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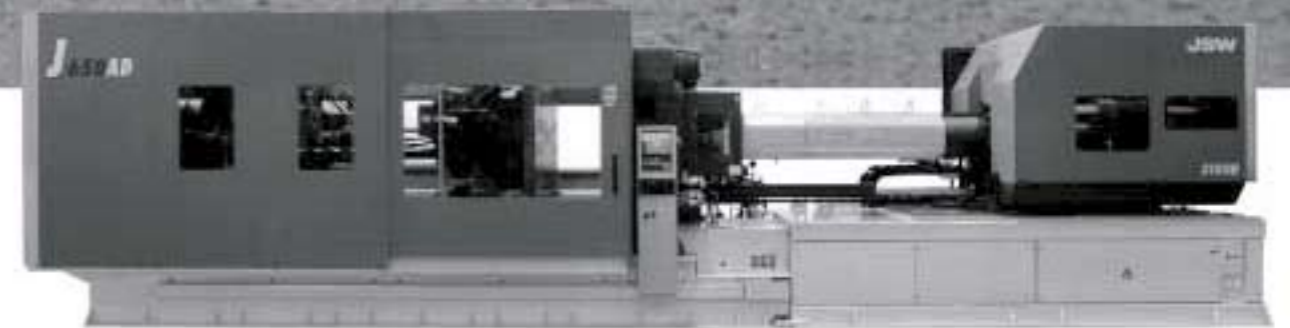
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JAD SERIES

Electric Servo Drive Injection Molding Machine



model	J550AD J650AD	J850AD J850ADW
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Specifications

JSW



Performance Table

