

# SCHMIDT® Toggle presses

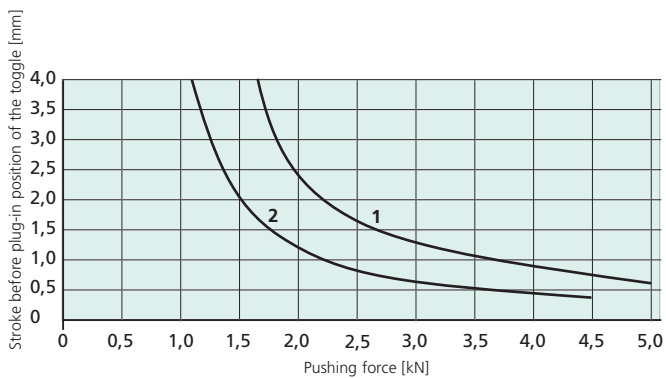
The high force at the end of stroke, just where it is important



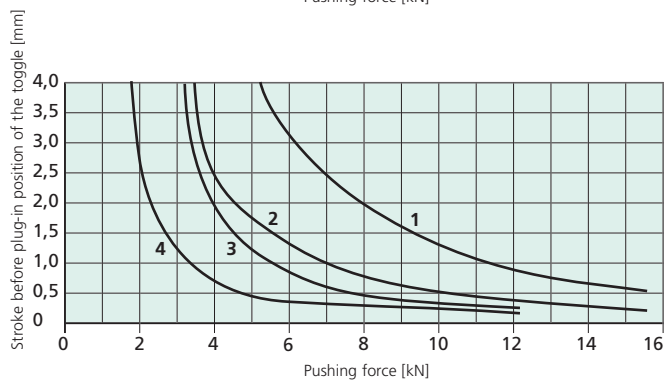
Do you need a high force at the end of stroke for material-transforming processes? Then, **SCHMIDT® Toggle Presses** are just the right choice.

**Features:**

- High force at end of stroke
- Honed bores and ground rams provide a long service life and a precise guidance



1 = No. 13 force at the hand lever 200 N  
2 = No. 13 force at the hand lever 120 N



1 = No. 17 force at the hand lever 200 N  
2 = No. 17 force at the hand lever 120 N  
3 = No. 11, 14, 15, 16 force at the hand lever 200 N  
4 = No. 11, 14, 15, 16 force at the hand lever 120 N

# From 5 kN to 15 kN

Press type		13	13R	11	15	11R	15R	14	16	14R	16R	17
		<b>13F</b>	<b>13RF</b>	<b>11F</b>	<b>15F</b>	<b>11RF</b>	<b>15RF</b>	<b>14F</b>	<b>16F</b>	<b>14RF</b>	<b>16RF</b>	<b>17F</b>
Press head type		13-40	13R-40	11-45	11-45	11R-45	11R-45	11-60	11-60	11R-60	11R-60	11-20
		13F-35	13RF-35	11F-35	11F-35	11RF-35	11RF-35	11F-50	11F-50	11RF-50	11RF-50	11F-20
Nominal force	kN	5	5	12	12	12	12	12	12	12	12	15
Working stroke	A mm	40	25-40	0 - 45	0 - 45	20 - 45	20 - 45	60	60	24-60	24-60	0 - 20
		35	25-35	0 - 35	0 - 35	20 - 35	20 - 35	50	50	24-50	24-50	0 - 20
Throat depth	C mm	65	65	86	86	86	86	86	86	86	86	86
Press head height	S mm	385	385	520	520	520	520	500	500	500	500	620
		400	400	540	540	540	540	520	520	520	520	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°
Spring restoring force standard/enhanced	N	15/35	13/35	30/50	30/50	30/50	30/50	22/30	22/30	22/30	22/30	25/-
		22/30	22/30	30/70	30/70	30/70	30/70	30/50	30/50	30/50	30/50	25/-
<b>Return stroke lock<sup>1)</sup></b>												
Locked position 1	mm before BDC			14.5				12	12		14	14
Locked position 2	mm before BDC			1.5				1.5	1.5		1.5	1.5
Disengaging accuracy	mm			0.03				0.03	0.03		0.04	0.04
<b>Working height F</b>												
Frame No. 13	mm	65 - 180	65 - 180									
		50 - 155	50 - 155									
Frame No. 3	mm			80 - 210		80 - 210		90 - 225		90 - 225		70 - 200
				60 - 180		60 - 180		70 - 190		70 - 190		60 - 185
Frame No. 2	mm				110 - 350		110 - 350		120 - 360		120 - 360	
					80 - 325		80 - 325		90 - 335		90 - 335	
Frame No. 2-600 ○	mm			200-585	200-585	200-585	200-585	210-595	210-595	210-595	210-595	
				175-560	175-560	175-560	175-560	185-570	185-570	185-570	185-570	
Frame No. 2-1000 ○	mm			330-1020	330-1020	330-1020	330-1020	340-1030	340-1030	340-1030	340-1030	
				305-1000	305-1000	305-1000	305-1000	315-1010	315-1010	315-1010	315-1010	
Weight	approx. kg	12	12	23	31	23	31	23	23	23	31	24

