

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 materialtransforming processes? Then, **SCHMIDT® Toggle Presses** are just the right choice.

Features

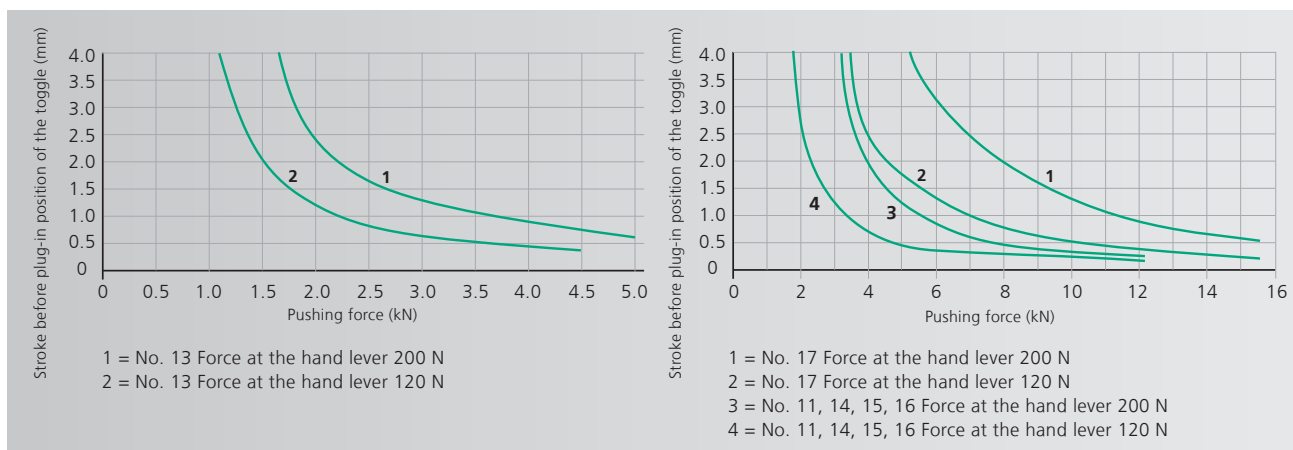
- High force at end of stroke (see diagram below)
- Honed bores and ground rams provide a long service life and a precise guidance



Press Type 13



Press Type 11/14 -17



Note: Maximum force will be reached just before extended position

From 5 kN to 15 kN

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 11RF - 35	11 - 60 11F - 50	11R - 60 11RF - 50	11 - 60 11F - 50	11R - 60 11RF - 50	11 - 20 11F - 20
Nominal force	kN	5	5	12	12	12	12	12	12	12	12	15
Working stroke	A mm	40 35	40 35	0 - 45 0 - 35	20 - 45 20 - 35	0 - 45 0 - 35	20 - 45 20 - 35	60 50	60 50	60 50	60 50	0 - 20 0 - 20
Throat depth	C mm	65	65	86	86	86	86	86	86	86	86	86
Press head height	S mm	385 400	385 400	520 540	520 540	520 540	520 540	500 520	500 520	500 520	500 520	620 640
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*	N	12/35 15/30	12/35 15/30	20/45 25/60	20/40 20/60	20/45 25/60	20/40 20/60	15/25 20/50	15/25 15/40	15/25 20/50	15/25 15/40	25/- 25/-
Return stroke lock¹⁾												
Locked position 1	mm bef. BDC		13,5		12		12		14		14	
Locked position 2	mm bef. BDC		1.5		1.5		1.5		1.5		1.5	
Disengaging accuracy	mm		0.03		0.03		0.03		0.04		0.04	
Working height	F											
Frame No. 13	mm	65 - 180 40 - 155	65 - 180 40 - 155									
Frame No. 3	mm			80 - 210 55 - 180	80 - 210 55 - 180			90 - 220 65 - 195	90 - 220 65 - 195			70 - 200 60 - 185
Frame No. 2	mm					110 - 350 80 - 325	110 - 350 80 - 325			120 - 360 90 - 335	120 - 365 90 - 335	
Frame No. 2-600 ○	mm			200 - 585 175 - 560	200 - 585 175 - 560	200 - 585 175 - 560	200 - 585 175 - 560	210 - 595 185 - 570	210 - 595 185 - 570	210 - 595 185 - 570	210 - 595 185 - 570	200 - 585 175 - 560
Frame No. 2-1000 ○	mm			330 - 1020 305 - 1000	330 - 1020 305 - 1000	330 - 1020 305 - 1000	330 - 1020 305 - 1000	340 - 1030 315 - 1010	340 - 1030 315 - 1010	340 - 1030 315 - 1010	340 - 1030 315 - 1010	330 - 1020 305 - 1000
Weight	approx. kg	12	12	23	24	29	29	24	24	29	29	23

