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Injection Molding Machine

Our products have acquired ISO9001 certification.

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Injection Molding Machine

Your total packaging solutions!

Sumitomo Heavy Industries, Ltd.

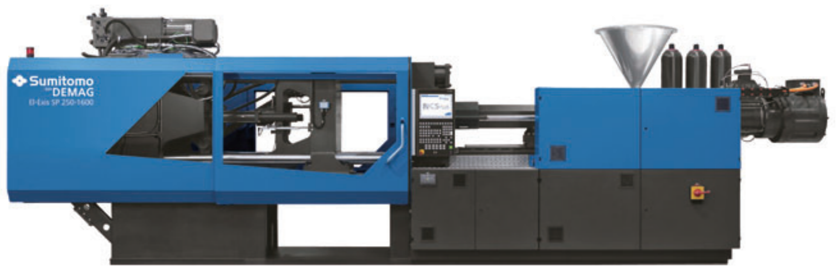
To meet high demand of packaging products.

Fast, precise, reliable
Injection tailored to fit the production environment

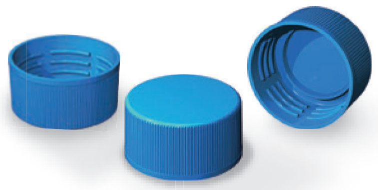
By studying of feedback from production-site, We challenged in development of packaging machine that incorporate cutting-edge ideas and highly reliable technology.
Packaging machine developed to ideally suit the production environment.

Cycle Time

Short



El-Exis SP.



Bottle cap

SE-HSZ Packaging spec.

Detailed molds → P08

Drinking cups

SE-HSZ Standard spec.

Detailed molds → P10

Thin-walled containers

New!

SE-EV-A-HD CT-6 spec.

Detailed molds → P12

General use and containers · Cutlery

SE-EV-A-HD Standard spec.

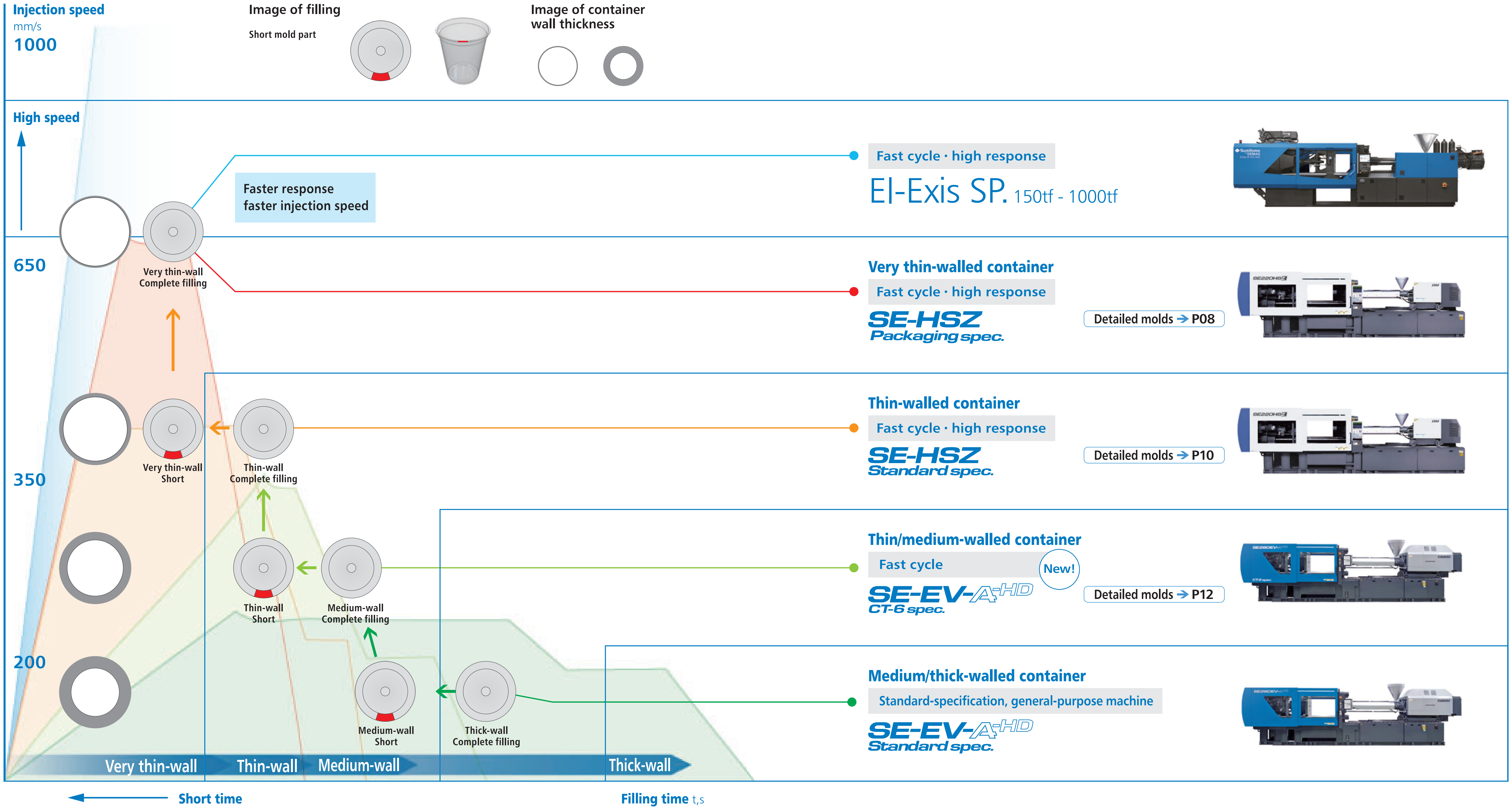
Thick-walled containers
Cosmetic containers

Machine Series

Injection performance ideal for container molding

Molding machines available to suit product needs

Products that requires fast filling and startup response (high response).
High injection speed and pressure response, allows complete fill before molded parts solidify.
Each model is tailored to work at its ideal injection performance to match each product segment.



Container molding machine specially designed to fulfill customer needs

Fast cycle, high response, stable: the performance demanded by professionals.
A varierty of needs and applications, with provened technology.
A line-up of products to fulfill specific demands.

