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Printed in Japan HO,AE,JC,BJ,A

JADS SERIES

All Electric Servo Drive
Injection Molding Machine



Model

J220ADS | J280ADS | J350ADS | J450ADS

JSW



JQA-QMA13993
JQA-EM6416

Performance Table

Unit	Model		J220ADS								
			300H			460H			890H		
Injection Unit	Screw Diameter mm		40	46	51	46	53	58	58	66	72
	Screw Stroke mm		180			210			260		
	Theoretical Injection Capacity cm ³		226	299	368	349	463	555	687	890	1059
	Injection Capacity (GP-PS) g		206	273	335	318	421	505	625	810	965
	Standard	Injection Pressure (Max.) MPa {kgf/cm ² }	250 {2550}	189 {1920}	154 {1570}	234 {2380}	177 {1800}	147 {1490}	229 {2330}	177 {1800}	149 {1510}
		Holding Pressure (Max.) MPa {kgf/cm ² }	227 {2310}	172 {1750}	140 {1420}	213 {2170}	161 {1640}	134 {1360}	208 {2120}	161 {1640}	135 {1370}
		Injection Speed mm/s	240			160			160		
		Injection Rate cm ³ /s	302	399	490	266	353	423	423	547	651
		Plasticizing Rate (GP-PS) kg/h	130	184	232	115	163	197	197	282	336
		Screw Speed min ⁻¹	400			250			250		
	High Speed (Option)	Injection Pressure (Max.) MPa {kgf/cm ² }	250 {2550}	189 {1920}	154 {1570}	234 {2380}	177 {1800}	147 {1490}	229 {2330}	177 {1800}	149 {1510}
		Holding Pressure (Max.) MPa {kgf/cm ² }	227 {2310}	172 {1750}	140 {1420}	213 {2170}	161 {1640}	134 {1360}	208 {2120}	161 {1640}	135 {1370}
		Injection Speed mm/s	330			300			270		
		Injection Rate cm ³ /s	415	548	674	499	662	793	713	924	1099
		Plasticizing Rate (GP-PS) kg/h	130	184	232	161	228	275	197	282	336
		Screw Speed min ⁻¹	400			350			250		
Nozzle Touch Force kN {tf}		39.3 {4.0} Center Nozzle Touch									
Nozzle Stroke from Platen mm		50									
Type of Nozzle		Open Nozzle (Tip Type)									
Barrel Temperature Control		Barrel4, Nozzle1			Barrel5, Nozzle1						
Heater Wattage kW		12.0			12.4			18.7			
Clamping Unit	Mechanism		Double Toggle								
	Clamping Force kN {tf}		2160 {220}								
	Daylight Opening (Max.) mm		1230								
	Opening Stroke (Max.) mm		550								
	Mold Height mm		230~680								
	Distance Between Tie-bars (H×V) mm		650×590								
	Platen Size (H×V) mm		930×870								
	Locating Ring Diameter mm		φ120H7 (Depth15)								
	Ejector Point		13 Points								
	Ejector Force kN {tf}		44.2 {4.5}								
	Ejector Stroke mm		150								
General	Machine Weight t		10.5			11.1			11.6		
	Machine Dimensions (L×W×H) m		6.36×1.68×2.00			6.36×1.68×2.03			7.02×1.68×2.06		

