

Global Network



Sumitomo Heavy Industries, Ltd.
Industrial Machinery Segment, Plastics Machinery Div.

TOKYO	Sumitomo Heavy Industries, Ltd. Industrial Machinery Segment, Plastics Machinery Div., Global Sales Dept.	Tel: +81-3-6737-2576
CHIBA	Sumitomo Heavy Industries, Ltd. Chiba Works / Technology Center	Tel: +81-43-420-1471
U.S.A.	Sumitomo (SHI) Demag Plastics Machinery North America, Inc. Atlanta Office / Technology Center	Tel: +1-770-447-5430
	Sumitomo (SHI) Demag Plastics Machinery North America, Inc. Cleveland Office	Tel: +1-440-876-8960
	Sumitomo (SHI) Demag Plastics Machinery North America, Inc. Chicago Office / Facility and Tech Center	Tel: +1-847-947-9569
	Sumitomo (SHI) Demag Plastics Machinery North America, Inc. Anaheim Office / Training and Demo Center	
MEXICO	SHI Plastics Machinery de Mexico, S.A. DE. C.V. Monterrey Office	Tel: +52-81-8356-1714, -1720, -1726
	SHI Plastics Machinery de Mexico, S.A. DE. C.V. Leon Office	Tel: +52-477-179-1730
BRAZIL	Sumitomo (SHI) Demag do Brasil Comercio de Máquinas para Plásticos Ltda.	Tel: +55-11-4403-9286
GERMANY	Sumitomo (SHI) Demag Plastics Machinery GmbH (Schwaig)	Tel: +49-911-5061-0
	Sumitomo (SHI) Demag Plastics Machinery GmbH (Roßleben-Wiehe)	Tel: +49-34672-97-0
UNITED KINGDOM	Sumitomo (SHI) Demag Plastics Machinery (UK) Ltd.	Tel: +44-1296-739-500
FRANCE	Sumitomo (SHI) Demag Plastics Machinery (France) S.A.S.	Tel: +33-1-60-33-20-10
SPAIN/PORTUGAL	Sumitomo (SHI) Demag Plastics Machinery España	Tel: +34-96-111-63-11
POLAND	Sumitomo (SHI) Demag Plastics Machinery Polska Sp. z o.o.	Tel: +48-34-370-95-40
AUSTRIA	Sumitomo (SHI) Demag Plastics Machinery GmbH (Branch Austria)	Tel: +43-664-2311357
HUNGARY	Sumitomo (SHI) Demag Plastics Machinery Hungária Kft	Tel: +36-70-332-7869
ITALY	Sumitomo (SHI) Demag Plastics Machinery (Italia)	Tel: +39-011-95-95-057
RUSSIA	JSC Sumitomo (SHI) Demag Plastics Machinery	Tel: +7-495-937-97-64
CZECH/SLOVAKIA	Sumitomo (SHI) Demag Plastics Machinery Česko spol. s r.o.	Tel: +420-296-226-210
IRELAND	Sumitomo (SHI) Demag Plastics Machinery Ltd.	Tel: +353-86-8254731
SHANGHAI	Sumitomo (SHI) Plastics Machinery (Shanghai) Co., Ltd.	Tel: +86-21-3462-7556
DALIAN	Sumitomo (SHI) Plastics Machinery (Shanghai) Co., Ltd. Dalian Office	Tel: +86-411-8764-8052
TIANJIN	Sumitomo (SHI) Plastics Machinery (Shanghai) Co., Ltd. Tianjin Office	Tel: +86-22-5871-5537
SUZHOU	Sumitomo (SHI) Plastics Machinery (Shanghai) Co., Ltd. Suzhou Office / Technical Center	Tel: +86-512-6632-1760
NINGBO	Ningbo Sumiju Machinery, Ltd.	Tel: +86-574-2689-0162
	Demag Plastics Machinery (Ningbo) Co., Ltd.	Tel: +86-574-2690-6600
DONGGUAN	Sumitomo (SHI) Plastics Machinery (Shanghai) Co., Ltd. Dongguan Branch / Technical Center	Tel: +86-769-8533-6071
TAIWAN	SHI Plastics Machinery (Taiwan) Inc.	Tel: +886-2-2831-4500
	SHI Plastics Machinery (Taiwan) Inc. Taichung Office	Tel: +886-4-2358-7334
KOREA	SHI Plastics Machinery (Korea) Co., Ltd.	Tel: +82-2-757-8656
	SHI Plastics Machinery (Korea) Co., Ltd. Southern Office	
SINGAPORE	SHI Plastics Machinery (S) Pte., Ltd. / Technology Center	Tel: +65-6779-7544
THAILAND	SHI Plastics Machinery (Thailand) Ltd. / Technology Center	Tel: +66-2-747-4053, -4054, -4055, -4056
	SHI Plastics Machinery (Thailand) Ltd. South Office	
MALAYSIA	SHI Plastics Machinery (Malaysia) SDN BHD	Tel: +60-3-7958-2079, -2081
	SHI Plastics Machinery (Malaysia) SDN BHD Penang Office	Tel: +60-4-604-397-5725
VIETNAM	SHI Plastics Machinery (Vietnam) LLC	Tel: +84-24-3728-0105
	SHI Plastics Machinery (Vietnam) LLC Ho Chi Minh Branch	Tel: +84-8-3514-6645
INDONESIA	PT. SHI Plastics Machinery (Indonesia)	Tel: +62-21-829-3872, -3873
PHILIPPINES	SHI Plastics Machinery (Phils) Inc.	Tel: +63-2-8845-0877, -8844-0632
INDIA	SHI Plastics Machinery (India) Private Ltd.	Tel: +91-124-2217056, -64
	SHI Plastics Machinery (India) Private Ltd. Chennai Office	Tel: +91-124-2217056, -64