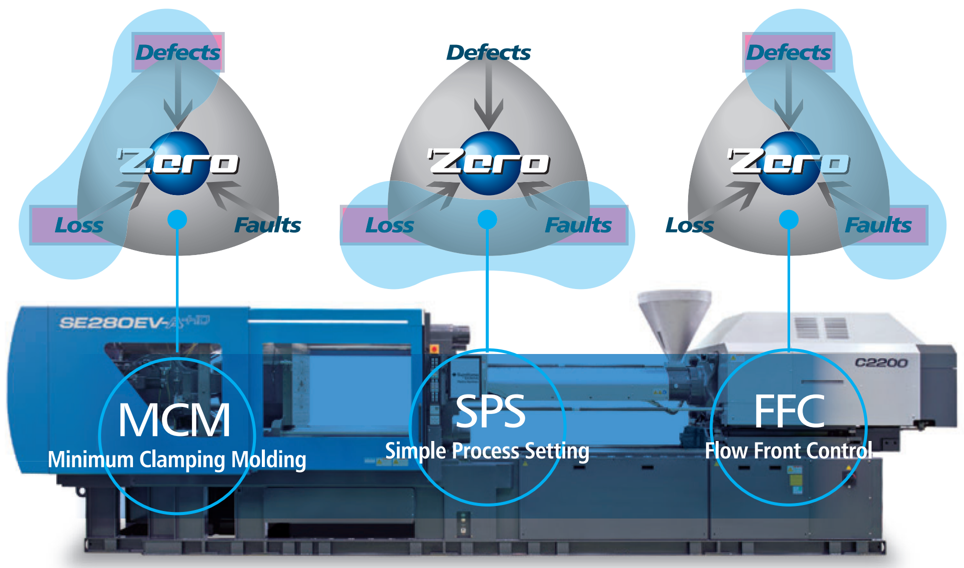
3 key features

1. Productivity (high cycle and high durability)
2. Stability and reproducibility (improved yield)
3. Optimized production costs (line-up of energy-saving models)

Zero-molding function good for container molding

Zero-molding is an application to bring defects, losses, and faults to target zero. It is composed of three factors: MCM technology for mold clamping, FFC technology for filling, and an SPS system that enables both of the above to be operated with ease.

For container molding, this contributes to realize optimal cavity balance and reduce mold clamping force.

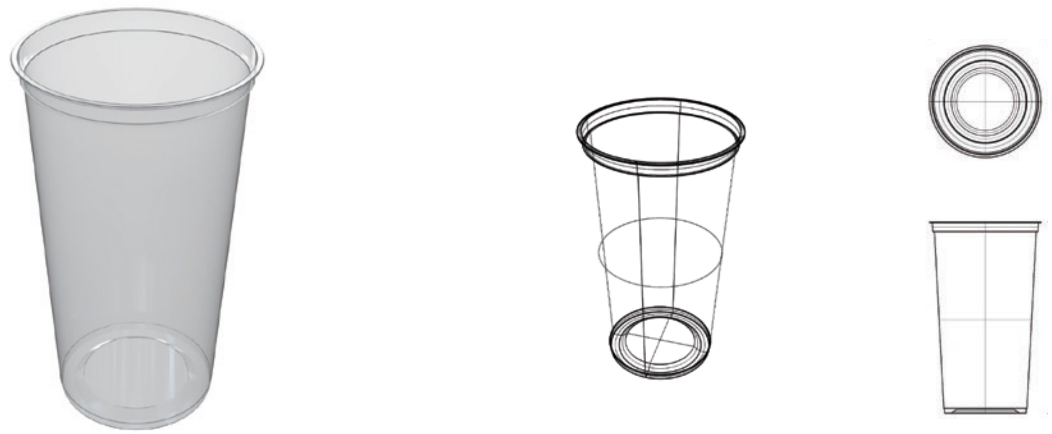


These three technologies cut down defect, loss, and faults to almost zero

Molding machine available to best match product design and also capacity of production.

As such, it differs not only based on the wall thickness and shape of the container, but also the production volume and projected cost.
The following is an illustration of an actual recommended molding machine example. We offer the ideal molding machine to fit your specific needs.

Drinking cup —— Example of machine selection with different injection rates

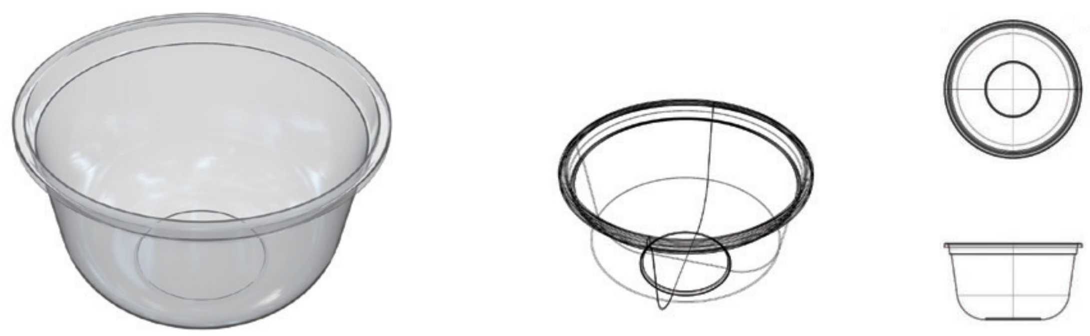


Data

Thickness	0.60mm
Weight	30g
Resin	PP
L/T	225

×8 → SE-HSZ Packaging spec.
×6 → SE-HSZ
×4 → SE-EV-A-HD CT-6 spec.

Dessert cup —— Example of cavity decision by injection rate



Data

Thickness	0.55mm
Weight	5g
Resin	PP
L/T	132
Cavities	8

4.0Sec → SE-HSZ Packaging spec.
6.0Sec → SE-EV-A-HD CT-6 spec.

*The yield rate is based on proven performance in injection rate and responsiveness.

SE-HSZ Packaging spec.

Dedicated high-performance container molding.

Abundant features good for packaging parts molding performance

SE-HSZ, with dramatically improved container molding performance. Significantly improved stability and power saving when compared to conventional hybrid and hydraulic models. Also, fast cycle achieved sub 3 seconds for multiple-cavity very thin-walled containers. Important factor of dedicated packaging machines are reliability, and capability to mold thin-wall parts at fast cycle time.

High-speed & Stable molding

Very fast cycle

Very thin wall parts

Line up

SE280HSZ Packaging spec. (2740kN)

SE350HSZ Packaging spec. (3430kN)

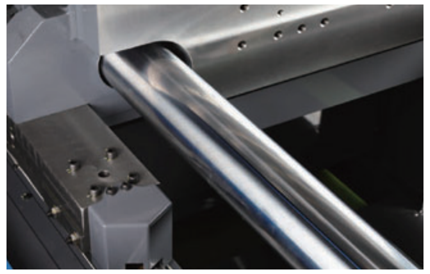
Dedicated equipment ideal for fast-cycle, thin-wall molding

Realizes remarkably high performance thanks to a high-speed, low-vibration clamp unit, a high-speed, high-response injection unit, and a screw with ample plasticizing performance.
Dedicated equipment that not only facilitates fast cycle, but also enables stable and consistent production.

