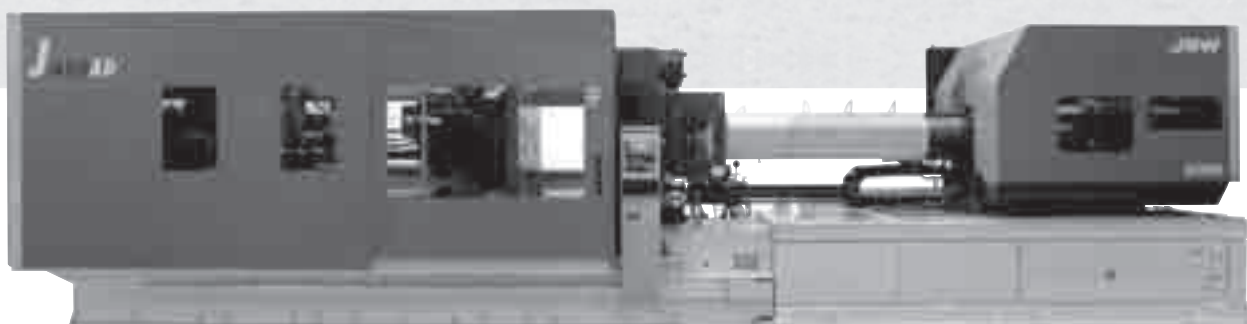


JAD SERIES

Electric Servo Drive
Injection Molding Machine



model

J550AD
J650AD

J850AD
J850ADW

Specifications

JSW



JQA-QMA13993
JQA-EM6416

Performance Table

Unit	Item	Model	J550AD						
			1400H			2300H		3100H	
Injection Unit	Screw barrel type	K (Option)	A	B	A	B	A	B	
	Screw diameter	mm	66	76	84	84	92	92	100
	Screw stroke	mm	300			420		460	
	Theoretical injection capacity	cm ³	1026	1361	1663	2328	2792	3058	3613
	Injection capacity(GP-PS)	g	934	1238	1513	2118	2541	2783	3288
	Injection pressure(Max.)	MPa {kgf/cm ² }	241 {2450}	182 {1850}	149 {1510}	190 {1930}	158 {1610}	185 {1880}	156 {1590}
	Holding pressure(Max.)	MPa {kgf/cm ² }	216 {2200}	163 {1660}	134 {1360}	171 {1740}	142 {1440}	167 {1700}	140 {1420}
	Injection speed	mm/s	160			160		160	
	Injection rate	cm ³ /s	547	726	887	887	1064	1064	1257
	Plasticizing rate(GP-PS)	kg/h	237	338	418	420	470	490	540
	Screw speed	min ⁻¹	210			200	180	180	165
	Nozzle touch force	kN {tf}	40 {4.1}			65 {6.6}		65 {6.6}	
	Nozzle stroke from plate	mm	50						
	Type of nozzle		Open nozzle						
	Barrel temperature control		Barrel 4, Nozzle 1			Barrel 5, Nozzle 1			
	Heater wattage	kW	34.7			39.2		44.5	
	Clamping Unit	Mechanism		Double toggle					
Clamping force		kN {tf}	5400 {550}						
Daylight opening(Max.)		mm	1700						
Opening stroke(Max.)		mm	900						
Mold height		mm	400~800						
Platen speed		m/min	70						
Distance between tie-bars(HXV)		mm	960X900						
Platen size(HXV)		mm	1380X1320						
Ejector point			21 points						
Ejector force		kN {tf}	130 {13.3}						
Ejector stroke	mm	180							
General	Machine weight	t	30			32		32	
	Machine dimensions(LXWXH)	m	8.76X2.37X2.40			9.18X2.37X2.40		9.18X2.37X2.40	

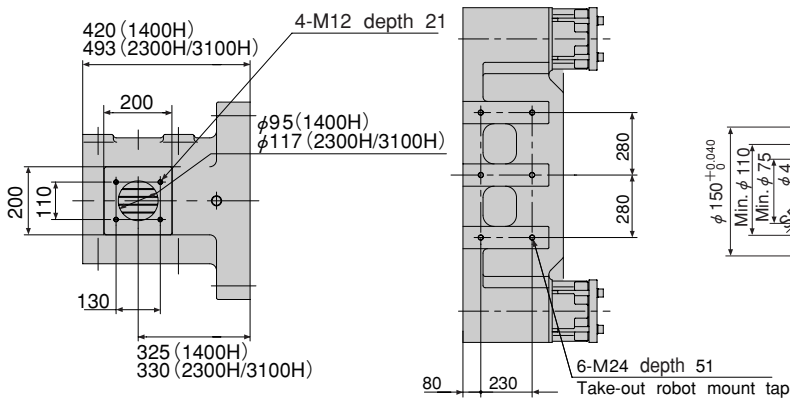
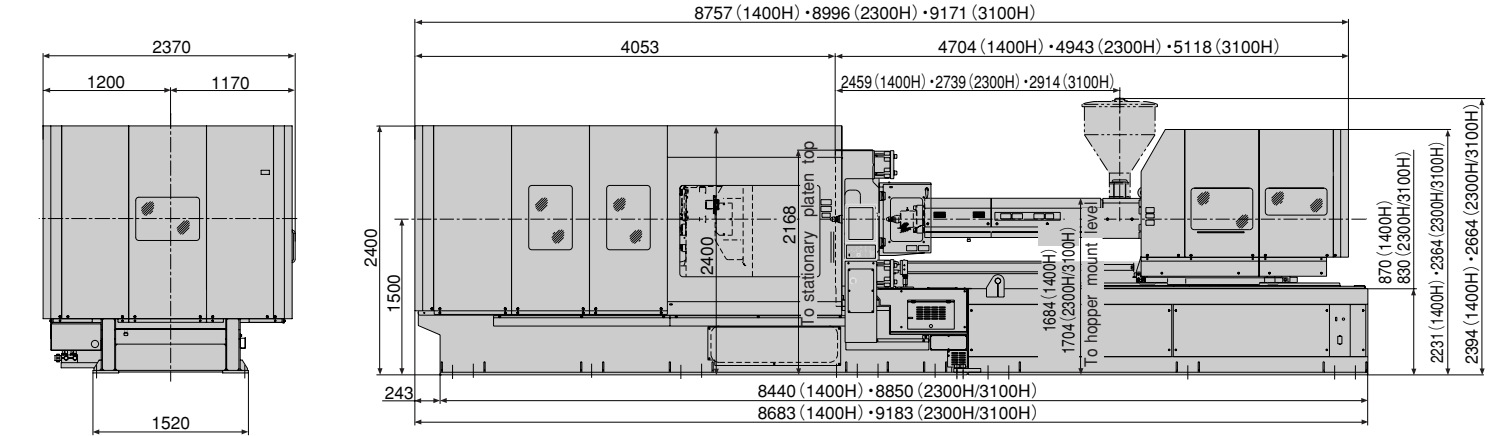
Remarks:

- Maximum injection pressure and maximum holding pressure may be restricted due to molding condition.
- The theoretical injection capacity (cross sectional area of barrel) X (stroke of screw).
- The injection capacity is applicable for GP-PS and variable according to the grade of resin, molding conditions and mold.
- The plasticizing rate is applicable for GP-PS.
- PC, 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 contact us if you plan.

Note:

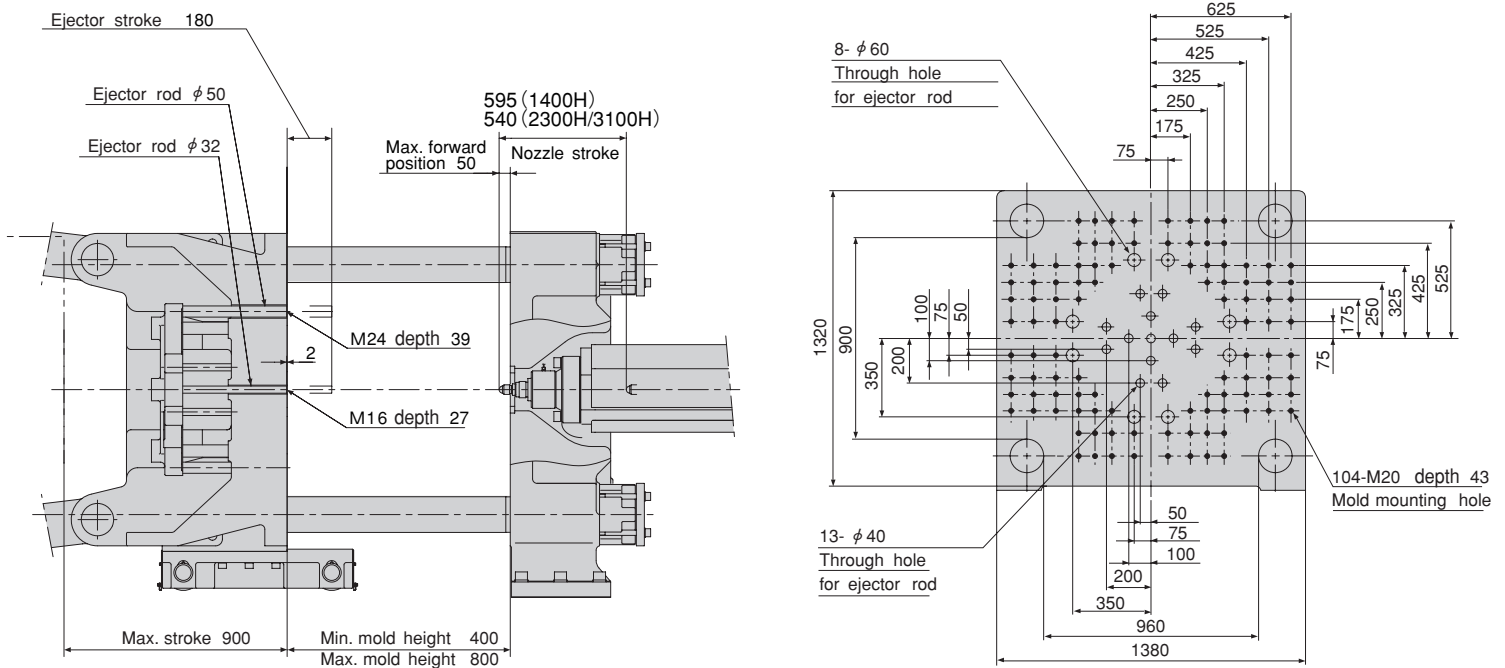
- Due to continual improvements, specifications are subject to change without notice.
- Actual figures of the specification will vary depending on final machine configuration. Please contact us if you require more specific data.
- Performance specifications are based on theoretical data.
- 1MPa=10.2 kgf/cm² 1kN=0.102tf

Equipment Dimensions and Mold Related Dimensions



Hopper mount

Upper surface of stationary platen



Movable platen side

Unit	Item	J650AD					
		2300H		3100H		3900H	
Injection Unit	Screw barrel type	A	B	A	B	A	B
	Screw diameter mm	84	92	92	100	100	110
	Screw stroke mm	420		460		500	
	Theoretical injection capacity cm^3	2328	2792	3058	3613	3927	4752
	Injection capacity(GP-PS) g	2118	2541	2783	3288	3574	4324
	Injection pressure(Max.) MPa(kgf/cm ²)	190 {1930}	158 {1610}	185 {1880}	156 {1590}	185 {1880}	153 {1560}
	Holding pressure(Max.) MPa(kgf/cm ²)	171 {1740}	142 {1440}	167 {1700}	140 {1420}	167 {1700}	138 {1400}
	Injection speed mm/s	160		160		160	
	Injection rate cm^3/s	887	1064	1064	1257	1257	1521
	Plasticizing rate(GP-PS) kg/h	420	470	490	540	550	620
	Screw speed min^{-1}	200	180	180	165	165	150
	Nozzle touch force kN(tf)	65 {6.6}					
	Nozzle stroke from plate mm	50					
	Type of nozzle	Open nozzle					
	Barrel temperature control	Barrel 5, Nozzle 1					
	Heater wattage kW	39.2		44.5		46.3	
Clamping Unit	Mechanism	Double toggle					
	Clamping force kN(tf)	6380 {650}					
	Daylight opening(Max.) mm	2000					
	Opening stroke(Max.) mm	1000					
	Mold height mm	450~1000					
	Platen speed m/min	70					
	Distance between tie-bar(HXV) mm	1060X960					
	Platen size(HXV) mm	1500X1400					
	Ejector point	25 points					
	Ejector force kN(tf)	190 {19.4}					
Ejector stroke mm	200						
General	Machine weight t	37		37		39	
	Machine dimensions(LXWXH) m	9.77X2.45X2.43		9.77X2.45X2.43		10.59X2.45X2.43	

