

SCHMIDT® PneumaticPress

Direct Acting Pneumatic Presses with Force/Stroke Monitoring

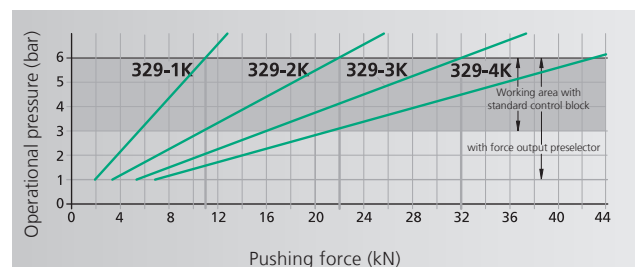
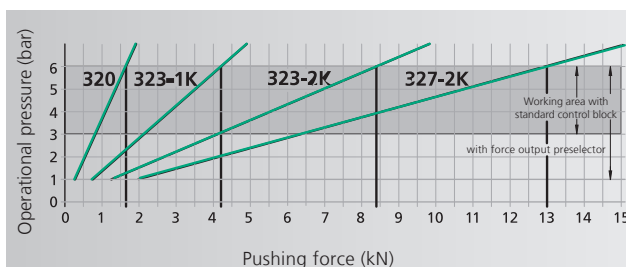
SCHMIDT® PneumaticPresses with force/stroke monitoring are offered as complete system with control unit SCHMIDT® Press-Control 600. These systems are characterized by sensors and signal amplification integrated in the press head. These signals are evaluated in real time.

Features

- Direct forces are measured due to the force sensor integrated in the ram. Insensitive against side loads
- Force and displacement sensors are immun to EMI and environmental conterminaton
- A measuring data amplification integrated in the press head provides short transmission paths of unamplified signals
- Anti-rotational square ram with two fully adjustable guiding gibs for precise work, also with tools without guide (not for type 320, here special anti-twist protection in the roller-guided round ram)



Press Type 320, 323, 327, 329



From 1.6 kN to 43 kN

Press Type		320	323-1K	323-2K	327-2K	327-3K	329-2K	329-3K	329-4K
Working stroke	A mm	100	50, 75, 100, 125, 150	50, 75, 100	50, 75, 100, 125, 150	50, 75, 100	50, 75, 100, 150	50, 75, 100, 125, 150	50, 75, 100
Nominal force at 6 bar	kN	1.6	4.2	8.4	13	20	22	32	43
Resolution, process data acquisition									
- stroke	µm/inc	5	5	5	5	5	5	5	5
- force	N/inc	0.5	1.25	2.5	4	6.25	6.25	10	12,5
Throat depth	C mm	128	131	131	131	131	160	160	160
Throat depth frame \varnothing	mm		151	151	151	151			
Fixture mounting plate suitable for throat depth frame			\varnothing	\varnothing	\varnothing	\varnothing			
Ram bore	\varnothing mm	20H7	20H7	20H7	20H7	20H7	20H7	20H7	20H7
External ram dimensions	G x H mm	\varnothing 40	70 x 50	70 x 50	70 x 50	70 x 50	90 x 60	90 x 60	90 x 60
Working height	F								
Frame No. 7	mm	50-270							
Frame No. 7-600 \varnothing	mm	85-600							
Frame No. 301	mm		140-350	140-350	140-350	140-350			
Frame No. 301-500 \varnothing	mm		310-500	310-500	310-500	310-500			
Frame No. 329	mm						130-300	130-300	130-300
Frame No. 329-460 \varnothing	mm						190-460	190-460	190-460
Weight (standard)	approx. kg	70	170	170	170	170	320	325	330

Frame Overview	Press Type	Frame Height M (mm)	Table Size B x T (mm)	Table Bore D \varnothing mm	Table Height K (mm)	Mounting Surface B x L (mm)
No. 7	320	600	180 x 150	20H7	90	330 x 361
No. 7-600	320	960	180 x 280	20H7	110	330 x 465-505
No. 301	323, 327	830	250 x 200	40H7	145	250 x 460
No. 301-500	323, 327	990	250 x 200	40H7	145	250 x 480
Special fixture mounting plate with 3 longitudinal slots ¹⁾ \varnothing			300 x 220 400 x 230	40H7		
No. 329	329	810	300 x 230	40H7	147	300 x 550
No. 329-460	329	990	300 x 230	40H7	147	300 x 620
Special fixture mounting plate with 3 longitudinal slots ¹⁾ \varnothing			400 x 280 500 x 280	40H7		

