

**Electric Servo Drive
Injection Molding Machine**

J-ELIII SERIES

Specifications



JSW Hiroshima Plant

JSW



JSW Hiroshima Plant

Performance Table

Unit	Item	Model	J180EL III			J220EL III			J280EL III						
									460H			890H			
Injection Unit	Screw cylinder type		KK (0P)	K	A	K (0P)	A	B	K (0P)	A	B	K (0P)	A	B	
	Screw diameter	mm	35	40	46	46	53	58	46	53	58	58	66	72	
	Screw stroke	mm	140	180		210			210			260			
	Theoretical injection capacity	cm ³	135	226	300	349	463	555	349	463	555	687	890	1059	
	Injection capacity(PS)	g	123	206	273	318	421	505	318	421	505	625	810	965	
	Standard	Injection pressure (Max.)	MPa (kgf/cm ²)	246 (2500)	216 (2200)	177 (1800)	216 (2200)	177 (1800)	138 (1400)	216 (2200)	177 (1800)	138 (1400)	216 (2200)	167 (1700)	138 (1400)
		Holding pressure (Max.)	MPa (kgf/cm ²)	216 (2200)	197 (2000)	157 (1600)	187 (1900)	157 (1600)	123 (1250)	187 (1900)	157 (1600)	123 (1250)	187 (1900)	148 (1500)	118 (1200)
		Injection speed	mm/s	160			160			160			160		
		Injection rate	cm ³ /s	153	201	266	266	353	423	266	353	423	423	547	651
		Plasticizing rate	kg/h	58	82	117	115	163	197	115	163	197	197	282	336
		Screw speed	min ⁻¹	250			250			250			250		
		High speed (OP)	Injection pressure (Max.)	MPa (kgf/cm ²)	246 (2500)	216 (2200)	177 (1800)	216 (2200)	177 (1800)	138 (1400)	216 (2200)	177 (1800)	138 (1400)	216 (2200)	167 (1700)
	Holding pressure (Max.)		MPa (kgf/cm ²)	216 (2200)	197 (2000)	157 (1600)	187 (1900)	157 (1600)	123 (1250)	187 (1900)	157 (1600)	123 (1250)	177 (1800)	138 (1400)	113 (1150)
	Injection speed		mm/s	240			240			240			200		
	Injection rate		cm ³ /s	231	301	400	400	530	633	400	530	633	528	684	814
	Plasticizing rate		kg/h	92	130	184	161	228	275	161	228	275	197	282	336
	Screw speed		min ⁻¹	400			350			350			250		
	Nozzle touch force		kN (tf)	24.6 [2.5]			24.6 [2.5]			24.6 [2.5]			29.5 [3.0]		
	Nozzle stroke from platen	mm	50			50			50						
	Type of nozzle		Open nozzle (chip type)			Open nozzle (chip type)			Open nozzle (chip type)						
Cylinder temperature control		Cylinder 4/Nozzle 1			Cylinder 4 / Nozzle 1			Cylinder 4 / Nozzle 1							
Heater wattage	kW	10.9	13.3		18.1			18.1			24.5				
Clamping Unit	Mechanism		Double toggle			Double toggle			Double toggle						
	Clamping force	kN (tf)	1770 [180]			2160 [220]			2750 [280]						
	Daylight opening (Max.)	mm	940			1050			1100						
	Opening stroke (Max.)	mm	440			550			570						
	Mold height	mm	220~500			230~500			250~530						
	Distance between tie-bars (HXV)mm		530×530			590×590			630×630						
	Platen size (H×V)mm		780×780			870×870			950×950						
	Ejector type		9 points			9 points			13 points						
	Ejector force	kN (tf)	32.4 [3.3]			44.2 [4.5]			59.0 [6.0]						
	Ejector stroke	mm	130			130			150						
General	Machine weight	t	8.1			11.7			13.6			14.3			
	Machine dimension(LXWXH) m		5.51×1.37×1.92			6.24×1.54×2.14			6.56×1.73×2.16			7.34×1.73×2.16			

