ADSales & Service ~Reliable Sales and Service Network~

JADS™ SERIES
Electric Servo Drive Injection Molding Machine

JSW THE JAPAN STEEL WORKS, LTD.

URL http://www.jsw.co.jp/

Division Head Quarter: Gate City Ohsaki-West Tower, 11-1, Osaki 1-chome, Shinagawa-ku, Tokyo 141-0032, Japan
Phone: +81-3-5745-2081
URL http://www.jsw.co.jp/inj_f/inj_index.htm

Japan Steel Works America, Inc.

Head Office: 379 Thornall Street, 5th Floor, Edison, New Jersey 08837, U.S.A.
Phone: +1-212-490-2630
Los Angeles Office: 555 South Promenade Ave., Unit 104, Corona, California 92879, U.S.A.
Phone: +1-951-898-0934
Chicago Office: 540 Capital Drive, Suite 130, Lake Zurich, Illinois 60047, U.S.A.
Phone: +1-847-550-0704
Detroit Office: 24387 Halsted Road Unit B, Farmington Hills, Michigan 48335, U.S.A.
Phone: +1-248-536-0288

The Japan Steel Works (Singapore) Pte. Ltd.

17 Gul Lane 629413 Singapore
Phone: +65-6861-4511

PT. JSW Plastics Machinery Indonesia

Gajah Building Unit K, Jl.Dr.Saharjo No.111 Tebet, Jakarta Selatan 12810 Indonesia
Phone: +62-21-8370-2536

JSW Plastics Machinery (Philippines) Inc.

Unit 2205, 22nd Floor, Asian Star Building, Asean Drive, Filinvest Corporate City, Alabang, Muntinlupa City, 1781 Philippines
Phone: +63-2-478-2533

JSW Plastics Machinery (M) SDN. BHD.

D11-11-G, Pusat Perdagangan Dana 1,Jalan PJU 1A/46, 47301, Petaling Jaya, Selangor, Malaysia
Phone: +60-3-7842-6076

The Japan Steel Works (Thailand) Co., Ltd.

78/6 JST Building 4th Floor, Moo 7 King Kaew Road, Rachatewa, Bangplee, Samutprakarn 10540 Thailand
Phone: +66-2-738-5272

JSW Plastics Machinery Vietnam Ltd.

Hanoi Head Office: Room103, Techno-Center, Thang Long Industrial Park, Kim Chung Commune, Dong Anh District, Hanoi, Vietnam
Phone: +84-24-3951-6383
Ho Chi Minh Office: Ground Floor, DC Tower, 111D Ly Chinh Thang, Ward 7, District 3, HCC, Vietnam
Phone: +84-28-3526-1295

JSW Plastics Machinery (H.K.) Co., Ltd.

Room 907, Corporation Park, 11 On Lai Street, Shatin N.T., Hong Kong
Phone: +852-2648-0720

JSW Injection Machine Maintenance (Shenzhen) Co., Ltd.

1F, YiBen Electronic & Business Industrial Park, No.1063 Chaguang Road, Xili Town, Nanshan District, Shenzhen City,Guangdong Province, 518055, People's Repubulic of China
Phone: +86-755-8602-0930

JSW Machinery Trading (Shanghai) Co., Ltd.

28A, Strength Plaza, No.600-4, Tianshan Road, Shanghai, 200051, People's Republic of China
Phone: +86-21-5206-7031

JSW Plastics Machinery (TAIWAN) Corp.

Head Office: 1F., No.21, Dahu 1st Road, Gueishan Dist., Taoyuan City, 33373 Taiwan, R.O.C.
Phone: +886-3-396-2102
Tainan Office: 15F.,-7, No.689-78, Xiaodong Road, Yongkang Dist., Tainan City, 71052 Taiwan, R.O.C.
Phone: +886-6-311-4192

Japan Steel Works India Private Limited

611, Time Tower, MG Rood, Sector 28, Gurgaon, Haryana, 122001, India
Phone: +91-124-469-4444

Printed in Japan HO,AH,AJ,BJ,C

JADS™ SERIES

Electric Servo Drive Injection Molding Machine

Model

J30ADS | J50ADS | J80ADS | J100ADS | J130ADS | J180ADS

Made in HIROSHIMA

JSW

CERTIFIED JQA MANAGEMENT SYSTEM
ISO 9001
ISO 14001

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.

