

SCHMIDT® Toggle Presses

The high Force at the End of Stroke, just where it is important

Do you need a high force at the end of stroke for material transforming processes? Then, **SCHMIDT® Toggle Presses** are just the right choice.

Features

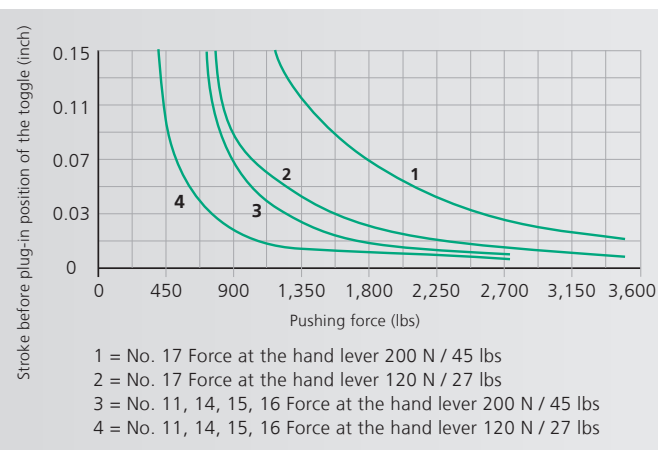
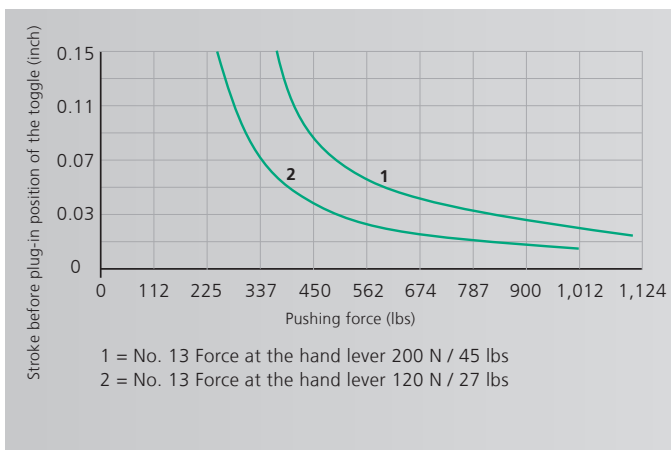
- High force at end of stroke (see diagram below)
- Honed bores and ground rams provide a long service life and a precise guidance



Press Type 13



Press Type 11/14 -17



Note: Maximum force will be reached just before extended position

From 5 kN to 15 kN / 1,125 lbs. to 3,370 lbs.