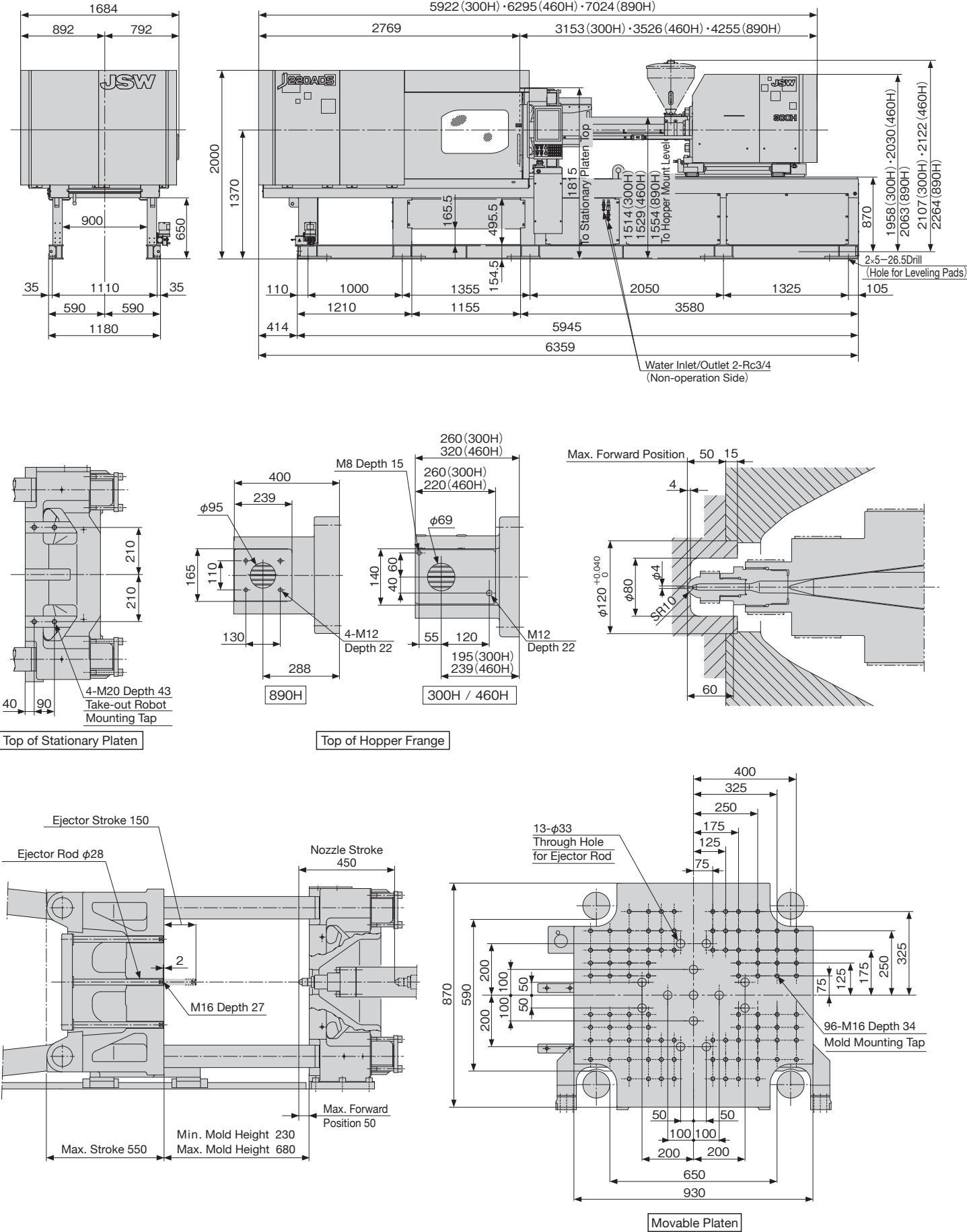
Remarks:

- 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.
- High speed injection is optional.
- 1MPa=10.2 kgf/cm², 1kN=0.102tf

Equipment Dimensions And Mold Related Dimensions



Equipment Dimensions And Mold Related Dimensions

Top of Stationary Platen

1764
942 822
JSW
880 650
35 1030 35
550 550
1100

Top of Hopper Frange

2989 6555 (460H) · 7284 (890H) 3566 (460H) · 4295 (890H)
2060 1420 2000 1902
165.5 495.5 170.5 1445 2050 1325 105
110 1110 1245 3580 6145 6579
Water Inlet/Outlet 2-Rc3/4 (Non-operation Side)
2×5-26.5Drill (Hole for Leveling Pads)

Top of Stationary Platen

6-M20 Depth 43 Take-out Robot Mounting Tap
40 90 40 210 210

Top of Hopper Frange

M8 Depth 15 320 220 239 400
φ95 110 165 130 288 890H
4-M12 Depth 22 55 120 239 460H
M12 Depth 22
Max. Forward Position 50 15
4 60
φ120^{+0.040}₀ φ80 φ4
Sφ10

Top of Stationary Platen

Ejector Stroke 150
Ejector Rod φ28
M16 Depth 27
Min. Mold Height 250
Max. Mold Height 720
Max. Stroke 600
Max. Forward Position 50

Top of Hopper Frange

Nozzle Stroke 490
13-φ33 Through Hole for Ejector Rod
92-M16 Depth 34 Mold Mounting Tap
400 325 250 175 125 75
75 125 175 250 325 400
50 100 100 200 200 730 1050
935 630 200 100 100 50 50

Movable Platen

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4. High speed injection is optional.
5. $1\text{MPa}=10.2\text{ kgf/cm}^2$, $1\text{kN}=0.102\text{tf}$

