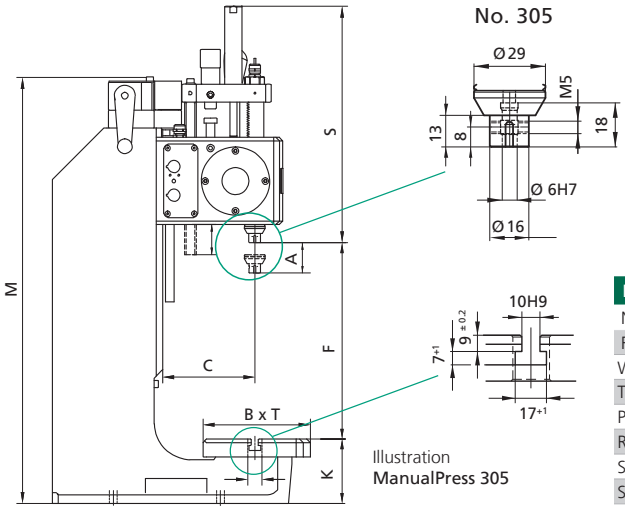
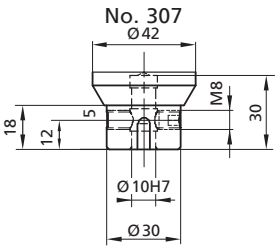
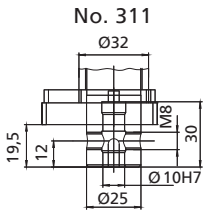


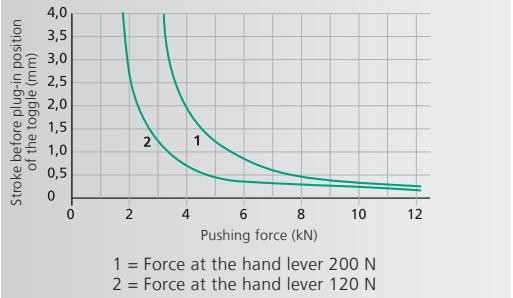
Illustration
ManualPress 305





Press Type			305	307	311
Nominal force		kN	0.4	4	12
Force at the hand lever	approx. N		50	200	200
Working stroke	**A**	mm	42	54	50
Throat depth	**C**	mm	129	129	129
Press head height	**S**	mm	310	417	555
Ram bore	Ø	mm	6H7	10H7	10H7
Stroke fine adjustment		mm	0.02	0.02	0.02
Stroke resolution		mm	0.005	0.005	0.005
Angle of rotation/mm stroke			3.3°	4.8°	non linear
Resolution, process data acquisition	stroke force	µm/inc N/inc	5 0.125	5 1.25	5 3.5
Working height[4]	**F**				
Frame No. 7-420		mm	60-420	50-410	50-290
Frame No. 7-600[2]		mm	90-600	80-600	80-480
Max. weight upper tool[3]		kg	0.6	1	1.3
Weight	approx. kg		41	41	60
Protection type			IP 54	IP 54	IP 54

ManualPress 311



1 = Force at the hand lever 200 N
2 = Force at the hand lever 120 N

Maximum force will be reached just before extended position

Accessories			
Stronger return assist spring	o	o	
Speed control	o	o	
Throat depth frame[1)3)] (total depth) 169, 209, 249 mm	o	o	

Frame Overview	Press Type	Frame Height M (mm)	Table Size B x T (mm)	Table bore D Ø mm	Table Height K (mm)	Mounting Surface B x L (mm)
No. 7-420	305, 307, 311	740	180 x 150	20H7	90	220 x 362
No. 7-600 o	305, 307, 311	960	180 x 280	20H7	110	220 x 465

Options

o Additional charge applies

[1)] Throat depth frame only available with frame No. 7-600

[2)] Increased throat and higher frame lead to smaler nominal forces for No. 311

[3)] The weight was determined with hand lever position 45° forward (guide)

[4)] Typical values; can vary ± 3 mm due to casting and production tolerances

Other available Options:

- Nickel plated – cast parts are electroless nickel plated, steel components black oxide finished, aluminum anodized, precision steel surfaces are untreated
- Custom paint – press and column can be painted to customer's color specification
- Bores for adapting tooling – customer specific sizes can be supplied

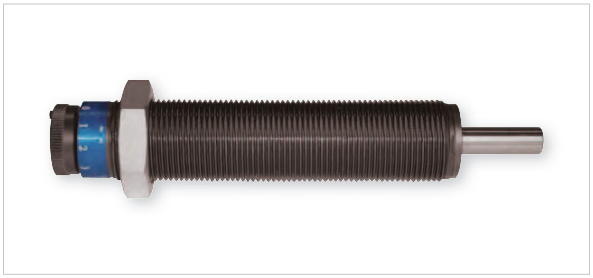
SCHMIDT® ManualPress 300 Series
Options suitable for your application

Control mounting bracket
Used for fastening the **SCHMIDT®** PressControl 700, either mounted to the table or to the wall. The mounting bracket permits the unit to pivot 70° (included with control).

External reset button
We recommend an external reset button in rough production environments.

Calibration tool
The calibration tool is a device with which a constantly defined force is applied to the load cell of the **SCHMIDT® ManualPress Serie 300** Series. In order to complete calibration, either a **SCHMIDT® LoadCheck** or a customer supplied calibration device is required. Photo on left side shows the device for the **SCHMIDT® ManualPress 305**. The right side is for **SCHMIDT® ManualPress 307**. The **SCHMIDT® ManualPress 311** is being calibrated by using the fine adjustment mechanism in BDC.

EtherCAT Compact Box
8 digital channels, usable as inputs or outputs, signal connection by screwing via M8 plug connector, power supply (24 V) via EtherCAT-P, load currents of the outputs up to 0.5 A, total current of all outputs 3 A



Speed control
To achieve a very high repeatability when pressing to a force or stroke, the optional speed control can be added to provide hydraulic resistance to the ram movement over a targeted length at the end of the stroke.

Ergonomic handle
Swivelling handle for improved comfort; easy and flexible assembly on the hand lever.

Press base
Plastic (250 x 340 mm), incl. fasteners.