Press Type		13 13F	13R 13RF	11 11F	11R 11RF	15 15F	15R 15RF	14 14F	14R 14RF	16 16F	16R 16RF	17 17F
Press head type		13 - 40 13F - 35	13R - 40 13RF - 35	11 - 45 11F - 35	11R - 45 11RF - 35	11R - 45 11F - 35	11R - 45 11F - 35	11 - 60 11F - 50	11R - 60 11RF - 50	11 - 60 11F - 50	11R - 60 11RF - 50	11 - 20 11F - 20
Nominal force	lbs	1,125	1,125	2,700	2,700	2,700	2,700	2,700	2,700	2,700	2,700	3,370
Working stroke	A inch	1.57 1.37	1.57 1.37	0 - 1.77 0 - 1.37	0.78 - 1.77 0.78 - 1.37	0 - 1.77 0 - 1.37	0.78 - 1.77 0.78 - 1.37	2.36 1.96	2.36 1.96	2.36 1.96	2.36 1.96	0 - 0.78 0 - 0.78
Throat depth	C inch	2.55	2.55	3.38	3.38	3.38	3.38	3.38	3.38	3.38	3.38	3.38
Press head height	S inch	15.15 15.74	15.15 15.74	20.47 21.25	20.47 21.25	20.47 21.25	20.47 21.25	19.68 20.47	19.68 20.47	19.68 20.47	19.68 20.47	24.40 25.19
Ram bore	Ø mm	10H7	10H7	10H7	10H7	10H7	10H7	10H7	10H7	10H7	10H7	10H7
Hand lever left		○		○		○		○		○		
Angle of rotation		95°	95°	110°	110°	110°	110°	125°	125°	125°	125°	90°
Max. weight upper tool*	lbs	3/8 3/7	3/8 3/7	4.5/10 5.5/13.5	4.5/9 20/13.5	4.5/10 5.5/13.5	4.5/9 4.5/13.5	3/5.5 4.5/11	3/5.5 3/9	3/5.5 4.5/11	3/5.5 3/9	5.5/- 5.5/-
Return stroke lock¹⁾												
Locked position 1	inch bef. BDC		0.51		0.47		0.47		0.55		0.55	
Locked position 2	inch bef. BDC		0.05		0.05		0.05		0.05		0.05	
Disengaging accuracy	inch		0.001		0.001		0.001		0.0015		0.0015	
Working height	F											
Frame No. 13	inch	2.55-7.08 1.57-6.10	2.55-7.08 1.57-6.10									
Frame No. 3	inch			3.14-8.26 2.16-7.08	3.14-8.26 2.16-7.08			3.54-8.66 2.55-7.67	3.54-8.66 2.55-7.67			2.75-7.87 2.36-7.28
Frame No. 2	inch					4.33-13.77 3.14-12.79	4.33-13.77 3.14-12.79			4.72-14.17 3.54-13.1	4.72-14.37 3.54-13.1	
Frame No. 2-600 ○	inch			7.87-23.03 6.8-22	7.87-23.03 6.8-22	7.87-23.03 6.8-22	7.87-23.03 6.8-22	8.26-23.42 7.2-22.44	8.26-23.42 7.2-22.44	8.26-23.42 7.2-22.44	8.26-23.42 7.2-22.44	7.87-23.03 6.8-22
Frame No. 2-1000 ○	inch			13-40.15 12-39.37	13-40.15 12-39.37	13-40.15 12-39.37	13-40.15 12-39.37	13.38-40.55 12.40-39.76	13.38-40.55 12.40-39.76	13.38-40.55 12.40-39.76	13.38-40.55 12.40-39.76	13.38-40.15 12-39.37
Weight	approx. lbs	26	26	51	53	64	64	53	53	64	64	51

Accessories		13 13F	13R 13RF	11 11F	11R 11RF	15 15F	15R 15RF	14 14F	14R 14RF	16 16F	16R 16RF	17 17F
Mechanical counter		○	○	○	○	○	○	○	○	○	○	○
Throat depth frame (total depth) 4.37 inch, 5.15 inch				○	○	○	○	○	○	○	○	○
Additional fixture mounting plate suitable for throat depth frame		○	○	○	○	○	○	○	○	○	○	○
Block clamping piece		○	○	●	●	●	●	○	○	○	○	●

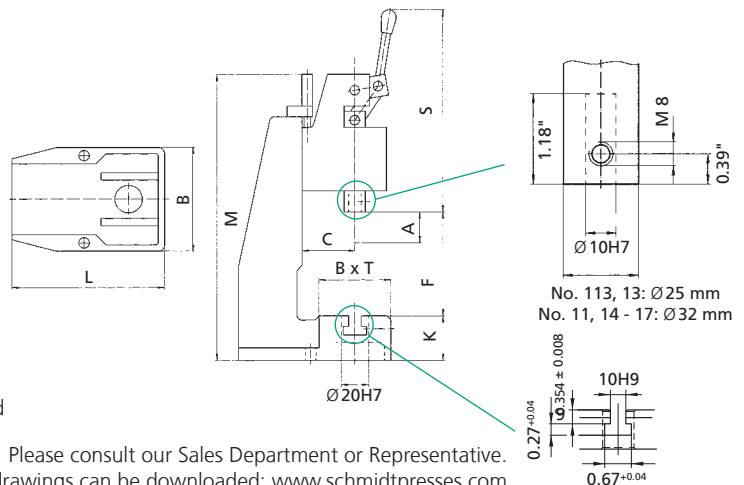
Frame Overview	Press Type	Frame Height M (inch)	Table Size B x T (inch)	Table Bore Ø (mm)	Table Height K (inch)	Mounting Surface B x L (inch)
Nr. 13	13	18.70	4.33 x 3.14	20H7	1.8	4.33 x 7.28
Nr. 3	11, 14, 17	21.25	5.9 x 4.3	20H7	2.36	5.9 x 10.23
Nr. 2	15, 16	27.55	7.28 x 4.3	20H7	2.36	7.28 x 11.02
Nr. 2-600	11, 14, 15, 16, 17	38.34	7.87 x 6.29	20H7	3.85	7.87 x 11.41
Nr. 2-1000	11, 14, 15, 16, 17	55.51	7.87 x 6.29	20H7	3.85	7.87 x 11.41