Performance Table

Unit	Model		J350ADS								
			460H			890H			1400H		
Injection Unit	Screw Diameter mm		46	53	58	58	66	72	66	76	84
	Screw Stroke mm		210			260			300		
	Theoretical Injection Capacity cm ³		349	463	555	687	890	1059	1026	1361	1663
	Injection Capacity (GP-PS) g		318	421	505	625	810	965	934	1238	1513
	Standard	Injection Pressure (Max.) MPa {kgf/cm ² }	234 {2380}	177 {1800}	147 {1490}	229 {2330}	177 {1800}	149 {1510}	241 {2450}	182 {1850}	149 {1510}
		Holding Pressure (Max.) MPa {kgf/cm ² }	213 {2170}	161 {1640}	134 {1360}	208 {2120}	161 {1640}	135 {1370}	216 {2200}	163 {1660}	134 {1360}
		Injection Speed mm/s	160			160			160		
		Injection Rate cm ³ /s	266	353	423	423	547	651	547	726	887
		Plasticizing Rate (GP-PS) kg/h	115	163	197	197	282	336	237	338	418
		Screw Speed min ⁻¹	250			250			210		
	High Speed (Option)	Injection Pressure (Max.) MPa {kgf/cm ² }	234 {2380}	177 {1800}	147 {1490}	229 {2330}	177 {1800}	149 {1510}	241 {2450}	182 {1850}	149 {1510}
		Holding Pressure (Max.) MPa {kgf/cm ² }	213 {2170}	161 {1640}	134 {1360}	208 {2120}	161 {1640}	135 {1370}	216 {2200}	163 {1660}	134 {1360}
		Injection Speed mm/s	300			270			300		
		Injection Rate cm ³ /s	499	662	793	713	924	1099	1026	1361	1663
		Plasticizing Rate (GP-PS) kg/h	161	228	275	197	282	336	237	338	418
		Screw Speed min ⁻¹	350			250			210		
Nozzle Touch Force kN {tf}		39.3 {4.0} Center Nozzle Touch									
Nozzle Stroke from Platen mm		50									
Type of Nozzle		Open Nozzle (Tip Type)									
Barrel Temperature Control		Barrel 5, Nozzle 1									
Heater Wattage kW		12.4			18.7			26.8			
Clamping Unit	Mechanism		Double Toggle								
	Clamping Force kN {tf}		3440 {350}								
	Daylight Opening (Max.) mm		1470								
	Opening Stroke (Max.) mm		700								
	Mold Height mm		300~770								
	Distance Between Tie-bars (HXV) mm		810×730								
	Platen Size (H×V) mm		1165×1085								
	Locating Ring Diameter mm		φ150H7 (Depth20)								
	Ejector Point		17 Points								
	Ejector Force kN {tf}		59.0 {6.0}								
	Ejector Stroke mm		150								
General	Machine Weight t		16.1			17.0			18.5		
	Machine Dimensions (L×W×H) m		6.99×1.95×2.09			7.61×1.96×2.09			7.80×1.95×2.15		