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 platen 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-bars (HXV) mm	1060×960					
	Platen size (HXV) mm	1500×1400					
	Ejector point	25 points					
	Ejector force kN {tf}	190 {19.4}					
General	Machine weight t	37		37		39	
	Machine dimensions (LXWXH) m	9.77×2.45×2.43		9.77×2.45×2.43		10.59×2.45×2.43	

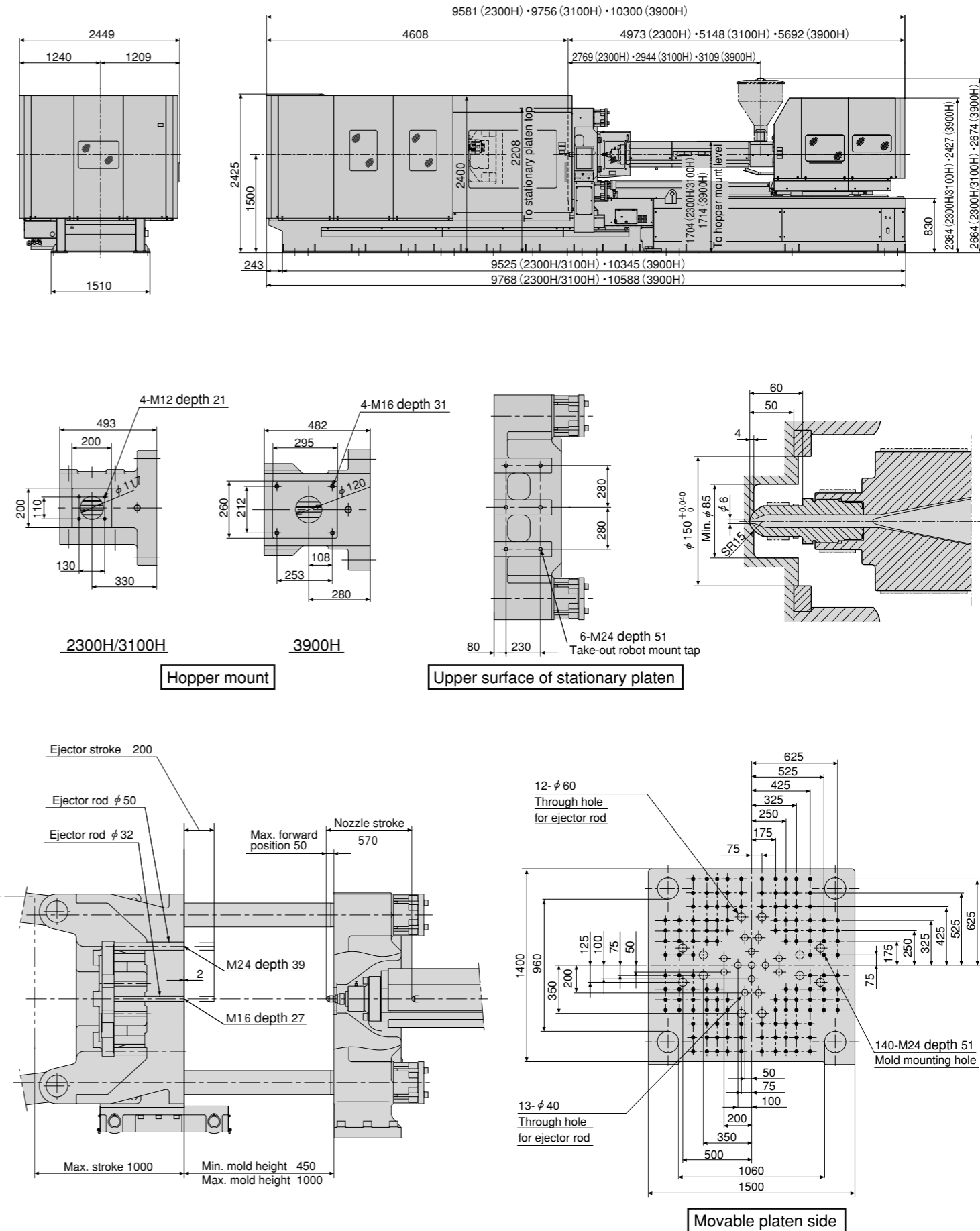
Remarks:

- Maximum injection pressure and maximum holding pressure may be restricted due to molding condition.
- The theoretical injection capacity is (cross sectional area of barrel) × (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



Performance Table

Equipment Dimensions and Mold Related Dimensions

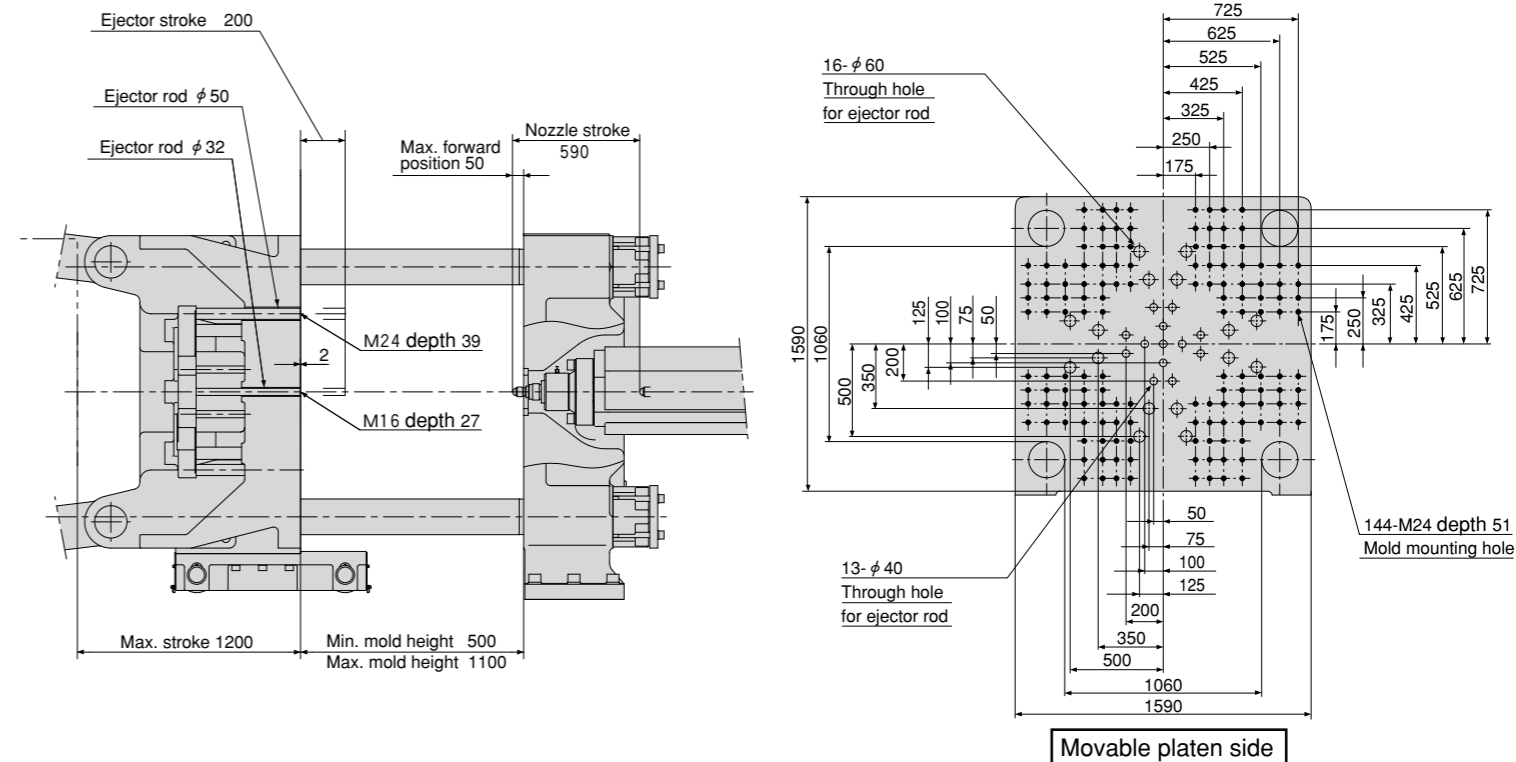
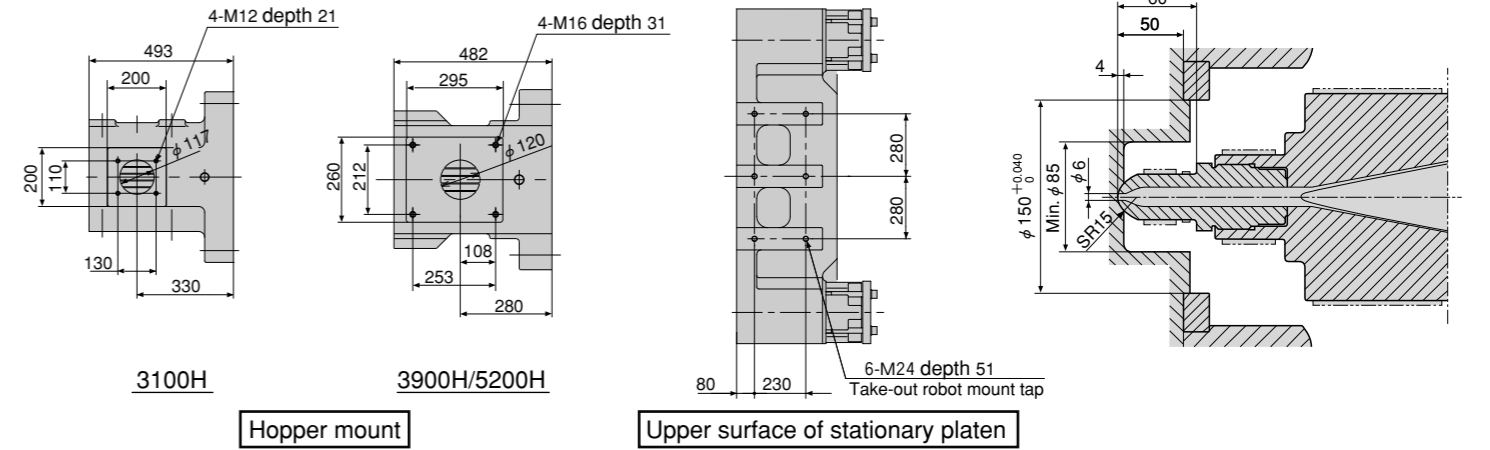
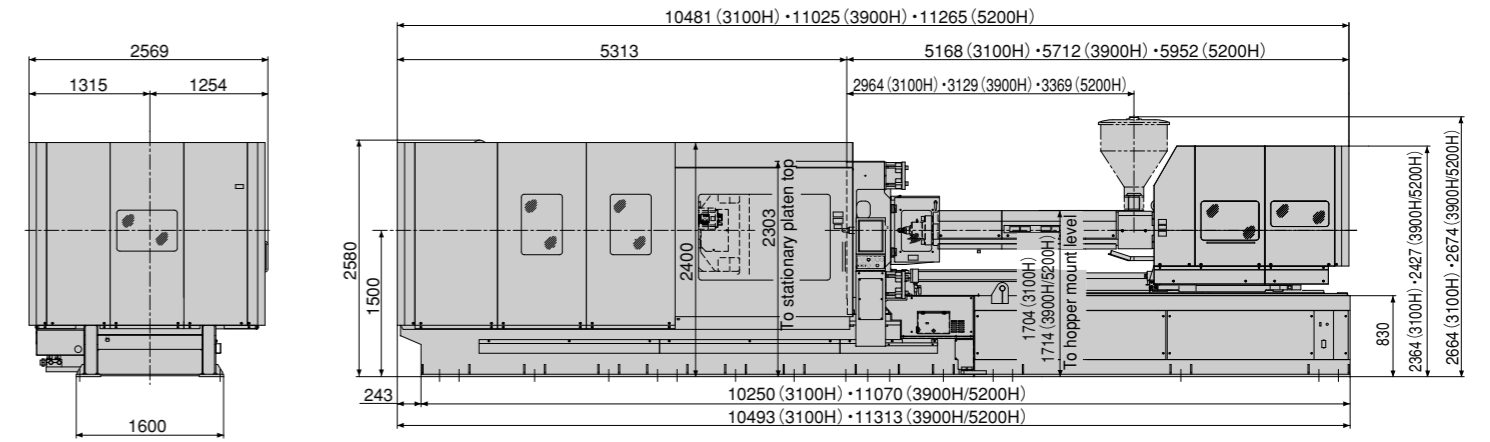
Unit	Item	Model	J850AD					
			3100H		3900H		5200H	
Injection Unit	Screw barrel type		A	B	A	B	A	B
	Screw diameter	mm	92	100	100	110	110	120
	Screw stroke	mm	460		500		550	
	Theoretical injection capacity	cm ³	3058	3613	3927	4752	5227	6220
	Injection capacity (GP-PS)	g	2783	3288	3574	4324	4757	5660
	Injection 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 platen	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-bars (HXV)	mm	1060×1060					
	Platen size (HXV)	mm	1590×1590					
	Ejector point		29 points					
	Ejector force	kN {tf}	230 {23.5}					
General	Ejector stroke	mm	200					
	Machine weight	t	48		50		50	
	Machine dimensions (L×W×H) m		10.49×2.57×2.58		11.31×2.57×2.58		11.31×2.57×2.58	