SE-EV-S-LGP
All-electric Injection Molding Machine for LGP



SE-EV-S-LGP

All-electric Injection Molding Machine for LGP



The machines in this series have acquired JIS B 6711:2021 (equivalent to ISO 20430:2020) certification.

We support the enhancement of our customers' corporate value through providing high performance, high quality, and safe injection molding machines.

Lineup

SE180EV-S-LGP (1800kN)

SE315EV-S-LGP (3150kN)

www.shi.co.jp/plastics/



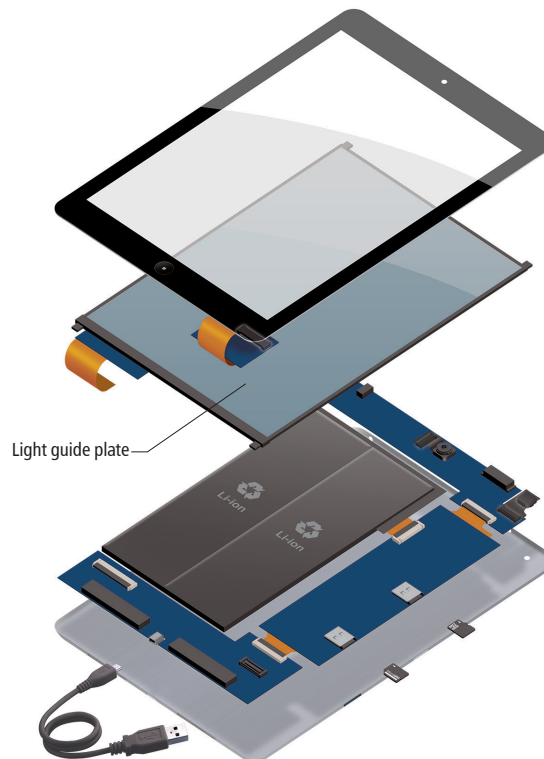
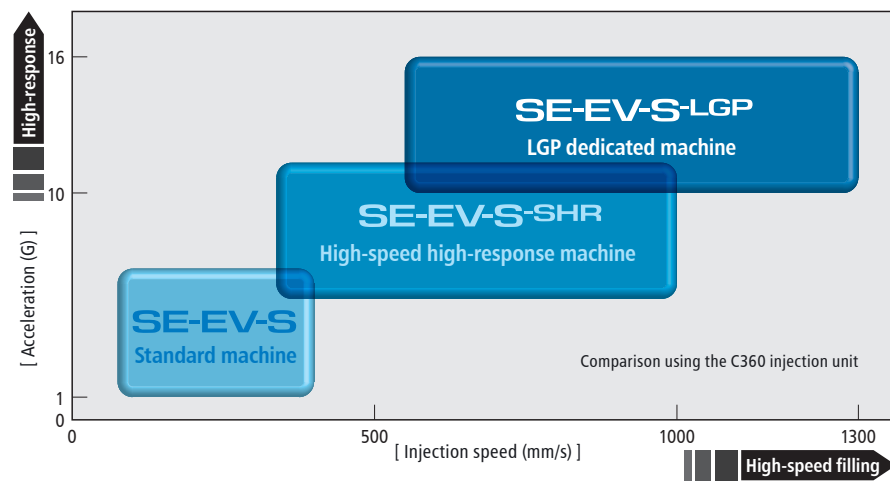
Ultra high speed and high response filling that opens up the possibilities of molding