JADS™ SERIES
Electric Servo Drive Injection Molding Machine

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 ~

*S*atisfaction
Satisfy all your Requirements
Energy Savings・Preventative Maintenance
・Customized I/O Function・Molding Support

*S*mart
New Control System SYSCOM5000*i*
Operation Process Display (Visualization)
・Multi-Touch Operation Lever・NET100 Sytem (optional)

*S*trong
High rigidity Clamping Unit ・Clamping Control
Increased loading size molds・High accuracy of molds protection Flat Platen Press

*S*table
High Accuracy Injection・Recovery control and flexibility
Wide selections of injection modules・Variations of Scews Various Holding Pressure

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

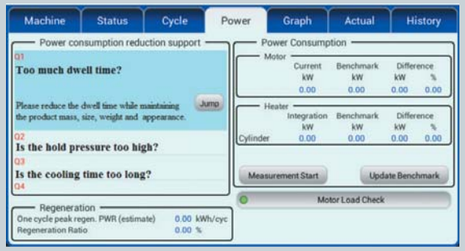
Fulfill All Your Requirements

Management

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

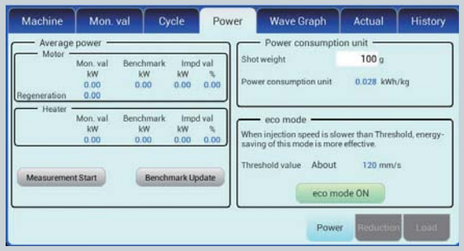
Energy Savings

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



Eco mode

Reduces power consumption in addition to insuring efficient molding conditions.



Manufacturing

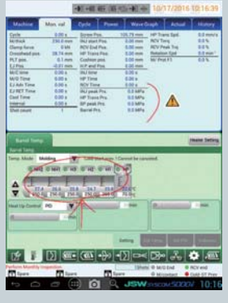
Reduces operator work load to create higher added value.

Memo of molding conditions

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

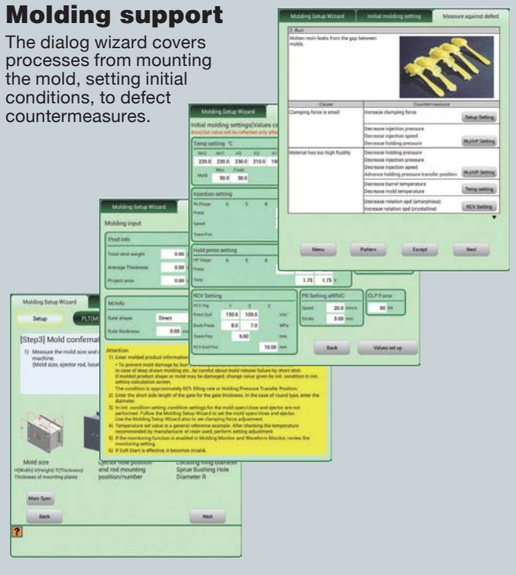
Screen shots · Hand written memos

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

Maintenance

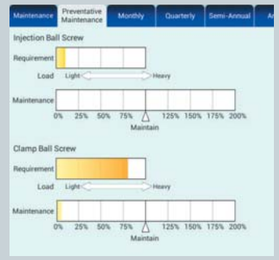
Preventative maintenance・Predictive maintenance function to reduce downtime

Preventative maitenance

Automatically notifies you when to perform regular inspections

Predictive maintenance

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



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.

