

320 t–500 t TECHNICAL SPECIFICATIONS HM

PLASTICS TECHNOLOGY

INJECTION MOLDING TECHNOLOGY

HM 320 t–500 t



CLAMPING/INJECTION UNITS SHOT WEIGHT

POSSIBLE COMBINATIONS OF CLAMPING UNITS/INJECTION UNITS

Clamping unit t	Injection unit				
	1000	1330	2250	3400	5100
320	•	•	•		
400		•	•	•	
500			•	•	•

SHOT WEIGHT CONVERSION TABLE

Material	Factor
ABS	0,88
CA	1,02
CAB	0,97
PA	0,91
PC	0,97
PE	0,71
PMMA	0,94
POM	1,15
PP	0,73

Material	Factor
PP + 20% Talcum	0,85
PP + 40% Talcum	0,98
PP + 20% GF	0,85
PS	0,91
PVC-rigid	1,12
PVC-flexible	1,02
SAN	0,88
SB	0,88
PF	1,3
UP	1,6

The maximum shotweights (g) are calculated by multiplying the theoretical shot volume (cm³) by the above factor.

Dark grey boxes =
Thermosets

OVERVIEW OF INJECTION UNITS HM 320 t–500 t

	Screw diameter	mm	45	50	55	65	75	85	95
.../1000	Specific injection pressure	bar	2490	2016	1666				
	Theoretical shot volume	cm ³	398	491	594				
.../1330	Specific injection pressure	bar		2470	2041	1461			
	Theoretical shot volume	cm ³		540	653	913			
.../2250	Specific injection pressure	bar			2500	2070	1555		
	Theoretical shot volume	cm ³			772	1078	1436		
.../3400	Specific injection pressure	bar				2500	2022	1574	
	Theoretical shot volume	cm ³				1244	1657	2128	
.../5100	Specific injection pressure	bar					2500	2110	1689
	Theoretical shot volume	cm ³					1878	2412	3012

HM 320

Clamping unit		HM 320/...
Clamping force	kN	3200
Distance between tie-bars	mm x mm	800 x 630
Platen dimensions	mm x mm	1310 x 1250
Mold height (min.)	mm	350
Opening stroke	mm	800
Opening force	kN	138 (281)
Maximum daylight	mm	1150
Ejector force	kN	59
Ejector stroke	mm	200
Oil tank volume	l	650
Dry cycle time ¹	s/mm	2,8–441