A new area of thin-wall molding

Enabling ultra thin-walled products

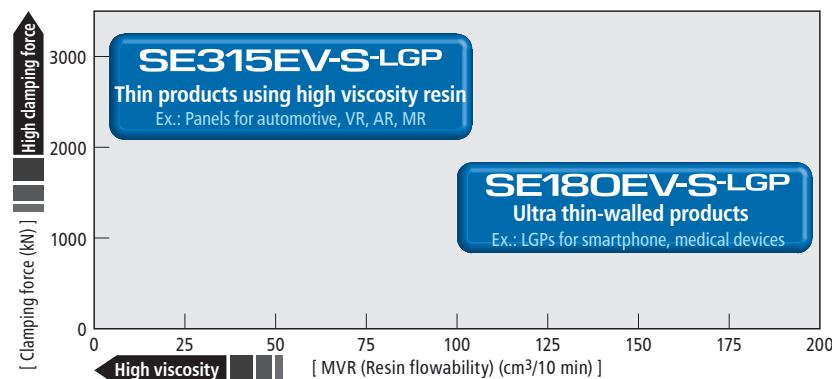
With the increasing performance in smaller and lighter mobile, VR/AR, medical, automotive and other devices has fueled the need for thinner plastic parts. The SE-EV-S-LGP is a special series newly developed based on our flagship SE-EV-S and SE-EV-S-HD series, which allows to support this trend towards thinner and ultra-thin wall molding.



Compatible with high-viscosity resins

Two models to meet the needs

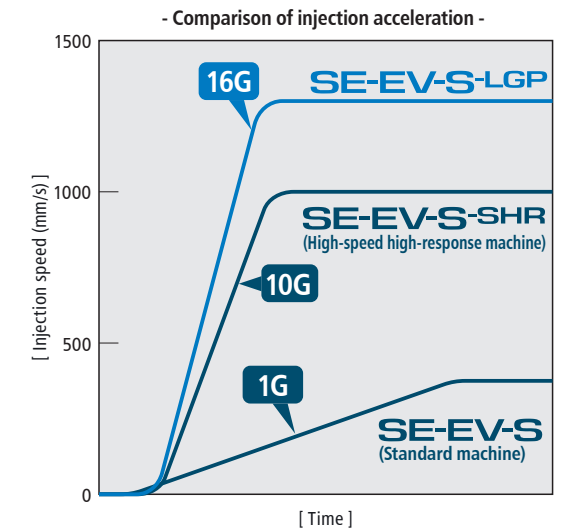
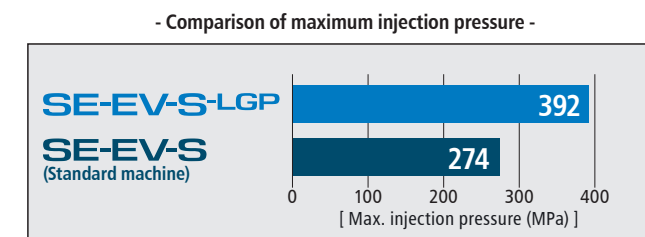
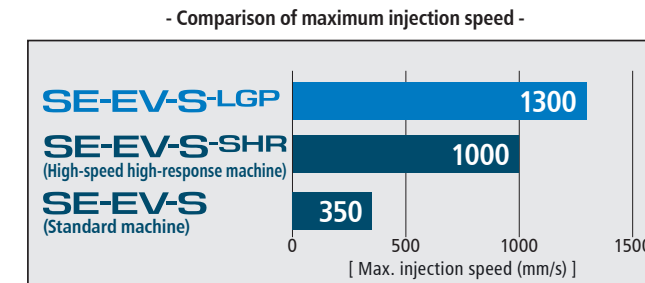
The SE-EV-S-LGP series equipped with ultra high speed/high response injection unit and high response compression unit, features two models of 1,800 kN class machine that supports ultra-thin molding and a more powerful 3,150 kN class machine with increased clamp force to allow thin-molding using high viscosity resins.



Solutions for difficult molding

Outstanding speed, responsiveness and injection pressure

A newly developed injection unit and screw assembly enable filling with unprecedented speed and responsivity, and high injection pressures. Precision and stability can be achieved even when molding ultra thin products and thin-walled products using high viscosity resins.