Options

\varnothing Additional charge applies

¹⁾ With Press type 320 only in combination with Frame type No. 7-600 with 168 mm, 208 mm or 248 mm

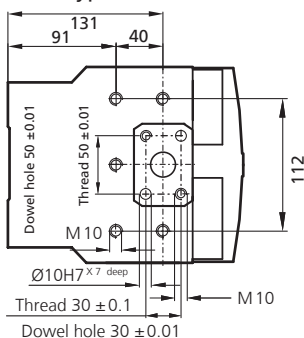
Other available Options

- 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

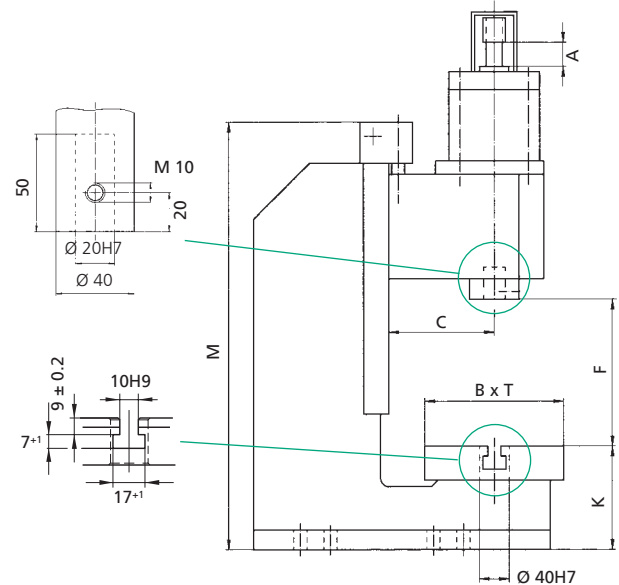
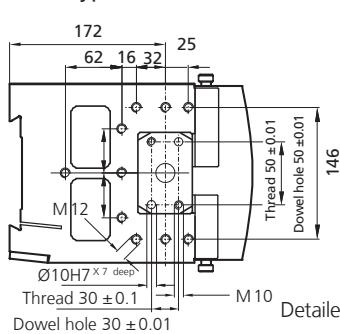
Bottom View of the Press Head

Fastening drill pattern flange/ram

Press Type 323/327



Press Type 329



Please consult our Sales Department or Representative.

Detailed dimensional drawings can be downloaded: www.schmidttechnology.de

SCHMIDT® PneumaticPress

Control Versions without Force-Stroke-Monitoring



Single-channel Control

Integration of the press in an automatic installation

Single-channel pneumatic Control Block
incl. flow control for adjusting the speed in working stroke

2 Cylinder Switches
for inquiry TDC/BDC incl. holding fixture

External Control

Control Unit
SCHMIDT®
PressControl
70 / 600 without safety equipment

Two-channel Control

With manual loading of the machine

Additional Valves – Option 1
1/8" – 5/2" additional valves mounted to the pneumatic control block