### Accessories

Mechanical counter		○	○	○	○	○	○	○	○	○	○	○
Throat depth frame (total depth) 111 mm, 131 mm				○	○	○	○	○	○	○	○	○
Additional fixture mounting plate suitable for throat depth frame		○	○	○	○	○	○	○	○	○	○	○
Block clamping piece <sup>2)</sup>		○	○	●	●	●	●	○	○	○	○	●

### Frame overview

Frame type	Press type	Frame height M mm	Table size W x D mm	Table bore Ø mm	Table height K mm	Mounting surface W x L mm
No. 13	13	330	110x80	20H7	46	110x185
No. 3	11, 14, 17	540	150x110	20H7	60	150x260
No. 2	15, 16	700	185x110	20H7	60	185x280
No. 2-600 ○	11, 14, 15, 16, 17	810	200x160	20H7	98	200x290
No. 2-1000 ○	11, 14, 15, 16, 17	1248	200x160	20H7	98	200x290

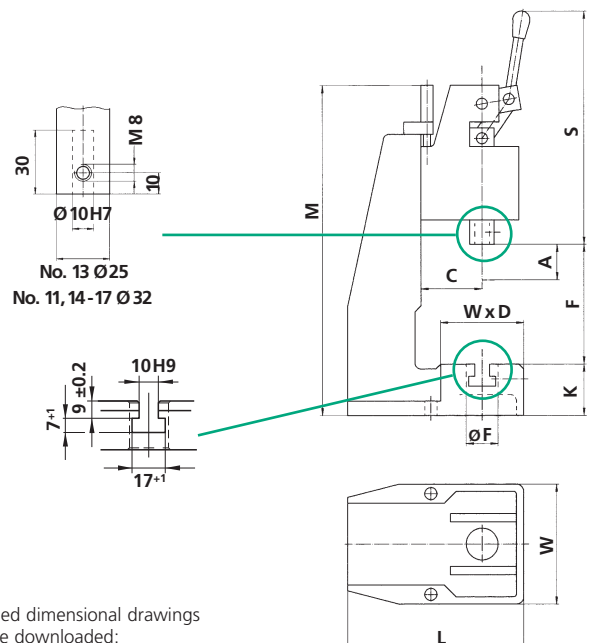
### Options

- = Series standard with no additional charge
- = Additional charge applies
- <sup>1)</sup> = Adjustment of locking position on request
- <sup>2)</sup> = Stroke reduction about 10 mm by version with additional charge