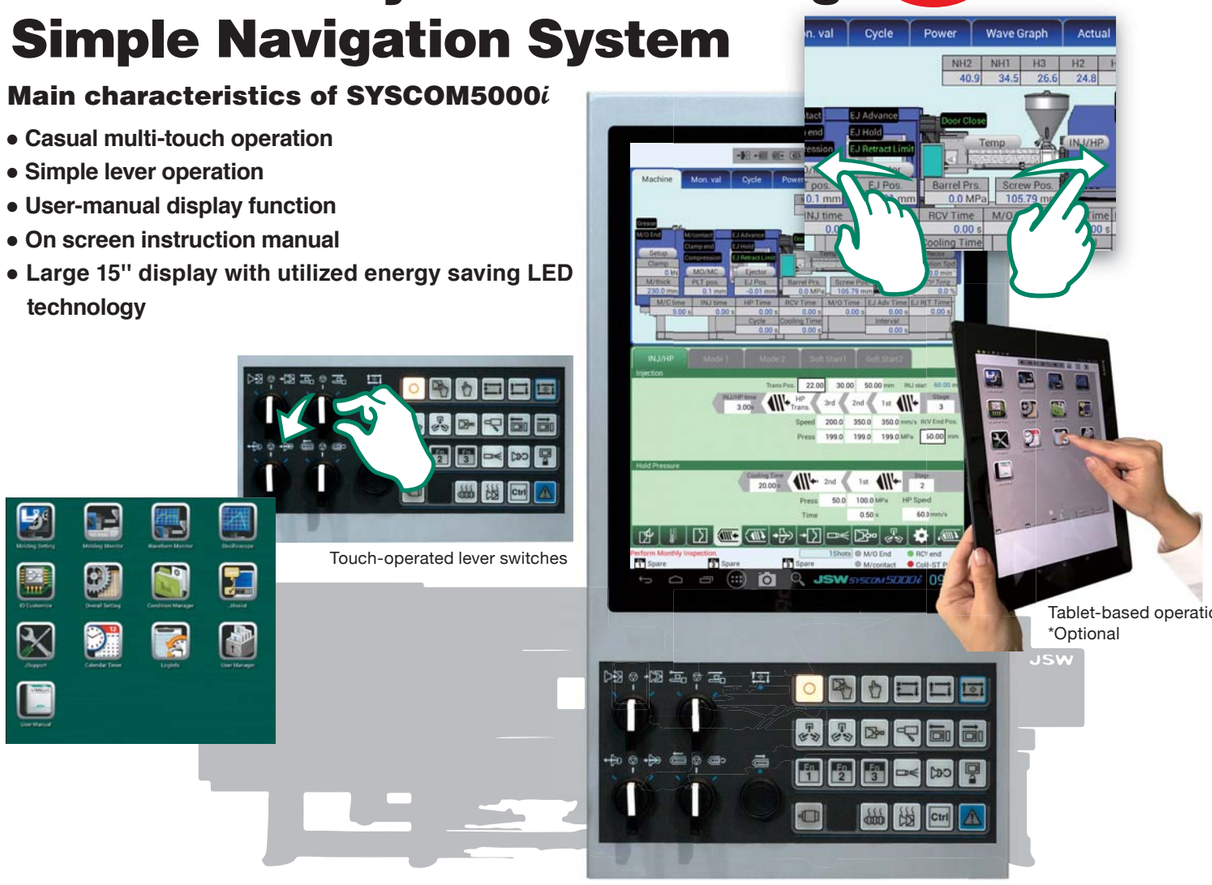
New controller SYSCOM5000*i*

Functions Fully Realized through Simple Navigation System

NEW

Main characteristics of SYSCOM5000*i*

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



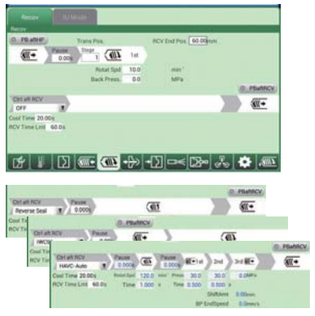
Touch-operated lever switches

Tablet-based operation
*Optional

User-friendly screen configuration

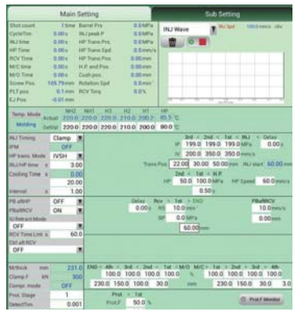
Operation process display

Visual or list display for every molding process



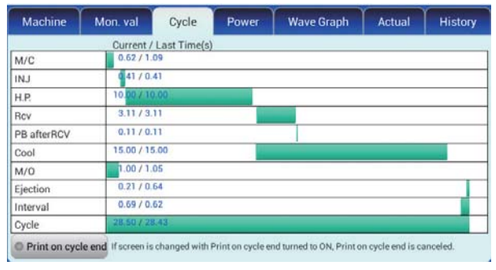
Collective setting display

Molding conditions can be set without navigating numerous pages.