- 2-hand-release
- Light curtain

Additional Valves – Option 2
CAN bus valve terminal

EC-type approved

SCHMIDT®
SafetyModule

CAN bus

Control Unit
SCHMIDT® PressControl
70 / 600

SCHMIDT® SafetyModule

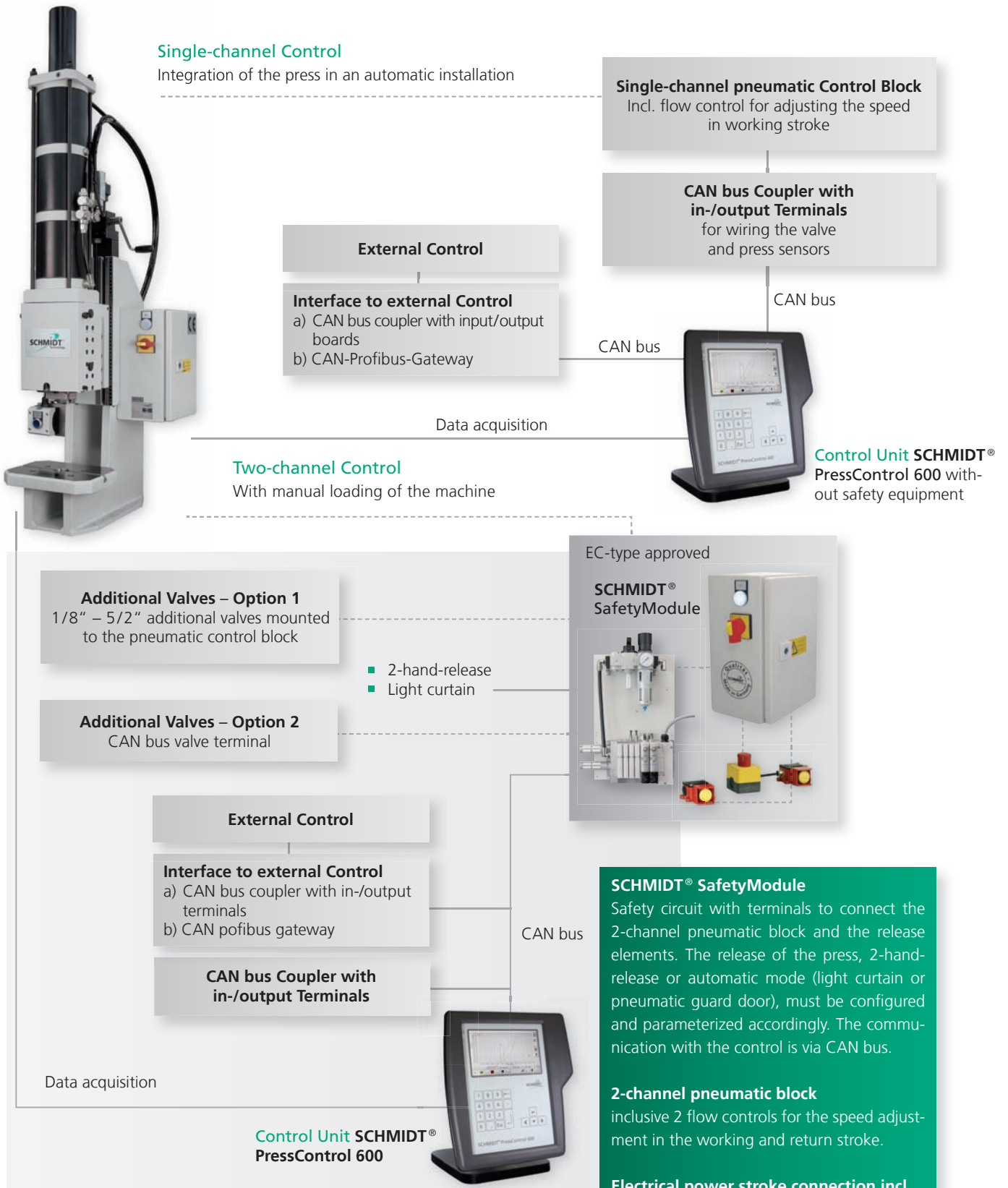
Safety circuit with terminals to connect the 2-channel pneumatic block and the release elements. The release of the press, 2-hand-release or automatic mode (light curtain or pneumatic guard door), must be configured and parameterized accordingly. The communication with the control is via CAN bus.

2-channel pneumatic block

inclusive 2 flow controls for the speed adjustment in the working and return stroke.

SCHMIDT® PneumaticPress

Control Versions with Force-Stroke-Monitoring



Calculation of the Air Consumption

The air consumption per stroke is calculated in normal litres (NL)¹⁾ at a working pressure of 6 bar.

The entire consumption consists of a constant and a variable part that depends on the stroke.