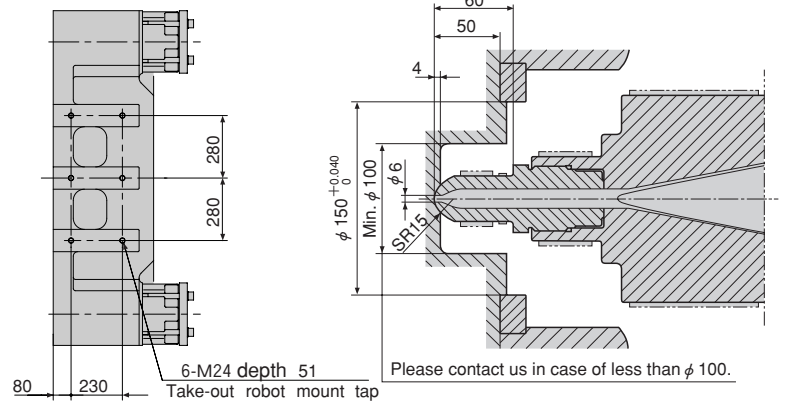
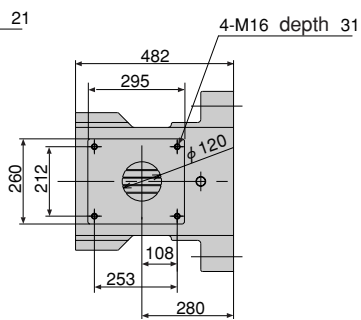
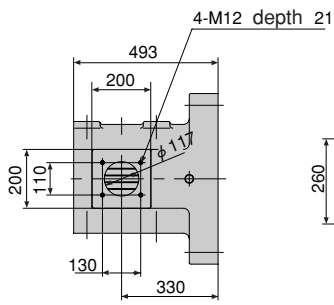
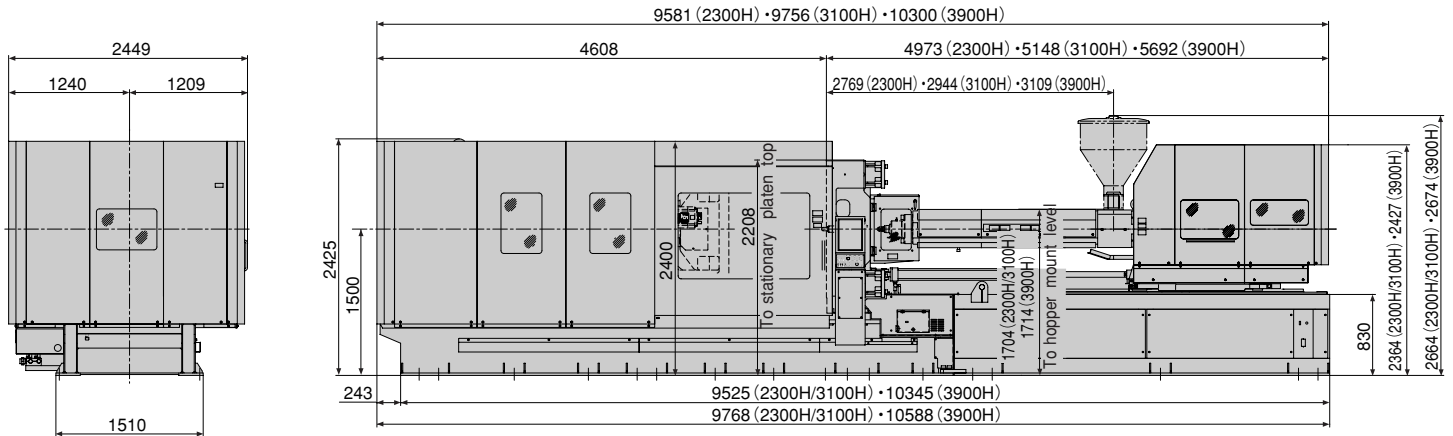
Remarks:

- 1.Maximum injection pressure and maximum holding pressure may be restricted due to molding condition.
- 2.The theoretical injection capacity($\text{cross sectional area of barrel} \times \text{stroke of screw}$).
- 3.The injection capacity is applicable for GP-PS and variable according to the grade of resin, molding conditions and mold.
- 4.The plasticizing rate is applicable for GP-PS.
- 5.PC, 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 contact us 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 contact us if you require more specific data.
- 3.Performance specifications are based on theoretical data.
- 4.1MPa=10.2 kgf/cm² 1kN=0.102tf