Remarks:

1. Injection pressure of J-EL III series is different from that of JSW's hydraulic machines.
2. "KK" size screw under J180EL III is same as "K" size of one smaller model.
3. Maximum injection pressure and maximum holding pressure may be restricted due to molding condition.
4. The theoretical injection capacity is (cross sectional area of cylinder) x (strok ing distance of screw.)
5. The injection capacity is applicable for GP-PS and variable according to the grade of resin, molding conditions and mold.
6. The plasticizing rate is applicable for GP-PS.
7. PC (polycarbonate), HPVC, other engineering plastic, etc., low temperature setting, and high speed molding, may require a high torque depending on the grade or molding conditions. Please let us know if you plan.

Note:

1. Due to continual improvements, specifications are subject to change without notice.
2. Actual figures of the specification will vary depending on final machine configuration. Please let us know if you require more specific data.
3. Performance specifications are based on theoretical data.
4. High speed injection is optional.
5. 1MPa=10.2 kgf/cm², 1kN=0.102tf

Performance Table

Unit	Item	Model	J350EL III						J450EL III						
			460H			890H			890H			1400H			
Injection Unit	Screw cylinder type		K (0P)	A	B	K (0P)	A	B	K (0P)	A	B	K (0P)	A	B	
	Screw diameter	mm	46	53	58	58	66	72	58	66	72	66	76	84	
	Screw stroke	mm	210			260			260			300			
	Theoretical injection capacity	cm ³	349	463	555	687	890	1059	687	890	1059	1026	1361	1663	
	Injection capacity(PS)	g	318	421	505	625	810	965	625	810	965	934	1238	1513	
	Standard	Injection pressure (Max.)	MPa {kgf/cm ² }	216 {2200}	177 {1800}	138 {1400}	216 {2200}	167 {1700}	138 {1400}	216 {2200}	167 {1700}	138 {1400}	241 {2450}	182 {1850}	149 {1510}
		Holding pressure (Max.)	MPa {kgf/cm ² }	187 {1900}	157 {1600}	123 {1250}	187 {1900}	148 {1500}	118 {1200}	187 {1900}	148 {1500}	118 {1200}	216 {2200}	163 {1660}	134 {1360}
		Injection speed	mm/s	160			160			160			160		
		Injection rate	cm ³ /s	266	353	423	423	547	651	423	547	651	547	726	887
		Plasticizing rate	kg/h	115	163	197	197	282	336	197	282	336	237	338	418
		Screw speed	min ⁻¹	250			250			250			210		
	High speed (OP)	Injection pressure (Max.)	MPa {kgf/cm ² }	216 {2200}	177 {1800}	138 {1400}	216 {2200}	167 {1700}	138 {1400}	216 {2200}	167 {1700}	138 {1400}	※STD		
		Holding pressure (Max.)	MPa {kgf/cm ² }	187 {1900}	157 {1600}	123 {1250}	177 {1800}	138 {1400}	113 {1150}	177 {1800}	138 {1400}	113 {1150}			
		Injection speed	mm/s	240			200			200					
		Injection rate	cm ³ /s	400	530	633	528	684	814	528	684	814			
		Plasticizing rate	kg/h	161	228	275	197	282	336	197	282	336			
		Screw speed	min ⁻¹	350			250			250					
	Nozzle touch force	kN {tf}	24.6 {2.5}			29.5 {3.0}			29.5 {3.0}			39.3 {4.0}			
	Nozzle stroke from platen	mm	50						50						
	Type of nozzle		Open nozzle (chip type)						Open nozzle (chip type)						
	Cylinder temperature control		Cylinder 4/Nozzle 1						Cylinder 4/Nozzle 1						
	Heater wattage	kW	18.1			24.5			24.5			34.9			
	Clamping Unit	Mechanism		Double toggle						Double toggle					
		Clamping force	kN {tf}	3440 {350}						4420 {450}					
Daylight opening (Max.)		mm	1270						1550						
Opening stroke (Max.)		mm	600						800						
Mold height		mm	300~670						350~750						
Distance between tie-bars (HXV)		mm	730×730						810×810						
Platen size (HXV)		mm	1085×1075						1210×1210						
Ejector type			17 points						17 points						
Ejector force		kN {tf}	59.0 {6.0}						99.0 {10.0}						
Ejector stroke		mm	150						180						
General	Machine weight	t	17.5			18.2			24.0			25.5			
	Machine dimension(LXW×H)	m	7.06×1.87×2.24			7.84×1.87×2.24			8.37×1.89×2.21			8.40×1.89×2.21			