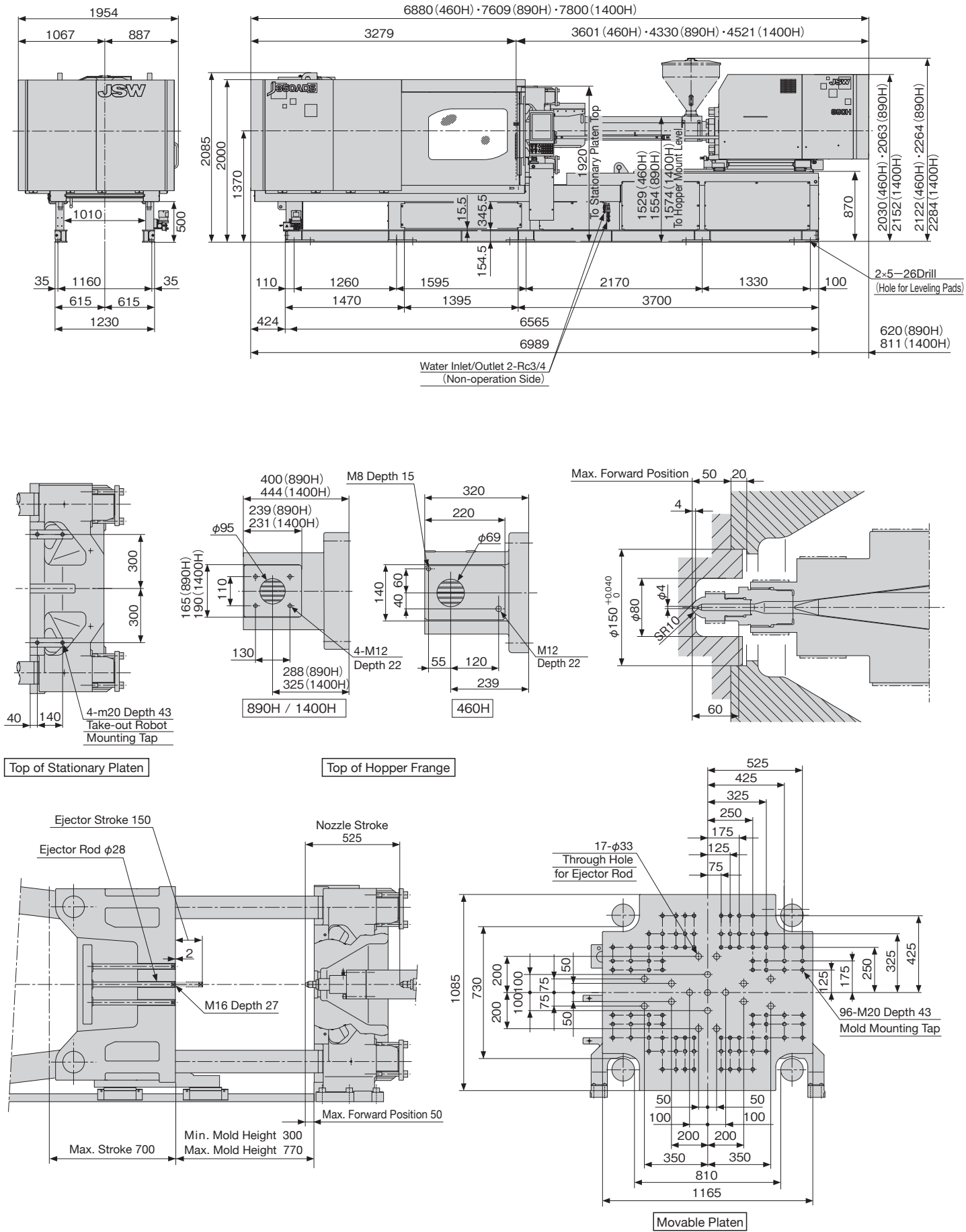
Remarks:

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- 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.

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

Equipment Dimensions And Mold Related Dimensions



Equipment Dimensions And Mold Related Dimensions

Technical drawing of the JSW 8054 (890H) - 8245 (1400H) - 8652 (2300H) machine, showing top, side, and detail views with dimensions in mm and height specifications.

Top View Dimensions:

- Overall Width: 2104
- Overall Length: 8054 (890H) - 8245 (1400H) - 8652 (2300H)
- Left Section Widths: 1147, 957
- Left Section Heights: 500 (890H/1400H) - 575 (2300H), 2200 (890H/1400H) - 2275 (2300H), 1425 (890H/1400H) - 1500 (2300H)
- Left Section Base Widths: 35, 1300, 35
- Left Section Base Spacing: 685, 685
- Left Section Base Total Width: 1370
- Main Body Width: 3719
- Main Body Length: 4335 (890H) - 4526 (1400H) - 4933 (2300H)
- Main Body Heights: 15.5 (890H/1400H) - 90.5 (2300H), 345.5 (890H/1400H) - 420.5 (2300H), 2037 (890H/1400H) - 2112 (2300H)
- Main Body Base Widths: 110, 1550, 1450, 154.5, 400
- Main Body Base Lengths: 519, 1760, 1450, 2235 (890H/1400H) - 1575 (890H/1400H), 100
- Main Body Base Total Length: 7939 (890H/1400H) - 9125 (2300H)
- Main Body Base Spacing: 1441 (2300H), 2065 (2300H), 1490 (2300H)
- Main Body Base Total Spacing: 4210 (890H/1400H) - 5396 (2300H)
- Main Body Base Total Width: 115 (890H) - 306 (1400H)
- Right Section Widths: 925 (890H/1400H) - 860 (2300H), 2118 (890H) - 2207 (1400H) - 2364 (2300H), 2339 (1400H) - 2664 (2300H)
- Right Section Heights: 925 (890H/1400H) - 860 (2300H), 2118 (890H) - 2207 (1400H) - 2364 (2300H), 2339 (1400H) - 2664 (2300H)