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) 111 mm, 131 mm			○	○	○	○	○	○	○	○	○
Additional fixture mounting plate suitable for throat depth frame	○	○	○	○	○	○	○	○	○	○	○
Block clamping piece	○	○	●	●	●	●	○	○	○	○	●

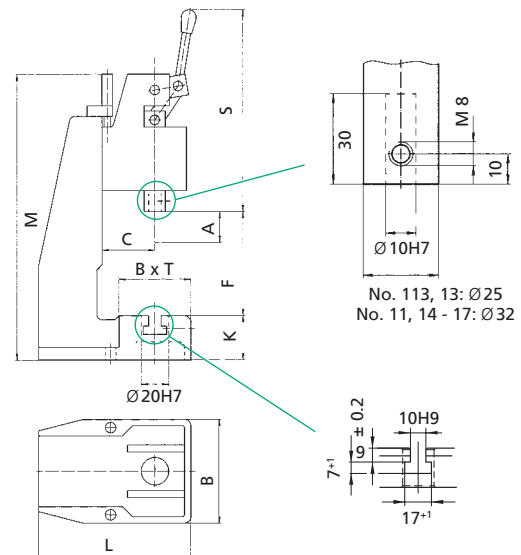
Frame Overview	Press Type	Frame Height M with height adj. (mm)	Frame Height M without height adj. (mm)	Table Size B x T (mm)	Table Bore (Ø mm)	Table Height K (mm)	Mounting Surface B x L (mm)
Nr. 13	13	-	475	110 x 80	20H7	46	110 x 185
Nr. 3	11, 14, 17	540	400	150 x 110	20H7	60	150 x 260
Nr. 2	15, 16	700	536	185 x 110	20H7	60	185 x 280
Nr. 2-600	11, 14, 15, 16, 17	-	974	200 x 160	20H7	98	200 x 290
Nr. 2-1000	11, 14, 15, 16, 17	-	1410	200 x 160	20H7	98	200 x 290

Optionen

- Series with no additional charge ○ Additional charge applies
- 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.schmidttechnology.de