Remarks:

- Maximum injection pressure and maximum holding pressure may be restricted due to molding condition.
- The theoretical injection capacity is (cross sectional area of barrel) × (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:

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- Actual figures of the specification will vary depending on final machine configuration. Please contact us if you require more specific data.
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Performance Table

Equipment Dimensions and Mold Related Dimensions

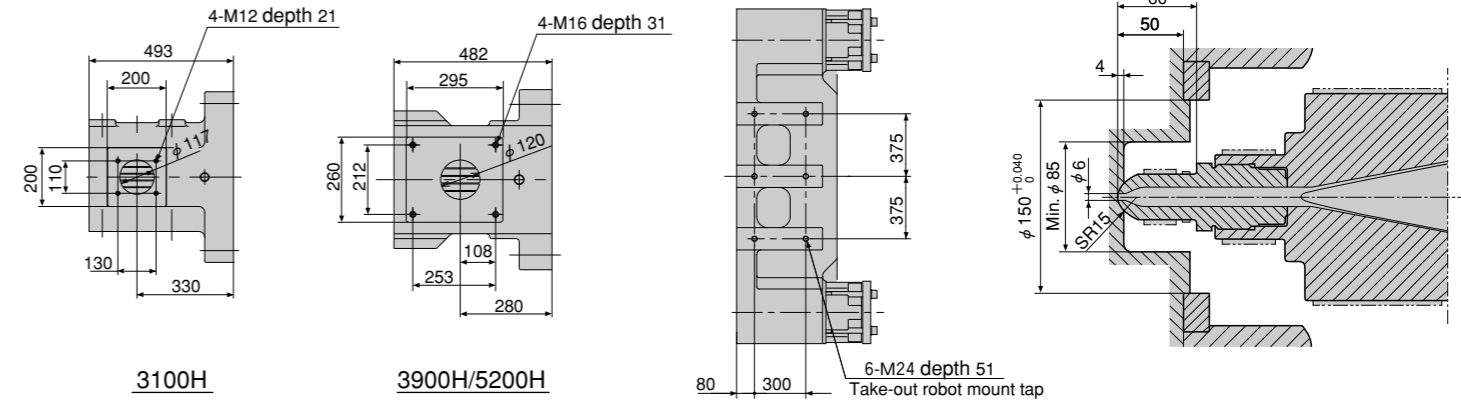
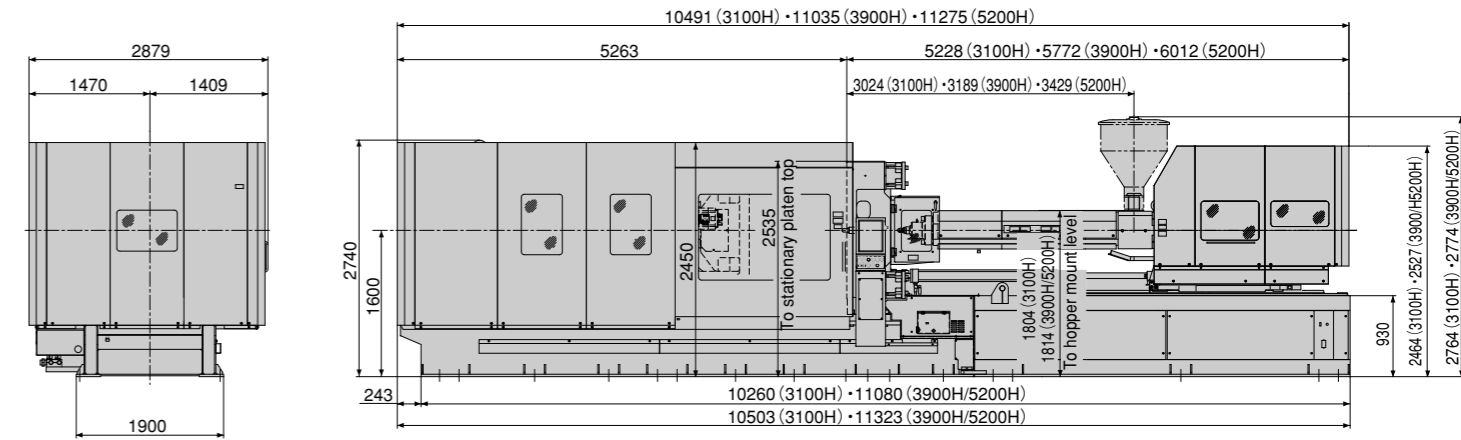
Unit	Item	J850ADW					
		3100H		3900H		5200H	
Injection Unit	Screw barrel type	A	B	A	B	A	B
	Screw diameter mm	92	100	100	110	110	120
	Screw stroke mm	460		500		550	
	Theoretical injection capacity cm ³	3058	3613	3927	4752	5227	6220
	Injection capacity (GP-PS) g	2783	3288	3574	4324	4757	5660
	Injection 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 platen 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-bars (HXV) mm	1320×1320					
	Platen size (HXV) mm	1900×1800					
	Ejector point	29 points					
	Ejector force kN (tf)	230 {23.5}					
Ejector stroke mm	200						
General	Machine weight t	54		56		56	
	Machine dimensions (L×W×H) m	10.50×2.88×2.74		11.32×2.88×2.74		11.32×2.88×2.74	

Remarks:

- Maximum injection pressure and maximum holding pressure may be restricted due to molding condition.
- The theoretical injection capacity is (cross sectional area of barrel) × (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.