Side View Dimensions:

- Overall Height: 2104
- Overall Length: 8054 (890H) - 8245 (1400H) - 8652 (2300H)
- Left Section Height: 500 (890H/1400H) - 575 (2300H)
- Main Body Height: 15.5 (890H/1400H) - 90.5 (2300H)
- Right Section Height: 925 (890H/1400H) - 860 (2300H)

Detail Views:

- Top of Stationary Platen:** Shows dimensions for the stationary platen, including 400 (890H) - 444 (1400H) - 493 (2300H) and 239 (890H) - 231 (1400H) - 493 (2300H).
- Top of Hopper Frange:** Shows dimensions for the hopper frange, including 400 (890H) - 444 (1400H) - 493 (2300H) and 239 (890H) - 231 (1400H) - 493 (2300H).
- 890H/1400H:** Shows dimensions for the 890H/1400H model, including 400 (890H) - 444 (1400H) - 493 (2300H) and 239 (890H) - 231 (1400H) - 493 (2300H).
- 2300H:** Shows dimensions for the 2300H model, including 400 (890H) - 444 (1400H) - 493 (2300H) and 239 (890H) - 231 (1400H) - 493 (2300H).

Other Dimensions:

- Water Inlet/Outlet 2-Rc3/4 (Non-operation Side)
- 2x6-26.5 Drill (890H/1400H)
- 2x7-26.5 Drill (2300H)
- Hole for Leveling Pads
- Max. Forward Position 5020
- Max. Forward Position 5020
- Max. Stroke 800
- Min. Mold Height 350
- Max. Mold Height 900
- Max. Forward Position 50
- Mold Mounting Tap
- Movable Platen

Please contact us if you plan:

Note:

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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. High speed injection is optional.
5. 1MPa=10.2 kgf/cm², 1kN=0.102tf

Standard Equipment List

Item		
Injection unit	Open Nozzle (Tip type) / (Injection Units up to 1400H)	
	N2000F Barrel	
	Chrome-plated Screw	
	Screw Pull-back	
	Injection Unit Swiveling Device (with Limit Switch)	
	Screw Cold Start Prevention	
	Molding/Purging/Pause Temperature Select	
	Auto Purging Circuit	
	Nozzle Retract Select	
	Injection/Metering Programmed Control	Injection/Holding Pressure: 1 to 6 Steps (Variable) Metering/Back Pressure: 1 to 3 Steps (Variable)
	Holding Pressure Control Select	
	Pull-back Select	
	IVS Control (Holding Pressure Transfer by Speed Detection)	
	Barrel Temperature Control (PID)	
	Synchronous Temperature Rise Control	
	Hopper Flange Temperature Control	
	Soft Pack Servo Control	
	HAVC (High Accuracy Volume Cotrol)	
	IWCS (Injection Weight and Cushion Stability) Ccontrol	
	Reverse seal Control	
	Auto Grease Lubrication	
Clamping unit	High-performance Platen Support	
	Low Vibration Mold Open/Close	
	Wide Platen	
	Flat Press Platen Mechanism (Stationary side/Movable side)	
	Mold Open/Close and Ejection Programmed Control	Mold Open/Close : 4 Steps (Fixed) Ejection : 1 to 3 Steps (Variable)
	Mold Protection Function	
	Electric-driven Mold Thickness Adjusting Device	
	Auto Clamp Force Setting	
	Clamp Force Display	
	Clamp Force Feed Back Control	
	Ejector Plate Return Confirmation Circuit	
	Toggle Type Injection Compression Function	A-mode B-mode Compression: 1 to 6 Steps (Variable)
	Parallel Motion	Screw Rotation During Mold Open/Close Eject During Mold Open Injection During Clamp Up
	Clamping Safety Device (Mechanical/Electrical)	
	Robot Mounting Holes	
	Grease-free Toggle Bushing	
	Auto Grease Lubrication	