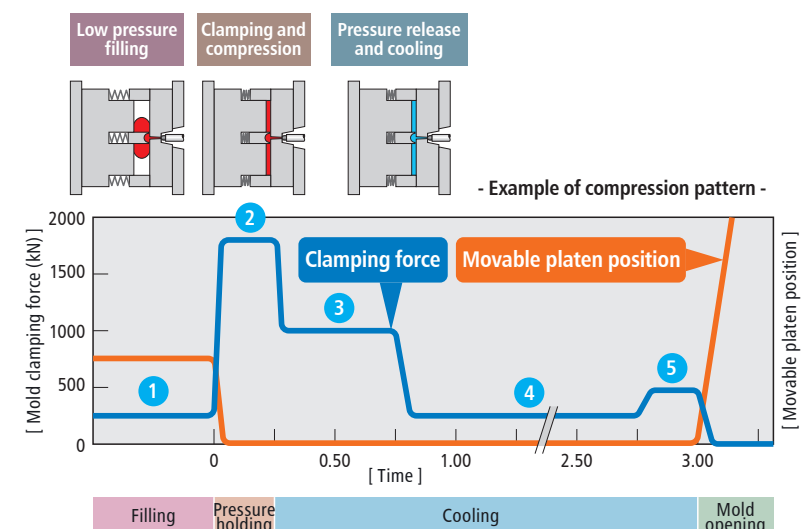
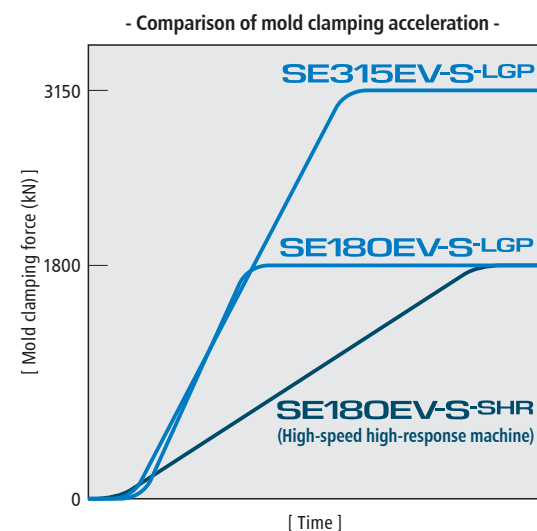


Ready to handle large products and high viscosity resins

High-response compression unit

Mold clamping force and pressure rise/release speed during cavity filling, pressure holding, and mold cooling are controlled by multistage according to the thickness and shape of products and the type of resin used. Large products are evenly filled as well, which reduces residual stress and birefringence, prevents warping and deformation, and improves releasability.

Optional for SE315EV-S-LGP

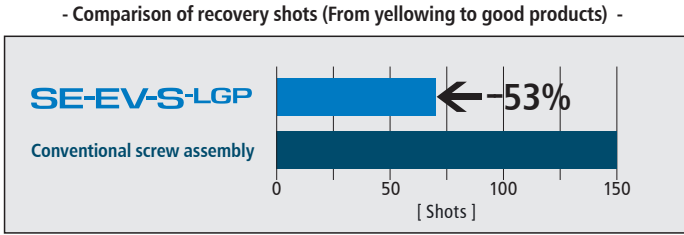
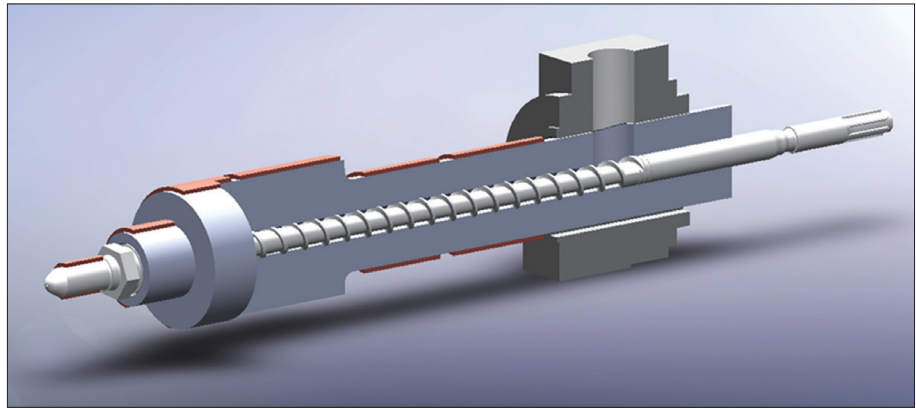


Compression start		1	2	3	4	5
Start injection	Mode	Pos.	C.F.	C.F.	Pos.	C.F.
Platen pos	0.000 mm	0.400	1800	1000	0.400	500
X head pos	0.000 mm	0.050	0.250	0.500	2.250	OFF
Keep time			Max	80.0	50.0	30.0
Move vel.						