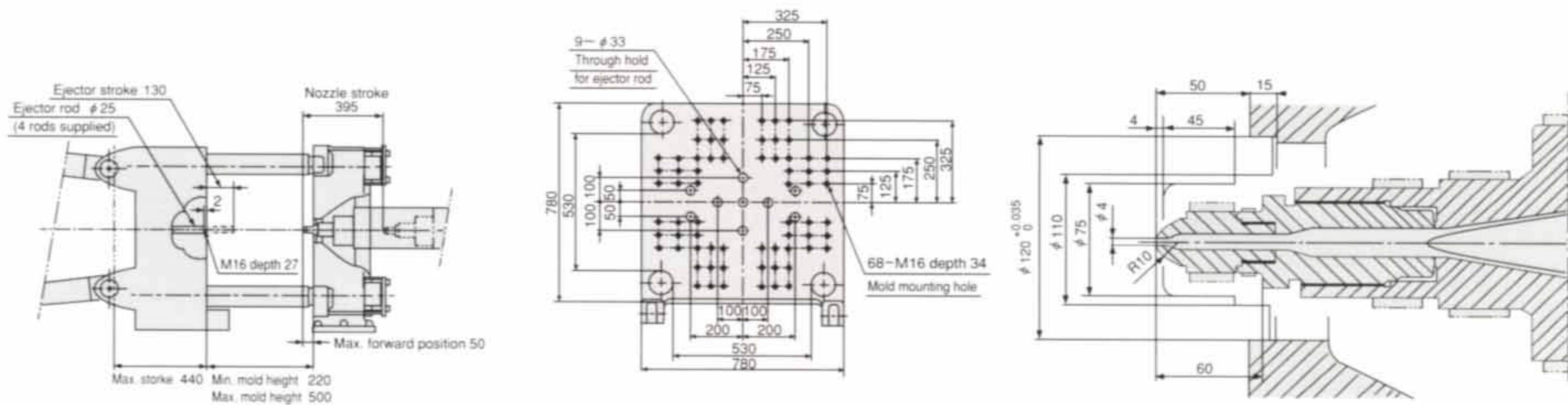
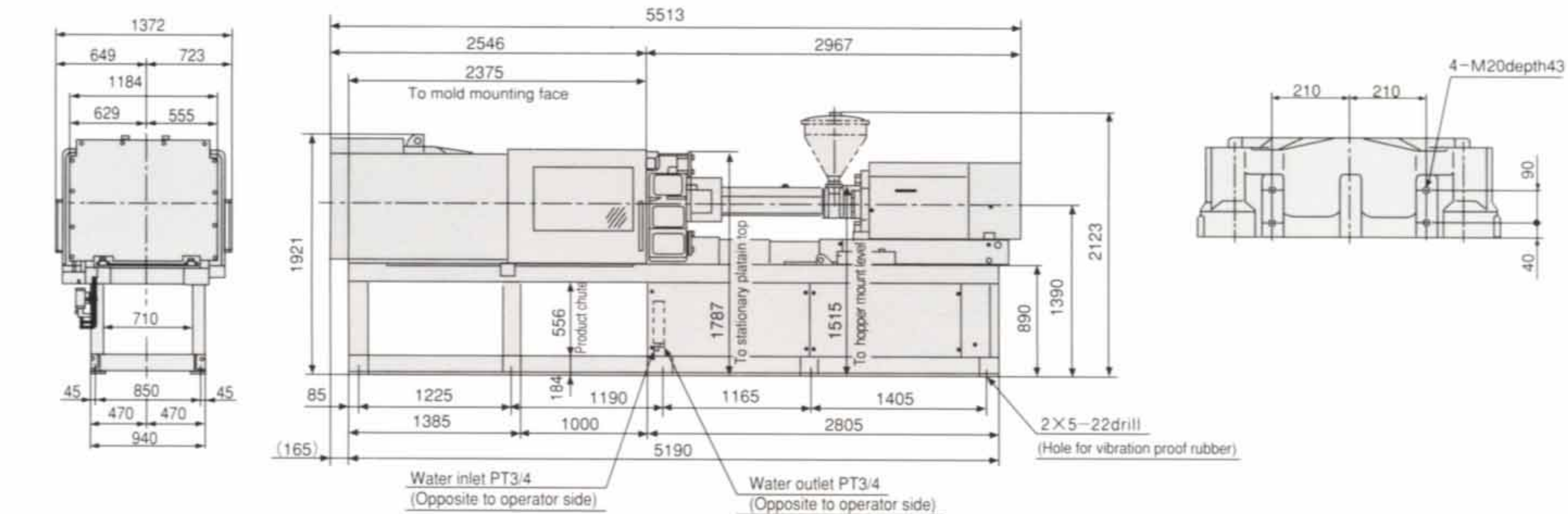
Remarks:

1. Injection pressure of J-EL III series is different from that of JSW's hydraulic machines.
2. "KK" size screw under J180EL III is same as "K" size of one smaller model.
3. Maximum injection pressure and maximum holding pressure may be restricted due to molding condition.
4. The theoretical injection capacity is (cross sectional area of cylinder) x (stroking distance of screw.)
5. The injection capacity is applicable for GP-PS and variable according to the grade of resin, molding conditions and mold.
6. The plasticizing rate is applicable for GP-PS.
7. PC (polycarbonate), HPVC, other engineering plastic, etc., low temperature setting, and high speed molding, may require a high torque depending on the grade or molding conditions. Please let us know if you plan.

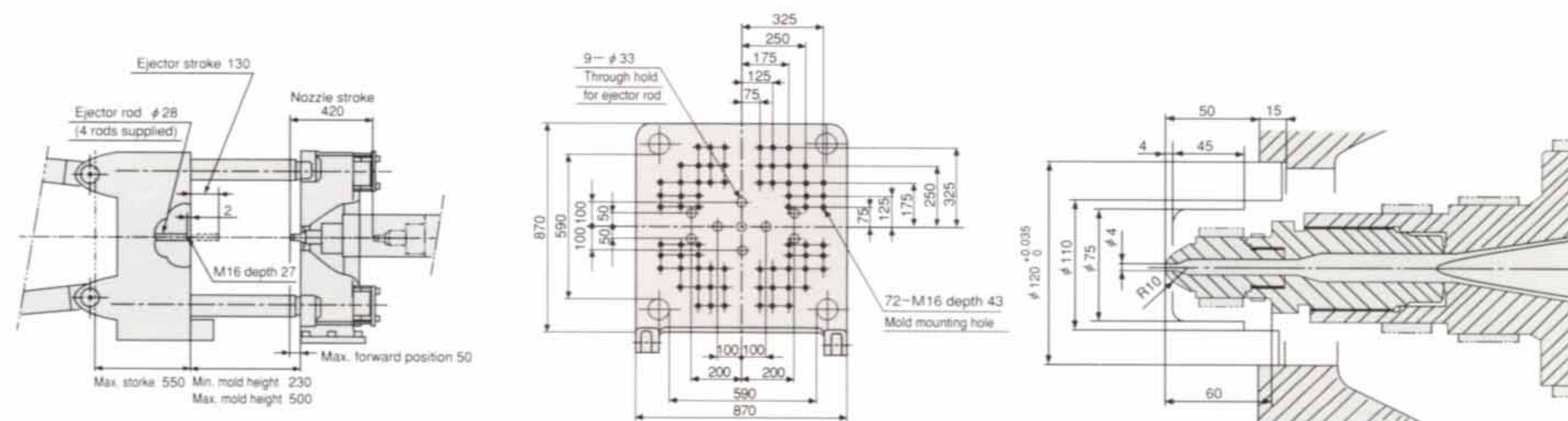
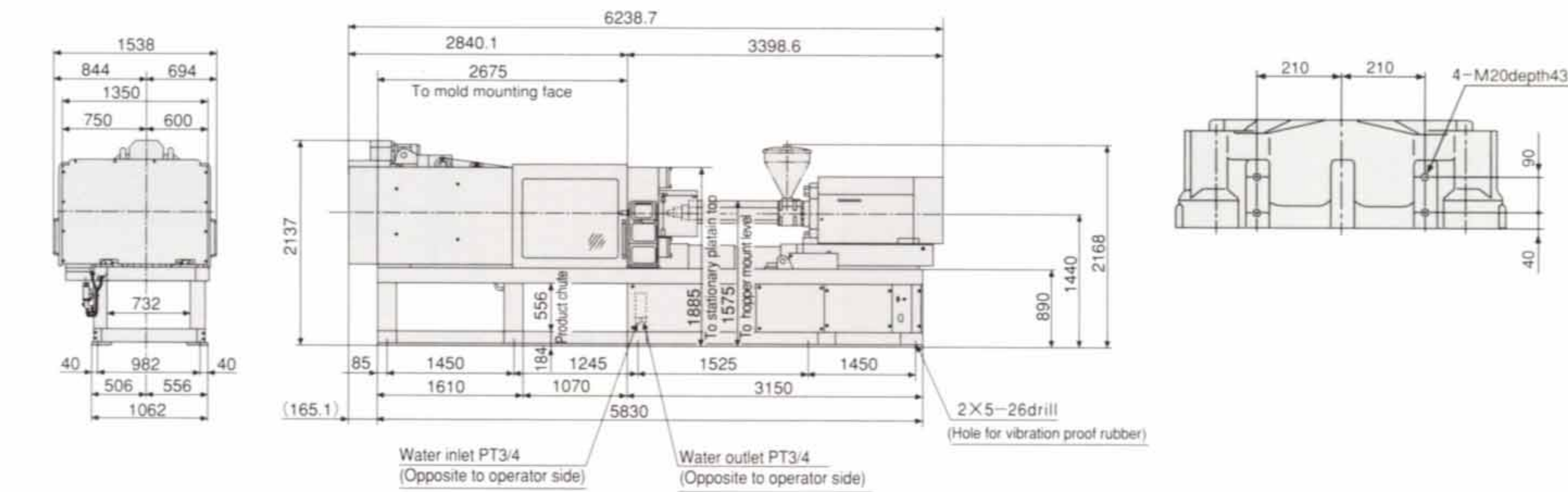
Note:

1. Due to continual improvements, specifications are subject to change without notice.
2. Actual figures of the specification will vary depending on final machine configuration. Please let us know if you require more specific data.
3. Performance specifications are based on theoretical data.
4. High speed injection is optional.
5. 1MPa=10.2 kgf/cm², 1kN=0.102tf

