

# Technical Data

Machine model	12 M	22 D	30 D	50 T2	80 T2
International size	129-11	22 DV/MV	300-75	500-183	805-308
Injection unit	129-18	220-52	also available with injection unit 52)		
Screw diameter	mm/in	16/63 18/71 22/87	24/95 28/11 32/126	28/11 32/126 38/15 42/165	36/142 42/165 48/189
Screw L/D ratio	18	20 20 175 12	22.3 19 16.6 15	20.5 18 15 13.6	23 20 17
Max. stroke volume (theoretical)	in <sup>3</sup>	0.96 1.22 1.83	2.2 2.99 3.9	4.15 5.89 8.3 10.25	9.01 12.26 16.01
Max. shot weight in PS	oz	0.5 0.63 0.95	1.13 1.55 2.01	2.26 3.03 4.27 5.22	4.66 6.31 8.25
Injection force	US Tons	3.11	7.4	9.33	17.08
Max. spec. injection pressure	psi	26,107	48,152 37,521 25,120	21,103 15,504 11,864	26,251 19,435 14,938
Max. screw stroke	mm/in	40/1.58	80/3.15	90/3.54	120/4.72
Nozzle force	US Tons	4.04	5.39	7.34	7.42
Nozzle retraction stroke	mm/in	180/7.09	180/7.09	180/7.09	210/8.27
Screw torque	ft/lbs	max 18435	84.8 136.5	162.3/265.5	265.5/312.2
Screw speed (continuously variable)	rpm	max 300	10-250 (alternatively)	12-250 (standard)	10-314
Screw pullback force	US Tons	3.85	2.56	2.56	1.48 (2.97)
Cylinder heating power	W	Ø14 2x472+858+465	22 M 3x760+280	3x1280+400	3x1950+450
Nozzle heating power	W	Ø18 2x690+1263+465	22 D 1330+1120+280		
Hopper capacity	lbs	510	275	130	200
		981	17	35	88
<b>Clamping unit</b>					
Clamping force	US Tons	1419	242	337	55
Clearance between bars	mm/in	259/10.20	254/10	280 x 254/11 x 10	335/305/1318x1201 (hwh)
Max. platen daylight	mm/in	300/11.81	400/15.75	500/19.69	600/23.62
Max. opening stroke (adjustable)	mm/in	200/7.87	200/7.87	300/11.81	350/13.78
Min. mold height	mm/in	100/3.94	200/7.87	200/7.87	250/9.84
Mold opening force	US Tons	2.58	4.49	3.71	5.64
Mold closing force	US Tons	1.69	1.98	2.7	2.89
Ejector stroke (max.)	mm/in	30/1.18	80/3.15	80/3.15	80 (130) 150/3.15 (512 (5.91)
Ejector force pushing/pulling	US Tons	1.51/1.01	2.03/1.35	2.02/1.35	2.03/1.35 (4.27/3)
<b>General</b>					
Dry cycle (ELICOMAP)	min <sup>-1</sup>	44	43	42	38
Installed motor power	kW	5.5	5.5	7.5	11
Installed total power	kW	8.76	8.5	11.7	17.5
Hydraulic system pressure	psi	2321	3321	2611	2321
Oil tank capacity	US gal.	30.38	30.18/27.74	30.38	56.8
<b>Dimensions and weights</b>					
Length of machine	in	88.42	74.21	97.24	134.45
Width of machine	in	31.89	31.89	33.86	40.55
Height of machine	in	63.23	116.14	74.30	81.69
Total weight net (without oil)	lb	1698	1940	2536	5005
Total weight gross (without oil)	lb	1940	2436	2866	5534
Length of case	in	ca. 86.61	80.71	94.49	142.70
Width of case	in	ca. 39.86	47.24	47.24	45.27
Height of case	in	ca. 63	109.45	67.73	74.61

1) VV-+ VH-Machine  
 2) with opened safety gate  
 3) Vertical injection 2590  
 4) Injection pressure 160 bar

**Boy Machines Inc.**  
 199 Philips Road • Exton, PA 19341  
 Phone: (610) 363 9121  
 Fax: (610) 363 0163