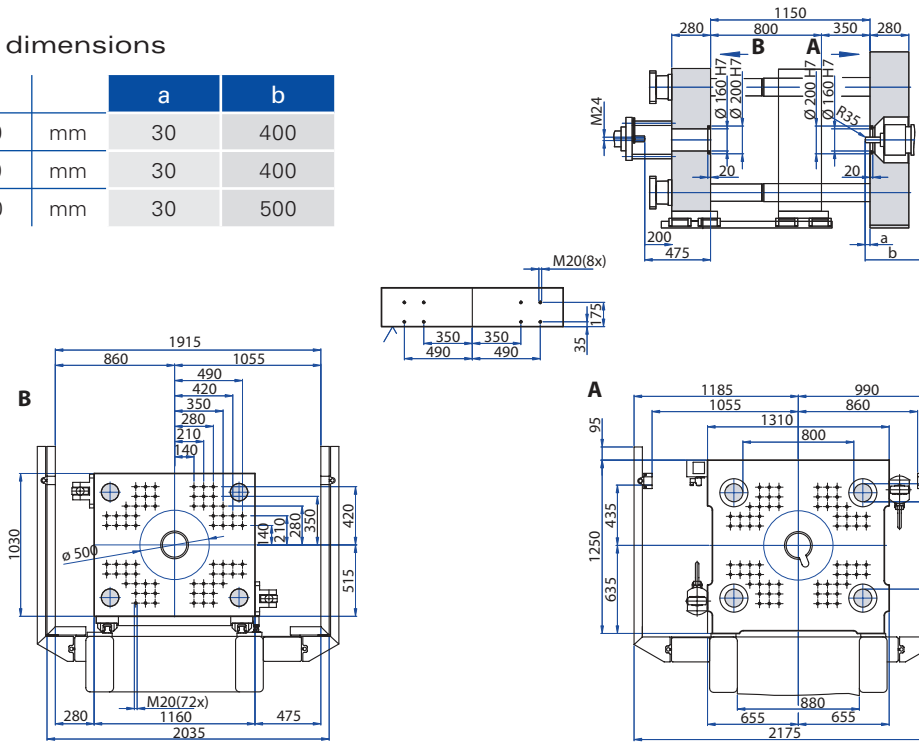
¹ according to EUROMAP 6

² Battenfeld Standard

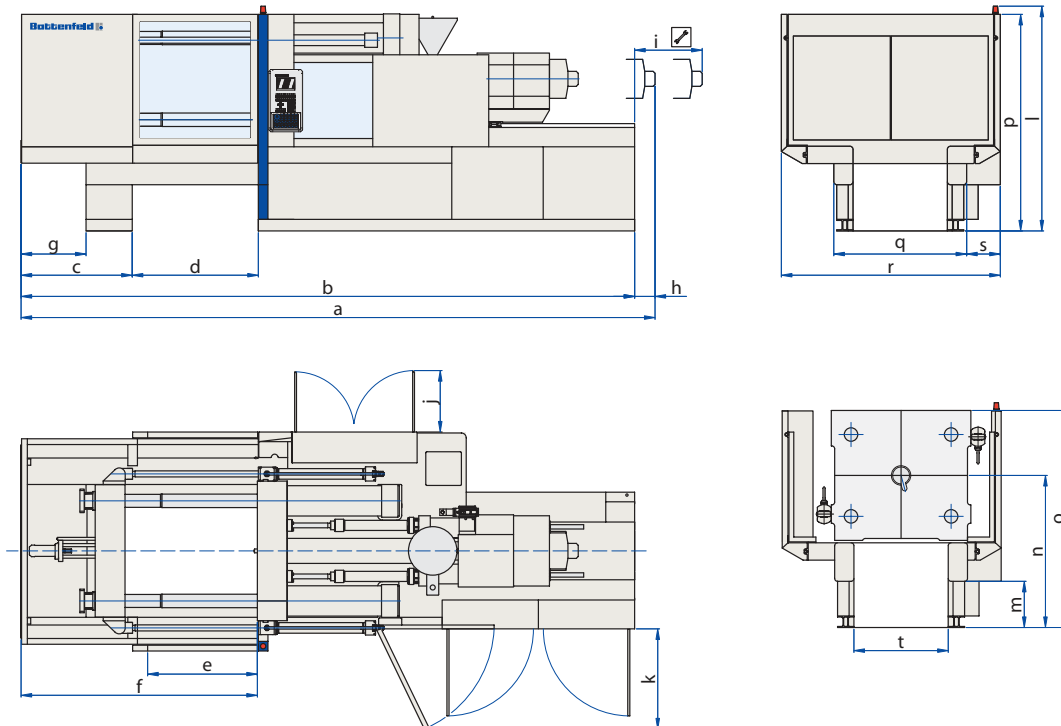
Injection unit		HM 320/1000			HM 320/1330			HM 320/2250		
International size according to EUROMAP 1		1000			1330			2250		
Screw diameter	mm	45	50	55	50	55	65	55	65	75
Specific injection pressure	bar	2490	2016	1666	2470	2041	1461	2500	2070	1555
Theoretical shot volume	cm ³	389	491	594	540	653	913	772	1078	1436
Max. shot weight (PS)	g	362	447	541	491	594	831	703	981	1307
Screw L/D ratio		22			22			22		
Max. screw speed	1/min	450			358			318		
Max. screw torque	Nm	1540			1940			2373		
Max. plasticizing rate (PS) ²	g/s	56	67	83	54	66	79	59	89	135
Nozzle stroke	mm	400			400			500		
Nozzle contact force	kN	100			100			129		
Screw stroke	mm	250			275			325		
Injection rate into air	cm ³ /s	316	391	473	319	386	539	272	380	506
Injection rate into air with add.-pump (option)	cm ³ /s	443	547	662	446	540	755	381	533	709
Injection rate into air with hydraulic accumulator (option)	cm ³ /s	478	590	714	567	686	958	726	1014	1351
Barrel heating capacity	kN	13,8	17	18,2	17	18,2	20,9	22,7	26,6	31,3
Number of control circuits		1+3	1+4		1+4			1+4		
Drive power (double-pump)	kW	45 (55)			45 (55)			45 (55)		

Platen dimensions

HM		a	b
320/1000	mm	30	400
320/1330	mm	30	400
320/2250	mm	30	500



Dimensions and weight



HM	kg	a ¹	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t
320/1000	15000	5895	5895	1055	1050	1020	2200	575	-	-	640	1000	2335	480	1540	2155	2250	1280	2300	410	880
320/1330	15000	5895	5895	1055	1050	1020	2200	575	-	-	640	1000	2335	480	1540	2155	2250	1280	2300	410	880
320/2250	16000	5982	5895	1055	1050	1020	2200	575	87	437	640	1000	2335	480	1540	2155	2250	1280	2300	410	880

¹ maximum length with middle screw diameter in back position