Fast,smooth (high-speed) and safe, high-performance clamp unit

Clamp unit that maintains low vibration even at fast open and close operation.
Realizes uniform and stable clamping force thanks to DCPP (double center press platen) design and mold clamp force feedback control.
The high-rigidity frame designed with Linear-guide specification significantly improves linear movement of mold.
Also, highly sensitive mold protecting mechanism helped to ensure safe and comfortable production.

Dry cycle time reduced by 15% compared to SE-HSZ



Injection unit with high-speed filling and easy to mold

A maximum injection speed of 650 mm/s , thanks to double-axis direct drive design which is essential to fast speed response.
Cavity balance and reduced pressure of filling has been drastically improved through utilization of Zero-molding.

Injection speed 650mm/s C1250 / C1700 550mm/s C2500

Plasticizing unit with high plast rate and precise dosing.

High plasticizing rate and precise dosing performance, enabled least shot-to-shot molding variation.
The dedicated SM screw with low shear, minimize resin-burnt or gas-generation, hence, contamination (foreign materials, carbonization) rate drastically reduced too.

*SD, SF, and Long-L/D screw are available as selective options.

Even at low temperature settings SM screw design with sub-flight design enable homogeneous melt , and also reduce generation of gas.

Thorough degassing even without excessive shear. Improves kneading.

SE-HSZ

Fast cycle machine for packaging-use.

Zero-molding for fast cycle

Specially equipped with a linear guide and anti-shock leveling pads ideal for fast cycle molding,
with a focus on Zero-molding to improve consistency of production.
Thin-wall, fast cycle and stable molding realized.

Stable molding

Fast cycle

Thin wall

Line up

SE220HSZ (2150kN)
SE280HSZ (2740kN)
SE350HSZ (3430kN)

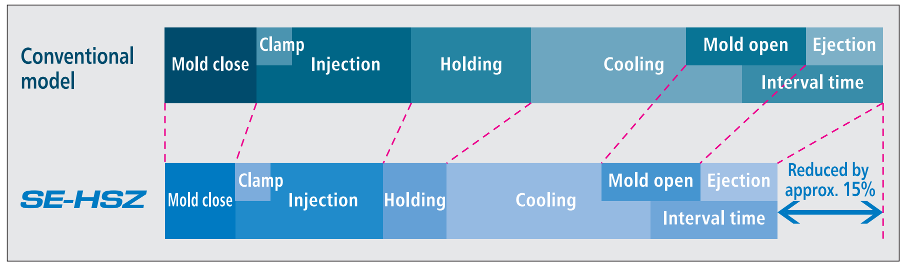
The apex of stable and fast-cycle molding

Fast cycle molding far surpassing the performance of conventional models, thanks to improved injection speed,
better responsiveness, shorter process time, and precise control.
Machine high performance enables comfortable, fast cycle production.

Zero-molding, first time introduced as standard feature, has won "tender and easy" to molds widely.

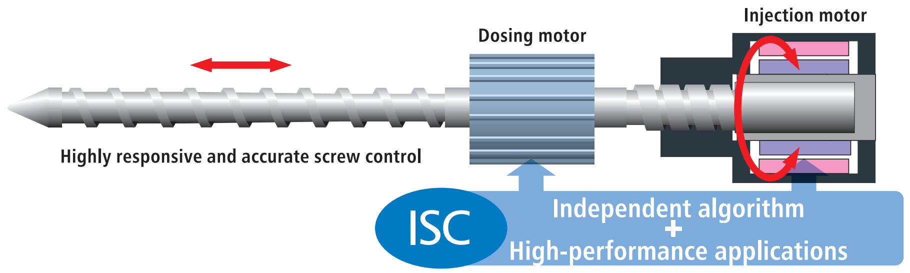
Achieves an average of 15% cycle time reduction when compared
to conventional model through improved injection speed, FFC molding,
and faster mold open and close via ISC.
For FFC (flow front control) molding, extra holidng time previously required
to prevent sink marks can now be reduced to zero,
which contributes to productivity.

Injection speed
350mm/s



ISC (intelligent servo control) system for improving productivity

Faster mold open/close realized, reduced machine vibration, and improved molding stability through
use of a new control algorithm.
Improved servo control performance reduces variation in cushion position and peak pressure,
enabling precise plasticizing, filling, and holding process.



Direct drive that realizes precise fast cycle molding

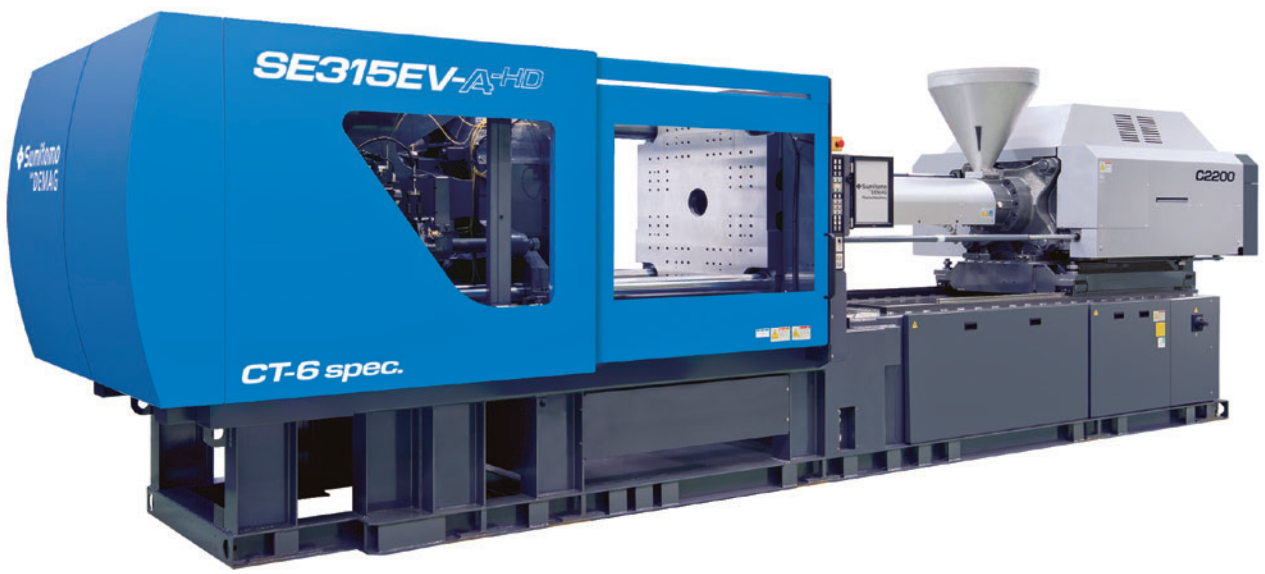
The injection unit utilizes a unique direct drive mechanism.
Approx. 2.5 times faster injection velocity response than belt driven type.
Enables more precise fast cycle molding, as high speed and pressure can be controlled instantaneously.
Injection unit from C1250 to C1700 utilized a
double-axis synchronized direct drive mechanism
with compact design, in order to achieve higher response performance.