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



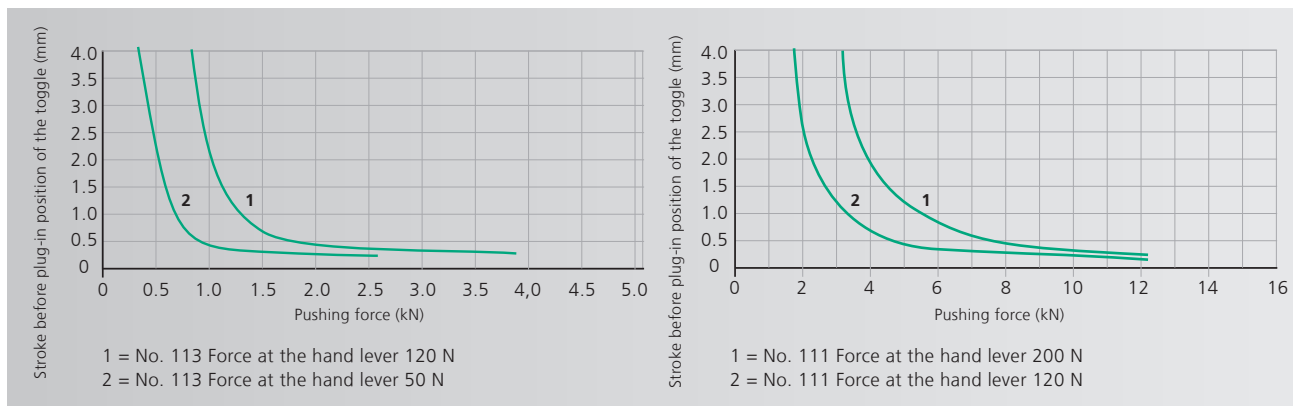
Press Type 113



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

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		kN	2.5	2.5	12	12
Working stroke	A	mm	0 - 28 0 - 28	22 - 28 22 - 28	0 - 45 50	24 - 45 50
Throat depth	C	mm	65	65	86	86
Press head height	S	mm	170 180	190 200	215 225	240 250
Ram bore		Ø mm	10H7	10H7	10H7	10H7
Hand lever left			-	-	-	-
Angle of rotation			80°	80°	90°	90°
Max. Weight upper tool*		N	10/30 6/30	5/25 6/30	25/- 30/-	25/- 30/-
Return stroke lock ¹⁾		N				
Locked position 1		mm		12		14
Locked position 2		mm		0.5		1.5
Disengaging accuracy		mm		0.03		0.07
Working height	F					
Frame No. 13		mm	50-165 40-155	50-165 40-155		
Frame No. 3		mm			130-205 115-195	130-205 115-195
Frame No. 2		mm			130-340 115-330	130-340 115-330
Frame No. 2-600 ○		mm			200-580 185-570	200-580 185-570
Frame No. 2-1000 ●		mm			330-1020 310-1000	330-1020 310-1000
Weight		approx. kg	11	11	28	28

Accessories		113 113F	113R 113RF	111 111F	111R 111RF
Mechanical counter		○	○	○	○
Throat depth frame (total depth) 111 mm, 131 mm				○	○
Additional fixture mounting plate suitable for throat depth frame				○	○
Block clamping piece ²⁾		●	●	●	●

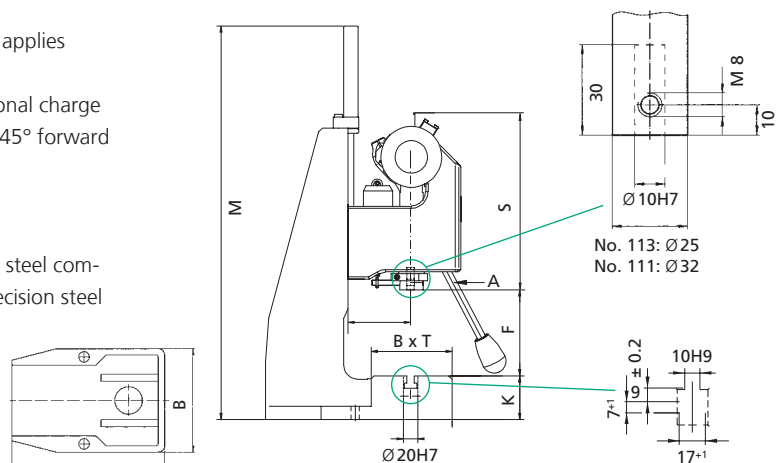
Frame Overview	Press Type	Frame Height M (mm)	Table Size B x T (mm)	Table Bore (Ø mm)	Table Height K (mm)	Mounting Surface B x L (mm)
No. 13	113	475	110 x 80	20H7	46	110 x 185
No. 3	111	540	150 x 110	20H7	60	150 x 260
No. 2	111	700	185 x 110	20H7	60	185 x 280
No. 2-600	111	974	200 x 160	20H7	98	200 x 290
No. 2-1000	111	1410	200 x 160	20H7	98	200 x 290

Options

- Series with no additional charge ○ Additional charge applies
- ¹⁾ Adjustment of locking position on request
- ²⁾ Stroke reduction about 10 mm 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



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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

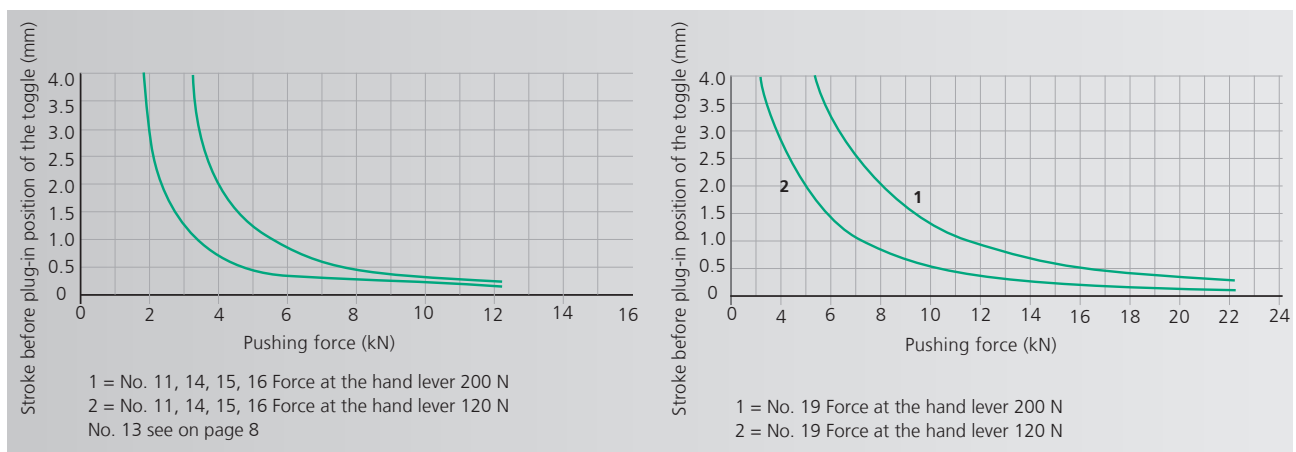
- High force at end of stroke
- Square ram is anti-rotational (no die sets required)
- Precise adjustment of the press depth via hardened lower stop
- Fully adjustable, play-free teflon-lined gibs