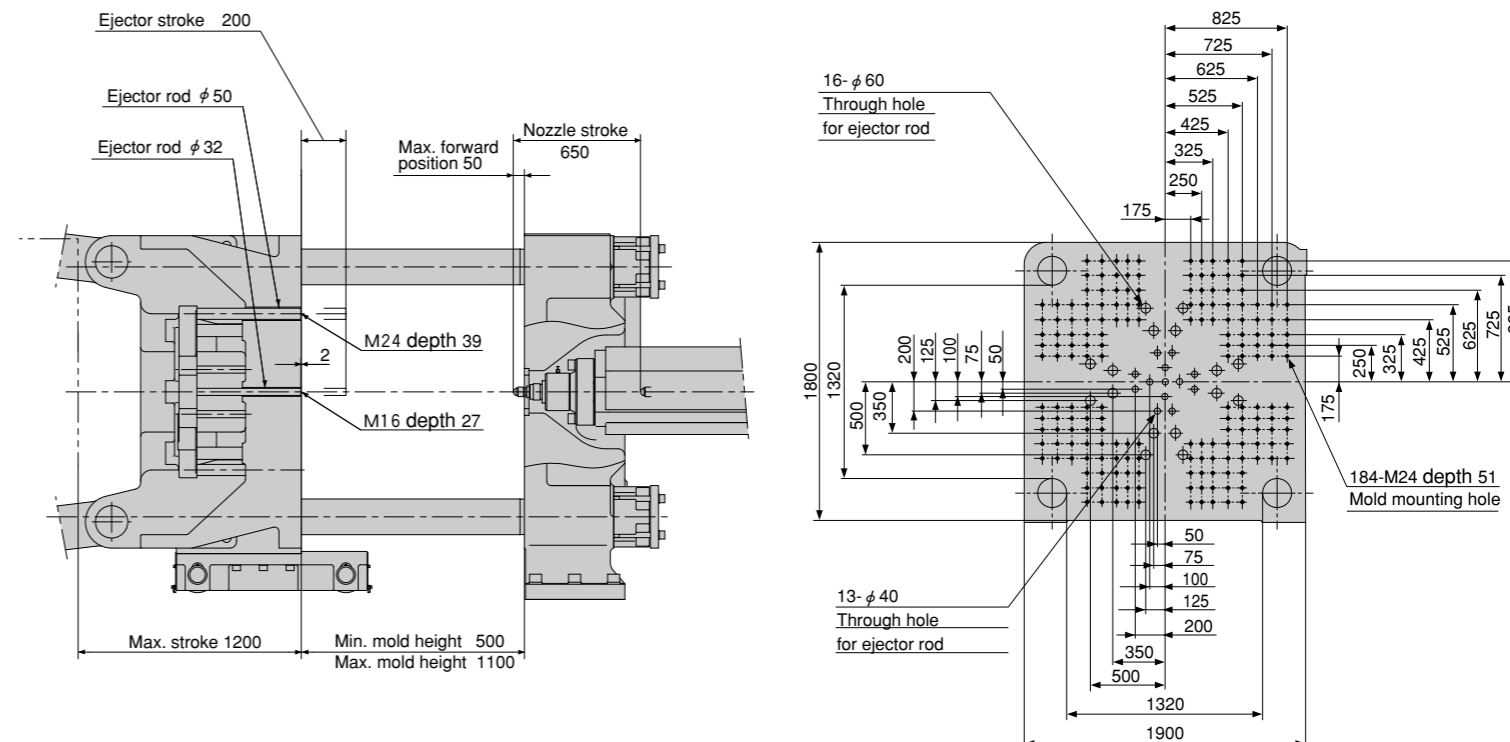
Note:

- 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



Hopper mount

Upper surface of stationary platen



Movable platen side

Standard Equipment List

Item		
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		
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 mold thickness 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 Mill 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, optional for J550AD.
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		
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		
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		
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.
 (日)Cycle time (月)Injection time (火)Metering time (水)Cushion position
 (木)Holding pressure end position (金)Injection pressure
 (土)Holding pressure transfer pressure (祭)Screw back pressure
 (祝)Metering end position (日)Injection start position (月)Holding pressure transfer position
 (火)Mold open time (水)Mold close time (木)Metering torque
 (金)Holding pressure transfer speed (土)Mold inner pressure (option)
 (日)Clamp force (祭)Shift amount (HAVC) (祝)End speed (HAVC)
- Note 10. Indicates inspection times and items.

Options List

Item			
Long nozzle			
Shut-off nozzles (Pneumatic type and Hydraulic type)			
LSP-2 screw (Abrasion-resistant type)			
Injection Unit	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			
Daylight extension			
T-slot platen			
Locating ring			
Air jet			
Clamping Unit	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 clamber		
	Mold setup device		
	Magnet mold Clamber		Note5
	Cooling water manifold on platen		
Hydraulic power pack			
Ejector braking system		Note6	

- 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.

Item		
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		
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		
DIC (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.

■ 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	