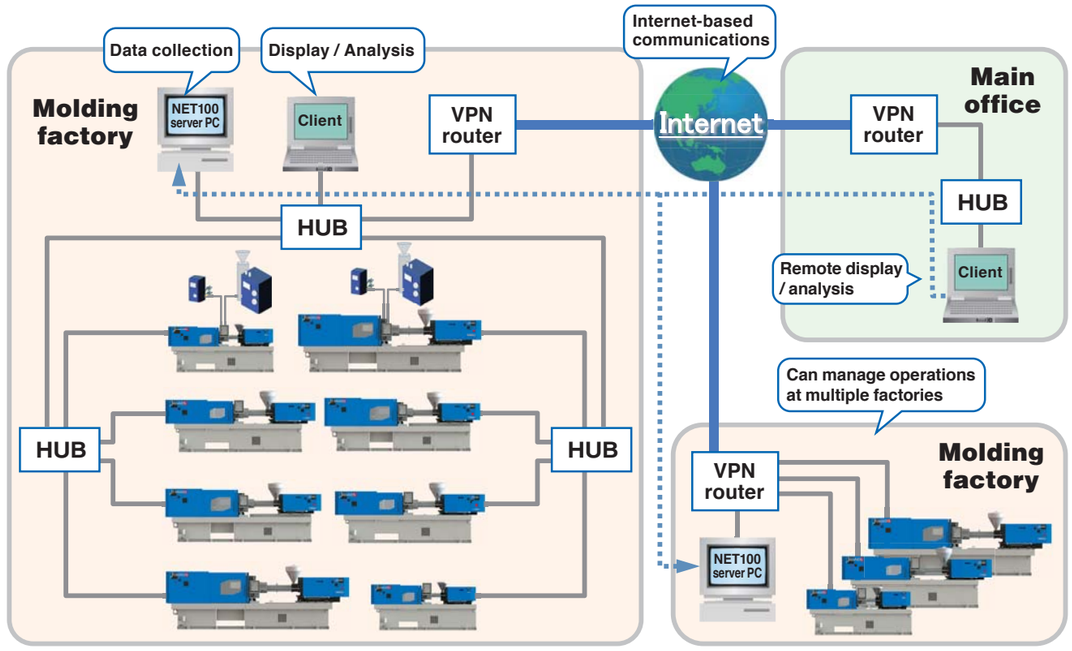
Cycle moniter

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

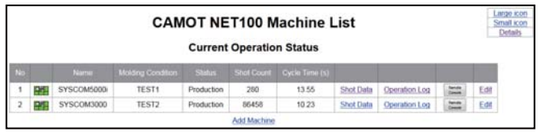


NET100 System (Optional)

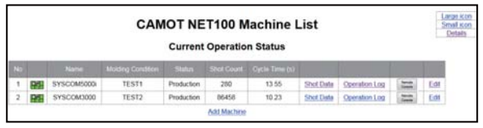
Moving towards the next frontier of IoT with JSW Injection Molding Machine



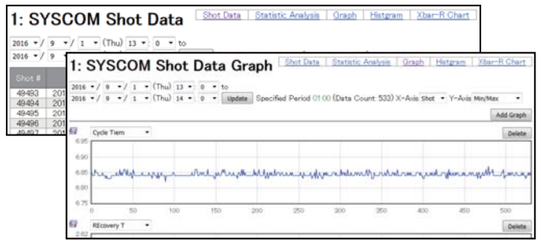
Observation of operation status



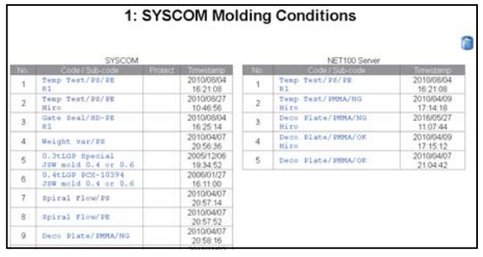
Display and operation of the controller screen



