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Printed in Japan HO,AF,AA,BJ,B

JADS SERIES

Electric Servo Drive Injection Molding Machine



Model

J30ADS | J50ADS | J80ADS | J100ADS | J130ADS | J180ADS

Made in HIROSHIMA



JQA-QMA13993
JQA-EM6416 (Hiroshima Plant)

The perfect fusion of our experience and new technologies

~ Bringing you Ultimate Satisfaction ~



Our "ADS series" Electric Servo Drive Injection Molding Machine has evolved to a new level in injection molding.

JSW's small-size ADS has improved upon the AD series, and is a new series with improved dexterity. Our machines will give you further satisfaction, stability, and productivity while saving energy through our advanced high-performance controller and improvements to the new clamping unit and screw cylinder.

Solution

Satisfaction Smart Strong Stable

~ Solving Problems for All Our Customers ~

Satisfaction

Satisfy all your Requirements

Energy Savings · Preventative Maintenance
· Customized I/O Function · Molding Support

Smart

New Control System SYSCOM5000i

Operation Process Display (Visualization)
· Multi-Touch Operation Lever · NET100 System (optional)

Strong

High rigidity Clamping Unit
· Clamping Control

Increased loading size molds · High accuracy of
molds protection Flat Platen Press

Stable

High Accuracy Injection ·
Recovery control and flexibility

Wide selections of injection modules · Variations of
Screws Various Holding Pressure



Complies with safety regulations
Japan Society of Industrial Machinery Manufacturers Regulation (JIMS K-1001)

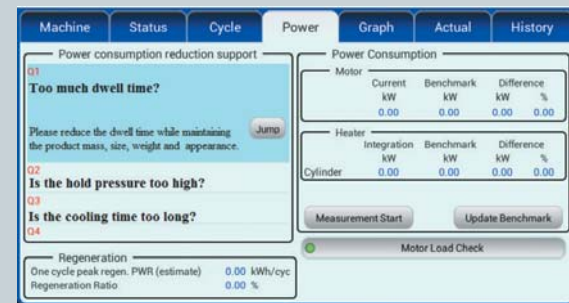
Fulfill All Your Requirements

Management

Energy-saving "Eco-Friendly" mode reduces power consumption and overall operating costs.

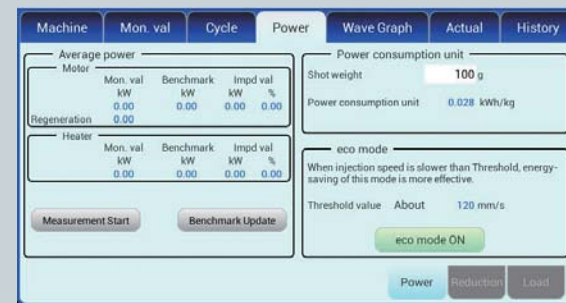
Energy Savings

ADS will suggest injection molding conditions in order to save energy.



Eco mode

Reduces power consumption in addition to insuring efficient molding conditions.



Maintenance

Preventative maintenance · Predictive maintenance function to reduce downtime

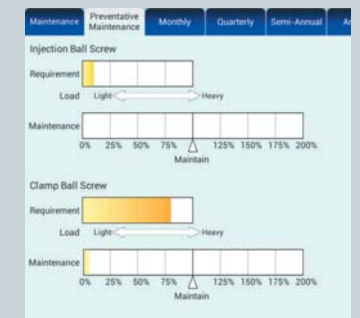
Preventative maintenance

Automatically notifies you when to perform regular inspections

Maintenance	Preventative Maintenance	MUCR	Quarterly	Semi-Annual	Annual	History
0-1	Ball screws	Grease lubrication	Quarterly	To three pasts		
0-2	Automatic grease lubrication apparatus	Oil change				
0-3	Motor cooling fan	Cleaning				
0-4	Control panel cooling fan	Cleaning				
0-5	Mold thickness adjusting device	Mold thickness increase				
0-6	Heater band mounting bolts	Oil change				
0-7	Thermocouples	Insulated state				
0-8	Grease hose, lines	Pipe detector				
0-9	Linear guides	Grease lubrication				
0-10	Hydraulic pressure hose	Pipe detector				
0-11	Hydraulic cylinder	Oil leak				

Predictive maintenance

The inspection timing of the ball screws can be checked while taking the molding load into account.