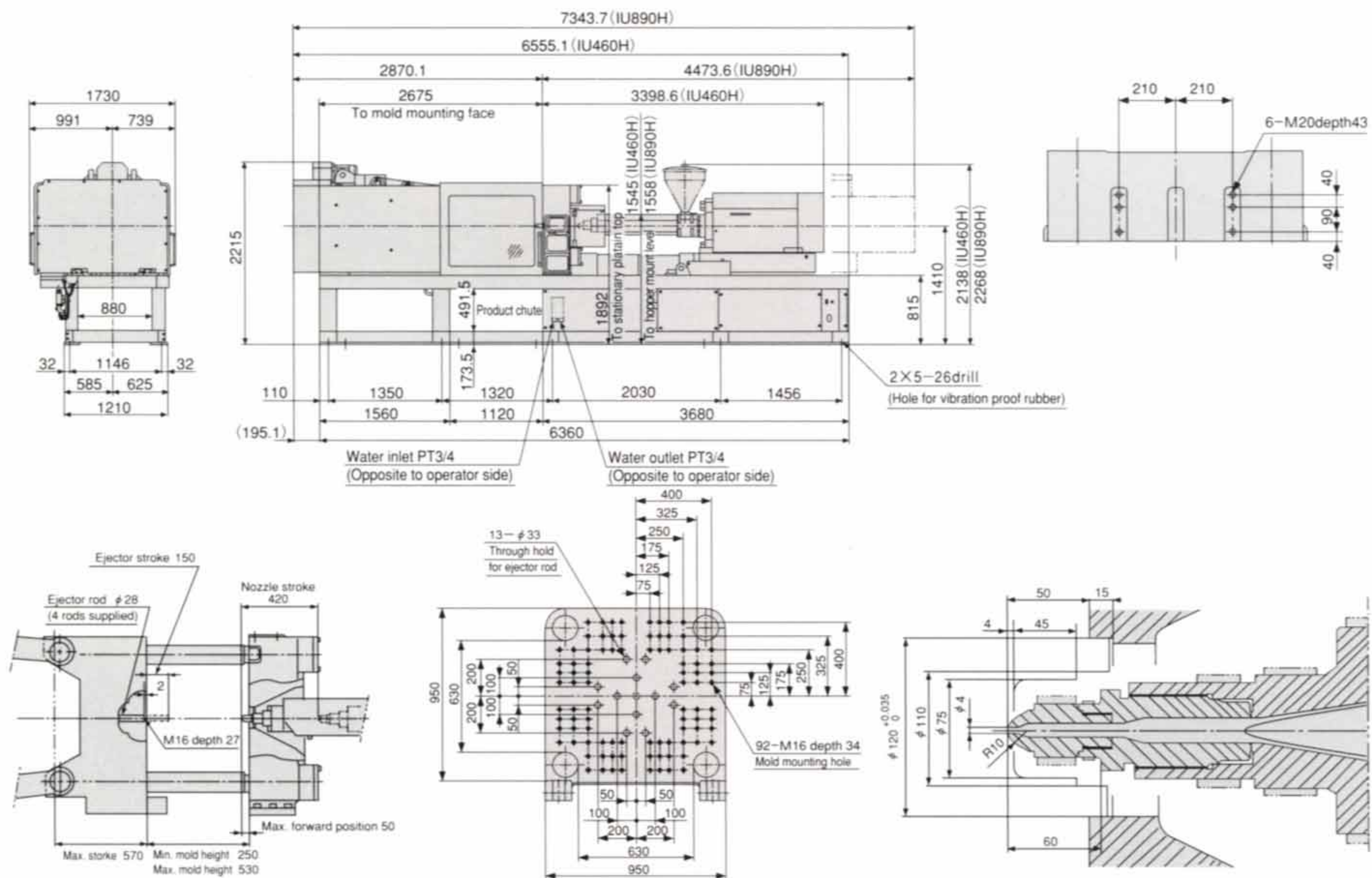
J180ELIII



J220ELIII



J280ELIII



J350ELIII