SCHMIDT® PneumaticPress Air Consumption per Stroke

At 6 bar in normal litres (NL)

Press Type	Constant	Variable (per mm Stroke) ⁴⁾	Air Connection ³⁾
20	= max. stroke / 50 mm x 1 NL	0.02 NL	G 1/4"
23	= max. stroke / 50 mm x 2.5 NL	0.05 NL	G 1/4"
24	= max. stroke / 50 mm x 2.5 NL	0.1 NL	G 1/4"
25	= max. stroke / 50 mm x 2.5 NL	0.15 NL	G 1/4"
27-1K	= max. stroke / 50 mm x 4 NL	0.08 NL	G 3/8"
27-2K	= max. stroke / 50 mm x 4 NL	0.16 NL	G 3/8"
27-3K	= max. stroke / 50 mm x 4 NL	0.24 NL	G 3/8"
29-1K	= max. stroke / 50 mm x 6.5 NL	0.13 NL	G 1/2"
29-2K	= max. stroke / 50 mm x 6.5 NL	0.26 NL	G 1/2"
29-3K	= max. stroke / 50 mm x 6.5 NL	0.39 NL	G 1/2"
29-4K	= max. stroke / 50 mm x 6.5 NL	0.52 NL	G 1/2"
320	= max. stroke / 50 mm x 1 NL	0.02 NL	G 1/4"
323-1K	= max. stroke / 50 mm x 2.5 NL	0.05 NL	G 1/4" 3)
323-2K	= max. stroke / 50 mm x 2.5 NL	0.1 NL	G 1/4" 3)
327-2K	= max. stroke / 50 mm x 2.5 NL	0.16 NL	G 1/2" 3)
329-2K	= (max. stroke +25 mm) / 50 mm x 6.5 NL	0.26 NL	G 1/2" 3)
329-3K	= (max. stroke +25 mm) / 50 mm x 6.5 NL	0.39 NL	G 1/2" 3)
329-4K	= (max. stroke +25 mm) / 50 mm x 6.5 NL	0.52 NL	G 1/2" 3)
32-12	1 NL	0.09 NL	G 1/4"
32-40	1.5 NL	0.045 NL	G 1/4"
32-60	2 NL	0.035 NL	G 1/4"
33-12	1 NL	0.09 NL	G 1/4"
33-40	1.5 NL	0.045 NL	G 1/4"
34-12	1.5 NL	0.12 NL	G 1/4"
34-40	2.2 NL	0.08 NL	G 1/4"
34-60	3 NL	0.06 NL	G 1/4"
36-12	4 NL	0.36 NL	G 3/8"
36-40	6 NL	0.2 NL	G 3/8"
36-60	8 NL	0.18 NL	G 3/8"

Total Consumption = Constant Consumption (liter)²⁾ + variable Consumption (liter)

Variable Consumption = Air Consumption per mm of Stroke (liter/mm)²⁾ X Working Stroke (mm)

SCHMIDT® HydroPneumaticPress Air Consumption per Stroke

At 6 bar in normal litres (NL)

Press Type Standard	Rapid Stroke/Return Stroke (constant)	Power Stroke per mm (variabel)	Air Connection ³⁾
61-50-6 / 361-50-6	2 NL	1.25 NL	G 1/4"
61-100-12 / 361-100-12	4 NL	1.9 NL	G 1/4"
62-50-6 / 362-50-6	3 NL	1.85 NL	G 1/4"
62-100-12 / 362-100-12	6 NL	2.6 NL	G 1/4"
65-50-6 / 365-50-6	5 NL	2.1 NL	G 1/4"
65-100-12 / 365-100-12	10 NL	3.1 NL	G 1/4"
64-50-6 / 364-50-6	8 NL	4 NL	G 1/2"
64-100-12 / 364-100-12	16 NL	6 NL	G 1/2"
68-50-6 / 368-50-6	8 NL	3.2 NL	G 1/2"
68-100-12 / 368-100-12	16 NL	5.2 NL	G 1/2"
74-50-6 / 374-50-6	8 NL	4 NL	G 1/2"
74-100-12 / 374-100-12	16 NL	6 NL	G 1/2"
76-100-12 / 376-100-12	26 NL	10 NL	G 1/2"

Total Consumption = Constant Consumption (liter)²⁾ + variable Consumption (liter)

Variable Consumption = Air Consumption per mm of Stroke (liter/mm)²⁾ X Working Stroke (mm)

¹⁾ The air volume is measured under standard conditions (1.013 105 pascal = 1 atm and a temperature of 25 °Celsius [298 Kelvin]) gemessen

²⁾ Value according to table ³⁾ For presses with force/stroke monitoring, the air connection refers to the two-channel control block used by us

⁴⁾ For the determination of the consumption, the single stroke is used, the return stroke is automatically contained in the result