Manufacturing

Reduces operator work load to create higher added value.



Memo of molding conditions

Multimedia storage capabilities such as molding conditions, memos, settings of peripheral devices, and photos of products.

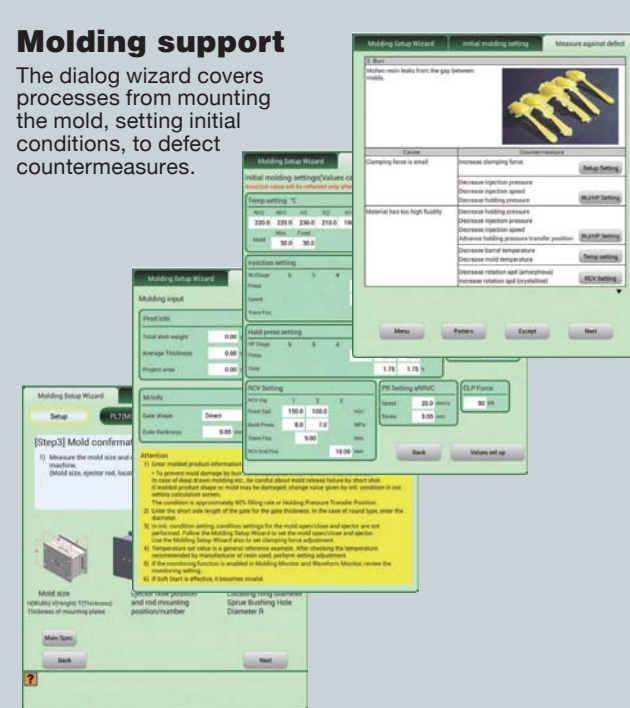
Screen shots · Hand written memos

You can write and edit information directly on top of screenshots.



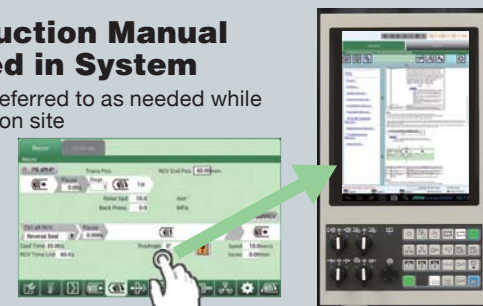
Molding support

The dialog wizard covers processes from mounting the mold, setting initial conditions, to defect countermeasures.



Instruction Manual Stored in System

Can be referred to as needed while working on site



Production Engineering

Manufacturing

Enables the construction of a manufacturing system through connection with peripheral equipment.

I/O Customized function

Simple sequences can be user generated.



Address	Signal name	Direction	Signal type	Signal level	Signal delay
0-1	Robot open	Input	Edge	High	0.1s
0-2	Robot take-out	Output	Pulse	High	0.1s
0-3	Robot completion	Input	Edge	High	0.1s
0-4	Robot clamping	Output	Pulse	High	0.1s