Analysis of measured values



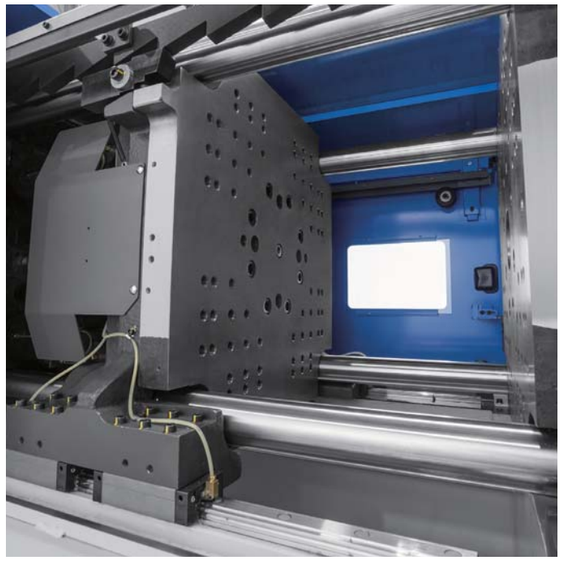
Display and management of molding conditions



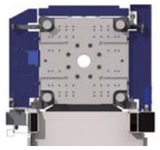
Innovated High rigidity clamping unit・Clamping control

Clamping unit for variety of molds NEW

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



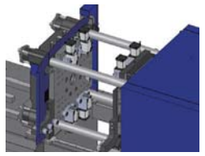
Uses a high-precision linear guide with low friction which contributes to energy saving and high cycles



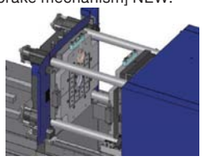
Platens are compatible with flexible processing (E.g.: T-groove)

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 DSI molding technology

*Images include optional components.

Uniformity of the clamping force " Flat press platen"

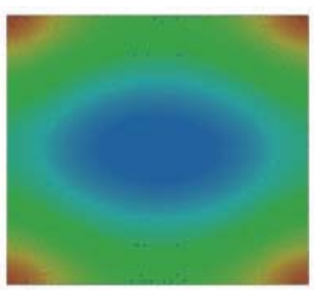
- **Realized further uniformity of mold furface distribution through High rigidity clamping unit**
  【Product: Improved dimensional precision. Fin suppression 】
  【Mold: Extension of mold life cycle, mold design・Improved degrees of freedom for equipment】

Excellent accuracy of platen surface, uniform mold parting surface pressure

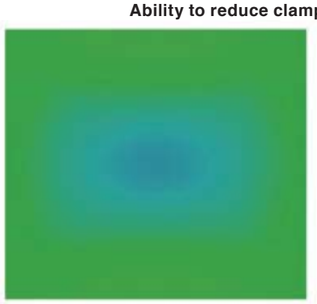
100 t class conventional machines

J100ADS

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



With burr



Without burr

The uniform surface pressure inhibits burrs and deviations in thickness.

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

New mold protection function NEW

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

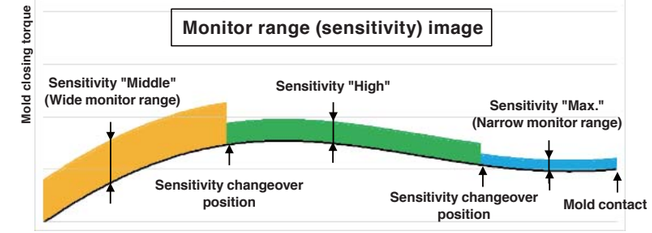
- Mold protection multi-stage settings [compatible with various mold structures]
- A high degree of safety through simple settings
- Ability to track mold temperature changes

Before testing ADS Conventional machine

<Settings>

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

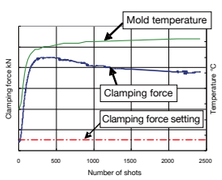
Monitor range (sensitivity) image



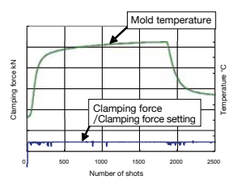
laten position (Mold close) Base mold closing torque waveform

Clamping Force Feedback Control *Recommended option

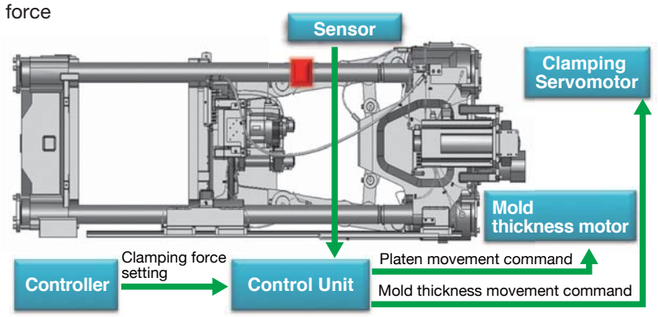
- "Visualization" of actual clamping force through toggle type machine
  Clamping force fluctuations reduced based on temperature changes in the mold
- "Improvement of product quality" due to the stability of outgassing
  Load reduction of mold maintenance
- "Long life cycle" of the mold by the optimum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