Equipment Dimensions and Mold Related Dimensions

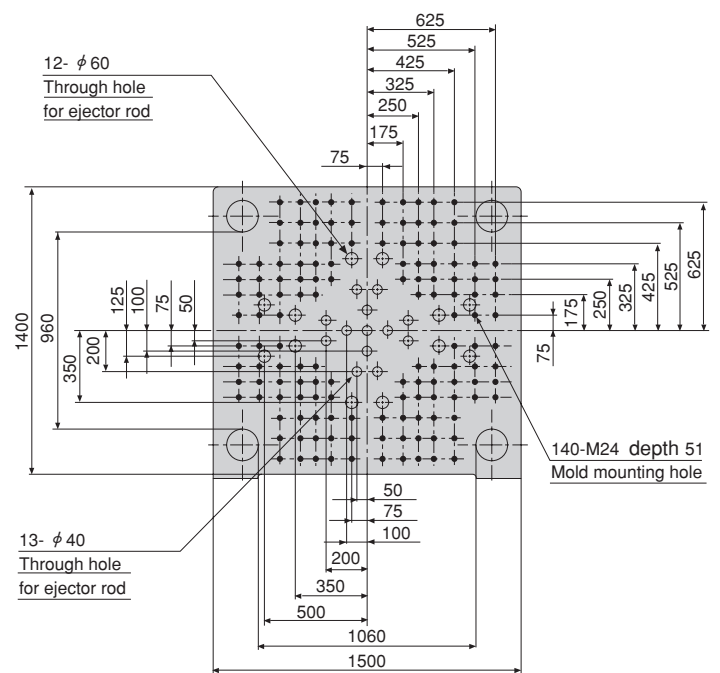
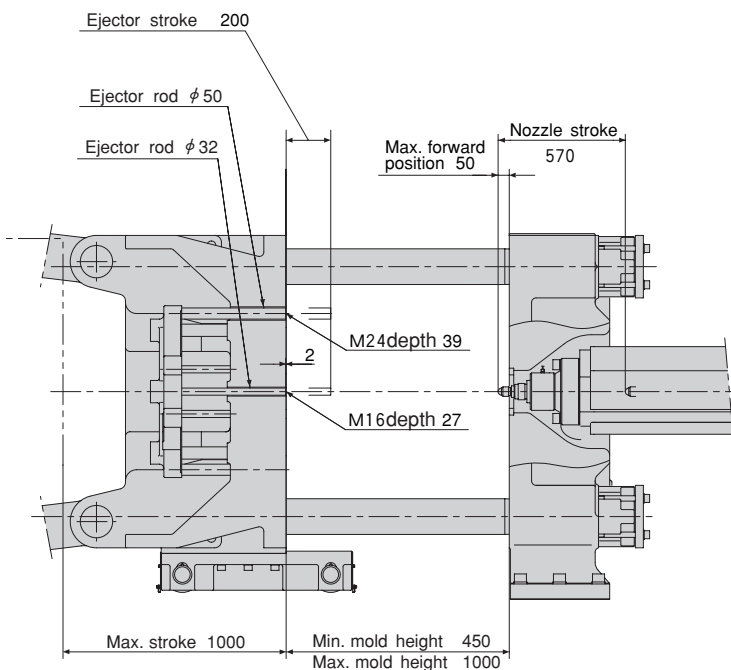


2300H/3100H

3900H

Hopper mount

Upper surface of stationary platen



Movable platen side

Unit	Model	J850AD						
		3100H		3900H		5200H		
Item		A	B	A	B	A	B	
Injection Unit	Screw barrel type	A	B	A	B	A	B	
	Screw diameter	mm	92	100	100	110	110	120
	Screw stroke	mm	460		500		550	
	Theoretical injection capacity	m ³	3058	3613	3927	4752	5227	6220
	Injection capacity(GP-PS)	g	2783	3288	3574	4324	4757	5660
	Injection pressure(Max.)	MPa {kgf/cm ² }	185 {1880}	156 {1590}	185 {1880}	153 {1560}	175 {1780}	147 {1490}
	Holding pressure(Max.)	MPa {kgf/cm ² }	167 {1700}	140 {1420}	167 {1700}	138 {1400}	158 {1610}	132 {1340}
	Injection speed	mm/s	160		160		155	
	Injection rate	cm ³ /s	1064	1257	1257	1521	1473	1753
	Plasticizing rate(GP-PS)	kg/h	490	540	550	620	630	700
	Screw speed	min ⁻¹	180	165	165	150	150	140
	Nozzle touch force	kN {tf}	65 {6.6}					
	Nozzle stroke from plate	mm	50					
	Type of nozzle		Open nozzle					
	Barrel temperature control		Barrel 5, Nozzle 1					
	Heater wattage	kW	44.5		46.3		56.4	
Clamping Unit	Mechanism	Double toggle						
	Clamping force	kN {tf}	8340 {850}					
	Daylight opening(Max.)	mm	2300					
	Opening stroke(Max.)	mm	1200					
	Mold height	mm	500~1100					
	Platen speed	m/min	70					
	Distance between tie-bar(HXV)	mm	1060×1060					
	Platen size(HXV)	mm	1590×1590					
	Ejector point		29 points					
	Ejector force	kN {tf}	230 {23.5}					
Ejector stroke	mm	200						
General	Machine weight	t	48		50		50	
	Machine dimensions(LXWXH)	m	10.49×2.57×2.58		11.31×2.57×2.58		11.31×2.57×2.58	

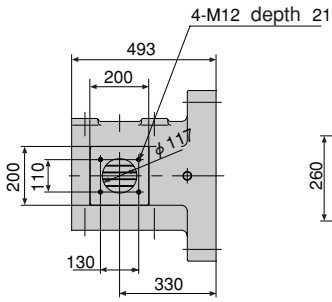
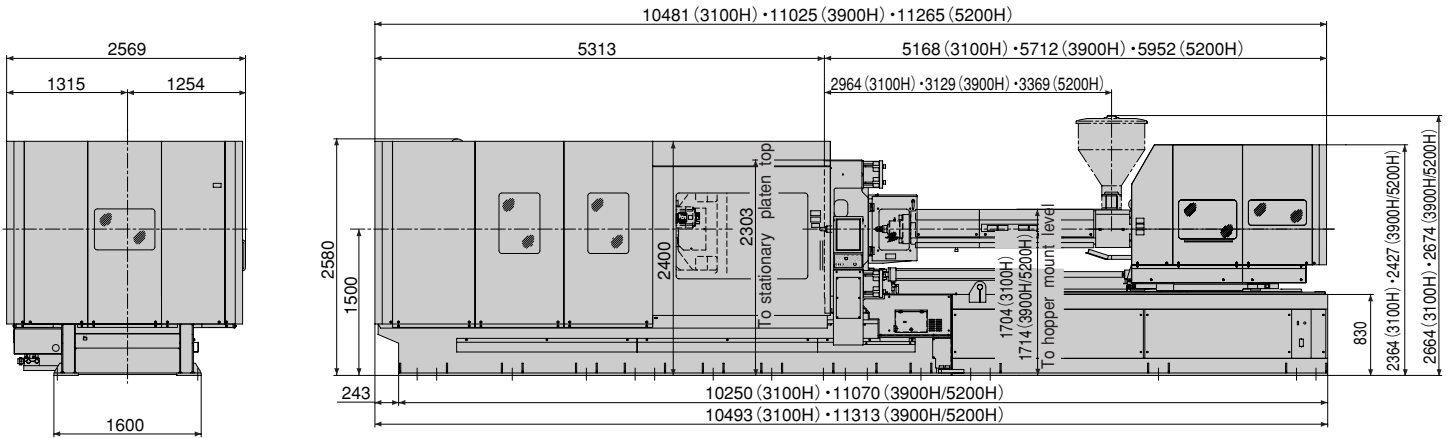
Remarks:

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2. The theoretical injection capacity (cross sectional area of barrel × stroke of screw).
3. The injection capacity is applicable for GP-PS and variable according to the grade of resin, molding conditions and mold.
4. The plasticizing rate is applicable for GP-PS.
5. PC, 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 contact us if you plan.

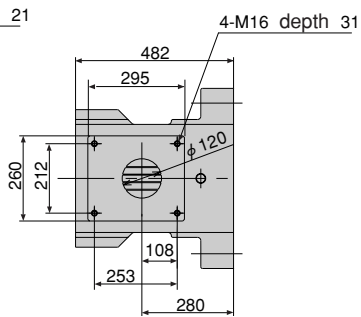
Note:

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3. Performance specifications are based on theoretical data.
4. 1MPa=10.2 kgf/cm² 1kN=0.102tf

Equipment Dimensions and Mold Related Dimensions

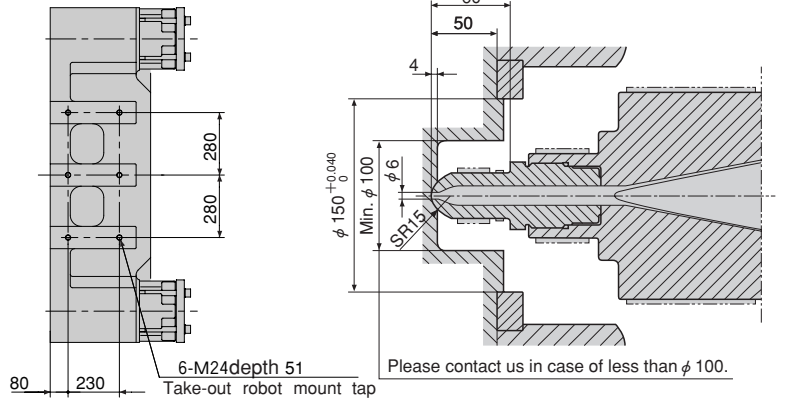


3100H

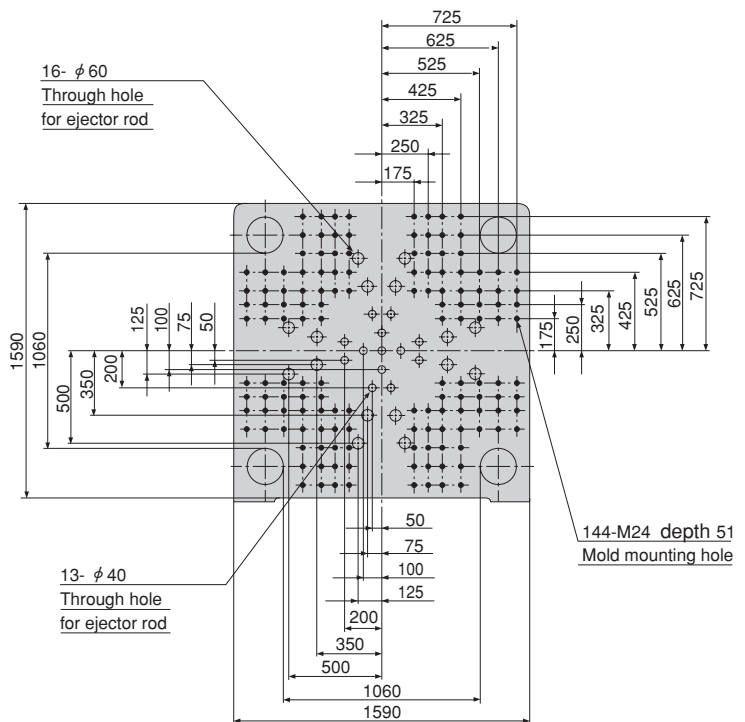
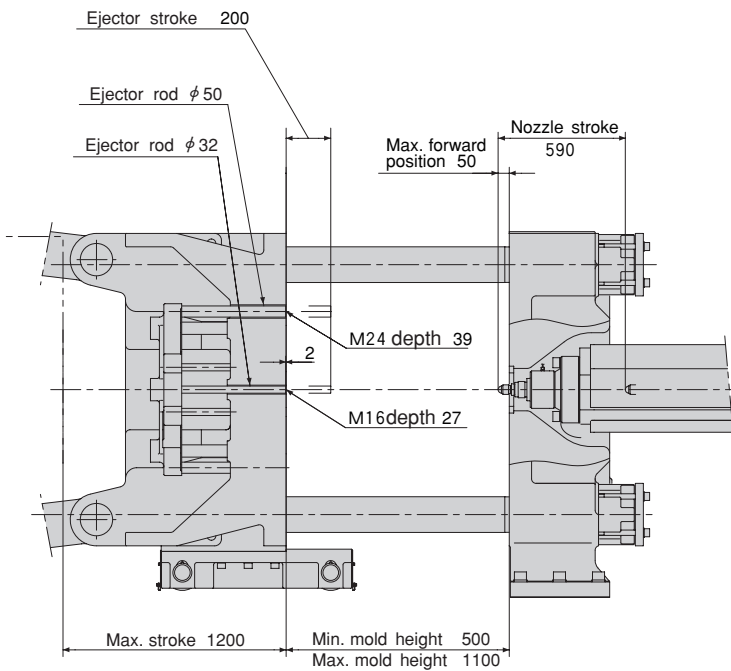