Options

- Standard with no additional charge ○ Additional charges apply
- ¹⁾ Adjustment of locking position on request
- * The weight was determined with hand lever position 45° forward (guidelines)

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



Please consult our Sales Department or Representative. Detailed dimensional drawings can be downloaded: www.schmidtpresses.com

SCHMIDT® Toggle Presses with Horizontal Pull

The high Force at the End of Stroke, just where it is important

Do you need a high force at the end of stroke for material-transforming processes? Then, **SCHMIDT® Toggle Presses** are just the right choice.

Features

- High force at end of stroke (see diagram below)
- Honed bores and ground rams provide a long service life and a precise guidance



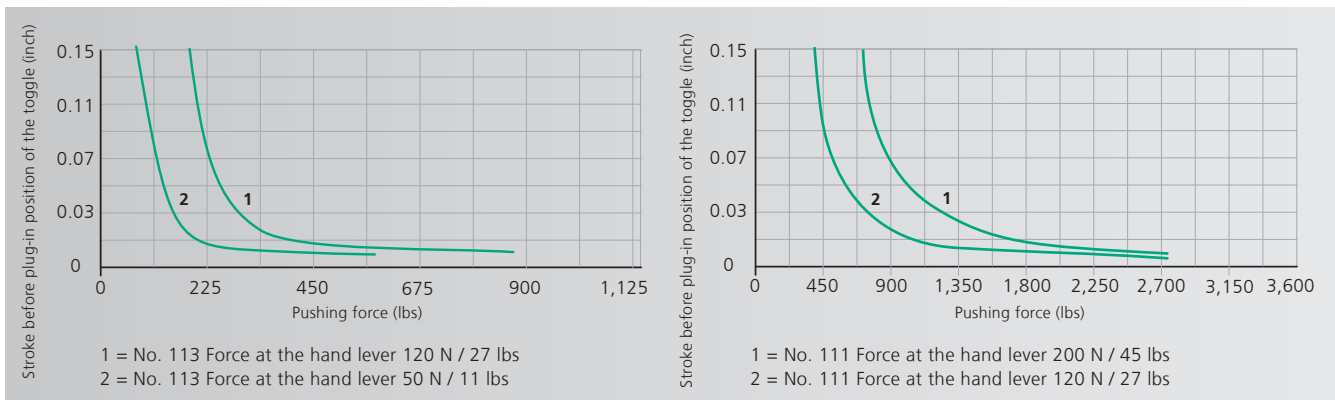
Press Type 113



Press Type 111

Ergonomic Press with horizontal Pull

With press No. 113 and No. 111 the manual force is applied by pulling the lever towards the body. This press is especially suitable for rapid production at small forces.



Note: Maximum force will be reached just before extended position

From 2.5 kN to 12 kN / 560 lbs. to 2,700 lbs.