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

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	11V-45 11VF-45	11VR-45 11VRF-45	11VR-45 11VRF-45	11V-60 11VF-60	11V-60 11VF-60	11VR-60 11VRF-60	11VR-60 11VRF-60	19V-40 ¹⁾	19VR-40 ¹⁾
Nominal force	kN	5	5	12	12	12	12	12	12	12	12	22	22
Working stroke	A mm	0 - 40 15 - 40	26 - 40 26 - 40	10 - 45 25 - 45	10 - 45 25 - 45	20 - 45 25 - 45	20 - 45 25 - 45	15 - 60 30 - 60	15 - 60 30 - 60	28 - 60 30 - 60	28 - 60 30 - 60	0 - 40 0 - 40	10 - 40 10 - 40
Throat depth	C mm	65	65	86	86	86	86	86	86	86	86	131	131
Press head height	S mm	385 400	385 400	510 530	510 530	510 530	510 530	510 530	510 530	510 530	510 530	620 620	620 620
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 top tool*	N	12/40 20/35	12/40 20/35	16/42 20/50	16/42 20/50	16/42 20/50	16/42 20/50	10/35 10/35	10/35 10/35	10/35 10/35	10/35 10/35	20/- 20/-	20/- 20/-
Return stroke lock³⁾													
Locked position 1	mm bef. BDC		14.5			12	12			14	14	4.5	4.5
Locked position 2	mm bef. BDC		1.5			1.5	1.5			1.5	1.5	0.9	0.9
Disengaging accuracy	mm		0.03			0.03	0.03			0.04	0.04	0.02	0.02
Working height	F												
Frame No. 13	mm	65 - 180 50 - 155	65 - 180 50 - 155										
Frame No. 3				80 - 210 60 - 180		80 - 210 60 - 180		80 - 210 60 - 190		80 - 215 60 - 190			
Frame No. 2	mm				120 - 350 100 - 325		120 - 350 100 - 325		120 - 350 100 - 325		120 - 350 100 - 325		
Frame No. 2-600 ○	mm				200 - 585 185 - 570		200 - 585 185 - 570		210 - 590 195 - 575		210 - 590 195 - 575		
Frame No. 2-1000 ●	mm				330 - 1020 315 - 1000		330 - 1020 315 - 1000		340 - 1030 325 - 1015		340 - 1030 325 - 1015		
Frame No. 19	mm											90 - 220	90 - 220
Frame No. 19-400 ○	mm											160 - 400	160 - 400
Frame No. 19-500 ○	mm											260 - 550	260 - 550
Weight	approx. kg	12	12	24	32	24	32	24	32	24	32	85	85

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 111 mm, 131 mm		○	○	○	○	○	○	○	○	○		
Throat depth frame 151 mm											○	○
Additional fixture mounting plate suitable for throat depth frame			○	○	○	○	○	○	○	○	○ ²⁾	○ ²⁾

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. 13	13	475	110 x 80	20H7	46	110 x 85
No. 3	11, 14	540	150 x 110	20H7	60	150 x 260
No. 2	15, 16	700	185 x 110	20H7	60	185 x 280
No. 2-600 ○	15, 16	974	200 x 160	20H7	98	200 x 290
No. 2-1000 ○	15, 16	1410	200 x 160	20H7	98	200 x 290
No. 19	19	640	200 x 160	25H7	112	200 x 370
No. 19-400 ○	19	840	250 x 200	40H7	145	250 x 460
No. 19-500 ○	19	1000	250 x 200	40H7	145	250 x 480

Options

- Series with no additional charge ○ Additional charge applies
- ¹⁾ Special strokes 12 mm and 50 mm 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)

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