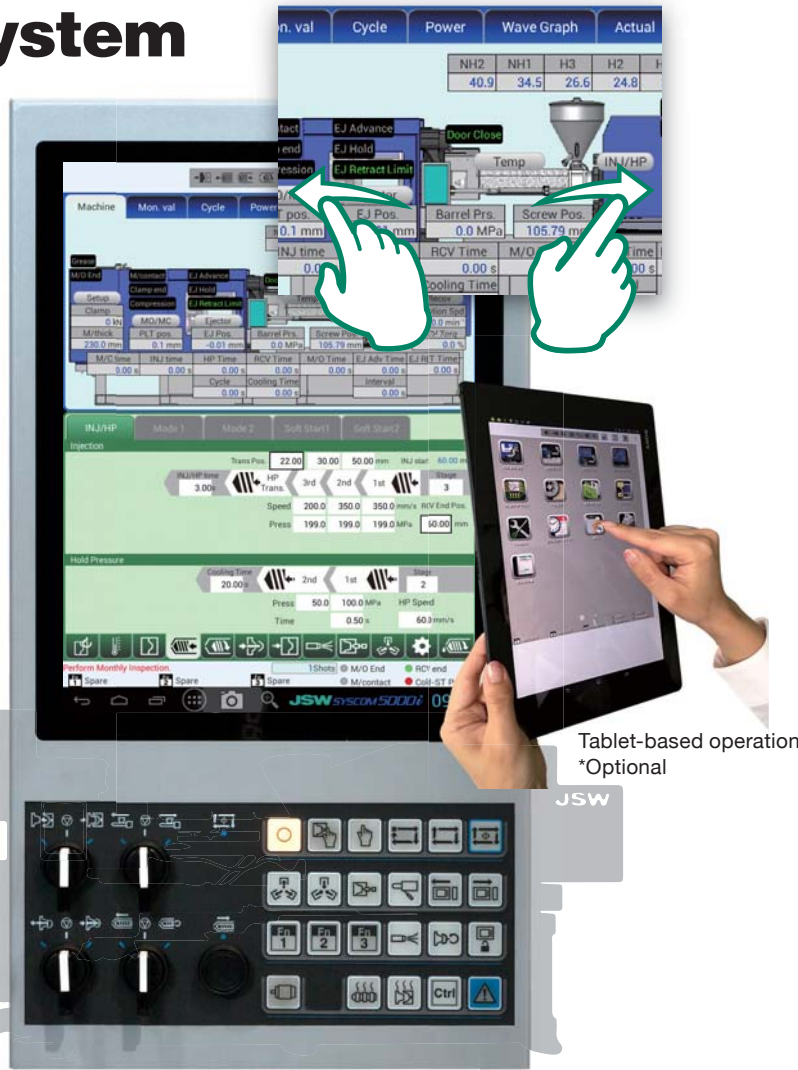
- (1) Mold is opened
- (2) Product take-out instructions given to the robot
- (3) Pulse signal indicating product take-out completion is received from the robot
- (4) Clamping begins
Auxiliary equipment operates in 3 seconds

New controller SYSCOM5000i

Functions Fully Realized through **NEW** Simple Navigation System

Main characteristics of SYSCOM5000i

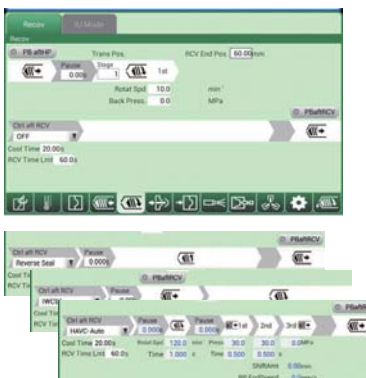
- Casual multi-touch operation
- Simple lever operation
- User-manual display function
- On screen instruction manual
- Large 15" display with utilized energy saving LED technology



User-friendly screen configuration

Operation process display

Visual or list display for every molding process



Collective setting display

Molding conditions can be set without navigating numerous pages.