Press Type			113 113F	113R 113RF	111 111F	111R 111RF
Press head type			113 113F	113R 113RF	111 - 45 111F - 50	111R - 45 111RF - 50
Nominal force		lbs	560	560	2,700	2,700
Working stroke	A	inch	0 - 1.10 0 - 1.10	0.86 - 1.10 0.86 - 1.10	0 - 1.77 1.96	0.94 - 1.77 1.96
Throat depth	C	inch	2.55	2.55	3.38	3.38
Press head height	S	inch	6.69 7.08	7.48 7.87	8.46 8.85	9.44 9.84
Ram bore		Ø mm	10H7	10H7	10H7	10H7
Hand lever left			-	-	-	-
Angle of rotation			80°	80°	90°	90°
Max. weight upper tool*		lbs	2/7 1/7	1/6 1/7	6/- 7/-	6/- 7/-
Return stroke lock¹⁾						
Locked position 1		inch		0.47		0.55
Locked position 2		inch		0.01		0.05
Disengaging accuracy		inch		0.001		0.002
Working height						
Frame No. 13	F	inch	1.96-6.49 1.57-6.10	1.96-6.49 1.57-6.10		
Frame No. 3		inch			5.11-8.07 4.52-7.67	5.11-8.07 4.52-7.67
Frame No. 2		inch			5.11-13.38 4.52-13.0	5.11-13.38 4.52-13.0
Frame No. 2-600 o		inch			7.87-22.83 7.28-22.44	7.87-22.83 7.28-22.44
Frame No. 2-1000 o		inch			13.0-40.15 12.2-39.37	13.0-40.15 12.2-39.37
Weight		approx. lbs	24	24	62	62

Accessories		113 113F	113R 113RF	111 111F	111R 111RF
Mechanical counter		o	o	o	o
Throat depth frame (total depth) 4.37 inch, 5.15 inch				o	o
Additional fixture mounting plate suitable for throat depth frame				o	o
Block clamping piece ²⁾		•	•	•	•

Frame Overview	Press Type	Frame Height M (inch)	Table Size B x T (inch)	Table Bore Ø (mm)	Table Height K (inch)	Mounting Surface B x L (inch)
No. 13	113	18.70	4.33 x 3.14	20H7	1.81	4.33 x 7.28
No. 3	111	21.25	5.90 x 4.33	20H7	2.36	5.90 x 10.23
No. 2	111	27.55	7.28 x 4.33	20H7	2.36	7.28 x 11.02
No. 2-600	111	38.34	7.87 x 6.29	20H7	3.85	7.87 x 11.41
No. 2-1000	111	55.51	7.87 x 6.29	20H7	3.85	7.87 x 11.41

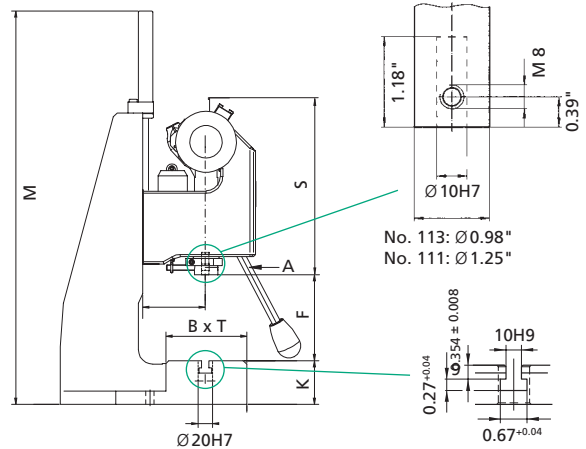
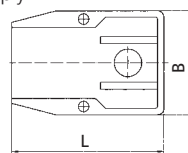
Options

- Standard with no additional charge o Additional charges apply

¹⁾ Adjustment of locking position on request

²⁾ Stroke reduction about 0.39 inch by version with additional charge

* The weight was determined with hand lever position 45° forward (guidelines)



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

SCHMIDT® Toggle Presses with Square Ram

Optimum Guidance and Anti-Rotation

Do you need a high force at the end of stroke for material-transforming processes? Then, **SCHMIDT® Toggle Presses** are just the right choice.