- (Note)
- Nozzle of 2300H is one piece type nozzle.
 - Screw of injection units 300H, 460H, 890H and 1400H, GP21 screw is equipped as standard.
• Screw of injection unit 2300H, Hi-Melter Mill screw is equipped as standard.
 - USB memory device as external memory is capable of storing of molding conditions.
 - Screen Capture can be saved in PNG format, and measuring data can be saved in CSV format
 - The printer and the printer cables are options.
 - Temperature sensors and electric wiring are not included.
 - Maximum of 16 items and alarms can be selected out of the following monitor items.
①Cycle time ②Injection time ③Metering time ④Max Injection pressure ⑤Cushion position
⑥Holding pressure end position ⑦Holding pressure transfer pressure ⑧Screw back pressure
⑨Metering end position ⑩Injection start position ⑪Holding pressure transfer position
⑫Metering torque ⑬Holding pressure transfer speed ⑭Mold close time ⑮Mold open time
⑯Clamping force ⑰Shift stroke (HAVC) ⑱End speed (HAVC)
 - Maintenance monitor based on molding condition

Item		
Controller	Multi-touch Panel 15" TFT Color LCD Controller	
	Multi-language Select (English, Chinese, Japanese)	
	300 Mold Conditions Storage (Internal Memory)	
	Soft Start Molding	
	Self Diagnostics Function	
	I/O Customize Function	
	Molding Operation Assist Function	
	Help Function	
	Pop-up Display	
	Manual Browsing Function	
	Start-up Safety Notice	
	Molding Condition MEMO	
	Screen Caputure Files can be stored to USB memory device	(Note 4)
	USB Printer Port	(Note 5)
	Overall Setting Screen	
	Pre-heat Timer	
	Product Takeout Robot Circuit	
	Attended/Unattended Operation Select	
Monitor	Actual Value Display	
	Mold Temperature Display	
	Injection/Metering Waveform Monitor	
	Injection/Metering Waveform Storage	
	Oscilloscope Waveform Monitor	
	Energy Consumption And Regeneration Monitor	
	Barrel Temperature Monitor	
	Injection Pressure Monitor (IPM)	
	Statistical Graph	
	Production Monitor	
	Cumulative Operating Hour Display	
	Cycle Monitor	
	Molding Condition Upper/Lower Limit Monitor	(Note 7)
	Inspection and Maintenance Guide	(Note 8)
	Heater System Alarm	
	Injection Pressure Overshoot Alarm	
	Servo Fault Alarm	
	Grease Lubrication Alarm	
Others	Fault Alarm Buzzer	
	Alarm History	
	Set Value History	
	Safty Compliance to JIMS K1001	
	Cooling Water Closed Circuit for Feed Throat	
	Accessories (Maintenance Tools and Ejector Rods, etc.)	

Options List

Item		
Injection unit	Long Nozzle	
	Shut-off Nozzles (Pneumatic Type and Hydraulic Type)	
	KC Nozzle	
	M7 Screw (High Plasticization Type)	
	HP Screw (High Dispersion Type)	
	LSP-2 screw (Abrasion-resistant type)	
	Screws and Barrels for Optical Application	
	Screws and Barrels for Super Engineered Plastics Application	
	Special Screw	
	Barrel Insulation Cover	
	Barrel Blower Cooling Unit	
	Hopper	
	Hopper Swiveling Device	
Clamping unit	High-speed Injection	
	Extended Holding Time Spec.	
	Daylight Extension	
	Mold Platen Heat Insulation Bord (5 or 10mm)	
	Locating Rings	
	Air Jet	
	Core Pull Devices (Pneumatic Type and Hydraulic Type)	
	Valve Gate Device (Pneumatic Type and Hydraulic Type)	
	Coupler joint (Hydraulic, Pneumatic)	
	Hydraulic Power Pack (40L or 60L) Internal Unit	
	Ejector Gate Cutting Circuit	
	Unscrewing Motor Circuit	
	Product Drop Detector (Photoelectric)	
	Chute	
	Rejecting Product Detecting Chute	
	T-groove Platen	
	Mold Setup Device	
	Mold Clamper Device (Pneumatic Type, Hydraulic Type, Magnet Type) (Note 4)	
	Mold Clamper	

Utilities

■ Total Power Capacity

Machine Model		Total Power Capacity (kVA)	
		Standard Injection	High Speed Injection
J220ADS	300H	20.0	27.0
	460H	27.0	42.0
	890H	34.0	54.0
J280ADS	460H	27.0	42.0
	890H	34.0	54.0
J350ADS	460H	27.0	42.0
	890H	35.0	54.0
	1400H	46.0	70.0
J450ADS	890H	36.0	56.0
	1400H	48.0	72.0
	2300H	56.0	—

- Note:
- Total power capacity does not include external outlets.
 - 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

Machine Model	Cooling Water Capacity for Barrel Temperature Control (m³/h)
300H	0.4
460H	
890H	
1400H	0.6
2300H	1.2

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