First-generation servo motor (stator)

SE-EV-A-HD CT-6 spec.

New!

High cost performance fast cycle machine



Fast cycle machine based on SE-EV-A-HD

The highly rated SE-EV-A-HD series has been enhanced with high-cycle features for packaging use.
Combined with space-saving concepts and abundant line-up of base models, injection performance, as well as durability has been improved.
New proposal to high cost performance fast cycle molding.

High durability & Stable molding

Fast cycle

Fillability & Medium / Thin wall

Line up

SE220EV-A-HD CT-6 spec.	(2200kN)	SE350EV-A-HD CT-6 spec.	(3500kN)
SE250EV-A-HD CT-6 spec.	(2500kN)	SE385EV-A-HD CT-6 spec.	(3850kN)
SE280EV-A-HD CT-6 spec.	(2800kN)	SE450EV-A-HD CT-6 spec.	(4500kN)
SE315EV-A-HD CT-6 spec.	(3150kN)	SE500EV-A-HD CT-6 spec.	(5000kN)

Fast cycle design based on established technology

Injection functionality has been strengthened to facilitate filling performance.
The highly reliable direct-drive enables high-speed mold open/close, while the dedicated screw assembly allow fast cycle, and abundant space for mold installation allow flexibility to production array.

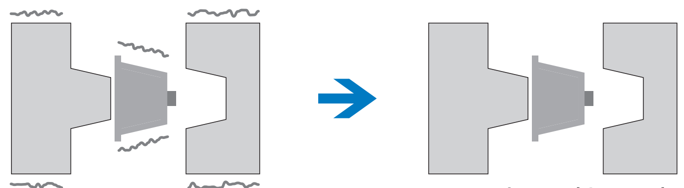
Fast cycle design with improved reliability

Improves on the injection speed and responsiveness of the base machine.
Direct-drive design enables high-speed mold open/close which successfully shorten cycle time.
Toggle support rigidity has been improved to ensure reliability even at faster cycle.
Toggle cross-head linearity displacement has been improved too to extend toggle push lifespan,
these enhancement features, has lead to machine reliability even at fast cycle.

Injection speed
330mm/s C750
310mm/s C1100-C2200
220mm/s C3000

Rigid design with low vibration that minimized effects to auxiliary equipment,

which is essential to fast cycle molding.



Vibration severe → Take-out robot accuracy drops

Even at fast molding cycle, take-out robot accuracy can be secured.

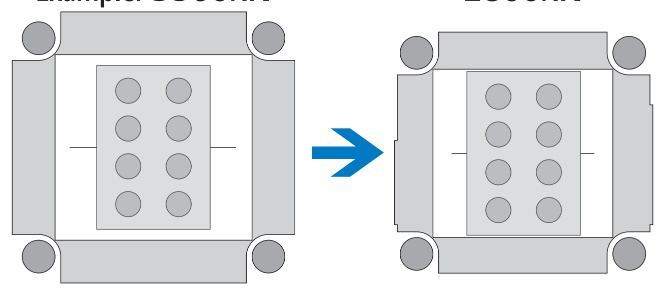
Space-saving concepts with easy mold installation

With large space between tie bars, and rigid frame, larger mold can be installed.
With square and large tie-bar space, and clamp force reduction features, downsized can be realized, thus, reducing installation space at site.
Facilitates effective use of space.

For example, with the SE-EV-A-HD CT-6 spec., mold that was previously installed on 3500 kN, can be installed in a 2800 kN machine.
As tie-bar space is square, freedom of mold installation and take-out has been improved.

Example: 3500kN

2800kN



Packaging-use SM screw assembly is available to comply with fast cycle molding

SM screw assembly equipped as standard.
SM screw prevents resin-burnt and generation of gas due to lower shear and hence suppress contamination (foreign materials, carbonization).

Screw assembly

Plasticizing unit	Screw diameter
C750	ϕ45 ϕ50
C1100	ϕ50 ϕ56 ϕ63
C1600	ϕ56 ϕ63 ϕ71
C2200	ϕ63 ϕ71 ϕ80
C3000	ϕ71 ϕ80

Top: SD screw
Bottom: SM screw

Main Specifications

Model		SE280HSZ	SE350HSZ	SE220HSZ	SE280HSZ	SE350HSZ
Use application		Packaging spec.	Packaging spec.	Standard spec.	Standard spec.	Standard spec.

■Mold clamping unit

		SE280HSZ Packaging spec.	SE350HSZ Packaging spec.	SE220HSZ Standard spec.	SE280HSZ Standard spec.	SE350HSZ Standard spec.
Mold clamp system		Double toggle (5 points)	Double toggle (5 points)	Double toggle (5 points)	Double toggle (5 points)	Double toggle (5 points)
Clamp drive type		Direct drive	Direct drive	Direct drive	Direct drive	Direct drive
Maximum clamping force	kN {tf}	2740 {280}	3430 {350}	2150 {220}	2740 {280}	3430 {350}
Clearance between tie bars (HxV)	mm	685 x 635	760 x 710	610 x 560	685 x 635	760 x 710
Platen dimensions (HxV)	mm	950 x 885	1070 x 1020	880 x 830	950 x 885	1070 x 1020
Daylight	mm	1320	1470	1130	1220	1370
Mold opening / closing stroke	mm	600	700	550	600	700
Mold height (min. - max.)	mm	350～720	400～770	300～580	350～620	400～670
Locating hole diameter	mm	φ100	φ100	φ120	φ150	φ150
Ejector ejection points		Electric (13 points)	Electric (13 points)	Electric (13 points)	Electric (13 points)	Electric (13 points)
Ejector ejection force	kN {tf}	98 {10}	98 {10}	58 {6.0}	58 {6.0}	58 {6.0}
Ejector stroke	mm	150	150	150	150	150
Ejector drive type		Belt drive	Belt drive	Belt drive	Belt drive	Belt drive