Features

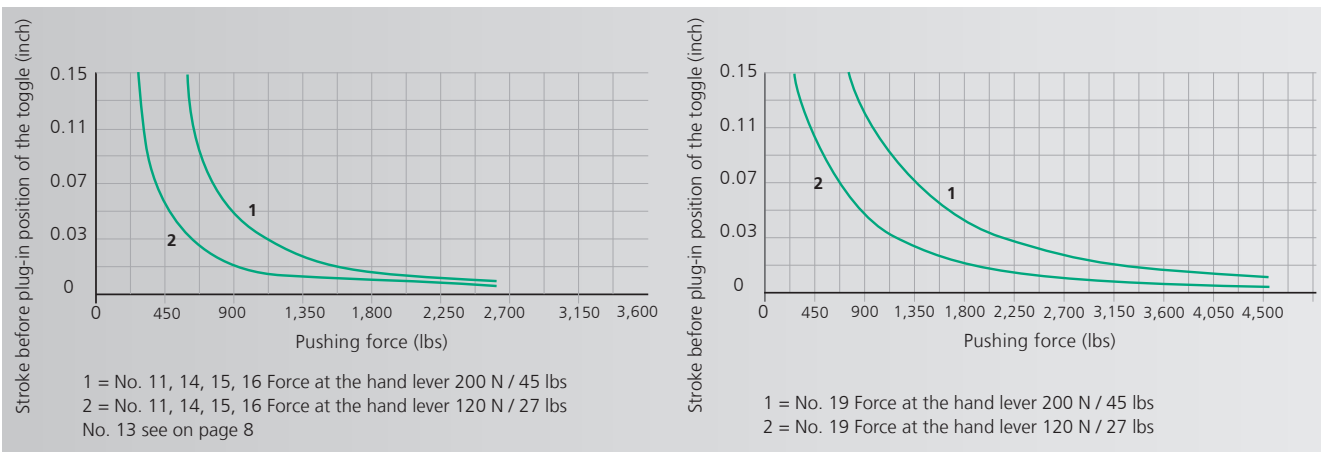
- High force at end of stroke
- Square ram is anti-rotational (no die sets required)
- Precise adjustment of the press depth via hardened lower stop
- Fully adjustable, play-free teflon-lined gibbs



Press Type 11 V
13 V
14 V

Press Type 15 V
16 V

Press Type 19 V



Note: Maximum force will be reached just before extended position

From 5 kN to 22 kN / 1,125 lbs. to 4,950 lbs.

Press Type		13 V 13 VF	13 VR 13 VRF	11 V 11 VF	15 V 15 VF	11 VR 11 VRF	15 VR 15 VRF	14 V 14 VF	16 V 16 VF	14 VR 14 VRF	16 VR 16 VRF	19 V 19 VF	19 VR 19 VRF
Press head type		13V-40 13VF-40	13VR-40 13VRF-40	11V-45 11VF-45	15V-45 15VF-45	11VR-45 11VRF-45	15VR-45 15VRF-45	11V-60 11VF-60	16V-60 16VF-60	14VR-60 14VRF-60	16VR-60 16VRF-60	19V-40 ¹⁾	19VR-40 ¹⁾
Nominal force	lbs.	1,125	1,125	2,700	2,700	2,700	2,700	2,700	2,700	2,700	2,700	4,950	4,950
Working stroke	A inch	0 - 1.57 0.59 - 1.57	1.02 - 1.57 1.02 - 1.57	0.39 - 1.77 0.98 - 1.77	0.39 - 1.77 0.98 - 1.77	0.78 - 1.77 0.98 - 1.77	0.78 - 1.77 0.98 - 1.77	0.59 - 2.36 1.18 - 2.36	0.59 - 2.36 1.18 - 2.36	1.10 - 2.36 1.18 - 2.36	1.10 - 2.36 1.18 - 2.36	0 - 1.57 0 - 1.57	0.39 - 1.57 0.39 - 1.57
Throat depth	C inch	2.55	2.55	3.38	3.38	3.38	3.38	3.38	3.38	3.38	3.38	5.15	5.15
Press head height	S inch	15.15 15.74	15.15 15.74	20.07 20.86	20.07 20.86	20.07 20.86	20.07 20.86	20.07 20.86	20.07 20.86	20.07 20.86	20.07 20.86	24.40 24.40	24.40 24.40
Ram bore	Ø mm	10H7	10H7	10H7	10H7	10H7	10H7	10H7	10H7	10H7	10H7	20H7	20H7
Hand lever left		○		○	○			○	○			●	●
Angle of rotation		95°	95°	110°	110°	110°	110°	125°	125°	125°	125°	175°	175°
Max. weight upper tool*	lbs	3/9 4.5/8	3/9 4.5/8	16/9 4.5/11	16/9 4.5/11	16/9 4.5/11	16/9 4.5/11	2/8 2/8	2/8 2/8	2/8 2/8	2/8 2/8	4.5/- 4.5/-	4.5/- 4.5/-
Return stroke lock²⁾													
Locked position 1	inch bef. BDC		0.57			0.47	0.47				0.55	0.55	0.17
Locked position 2	inch bef. BDC		0.06			0.06	0.06				0.06	0.06	0.03
Disengaging accuracy	inch		0.001			0.001	0.001				0.002	0.002	0.002
Working height	F												
Frame No. 13	inch	2.55-7.08 1.96-6.10	2.55-7.08 1.96-6.10										
Frame No. 3				3.14-8.26 2.36-7.08		3.14-8.26 2.36-7.08		3.14-8.26 2.36-7.48		3.14-8.46 2.36-7.48			
Frame No. 2	inch			4.72-13.77 3.93-12.79		4.72-13.77 3.93-12.79		4.72-13.77 3.93-12.79		4.72-13.77 3.93-12.79		4.72-350 3.93-12.79	
Frame No. 2-600 ○	inch			7.87-23.03 7.28-22.44		7.87-23.03 7.28-22.44		8.26-23.22 7.67-22.63		8.26-23.22 7.67-22.63		8.26-23.22 7.67-22.63	
Frame No. 2-1000 ○	inch			12.99-40.15 12.40-39.37		12.99-40.15 12.40-39.37		13.38-40.55 12.79-39.96		13.38-40.55 12.79-39.96		13.38-40.55 12.79-39.96	
Frame No. 19	inch											3.54-8.66	3.54-8.66
Frame No. 19-400 ○	inch											6.29-15.74	6.29-15.74
Frame No. 19-500 ○	inch											10.23-21.65	10.23-21.65
Weight	approx. lbs	26	26	53	70	53	70	53	70	53	70	187	187

