		Clamping unit e-mac 100
Clamp force	to / kN	100/1000
Opening force	kN	100
Opening stroke max.	mm	350
Mold height min.	mm	150
Mold height max.	mm	450
Mold fixing platens standard h x v	mm	650 x 600
Tie-bar distance h x v	mm	460 x 410
Tie bar diameter	mm	65
Ejector stroke	mm	100
Ejector force forward / return	kN	22 / 22
mold weight, max on moving platen/center of gravity	kg / mm	650 / 150
Number of mold cooling circuits	n x l / min	6 x 10
Dry operation time	sec @ mm	1.4 @ 320

e-mac 100		Injection unit		
		170	310	440
Weight Clamping unit /Injection unit	to US tons	4.4 4.85	4.8 5.29	4.8 5.29
Drive power standard/high/premium	kW hp	8.7 / 9.8 /12.6 11.7 / 13.1 / 16.9	9.3 / 10.8 / - 12.5 / 14.5 / -	11.0 / 12.6 / - 14.8 / 16.9 / -
Injection unit heating capacity (max.capacity / max.zones)	kW / n hp / n	7.0 / 4 9.4 / 4	9.2 / 4 12.3 / 4	9.2 / 4 12.3 / 4
Total power standard/high/premium	kW hp	14 / 15 / 18 18.8 / 20.1 / 24.1	17 / 18 / - 22.8 / 24.1 / -	18 / 20 / - 24.1 / 26.8 / -
Connected current [1] standard/high/premium	A	21 / 22 / 27	24 / 26 / -	27 / 29 / -
Cooling water consumption [2]	m³/h gal/h	-	-	-

1. With voltage 3 x 380V - 400V + N + PE, 50/60Hz
2. With an ambient temperature of maximum 35° C / 95° F

		Injection unit 310					
		standard		high		premium	
Screw diameter	mm inches	30 1.18	35 1.38	30 1.18	35 1.38	30 1.18	35 1.38
Screw stroke	mm inches	160 6.30	160 6.30	160 6.30	160 6.30	160 6.30	160 6.30
Injection capacity	cm³ in³	113 6.89	154 9.40	113 6.89	154 9.40	113 6.89	154 9.40
Screw speed	min-1 rpm	420	420	420	420	420	420
Peripheral screw speed max.	m/min ft/min	40 131	46 151	40 131	46 151	40 131	46 151
Screw torque max.	Nm lbf-ft	450 332	450 332	450 332	450 332	450 332	450 332
L/D ratio (3-zone screw)	L/D	23.6	20	23.6	20	23.6	20
Recovery rate (3-zone screw) [1]	g/s oz/s	14.7 0.52	22.1 0.78	14.7 0.52	22.1 0.78	14.7 0.52	22.1 0.78
L/D ratio (barrier screw)	L/D	-	-	-	-	-	-
Recovery rate (barrier screw) [2]	g/s oz/s	-	-	-	-	-	-
Shot weight max. [1]	g oz	104 3.67	142 5.01	104 3.67	142 5.01	104 3.67	142 5.01
Injection rate [3]	cm³/s in³/s	157 9.58	214 13.06	235 14.34	320 19.53	326 19.89	444 27.09
Spec. injection pressure	bar psi	2400 [4] 34808 [4]	2000 29008	2400 [4] 34808 [4]	2000 29008	2400 [4] 34808 [4]	2000 29008
Hold.pres.max.. [5]	bar psi	2160 31328	1800 26107	2160 31328	1800 26107	2160 31328	1800 26107
Nozzle stroke	mm inches	225 8.86	225 8.86	225 8.86	225 8.86	225 8.86	225 8.86
Nozzle penetration	mm inches	30 1.2	30 1.2	30 1.2	30 1.2	30 1.2	30 1.2
Nozzle contact pressure	kN US tons	28 3.14	28 3.14	28 3.14	28 3.14	28 3.14	28 3.14
Heating wattage	kW hp	9.2 12.34	9.2 12.34	9.2 12.34	9.2 12.34	9.2 12.34	9.2 12.34
Number of heating zones incl. nozzle		4	4	4	4	4	4

1. Values for polystyrene (according to ENGEL factory standard ETR 10100)
2. Values for HDPE (according to ENGEL factory standard ETR 10100)
3. Dependent on pump drive power
4. Injection pressure limited
5. The height of the holding pressure is dependent on the holding pressure duration as well as on the total cycle