



JADS SERIES

All Electric Servo Drive
Injection Molding Machine

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Model
J220ADS | J280ADS | J350ADS | J450ADS

JSW



JQA-QMA13993
JQA-EM6416

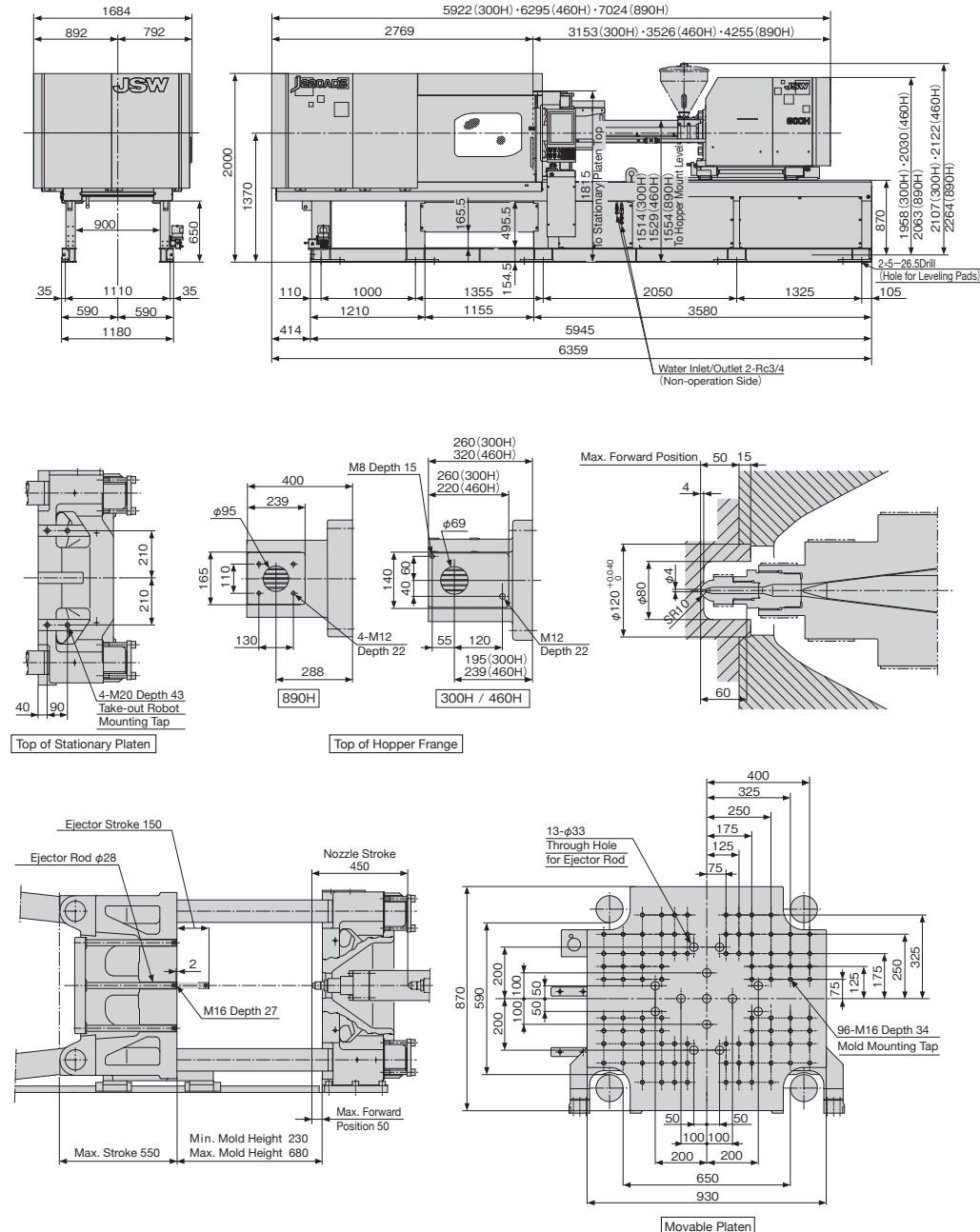
Performance Table

Equipment Dimensions And Mold Related Dimensions

Unit	Item	J220ADS										
		300H			460H			890H				
Standard	Screw Diameter	mm	40	46	51	46	53	58	58	66	72	
	Screw Stroke	mm	180									
	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	
	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									
	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									
Injection Unit	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	330								
		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
	High Speed (Option)	Screw Speed	min ⁻¹	400								
		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								
		Injection Rate	cm ³ /s	415	548	674	499	662	793	713	924	1099
Clamping Unit	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			
	Mechanism		Double Toggle									
	Clamping Force	kN(tf)	2160 220									
	Daylight Opening (Max.)	mm	1230									
	Opening Stroke (Max.)	mm	550									
	Mold Height	mm	230~680									
General	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									
	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:
 1. Maximum injection pressure and maximum holding pressure may be restricted due to molding condition.
 2. The theoretical injection capacity is (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:
 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. 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) (Note 1)	
	N2000F Barrel	
	Chrome-plated Screw (Note 2)	
	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 Control)	
	IWCS (Injection Weight and Cushion Stability) Control	
	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) (Note 3)
	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 Capture Files can be stored to USB memory device (Note 4)
	USB Printer Port (Note 5)
	Overall Setting Screen
Monitor	Pre-heat Timer
	Product Takeout Robot Circuit
	Attended/Unattended Operation Select
	Actual Value Display
	Mold Temperature Display (Note 6)
	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)	
Others	Heater System Alarm
	Injection Pressure Overshoot Alarm
	Servo Fault Alarm
	Grease Lubrication Alarm
	Fault Alarm Buzzer
	Alarm History
	Set Value History
	Safety 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) (Note 1)
	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 (Note 2)
	Barrel Insulation Cover
Clamping unit	Barrel Blower Cooling Unit
	Hopper
	Hopper Swiveling Device
	High-speed Injection
	Extended Holding Time Spec. (Note 3)
	Daylight Extension
	Mold Platen Heat Insulation Bord (5 or 10mm) (Note 4)
	Locating Rings
	Air Jet
	Core Pull Devices (Pneumatic Type and Hydraulic Type)
Other	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	

(Note)

- Pneumatic shut-off nozzle and hydraulic shut-off nozzle can be mounted, Additional hydraulic unit is required for hydraulic type.
- Contact sales to know the application.
- The motor is prevented from being overloaded in a long holding time and high holding pressure molding condition.
- Extension nozzle is required. Ask sales to confirm the nozzle length to meet requirement.
Note that the usable mold thickness range will change.
- Ask sales to confirm the details depending upon the final destination.
- Color sample or Muncell code is required.

Utilities

Total Power Capacity

Machine Model	Total Power Capacity (kVA)	
	Standard Injection	High Speed Injection
J220ADS	300H	20.0
	460H	27.0
	890H	34.0
J280ADS	460H	27.0
	890H	34.0
	460H	27.0
J350ADS	890H	35.0
	1400H	46.0
	890H	36.0
J450ADS	1400H	48.0
	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 (m ³ /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.