Accessories	13 V 13 VF	13 VR 13 VRF	11 V 11 VF	15 V 15 VF	11 VR 11 VRF	15 VR 15 VRF	14 V 14 VF	16 V 16 VF	14 VR 14 VRF	16 VR 16 VRF	19 V 19 VF	19 VR 19 VRF
Mechanical counter	○	○	○	○	○	○	○	○	○	○	○	○
Throat depth frame 4.37 inch, 5.15 inch		○	○	○	○	○	○	○	○	○	○	○
Throat depth frame 5.94 inch											○	○
Additional fixture mounting plate suitable for throat depth frame			○	○	○	○	○	○	○	○	○ ²⁾	○ ²⁾

Frame Overview	Press Type	Frame Height M (inch)	Table Size B x T (inch)	Table Bore D Ø (mm)	Table Height K (inch)	Mounting Surface B x L (inch)
No. 13	13	18.70	4.33 x 3.14	20H7	1.81	4.33 x 3.34
No. 3	11, 14	21.25	5.90 x 4.33	20H7	2.36	5.90 x 10.23
No. 2	15, 16	27.55	7.28 x 4.33	20H7	2.36	7.28 x 11.02
No. 2-600 ○	15, 16	38.34	7.87 x 6.29	20H7	3.85	7.87 x 11.41
No. 2-1000 ○	15, 16	55.51	7.87 x 6.29	20H7	3.85	7.87 x 11.41
No. 19	19	25.19	7.87 x 6.29	25H7	4.40	7.87 x 14.56
No. 19-400 ○	19	33.07	9.84 x 7.87	40H7	5.70	9.84 x 18.11
No. 19-500 ○	19	39.37	9.84 x 7.87	40H7	5.70	9.84 x 18.89

Options

- Standard with no additional charge ○ Additional charges apply
- ¹⁾ Special strokes 0.47 inch and 1.96 inch on request
- ²⁾ Fixture mounting plate is already existing in the frame
- ³⁾ Adjustment of locking position on request
- * The weight was determined with hand lever position 45° forward (guidelines)