Yellowing prevention solution 1

Screw assembly for LGP

By adopting the screw with a small internal volume, residence time is reduced so that yellowing of transparent resin due to retention is suppressed. Moreover, the optical surface treatment is applied to the inside of cylinder, which improves resin releasability and prevents decomposition caused by reactions with steel.

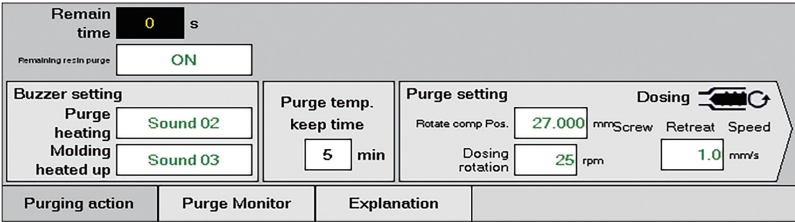


Because the resin can be easily replaced, less resin used in purging.

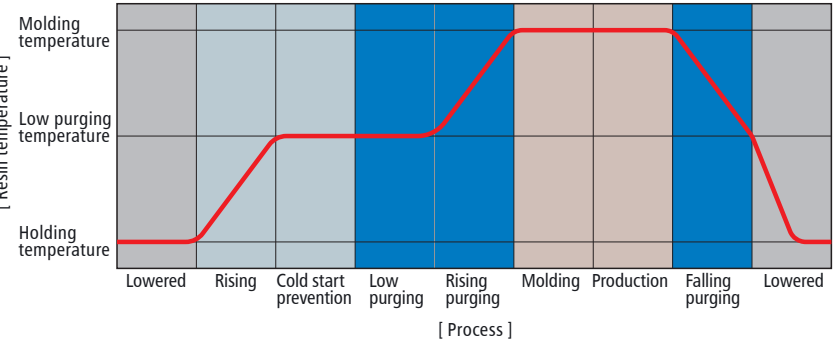
Yellowing prevention solution 2

Melt retention prevention purging

This machine is equipped with a purging feature that prevents burning and yellowing during temperature rise and fall. Purge conditions during temperature changes can be set to prevent resin from remaining in the screw assembly at any point of production from the setup and first shot to finish.



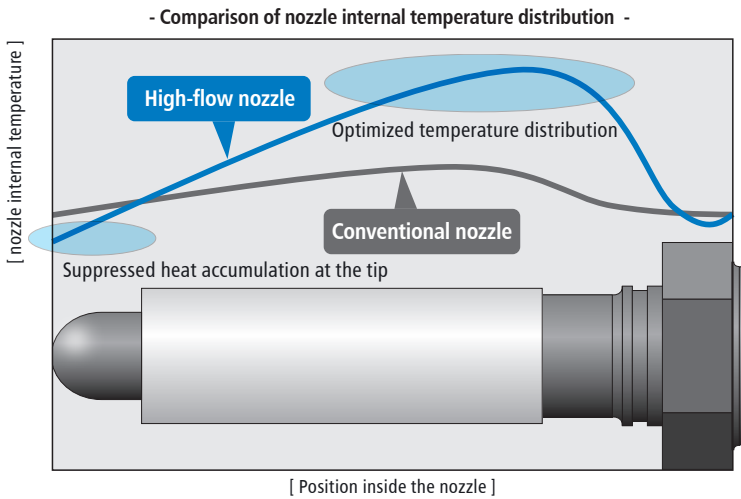
- Melt retention prevention purging -



Optimizing nozzle temperature distribution

High-flow nozzle

Temperature distribution inside the nozzle is optimized to lower the viscosity of melt, which effectively improves cavity filling, prevents flashes and stringiness, and reduces residual stress. This special nozzle is ideal for thin optical parts.



Main Specifications

Item	Unit	SE180EV-S-LGP	SE315EV-S-LGP
■ Clamping unit			
Clamping system		Double toggle (5 points)	Double toggle (5 points)
Clamping force (max.)	kN	1800	3150
Clearance between tie-bars (H x V)	mm	560 x 560	730 x 730
Platen size (H x V)	mm	800 x 795	1020 x 1020
Daylight	mm	815	1325
(Mold height extension 100 mm)		—	(1425)
Mold opening stroke	mm	315	675
Platen speed max.	mm/s	1200	1394
Mold height (min. - max.)	mm	200 - 500	300 - 650
(Mold height extension 100 mm)		—	(300 - 750)
Locating hole diameter	mm	φ60	φ100
Ejector system (ejecting points)		Motor driven type (5 points)	Motor driven type (13 points)
Ejector ejection force	kN	45	60
(Ejection force enhancement spec)		—	(100)
Ejector speed (max.)	mm/s	333	267
Ejector stroke	mm	90	220