Cycle monitor

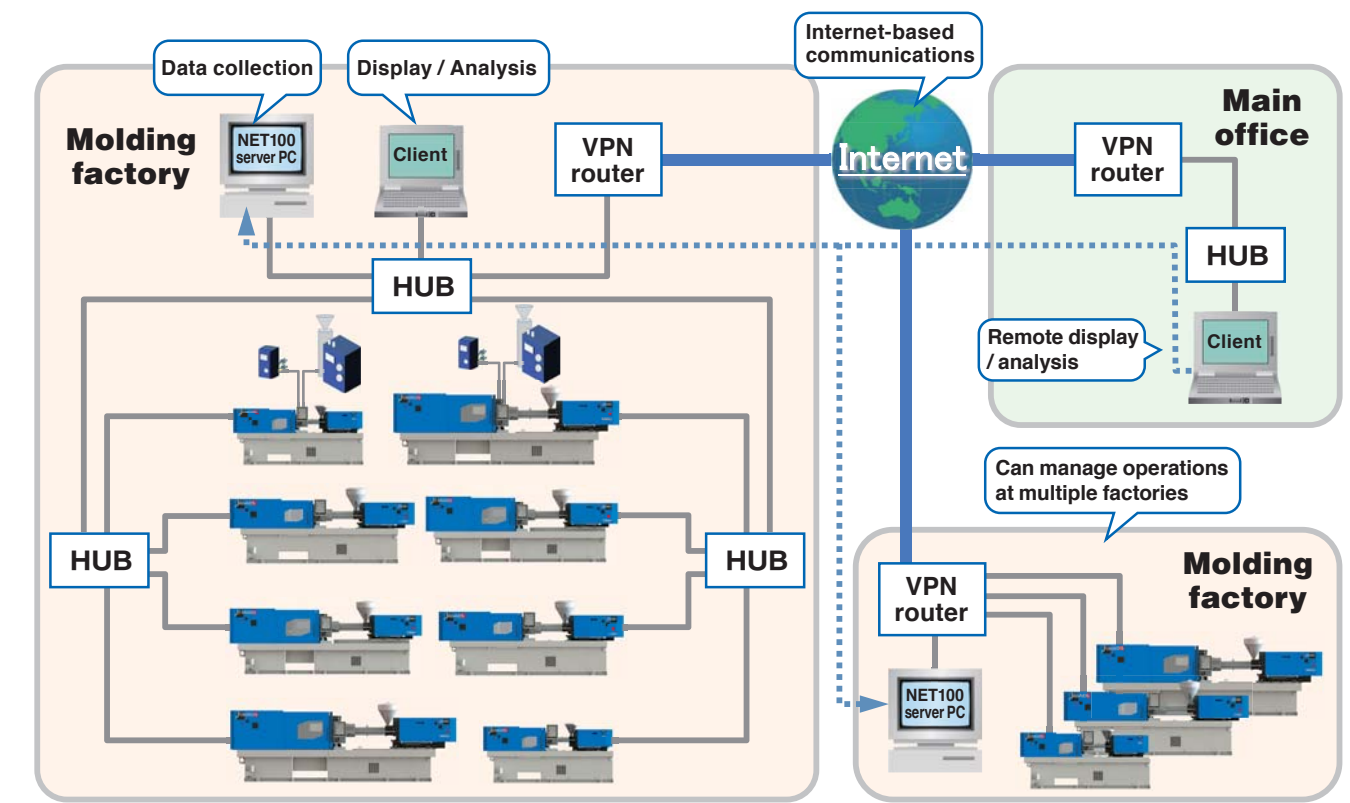
Allows task conditions in the molding machine to be visually checked in real-time

Machine	Mon. val	Cycle	Power	Wave Graph	Actual	History
M/C	0.62 / 1.09					
INJ	0.41 / 0.41					
H.P	10.00 / 10.00					
Rcv	3.11 / 3.11					
PB after RCV	0.11 / 0.11					
Cool	15.00 / 15.00					
M/O	1.00 / 1.05					
Ejection	0.21 / 0.64					
Interval	0.69 / 0.62					
Cycle	28.50 / 28.43					

Print on cycle end If screen is changed with Print on cycle end turned to ON, Print on cycle end is canceled.

NET100 System (Optional)

Moving towards the next frontier of IoT with JSW Injection Molding Machine



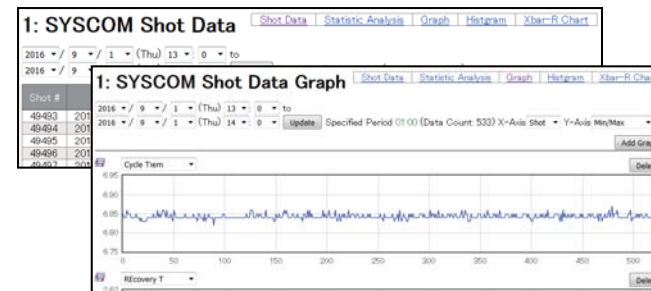
Observation of operation status

No.	Name	Molding Condition	Status	Shot Count	Cycle Time (s)	Shot Data	Operation Log	Print	Edit
1	SYSCOM000	TEST1	Production	280	13.55	Shot Data	Operation Log	Print	Edit
2	SYSCOM000	TEST2	Production	86458	10.23	Shot Data	Operation Log	Print	Edit