3900H/5200H

Hopper mount



Upper surface of stationary platen



Movable platen side

Unit	Item	J850ADW					
		3100H		3900H		5200H	
Injection Unit	Screw barrel type	A	B	A	B	A	B
	Screw diameter mm	92	100	100	110	110	120
	Screw stroke mm	460		500		550	
	Theoretical injection capacity m ³	3058	3613	3927	4752	5227	6220
	Injection capacity(GP-PS) g	2783	3288	3574	4324	4757	5660
	Injection pressure(Max.) MPa {kgf/cm ² }	185 {1880}	156 {1590}	185 {1880}	153 {1560}	175 {1780}	147 {1490}
	Holding pressure(Max.) MPa {kgf/cm ² }	167 {1700}	140 {1420}	167 {1700}	138 {1400}	158 {1610}	132 {1340}
	Injection speed mm/s	160		160		155	
	Injection rate cm ³ /s	1064	1257	1257	1521	1473	1753
	Plasticizing rate(GP-PS) kg/h	490	540	550	620	630	700
	Screw speed min ⁻¹	180	165	165	150	150	140
	Nozzle touch force kN {tf}	65 {6.6}					
	Nozzle stroke from plate mm	50					
	Type of nozzle	Open nozzle					
	Barrel temperature control	Barrel 5, Nozzle 1					
	Heater wattage kW	44.5		46.3		56.4	
	Clamping Unit	Mechanism	Double toggle				
Clamping force kN {tf}		8340 {850}					
Daylight opening(Max.) mm		2300					
Opening stroke(Max.) mm		1200					
Mold height mm		500~1100					
Platen speed m/min		70					
Distance between tie-bar(HXV) mm		1320X1320					
Platen size(HXV) mm		1900X1800					
Ejector point		29 points					
Ejector force kN {tf}		230 {23.5}					
Ejector stroke mm	200						
General	Machine weight t	54		56		56	
	Machine dimensions(LXWXH) m	10.50X2.88X2.74		11.32X2.88X2.74		11.32X2.88X2.74	

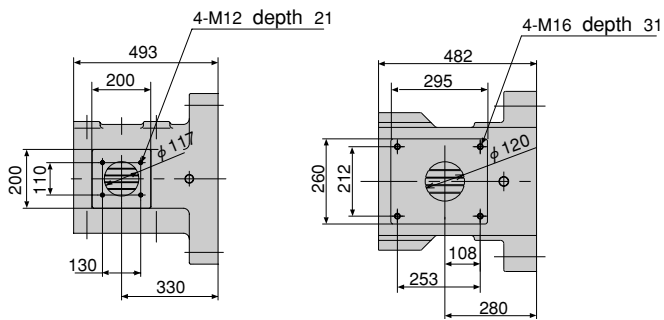
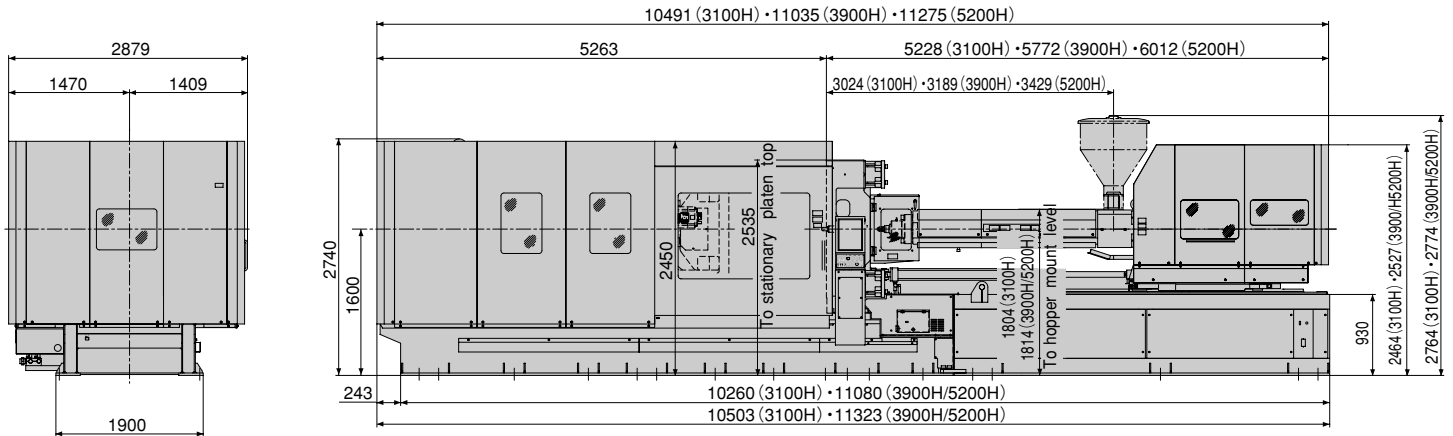
Remarks:

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3. The injection capacity is applicable for GP-PS and variable according to the grade of resin, molding conditions and mold.
4. The plasticizing rate is applicable for GP-PS.
5. PC, 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 contact us if you plan.

Note:

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4. 1MPa=10.2 kgf/cm² 1kN=0.102tf

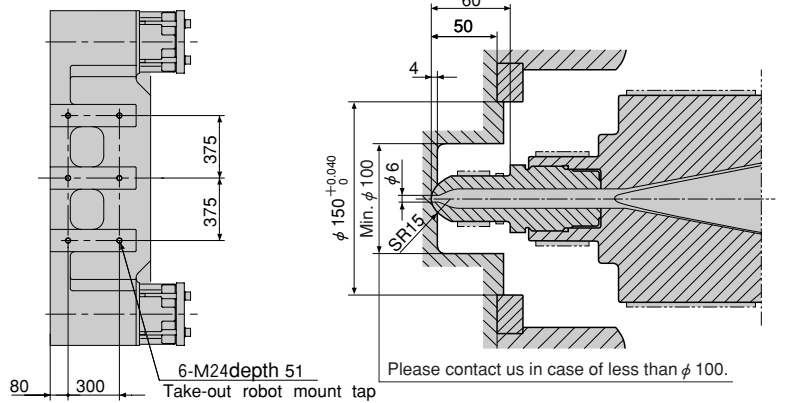
Equipment Dimensions and Mold Related Dimensions