■ Injection unit

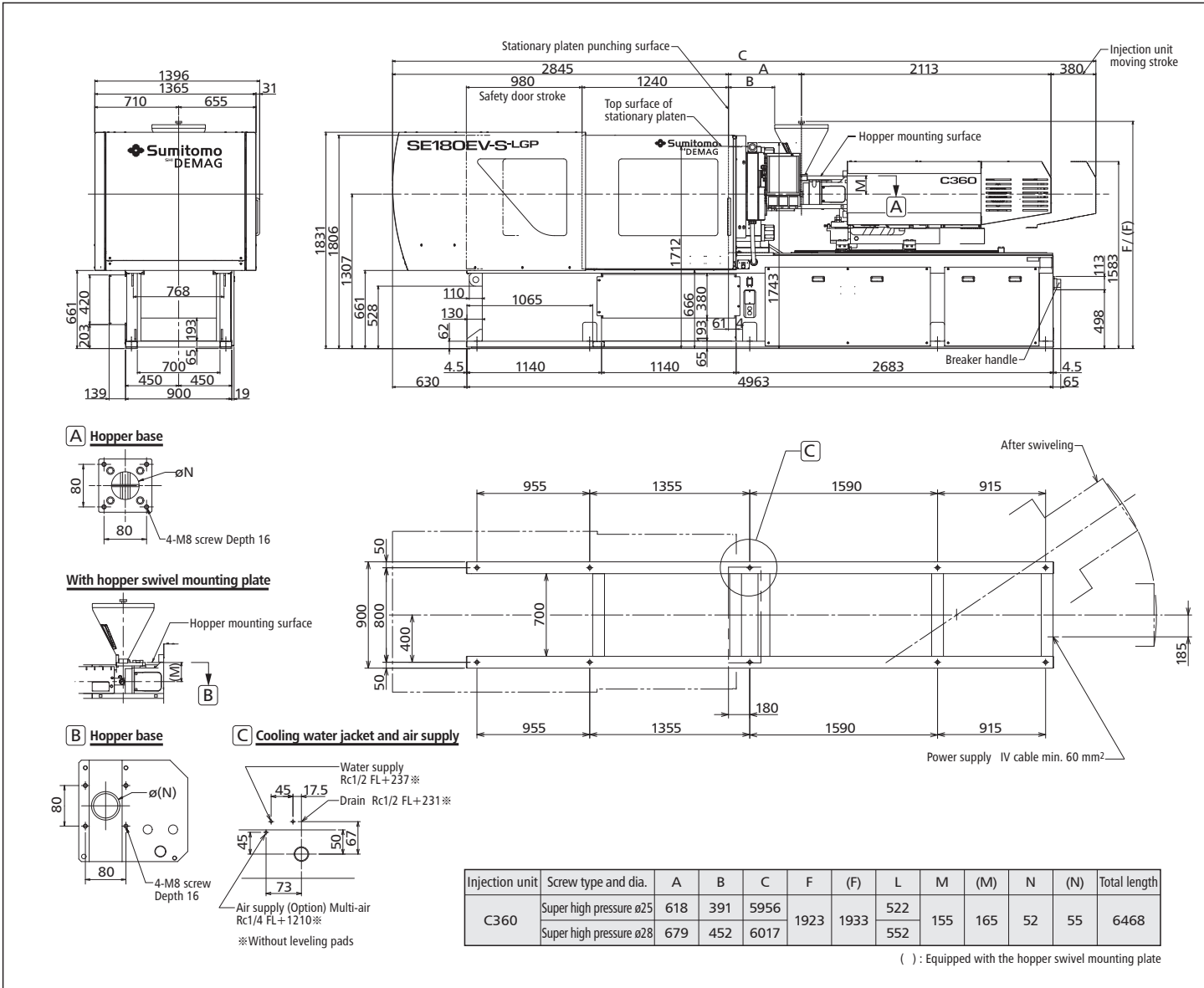
		C360		C360	
		M		M	
Screw diameter	mm	25	28	25	28
Screw type		Super high pressure		Super high pressure	
Injection pressure (max.) *1,*2	MPa	392	343	392	343
Holding pressure (max.) *1,*2	MPa	301	240	301	240
Theoretical injection capacity	cm ³	49	61	49	61
Injection weight (GPPS)	g	47	59	47	59
Plasticizing rate *3	kg/h	18	26	18	26
Injection rate	cm ³ /s	638	800	638	800
Screw stroke	mm	100		100	
Injection speed (max.)	mm/s	1300		1300	
Screw speed (max.)	min ⁻¹	400		400	
Number of temperature control zone		5		5	
Heater capacity	kW	6.4	7.2	6.4	7.2
Nozzle contact force	kN	43		43	