Clamping force increases as mold temperature increases



Clamping force remains stable without influence from the rising mold temperature



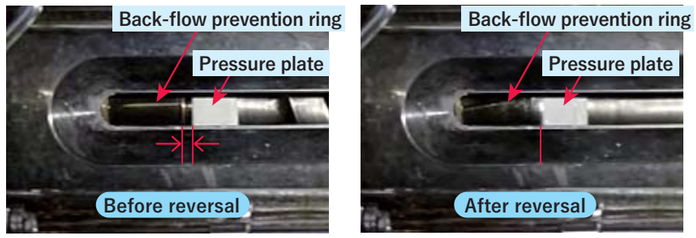
Original High Accuracy Injection / Recovery Control and Flexibility

JSW's Original High Accuracy Volume Control

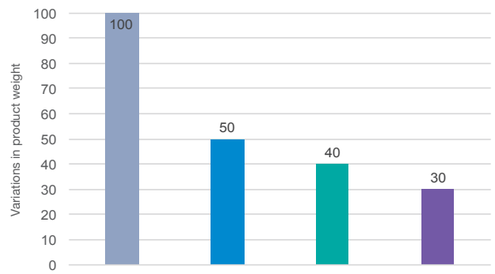
Reverse Seal Control
The screw is reversed after recovery ends to help the back-flow prevention ring close and to inhibit drooling.

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**

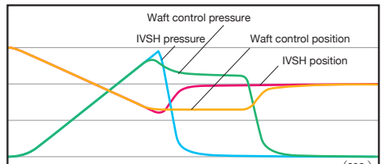
NEW

Clamping	Injection unit type	Screw diameter (mm)	Max. injection pressure (MPa)	Standard unit Max. injection speed (mm/s)	High-speed unit (HS) Max. injection speed (mm/s)	Extended pressure holding unit (EH)* 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.

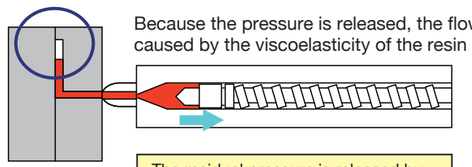
Various Holding Pressure Settings

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.



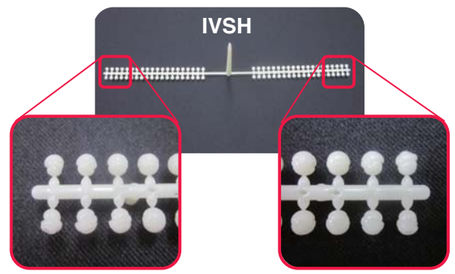
By controlling the screw position after holding pressure transfer to fill the resin using the viscoelastic flow, burrs and short shots are reduced, and the filling balance is improved.
Waft control 2 exhibits a sink mark elimination effect on thicker products.

IVSH

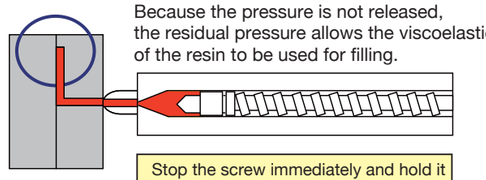


Because the pressure is released, the flow caused by the viscoelasticity of the resin stops.

The residual pressure is released by the pressure release operation.

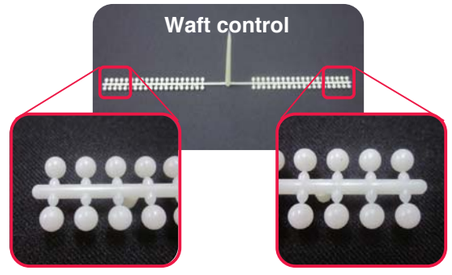


Waft control



Because the pressure is not released, the residual pressure allows the viscoelasticity of the resin to be used for filling.

Stop the screw immediately and hold it in the advance position.



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.