Display and operation of the controller screen

No.	Name	Molding Condition	Status	Shot Count	Cycle Time (s)	Shot Data	Operation Log	Print	Edit
1	SYSCOM000	TEST1	Production	280	13.55	Shot Data	Operation Log	Print	Edit
2	SYSCOM000	TEST2	Production	86458	10.23	Shot Data	Operation Log	Print	Edit

Analysis of measured values



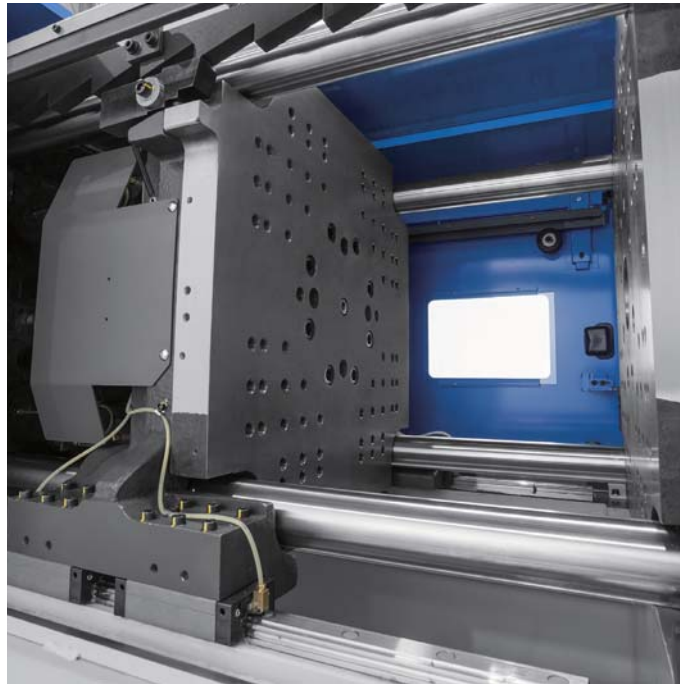
Display and management of molding conditions

SYSCOM	Condition	Parameter	Value	NET100 Server	Parameter	Value
1	Temp. Tact/PP/PE	20100504	16.2108	1	Temp. Tact/PP/PE	20100504
2	Temp. Tact/PP/PE	20100527	17.1418	2	Temp. Tact/PP/PE	20100409
3	Gate Seal/PP/PE	20100504	16.2514	3	Deco. Plate/PP/PE	20100527
4	Weight. var/PP	20100407	20.5636	4	Deco. Plate/PP/PE	20100409
5	0.4LGP Special	20091206	16.1100	5	Deco. Plate/PP/PE	20100407
6	JSW mold 0.4 or 0.6	193452	17.1512			
7	Spiral flow/PP	20090127	20.5714			
8	Spiral flow/PE	20100407	20.5714			
9	Deco. Plate/PP/PE	20100407	20.5616			

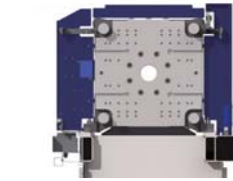
Innovated High rigidity clamping unit • Clamping control

Clamping unit for variety of molds NEW

Twin brake for the mold opening/closing mechanism and the ejector mechanism



Uses a high-precision linear guide with low friction which contributes to energy saving and high cycles



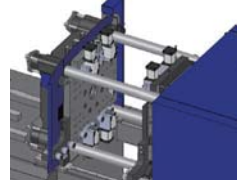
Platens are compatible with flexible processing (E.g.: T-groove)



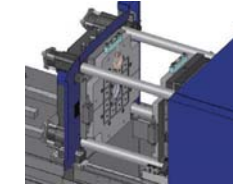
Ejector rod link



Mold with spring mechanism [Standard equipment for the brake mechanism] NEW!



Large molds can be automatically changed (Horizontal setup)



Easily installable and controllable magnet clamp



Compatible with JSW exclusive DSJ molding technology

*Images include optional components.