### 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](http://www.schmidttechnology.de)

# SCHMIDT® Toggle presses

The high force at the end of stroke, just where it is important



113



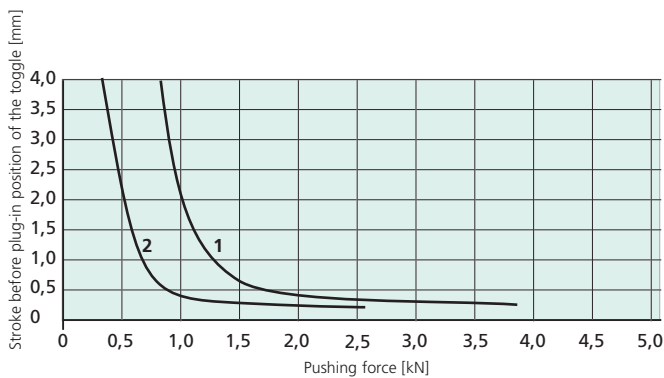
111

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

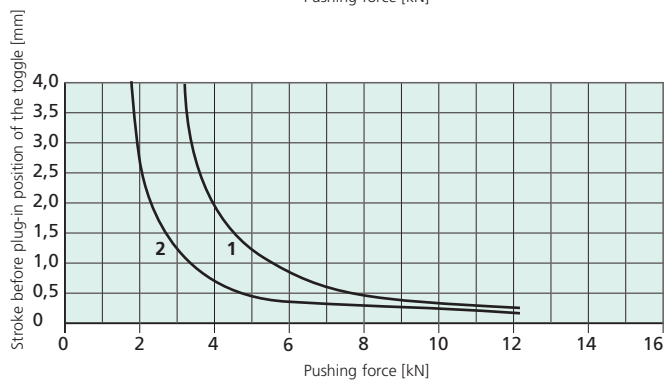
**Features:**

- High force at end of stroke
- Honed bores and ground rams provide a long service life and a precise guidance

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



1 = No. 113 force at the hand lever 120 N  
2 = No. 113 force at the hand lever 50 N



1 = No. 111 force at the hand lever 200 N  
2 = No. 111 force at the hand lever 120 N

# From 2,5 kN to 12 kN

Press type		113	113R	111	111R
Press head type		113F	113RF	111F	111RF
Nominal force		2,5	2,5	12	12
Working stroke	A	0 - 28	22 - 28	0 - 45	24 - 45
		0 - 28	22 - 28	50	50
Throat depth	C	65	65	86	86
Press head height	S	250	250	360	360
				360	360
Ram bore	Ø mm	10H7	10H7	10H7	10H7
Hand lever left		-	-	-	-
Angle of rotation		80°	80°	90°	90°
Spring restoring force standard/enhanced N		15/30	15/30	15/-	15/-
		6/30	6/30	20/-	20/-
<b>Return stroke lock<sup>1)</sup></b>					
Locked position 1	mm before BDC		11,6		14
Locked position 2	mm before BDC		0,6		1,5
Disengaging accuracy	mm		0,03		0,07
<b>Working height F</b>					
Frame No. 13	mm	50-165	50-165		
		40-155	40-155		
Frame No. 3	mm			130-205	130-205
				115-195	115-195
Frame No. 2	mm			130-340	130-340
				115-330	115-330
Frame No. 2-600 ○	mm			200-580	200-580
				185-570	185-570
Frame No. 2-1000 ○	mm			330-1020	330-1020
				310-1000	310-1000
Weight	approx. kg	11	11	28	28

<b>Accessories</b>					
Mechanical counter		○	○	○	○
Throat depth frame (total depth) 111 mm, 131 mm				○	○
Additional fixture mounting plate suitable for throat depth frame				○	○
Block clamping piece <sup>2)</sup>		●	●	●	●

Frame type	Press type	Frame height		Table size		Table bore		Table height		Mounting surface	
		M		W x D		Ø mm	K		W x L		
No. 13	113	330		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	810		200 x 160		20H7	98		200 x 290		
No. 2-1000 ○	111	1248		200 x 160		20H7	98		200 x 290		

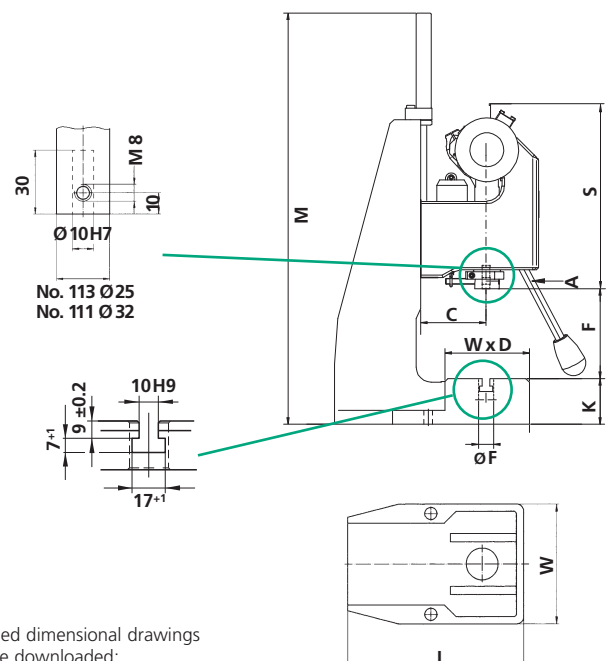
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### Other Available Options