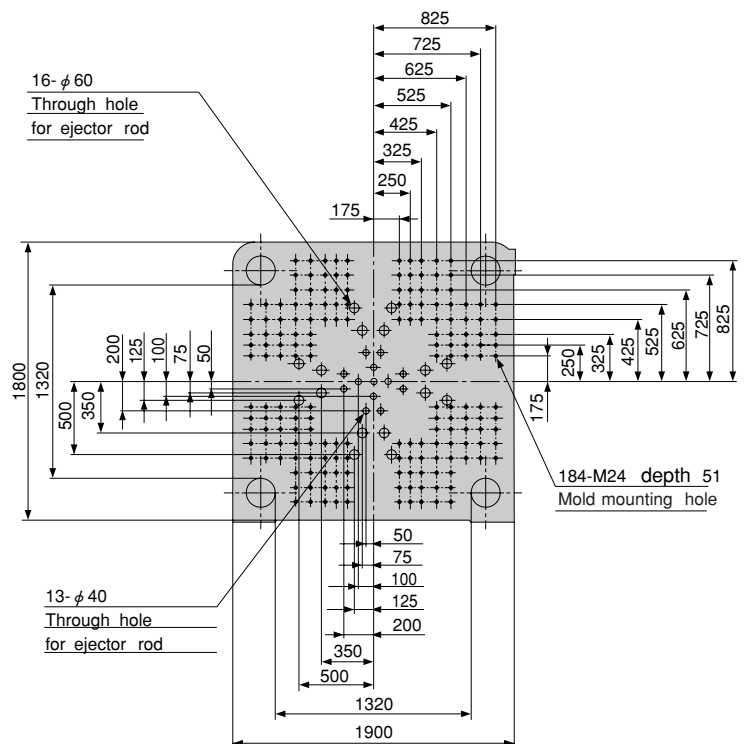
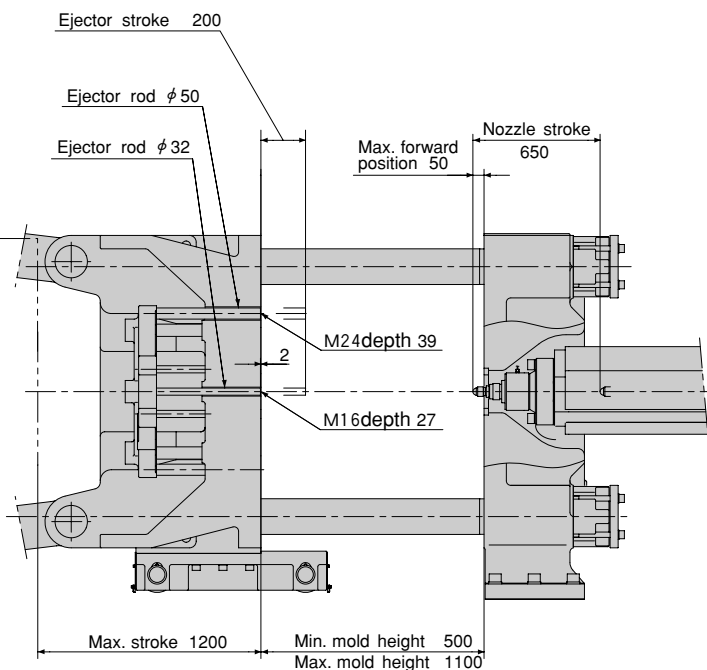
3100H

3900H/5200H

Hopper mount



Upper surface of stationary platen



Movable platen side

Standard Equipment List

Item		
Injection and Plasticizing Unit	Open nozzle	
	N2000F barrel	
	Chrome plated screw	Note1
	Purge cover (with limit switch)	
	Injection unit swiveling device (with limit switch)	Note2
	Screw cold start prevention	
	Molding/Pause temperature select	
	Auto purging circuit	
	Nozzle retract select	
	Pull-back select	
	Auto grease lubrication	
	Injection/Metering programmed control	Injection/Holding pressure :1~6 Steps (Variable) Metering/Back pressure :1~3 Steps (Variable)
	Holding pressure transfer select	
	Holding pressure control select	Step mode Slope mode
	Barrel temperature control (PID)	Note3
	Nozzle temperature control (PID/SSR)	
	Synchronous temperature rise control	
	Hopper flange temperature control	
	Soft pack servo control	
	HAVC (High Accuracy Volume Control)	
IWCS (Injection Weight and Cushion Stability) control		
Reverse seal control		
Clamping Unit	Grease-free toggle bushing	
	Auto grease lubrication	
	High-performance platen support	
	Flat press platen mechanism (Stationary side/Movable side)	
	Mold open/close and Ejector programmed control	Mold open/close : 4 Steps (Fixed) Ejector : 1~3 Steps (Variable)
	Mold protection	1~3 Steps (Variable)
	Ejector braking system	Note4
	Electric-driven mold thickness adjusting device	
	Auto clamp force setting	
	Clamp force display	
	Clamp force feed back control	
	Toggle type injection compression function	A -mode B -mode Compression : 1~6 Steps (Variable)
	Clamping safety device (Electrical/Mechanical)	
	Robot mounting holes	
	Compound action	Screw rotation during mold open/close Eject during mold open Injection during clamp up
	Safety mat	Operator side step safety mat Under mold area safety mat

Note 1. GP21 screw for Injection unit 1400H.

High-Melter MIII screw for Injection unit 2300H and higher.

Note 2. Manual operation type for Injection unit 1400H.

Note 3. Injection unit 1400H is controlled by SSR (non-contact).

Injection unit 2300H and higher are controlled by MC (contact).

Note 4. Equipped as standard for J650AD and higher, optional for J550AD

Note 5. Safety mat on the top of the step is equipped as standard for J650AD and higher,

Safety mat on the top of the inter-platens bed is equipped as standard for J850ADW and higher (models with 1200mm or wider gap between tie-bars), optional for J850AD.