Expanded mountable mold thickness and width NEW

Expanded platen size and daylight in order to mount larger molds

*Upper row: ADS Lower row: Conventional machine

	J30ADS	J50ADS	J80ADS	J100ADS	J130ADS	J180ADS
Mold thickness	120~430	150~470	150~510	150~550	150~550	200~600
Min. - Max. (mm)	150~330	160~370	180~410	200~450	200~450	200~500
Distance between tie bars	310×310	360×360	410×410	460×460	530×510	590×560
W × H (mm)	310×290	360×310	410×360	460×410	530×460	590×530

New mold protection function NEW

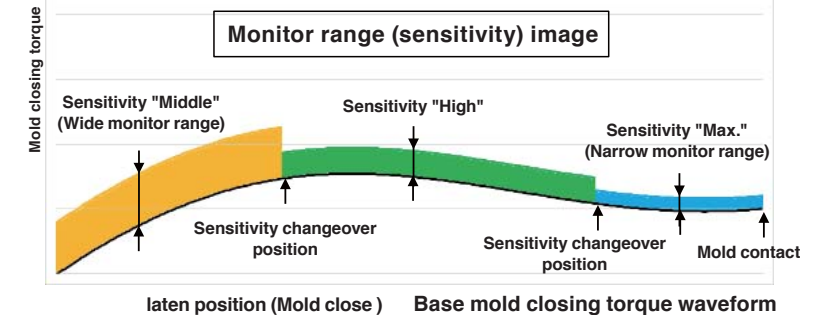
Increased functionality of mold protection due to the adoption of new controls

- Mold protection multi-stage settings [compatible with various mold structures]
- A high degree of safety through simple settings
- Ability to track mold temperature changes

- <Settings>
- The mold protection monitoring sensitivity and changeover position can be easily set.



Before testing **ADS** Conventional machine



Uniformity of the clamping force " Flat press platen"

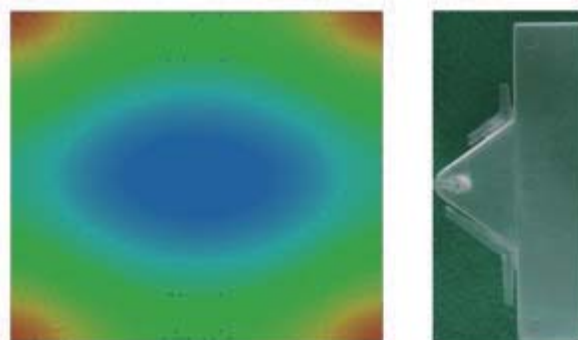
- Realized further uniformity of mold surface distribution through High rigidity clamping unit

[Product: Improved dimensional precision. Fin suppression]

[Mold: Extension of mold life cycle, mold design • Improved degrees of freedom for equipment]

Excellent accuracy of platen surface, uniform mold parting surface pressure

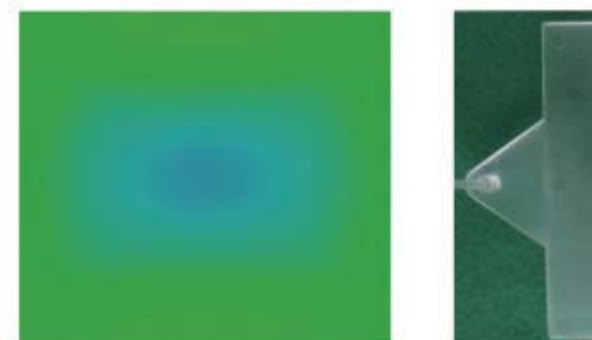
100 t class conventional machines



With burr

J100ADS

- 55% improvement of surface pressure variation
- Increased surface pressure of central section. Ability to reduce clamping force.

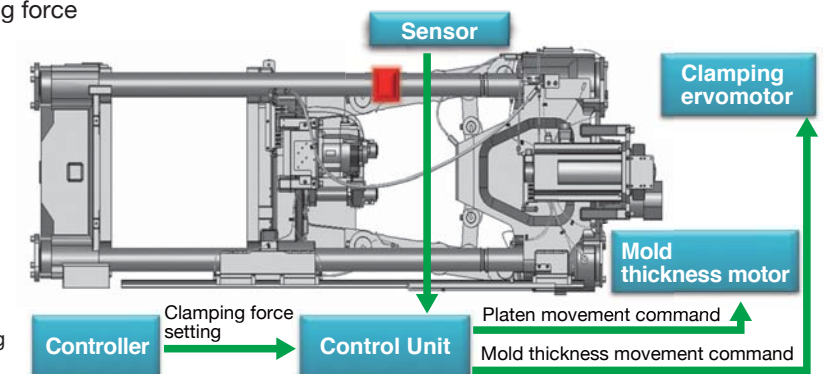
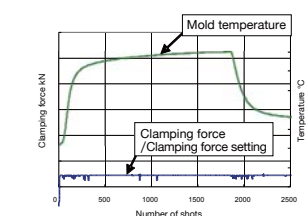
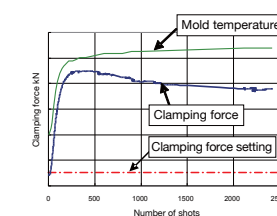