■Injection unit

		SE280HSZ Packaging spec.					SE350HSZ Packaging spec.			
Plasticizing capacity		C1250			C1700		C1700		C2500	
		L			L		L		L	
Injection drive type		Direct drive			Direct drive		Direct drive		Direct drive	
Screw diameter	mm	50	56	63	63	71	63	71	71	80
Maximum injection pressure *1,*2	MPa	274	218	172	215	169	215	169	229	180
	{kgf/cm²}	{2800}	{2230}	{1760}	{2200}	{1730}	{2200}	{1730}	{2340}	{1840}
Maximum hold pressure *1,*2	MPa	219	174	137	172	135	172	135	183	144
	{kgf/cm²}	{2240}	{1780}	{1400}	{1760}	{1380}	{1760}	{1380}	{1870}	{1470}
Theoretical injection capacity	cm³	448	562	711	773	982	773	982	1140	1448
Injection weight (GPPS)	g	430	539	682	742	943	742	943	1095	1390
	OZ	15.2	19.1	24.2	26.3	33.4	26.3	33.4	38.8	49.2
Plasticizing capacity (GPPS) *3	kg/h	202	273	290	290	374	290	374	374	440
( ) Denotes screw rotation speed	(rpm)	(400)	(400)	(320)	(320)	(320)	(320)	(320)	(320)	(320)
Injection rate	cm³/s	1276	1601	2026	2026	2573	2026	2573	2178	2765
Screw stroke	mm	228			248		248		288	
Maximum injection speed	mm/s	650					650		550	
Maximum screw rotation speed	min-1	400		320	320		320			
Quantity of temperature control zones		6					6			
Heater capacity	kW	27	31	37	37	43	37	43	43	44
Nozzle pressing force	kN	58 {6.0}					58 {6.0}			
Injection unit movement stroke	mm	450					450			
Protrusion	mm	65					65			
Hopper capacity	L	(100)					(100)			

		SE220HSZ Standard spec.									SE280HSZ Standard spec.						SE350HSZ Standard spec.				
Plasticizing capacity		C560						C900			C900			C1250			C1250			C1700	
		M						L			L			L			L			L	
Injection drive type		Direct drive						Direct drive			Direct drive			Direct drive			Direct drive			Direct drive	
Screw diameter	mm	28	32	36	40	45	50	45	50	56	45	50	56	50	56	63	50	56	63	63	71
Maximum injection pressure *1,*2	MPa	289	275	272	274	215	174	267	216	172	267	216	172	274	218	172	274	218	172	215	169
	{kgf/cm²}	{2950}	{2810}	{2770}	{2800}	{2200}	{1780}	{2730}	{2210}	{1760}	{2730}	{2210}	{1760}	{2800}	{2230}	{1760}	{2800}	{2230}	{1760}	{2200}	{1730}
Maximum hold pressure *1,*2	MPa	289	275	272	220	172	139	213	172	137	213	172	137	219	174	137	219	174	137	172	135
	{kgf/cm²}	{2950}	{2810}	{2770}	{2240}	{1760}	{1424}	{2180}	{1760}	{1400}	{2180}	{1760}	{1400}	{2240}	{1780}	{1400}	{2240}	{1780}	{1400}	{1760}	{1380}
Theoretical injection capacity	cm³	86	129	163	201	254	314	329	406	510	329	406	510	448	562	711	448	562	711	773	982
Injection weight (GPPS)	g	83	124	156	193	244	302	316	390	489	316	390	489	430	539	682	430	539	682	742	943
	OZ	2.9	4.4	5.5	6.8	8.7	10.7	11.2	13.8	17.3	11.2	13.8	17.3	15.2	19.1	24.2	15.2	19.1	24.2	26.3	33.4
Plasticizing capacity (GPPS) *3	kg/h	37	53	76	101	136	193	149	202	246	149	202	246	202	246	290	202	246	290	290	327
( ) Denotes screw rotation speed	(rpm)	(400)	(400)	(400)	(400)	(400)	(400)	(400)	(400)	(360)	(400)	(400)	(360)	(400)	(360)	(320)	(400)	(360)	(320)	(320)	(280)
Injection rate	cm³/s	216	281	356	440	557	687	557	687	862	557	687	862	687	862	1091	687	862	1091	1091	1386
Screw stroke	mm	140	160	160	160	160	160	207			207			228			228			248	
Maximum injection speed	mm/s	350									350						350				
Maximum screw rotation speed	min-1	400						400	400	360	400	400	360	400	360	320	400	360	320	320	280
Quantity of temperature control zones		5						6			6						6				
Heater capacity	kW	6.6	7.6	8.5	10.4	11.1	11.3	23.3	26.8	31.2	23.3	26.8	31.2	26.8	31.2	37.1	26.8	31.2	37.1	37.1	42.7
Nozzle pressing force	kN	58 {6.0}									58 {6.0}						58 {6.0}				
Injection unit movement stroke	mm	390						450			450						450				
Protrusion	mm	65						65			65						65				
Hopper capacity	L	(50)						(100)			(100)						(100)				

■Machine dimensions and weight

		SE280HSZ Packaging spec.		SE350HSZ Packaging spec.	
Machine dimensions (LxWxH) *4	mm	7851 x 1680 x 2304		8236 x 1770 x 2254	
Machine weight	t	17.3	17.5	20.6	20.7

		SE220HSZ Standard spec.		SE280HSZ Standard spec.		SE350HSZ Standard spec.	
		C560	C900	C900	C1250	C1250	C1700
Machine dimensions (LxWxH) *4	mm	6436 x 1580 x 2065	6436 x 1580 x 2254	7217 x 1680 x 2254		7511 x 1770 x 2254	7522 x 1770 x 2254
Machine weight	t	10.1	10.9	13.0	13.7	17.9	18.1

*1 The maximum injection pressure and the maximum holding pressure are calculated values. These values indicate not the resin pressure but the output of the unit.
*2 The maximum injection pressure and the maximum holding pressure are not values that can be sustained continuously.
*3 The plasticization capacity value indicates the capacity when the SM screw is loading. (SD screw only for C560)
*4 The full length of the machine is the measurement taken when the smallest screw is loaded at the forward position of the injection unit.
*5 The values within { } brackets are only reference figures.
● Specifications subject to change without notice for performance improvement.
◇This series originally comply to safety standards of Japan, the US, in addition, also China GB22530 and KC mark.

Main Specifications

Model		SE220EV-A HD	SE250EV-A HD
Use application		CT-6 spec.	CT-6 spec.