■ Machine dimensions and weight

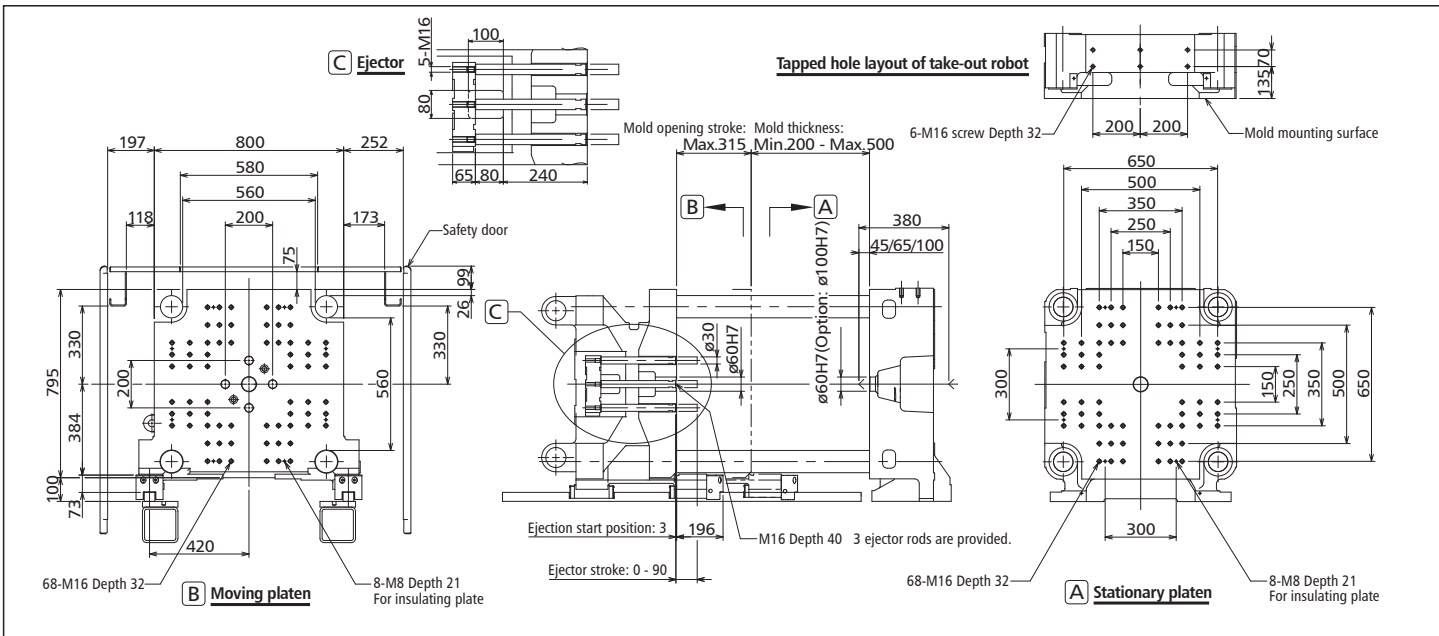
Machine dimensions (L x W x H) *4	mm	5658 x 1396 x 1831	7336 x 1972 x 2102
(Mold height extension 100 mm)		—	(7436 x 1972 x 2102)
(Dust prevention cover above toggle (fixed type))		—	(7336 x 1972 x 2145)
(Dust prevention cover above toggle (slide type))		—	(7336 x 1972 x 2285)
(Safety door wide expansion)		—	(7336 x 2072 x 2102)
(High response compression molding for LGP)		—	(7676 x 1972 x 2102)
Machine weight	t	7.1	13.0

*1 The max. injection pressure and max. hold pressure are calculated values and represent machine output, not resin pressure.
*2 The max. injection pressure and max. hold pressure are not sustained pressure levels.
*3 The plasticizing rate is given for a machine mounted with the SD Screw.
*4 The total length of the machine is to the front end of the injection unit when mounting the screw of the smallest diameter.
The total height of the machine does not include the dimensions of leveling pads and hopper.
● Specifications are subject to change without notice for performance improvement.
● Standard specification models of the SE-EV-S-LGP series comply with the safety standards of Japan, China and the nations of Southeast Asia.
They can also be modified to comply with the safety standards of Korea (KCs Mark), USA, Brazil, the nations of Oceania and Canada. For more information, contact us.