Without burr

The uniform surface pressure inhibits burrs and deviations in thickness.

Clamping Force Feedback Control *Recommended option

- "Visualization" of actual clamping force through toggle type machine
- Clamping force fluctuations reduced based on temperature changes in the mold
- "Improvement of product quality" due to the stability of outgassing
- Load reduction of mold maintenance
- "Long life cycle" of the mold by the optimum clamping force



Original High Accuracy Injection / Recovery Control and Flexibility

JSW's Original High Accuracy Volume Control

Reverse Seal Control

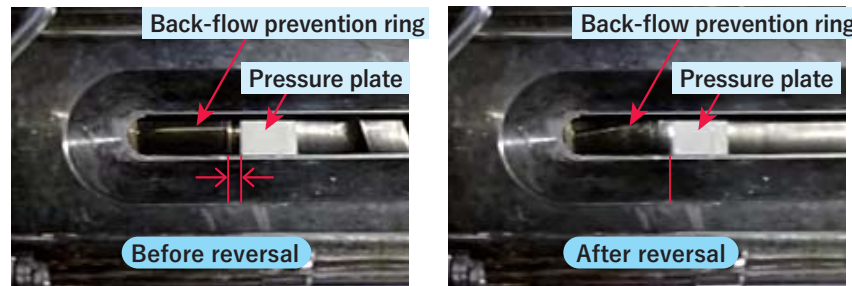
The screw is reversed after recovery ends to help the back-flow prevention ring close and to inhibit drooling.

Injection Weight and Cushion Stability

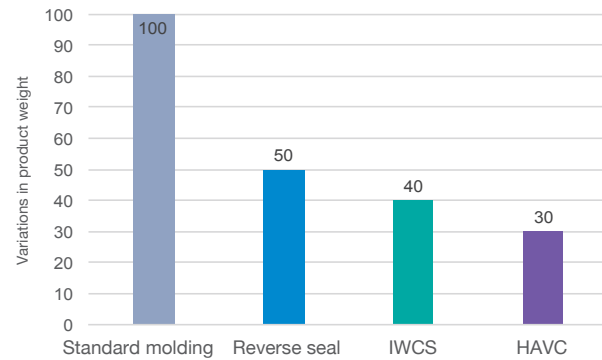
In order to stabilize product weight, the density of molten resin is controlled after recovery.

High Accuracy Volume Control

In order to stabilize product weight, the reverse seal and injection stroke after repressurization are constantly controlled.



Eliminates the gap between the back-flow prevention ring and the pressure plate after reversal



Rich injection unit

*JSW original LSP-2 screw (excludes 300U) and N2000F barrel

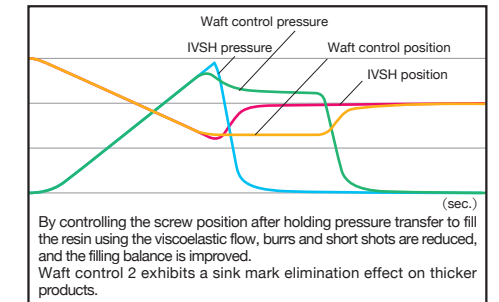
NEW

Clamping	Injection unit type	Screw diameter (mm)	Max. injection pressure (MPa)	Standard unit		High-speed unit (HS)		Extended pressure holding unit (EH)*
				Max. injection speed (mm/s)	Max. injection speed (mm/s)	Max. injection speed (mm/s)	Max. injection speed (mm/s)	
J30ADS	15U	16	276	350	500	250		
		18	218					
		20	177					
J50ADS	30U	20	270	350	500	250		
		22	223					
		25	172					
J80ADS	60U	25	270	350	500	250		
		28	215					
		32	165					
J100ADS	110U	25	320	350	500	250		
		28	300					
		32	270					
		35	225					
		40	172					
J130ADS	180U	35	260	350	500	200		
		40	199					
		45	157					
J180ADS	300U	40	250	240	330	160		
		46	189					
		51	154					