■ Mold clamping unit

Item	Unit	SE220EV-A HD	SE250EV-A HD
Mold clamp system		Double toggle (5 points)	Double toggle (5 points)
Maximum clamping force	kN	2200	2500
Clearance between tie bars (HxV)	mm	660 x 660	660 x 660
Platen dimensions (HxV)	mm	930 x 930	930 x 930
Daylight	mm	1175	1225
(Mold thickness extension 100 mm selected)	mm	(1275)	(1325)
(Mold thickness extension 200 mm selected)	mm	(1375)	—
Mold opening / closing stroke	mm	575	625
Maximum platen speed	mm/s	1349	1431
Mold height (min. - max.)	mm	200～600	200～600
(Mold thickness extension 100 mm selected)	mm	(200～700)	(200～700)
(Mold thickness extension 200 mm selected)	mm	(200～800)	—
Locating hole diameter	mm	φ120	φ120
(Locating ring with inner diameter φ120 selected)	mm	—	—
(Locating ring with inner diameter φ100 selected)	mm	(φ100)	(φ100)
Ejector ejection points		13 points	13 points
Ejector ejection force	kN	60	60
(Ejector ejection up selected)	kN	(100)	(100)
Maximum ejector speed	mm/s	267	267
Ejector stroke	mm	220	220
Maximum mold weight	kg	2800	2800
(Moving side maximum)	kg	(1850)	(1850)

■ Injection unit

Plasticizing capacity		C750		C1100			C750		C1100		
		M		L			M		L		
Screw diameter	mm	45	50	50	56	63	45	50	50	56	63
Maximum injection pressure *1,*2	MPa	215	174	230	187	148	215	174	230	187	148
Maximum hold pressure *1,*2	MPa	215	174	230	187	148	215	174	230	187	148
Theoretical injection capacity	cm^3	254	314	406	510	645	254	314	406	510	645
(When the option is selected)	cm^3	(337)	(416)	(510)	(640)	(810)	(337)	(416)	(510)	(640)	(810)
Injection weight (GPPS)	g	244	302	390	489	619	244	302	390	489	619
(When the option is selected)	g	(323)	(399)	(490)	(614)	(778)	(323)	(399)	(490)	(614)	(778)
Plasticizing capacity *3	kg/h	136	193	202	246	290	136	193	202	246	290
(When the option is selected)	kg/h	(85)	(121)	(126)	(171)	(227)	(85)	(121)	(126)	(171)	(227)
Injection rate	cm^3/s	524	647	608	763	966	524	647	608	763	966
Screw stroke	mm	160 (212)		207 (260)			160 (212)		207 (260)		
Maximum injection speed	mm/s	330		310			330		310		
Maximum screw rotation speed	min^{-1}	400		400	360	320	400		400	360	320
(When the option is selected)	min^{-1}	(250)		(250)	(250)	(250)	(250)		(250)	(250)	(250)
Quantity of temperature control zones		5		6			5		6		
Heater capacity	kW	11.4	12.6	25.0	29.4	35.3	11.4	12.6	25.0	29.4	35.3
Nozzle pressing force	kN	43		58			43		58		
Injection unit movement stroke	mm	395					395				
Protrusion	mm	65					65				
Hopper capacity (Standard model hopper selected)	L	(50)		(100)			(50)		(100)		

■ Machine dimensions and weight

Item	Unit	SE220EV-A HD C750	SE220EV-A HD C1100	SE250EV-A HD C750	SE250EV-A HD C1100
Machine dimensions (LxWxH) *4	mm	6466 x 1832 x 2057	6466 x 1832 x 2084	6566 x 1832 x 2057	6566 x 1832 x 2084
(Mold thickness extension 100 mm selected)	mm	(6566 x 1832 x 2057)	(6566 x 1832 x 2084)	(6666 x 1832 x 2057)	(6666 x 1832 x 2084)
(Mold thickness extension 200 mm selected)	mm	(6666 x 1832 x 2057)	(6666 x 1832 x 2084)	—	—
(Toggle upper dust cover [fixed type] selected)	mm	(6466 x 1832 x 2100)	(6466 x 1832 x 2100)	(6566 x 1832 x 2100)	(6566 x 1832 x 2100)
(Toggle upper dust cover [sliding type] selected)	mm	(6466 x 1832 x 2245)	(6466 x 1832 x 2245)	(6566 x 1832 x 2245)	(6566 x 1832 x 2245)
(Safety door wide expansion selected)	mm	(6466 x 1932 x 2057)	(6466 x 1932 x 2084)	(6566 x 1932 x 2057)	(6566 x 1932 x 2084)
Machine weight	t	11.8	12.9	11.8	12.9

*1 The maximum injection pressure and the maximum holding pressure are calculated values. These values indicate not the resin pressure but the output of the unit.
*2 The maximum injection pressure and the maximum holding pressure are not values that can be sustained continuously.
*3 The plasticization capacity value indicates the capacity when the SM screw is loading.
*4 The full length of the machine is the measurement taken when the smallest screw is loaded at the forward position of the injection unit.

Model		SE280EV-A HD	SE315EV-A HD
Use application		CT-6 spec.	CT-6 spec.

■ Mold clamping unit

Item	Unit	SE280EV-A HD	SE315EV-A HD
Mold clamp system		Double toggle (5 points)	Double toggle (5 points)
Maximum clamping force	kN	2800	3150
Clearance between tie bars (HxV)	mm	730 x 730	730 x 730
Platen dimensions (HxV)	mm	1020 x 1020	1020 x 1020
Daylight	mm	1275	1325
(Mold thickness extension 100 mm selected)	mm	(1375)	(1425)
(Mold thickness extension 200 mm selected)	mm	(1475)	—
Mold opening / closing stroke	mm	625	675
Maximum platen speed	mm/s	1298	1394
Mold height (min. - max.)	mm	300～650	300～650
(Mold thickness extension 100 mm selected)	mm	(300～750)	(300～750)
(Mold thickness extension 200 mm selected)	mm	(300～850)	—
Locating hole diameter	mm	φ150	φ150
(Locating ring with inner diameter φ120 selected)	mm	(φ120)	(φ120)
(Locating ring with inner diameter φ100 selected)	mm	(φ100)	(φ100)
Ejector ejection points		13 points	13 points
Ejector ejection force	kN	60	60
(Ejector ejection up selected)	kN	(100)	(100)
Maximum ejector speed	mm/s	267	267
Ejector stroke	mm	220	220
Maximum mold weight	kg	3800	3800
(Moving side maximum)	kg	(2500)	(2500)