Item		
Controller	Touch panel 15" TFT color LCD controller	
	120 Mold condition storage (Internal memory)	Note6
	Soft start molding	
	Self diagnostics function	
	Help function	
	Pop-up display	
	Clock	
	Multi-language select (English, Chinese, Japanese)	
	Print screen by USB memory	
	USB printer port	Note7
	Overall setting screen	
	Pre-heat timer	
	Product takeout robot circuit	
	Attended/Unattended operation select	
	Emergency stop button	
Safety key		
Monitor	Actual value display	
	Mold temperature display	Note8
	Injection/Metering waveform monitor	
	Oscilloscope waveform monitor	
	Injection/Metering waveform storage	
	Barrel temperature monitor	
	Injection pressure monitor	
	Statistical graph	
	Production monitor	
	Cumulative operating hour display	
	Cycle monitor	
	Molding condition upper/lower limit monitor	Note9
	Inspection and Maintenance guide	Note10
	Heater system fault alarm	
	Injection pressure overshoot alarm	
	Grease lubrication fault alarm	
	Servo fault alarm	
Unreleased clamp alarm		
Position calibration request		
Alarm buzzer		
Alarm history		
Set value history		
Others	Safety compliance to JIMS K1001	
	Cooling water closed circuit for feed throat	
	Mold cooling water circuit (Machine bed)	
	Accessories (Maintenance tools, Ejector rods, etc.)	

Note 6. The external memory is capable of storing conditions for 1,000 molds. Prepare commercial USB data storage media.

Note 7. The printer and printer cables are options.

Note 8. Temperature sensors and electric wiring are not included.

Note 9. Maximum of 16 items and alarms can be selected out of the following monitor items.

①Cycle time ②Injection time ③Metering time ④Cushion position

⑤Holding pressure end position ⑥Injection pressure

⑦Holding pressure transfer pressure ⑧Screw back pressure

⑨Metering end position ⑩Injection start position ⑪Holding pressure transfer position

⑫Mold open time ⑬Mold close time ⑭Metering torque

⑮Holding pressure transfer speed ⑯Mold inner pressure (option)

⑰Clamp force ⑱Shift amount (HAVC) ⑲End speed (HAVC)

Note 10. Indicates inspection times and items.

Options List

Item		
Injection Unit	Long nozzle	
	Shut-off nozzles (Pneumatic type and Hydraulic type)	
	LSP-2 screw (Abrasion-resistant type)	
	Wide selection of screws & barrels	Screw & Barrel for high plasticization
		Screw & Barrel for optical application
		High dispersion screw
		High viscosity resin screw
		Long-fiber resin screw
	Special screw	Note1
	Barrel Insulation cover	
Barrel blower cooling unit		
Hopper (Option for all the region)		
High holding pressure molding (for long-time holding pressure molding)	Note2	
Electric motor driven IU advance/retract		
Vented barrel		
Clamping Unit	Daylight extension	
	T-slot platen	
	Locating ring	
	Air jet	
	Core pull device (Pneumatic type and Hydraulic type)	Note3
	Valve gate device (Pneumatic type and Hydraulic type)	Note3
	Auto safety gate open	
	Auto safety gate open/close	
	Safety mat	Note4
	Safety footplate	
	Mold clamper	
	Mold setup device	
	Magnet mold Clamper	Note5
	Cooling water manifold on platen	
	Hydraulic power pack	
	Ejector braking system	Note6

Item		
Electrical Instrumentation and Control	Multi-language select (French, Spanish or Hangul)	Note7
	Simple centralized monitor system Link10	Note8
	Centralized control system NET100	Note9
	Heater burnout alarm	
	Mold temperature display (with mold temperature upper/lower limit alarm)	
	Mold temperature control (with mold temperature upper/lower limit alarm)	
	Printer (with printer cable)	
	Password Function	
	Hot runner control circuit	
	Unscrewing motor circuit	
Others	Ejector gate cutting circuit	
	Ejector plate return confirmation circuit	
	Injection speed:10 Steps control	
	Injection speed slope control	
	Foaming molding control	
	Skin adhesion molding control	
	D.I.C. (Dual Integrated Control) with Yushin Robot	
	Hopper stage	
	Cooling water failure warning	
	Leveling pad for installation	Note10
Rotary warning light		
Export specification	Note11	
Designated color	Note12	

- For details of each option, confirm in the specifications for the options.
- Note 7. Regarding the other languages, contact us separately. English and Chinese are equipped as standard.
- Note 8. The LINK10 has actual data collection, molding condition control and remote control functions.
- Note 9. The NET100 has quality control and production control function in addition to the functions that the LINK10 has.
- Note 10. May not be applicable depending on the model.
- Note 11. Regarding the export specifications, separate discussion is needed in some cases, depending upon the export destination.
- Note 12. Designate colors, referring to color samples or Munsell codes.

- Note 1. Regarding special screws, contact us separately.
- Note 2. Enables a long holding time and high holding pressure molding. The injection speed may become lower.
- Note 3. For the hydraulic type, a separate hydraulic unit is needed.
- Note 4. Safety mat on the top of the step is equipped as standard for J650AD and higher. Safety mat on the top of the inter-platens bed is equipped as standard for J850ADW and higher (models with 1200mm or wider gap between tie-bars).
- Note 5. When applied, extended nozzle is required. Note that the usable mold thickness range will change.
- Note 6. Equipped as standard for J650AD and higher.

Utilities

■ Total Power Capacity

Machine Model	Total Power Capacity (kVA)	
J550AD	1400H	53.5
	2300H	58.3
	3100H	68.6
J650AD	2300H	59.9
	3100H	70.2
	3900H	84.9
J850AD J850ADW	3100H	70.4
	3900H	85.1
	5200H	88.1

Note: 1. Total power capacity does not include external outlets.
 2. We recommend that the rated interrupting current of the main power supply breaker is more than 25 kA at AC400V/460V.

■ Cooling Water Capacity for Barrel Temperature Control

Injection Unit	Cooling Water Capacity for Barrel Temperature control (m ³ /h)
1400H	0.6
2300H	1.2
3100H	
3900H	1.6
5200H	

Note: The above figures do not include the required quantity of water for the mold temperature controller.

■ Hydraulic Oil Tank Capacity

Machine Model	Hydraulic Oil Tank Capacity (L)
J550AD	25
J650AD	
J850AD	
J850ADW	