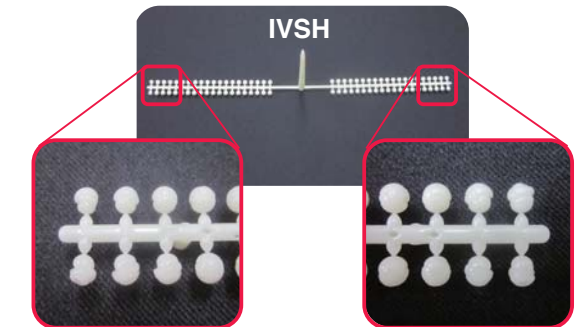
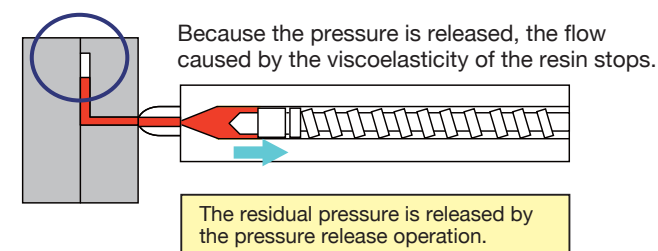
*Please contact us in regards to EH pressure holding times.

Various Holding Pressure Settings

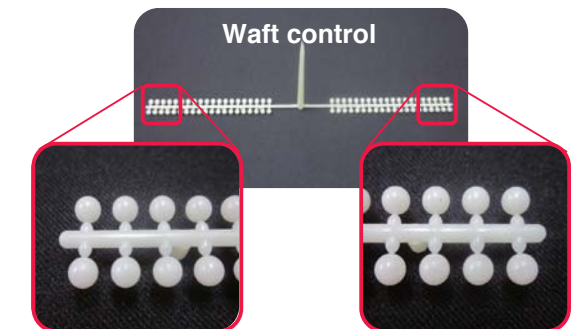
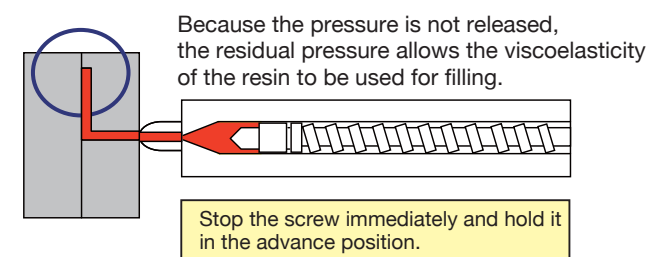
Select mode	Control	Improvements
IVSH	Position changeover	-
IVSL	Speed transfer	Less variation when filling
IPS	Pressure transfer	Less variation when filling
EXT	External signal selection	Pressure within the mold can be controlled (selected) by the user
Waft control 1	Constant control of the cushion position	Flow extension, improvements in filling balance, pressure reduction in the mold, etc.
Waft control 2	Constant control of the cushion position + Pressure holding	Flow extension, improvements in filling balance, pressure reduction in the mold, controlling sink marks, etc.



IVSH



Waft control



By stopping the screw immediately before filling, it is possible to extend the distance of the flow and improve the filling balance.

Variation of screws

JSW original screws correspond to diverse resins and products.

Name	Shape	Purpose
GP21	Single flight	JSW standard screws for use with all general-purpose resins
M7	Double flight	Compatible with both high-cycle molding and high kneading
M2K	Double flight	Used with optical resin (PC, PMMA), polyvinyl chloride resin (H-PVC) molding
HP	Double flight + mixing piece	Reduces color unevenness when using highly concentrated dry colors or master batches
CL	Specially shaped flight	Resin burn reduction
VP	Specially shaped flight	Prevents resin burns, contamination, and gas caused by excessive shearing



Additionally, various other types of screws are available.