■ Injection unit

Plasticizing capacity		C1100			C1600			C2200			C1100			C1600			C2200		
		L			L			L			L			L			L		
Screw diameter	mm	50	56	63	56	63	71	63	71	80	50	56	63	56	63	71	63	71	80
Maximum injection pressure *1,*2	MPa	230	187	148	230	188	148	216	188	148	230	187	148	230	188	148	216	188	148
Maximum hold pressure *1,*2	MPa	230	187	148	230	188	148	216	188	148	230	187	148	230	188	148	216	188	148
Theoretical injection capacity	cm^3	406	510	645	562	711	902	773	982	1246	406	510	645	562	711	902	773	982	1246
(When the option is selected)	cm^3	(510)	(640)	(810)	(714)	(904)	(1148)	(977)	(1266)	(1608)	(510)	(640)	(810)	(714)	(904)	(1148)	(977)	(1266)	(1608)
Injection weight (GPPS)	g	390	489	619	539	682	866	742	943	1196	390	489	619	539	682	866	742	943	1196
(When the option is selected)	g	(490)	(614)	(778)	(685)	(867)	(1102)	(957)	(1216)	(1544)	(490)	(614)	(778)	(685)	(867)	(1102)	(957)	(1216)	(1544)
Plasticizing capacity *3	kg/h	202	246	290	246	290	327	290	327	343	202	246	290	246	290	327	290	327	343
(When the option is selected)	kg/h	(126)	(171)	(227)	(171)	(227)	(234)	(227)	(234)	(275)	(126)	(171)	(227)	(171)	(227)	(234)	(227)	(234)	(275)
Injection rate	cm^3/s	608	763	966	763	966	1227	966	1227	1558	608	763	966	763	966	1227	966	1227	1558
Screw stroke	mm	207 (260)			228 (290)			248 (320)			207 (260)			228 (290)			248 (320)		
Maximum injection speed	mm/s	310									310								
Maximum screw rotation speed	min^{-1}	400	360	320	360	320	280	320	280	250	400	360	320	360	320	280	320	280	250
(When the option is selected)	min^{-1}	(250)	(250)	(250)	(250)	(250)	(200)	(250)	(200)	(200)	(250)	(250)	(250)	(250)	(250)	(200)	(250)	(200)	(200)
Quantity of temperature control zones		6									6								
Heater capacity	kW	25.0	29.4	35.3	29.4	35.3	40.6	35.3	40.6	43.8	25.0	29.4	35.3	29.4	35.3	40.6	35.3	40.6	43.8
Nozzle pressing force	kN	58									58								
Injection unit movement stroke	mm	420									420								
Protrusion	mm	65									65								
Hopper capacity (Standard model hopper selected)	L	(100)									(100)								

■ Machine dimensions and weight

Item	Unit	SE280EV-A HD C1100	SE280EV-A HD C1600	SE280EV-A HD C2200	SE315EV-A HD C1100	SE315EV-A HD C1600	SE315EV-A HD C2200
Machine dimensions (LxWxH) *4	mm	7236 x 1972 x 2102			7336 x 1972 x 2102		
(Mold thickness extension 100 mm selected)	mm	(7336 x 1972 x 2102)			(7436 x 1972 x 2102)		
(Mold thickness extension 200 mm selected)	mm	(7436 x 1972 x 2102)			—		
(Toggle upper dust cover [fixed type] selected)	mm	(7236 x 1972 x 2145)			(7336 x 1972 x 2145)		
(Toggle upper dust cover [sliding type] selected)	mm	(7236 x 1972 x 2285)			(7336 x 1972 x 2285)		
(Safety door wide expansion selected)	mm	(7236 x 2072 x 2102)			(7336 x 2072 x 2102)		
Machine weight	t	15.3	15.4	16.1	15.3	15.4	16.1

● Specifications subject to change without notice for performance improvement.
◇ This series originally comply to safety standards of Japan, the US, in addition, also China GB22530 and KC mark.

Main Specifications

Model		SE350EV-A HD	SE385EV-A HD
Use application		CT-6 spec.	CT-6 spec.

■Mold clamping unit

		SE350EV-A HD	SE385EV-A HD
Mold clamp system		Double toggle (5 points)	Double toggle (5 points)
Maximum clamping force	kN	3500	3850
Clearance between tie bars (HxV)	mm	830 x 830	830 x 830
Platen dimensions (HxV)	mm	1140 x 1140	1140 x 1140
Daylight	mm	1425	1475
(Mold thickness extension 100 mm selected)	mm	(1525)	(1575)
(Mold thickness extension 200 mm selected)	mm	(1625)	—
Mold opening / closing stroke	mm	725	775
Maximum platen speed	mm/s	1346	1438
Mold height (min. - max.)	mm	350～700	350～700
(Mold thickness extension 100 mm selected)	mm	(350～800)	(350～800)
(Mold thickness extension 200 mm selected)	mm	(350～900)	—
Locating hole diameter	mm	φ150	φ150
(Locating ring with inner diameter φ120 selected)	mm	(φ120)	(φ120)
(Locating ring with inner diameter φ100 selected)	mm	(φ100)	(φ100)
Ejector ejection points		13 points	13 points
Ejector ejection force	kN	60	60
(Ejector ejection up selected)	kN	(100)	(100)
Maximum ejector speed	mm/s	267	267
Ejector stroke	mm	220	220
Maximum mold weight	kg	5200	5200
(Moving side maximum)	kg	(3450)	(3450)

■Injection unit

Plasticizing capacity		C1100			C1600			C2200			C1100			C1600			C2200		
		L			L			L			L			L			L		
Screw diameter	mm	50	56	63	56	63	71	63	71	80	50	56	63	56	63	71	63	71	80
Maximum injection pressure *1,*2	MPa	230	187	148	230	188	148	216	188	148	230	187	148	230	188	148	216	188	148
Maximum hold pressure *1,*2	MPa	230	187	148	230	188	148	216	188	148	230	187	148	230	188	148	216	188	148
Theoretical injection capacity	cm^3	406	510	645	562	711	902	773	982	1246	406	510	645	562	711	902	773	982	1246
(When the option is selected)	cm^3	(510)	(640)	(810)	(714)	(904)	(1148)	(977)	(1266)	(1608)	(510)	(640)	(810)	(714)	(904)	(1148)	(977)	(1266)	(1608)
Injection weight (GPPS)	g	390	489	619	539	682	866	742	943	1196	390	489	619	539	682	866	742	943	1196
(When the option is selected)	g	(490)	(614)	(778)	(685)	(867)	(1102)	(957)	(1216)	(1544)	(490)	(614)	(778)	(685)	(867)	(1102)	(957)	(1216)	(1544)
Plasticizing capacity *3	kg/h	202	246	290	246	290	327	290	327	343	202	246	290	246	290	327	290	327	343
(When the option is selected)	kg/h	(126)	(171)	(227)	(171)	(227)	(234)	(227)	(234)	(275)	(126)	(171)	(227)	(171)	(227)	(234)	(227)	(234)	(275)
Injection rate	cm^3/s	608	763	966	763	966	1227	966	1227	1558	608	763	966	763	966	1227	966	1227	1558
Screw stroke	mm	207 (260)			228 (290)			248 (320)			207 (260)			228 (290)			248 (320)		
Maximum injection speed	mm/s	310									310								
Maximum screw rotation speed	min^{-1}	400	360	320	360	320	280	320	280	250	400	360	320	360	320	280	320	280	250
(When the option is selected)	min^{-1}	(250)	(250)	(250)	(250)	(250)	(200)	(250)	(200)	(200)	(250)	(250)	(250)	(250)	(250)	(200)	(250)	(200)	(200)
Quantity of temperature control zones		6									6								
Heater capacity	kW	25.0	29.4	35.3	29.4	35.3	40.6	35.3	40.6	43.8	25.0	29.4	35.3	29.4	35.3	40.6	35.3	40.6	43.8
Nozzle pressing force	kN	58									58								
Injection unit movement stroke	mm	450									450								
Protrusion	mm	65									65								
Hopper capacity (Standard model hopper selected)	L	(100)									(100)								