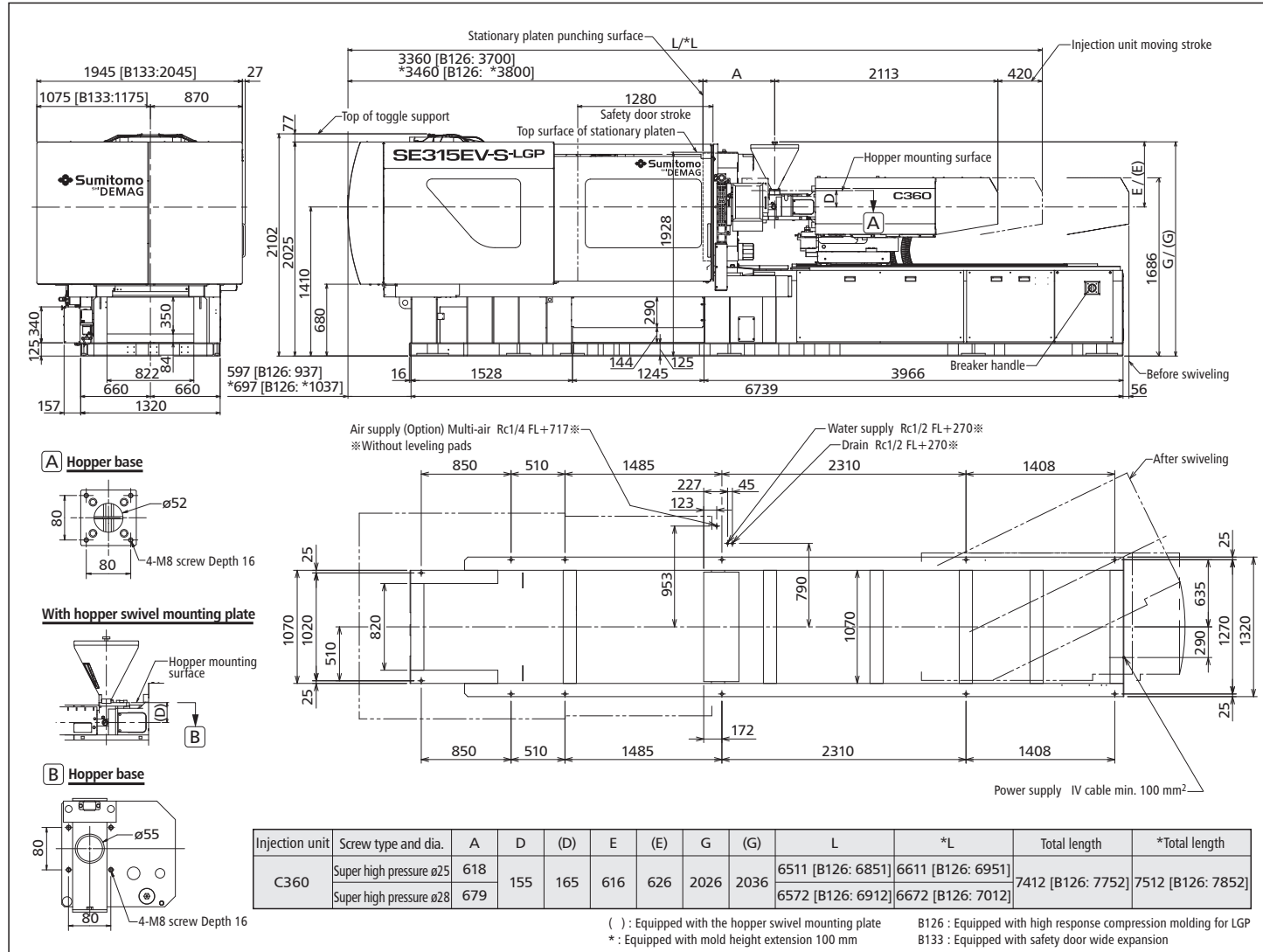
SE180EV-S-LGP Dimensions and Foundation Plan ●The dimensions of each part are for Japan.



SE180EV-S-LGP Dimensions of Platens ● This drawing complies with JIS B 6701.



SE315EV-S-LGP Dimensions and Foundation Plan ● The dimensions of each part are for Japan.



SE315EV-S-LGP Dimensions of Platens ● This drawing complies with JIS B 6701.