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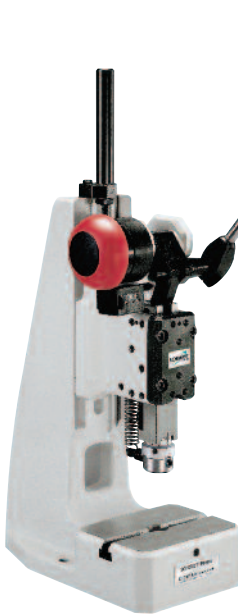


Detailed dimensional drawings can be downloaded: [www.schmidttechnology.de](http://www.schmidttechnology.de)

# SCHMIDT® Toggle Presses with Square Ram

Optimum guidance and anti-rotation

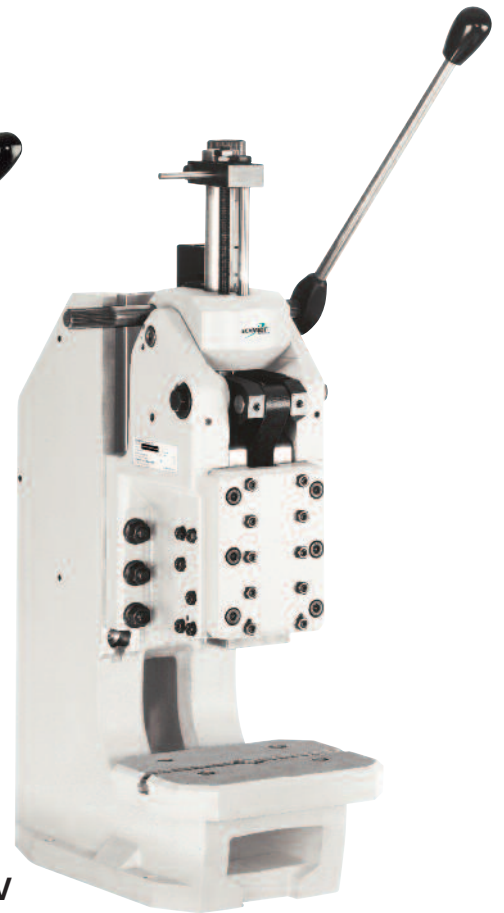
11 V  
13 V  
14 V



15 V  
16 V



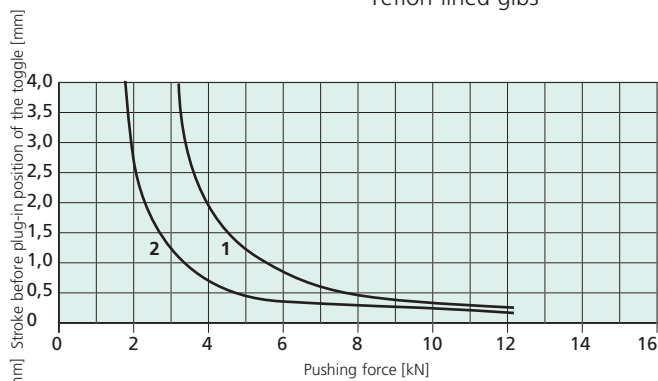
19 V



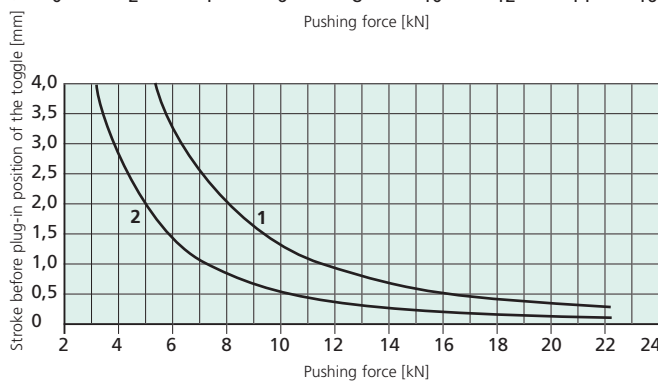
Do you need a high force at the end of stroke for material-transforming processes? Then, **SCHMIDT® Toggle Presses** are just the right choice.

**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



1 = No. 11, 14, 15, 16 force at the hand lever 200 N  
2 = No. 11, 14, 15, 16 force at the hand lever 120 N  
No. 13 see on page 10



1 = No. 19 force at the hand lever 200 N  
2 = No. 19 force at the hand lever 120 N