■Machine dimensions and weight

		SE350EV-A HD			SE385EV-A HD		
Machine dimensions (LxWxH) *4	mm	7446 x 2072 x 2192			7546 x 2072 x 2192		
(Mold thickness extension 100 mm selected)	mm	(7546 x 2072 x 2192)			(7646 x 2072 x 2192)		
(Mold thickness extension 200 mm selected)	mm	(7646 x 2072 x 2192)			—		
(Toggle upper dust cover [fixed type] selected)	mm	(7446 x 2072 x 2225)			(7546 x 2072 x 2225)		
(Toggle upper dust cover [sliding type] selected)	mm	(7446 x 2072 x 2375)			(7546 x 2072 x 2375)		
(Safety door wide expansion selected)	mm	(7446 x 2172 x 2192)			(7546 x 2172 x 2192)		
Machine weight	t	17.6	17.8	18.4	17.7	17.9	18.5

*1 The maximum injection pressure and the maximum holding pressure are calculated values. These values indicate not the resin pressure but the output of the unit.
*2 The maximum injection pressure and the maximum holding pressure are not values that can be sustained continuously.
*3 The plasticization capacity value indicates the capacity when the SM screw is loading.
*4 The full length of the machine is the measurement taken when the smallest screw is loaded at the forward position of the injection unit.

Model		SE450EV-A HD	SE500EV-A HD
Use application		CT-6 spec.	CT-6 spec.

■Mold clamping unit

		SE450EV-A HD	SE500EV-A HD
Mold clamp system		Double toggle (5 points)	Double toggle (5 points)
Maximum clamping force	kN	4500	5000
Clearance between tie bars (HxV)	mm	920 x 920	920 x 920
Platen dimensions (HxV)	mm	1300 x 1300	1300 x 1300
Daylight	mm	1625	1675
(Mold thickness extension 100 mm selected)	mm	(1725)	(1775)
(Mold thickness extension 200 mm selected)	mm	(1825)	—
Mold opening / closing stroke	mm	825	875
Maximum platen speed	mm/s	1109	1167
Mold height (min. - max.)	mm	350～800	350～800
(Mold thickness extension 100 mm selected)	mm	(350～900)	(350～900)
(Mold thickness extension 200 mm selected)	mm	(350～1000)	—
Locating hole diameter	mm	φ150	φ150
(Locating ring with inner diameter φ120 selected)	mm	(φ120)	(φ120)
(Locating ring with inner diameter φ100 selected)	mm	(φ100)	(φ100)
Ejector ejection points		21 points	21 points
Ejector ejection force	kN	100	100
(Ejector ejection up selected)	kN	(150)	(150)
Maximum ejector speed	mm/s	267	267
Ejector stroke	mm	220	220
Maximum mold weight	kg	7500	7500
(Moving side maximum)	kg	(5000)	(5000)

■Injection unit

Plasticizing capacity		C2200			C3000		C2200			C3000	
		L			L		L			L	
Screw diameter	mm	63	71	80	71	80	63	71	80	71	80
Maximum injection pressure *1,*2	MPa	216	188	148	216	187	216	188	148	216	187
Maximum hold pressure *1,*2	MPa	216	188	148	216	187	216	188	148	216	187
Theoretical injection capacity	cm^3	773	982	1246	1140	1448	773	982	1246	1140	1448
(When the option is selected)	cm^3	(997)	(1266)	(1608)	(1425)	(1809)	(997)	(1266)	(1608)	(1425)	(1809)
Injection weight (GPPS)	g	742	943	1196	1095	1390	742	943	1196	1095	1390
(When the option is selected)	g	(957)	(1216)	(1544)	(1368)	(1737)	(957)	(1216)	(1544)	(1368)	(1737)
Plasticizing capacity *3	kg/h	290	327	343	327	343	290	327	343	327	343
(When the option is selected)	kg/h	(227)	(234)	(275)	(234)	(275)	(227)	(234)	(275)	(234)	(275)
Injection rate	cm^3/s	966	1227	1558	871	1105	966	1227	1558	871	1105
Screw stroke	mm	248 (320)			288 (360)		248 (320)			288 (360)	
Maximum injection speed	mm/s	310			220		310			220	
Maximum screw rotation speed	min^{-1}	320	280	250	280	250	320	280	250	280	250
(When the option is selected)	min^{-1}	(250)	(200)	(200)	(200)	(200)	(250)	(200)	(200)	(200)	(200)
Quantity of temperature control zones		6					6				
Heater capacity	kW	35.3	40.6	43.8	40.6	43.8	35.3	40.6	43.8	40.6	43.8
Nozzle pressing force	kN	58					58				
Injection unit movement stroke	mm	495					495				
Protrusion	mm	65					65				
Hopper capacity (Standard model hopper selected)	L	(100)					(100)				

■Machine dimensions and weight

		SE450EV-A HD		SE500EV-A HD	
Machine dimensions (LxWxH) *4	mm	8361 x 2252 x 2292		8461 x 2252 x 2292	
(Mold thickness extension 100 mm selected)	mm	(8461 x 2252 x 2292)		(8561 x 2252 x 2292)	
(Mold thickness extension 200 mm selected)	mm	(8561 x 2252 x 2292)		—	
(Toggle upper dust cover [fixed type] selected)	mm	(8361 x 2252 x 2330)		(8461 x 2252 x 2330)	
(Toggle upper dust cover [sliding type] selected)	mm	(8361 x 2252 x 2465)		(8461 x 2252 x 2465)	
(Safety door wide expansion selected)	mm	(8361 x 2352 x 2292)		(8461 x 2352 x 2292)	
Machine weight	t	25.3	26.0	25.3	26.0

● Specifications subject to change without notice for performance improvement.
◇ This series originally comply to safety standards of Japan, the US, in addition, also China GB22530 and KC mark.