

# $\alpha$ -S450iB (small capacity)

## Mechanical specifications



Clamping unit							
Clamping mechanism		Double toggle					
Tonnage	kN   tonf	4500   450 / Increased (5000   500)					
Maximum and minimum die height Single platen	mm	1000-350					
Clamping stroke	mm	900					
Locating ring diameter	mm	Ø 200					
Tie bar spacing, HxV	mm	920 x 920					
Platen size, HxV	mm	1300 x 1300					
Minimum mould size, HxV *1	mm	535 x 535					
Maximum mould weight Single platen (Moving-Stationary) *2	kg	4500-4500					
Ejector stroke	mm	250					
Maximum ejector force	kN   tonf	150   15.0					
Injection unit							
Screw diameter	mm	48	52	56	64	68	72 *11
Injection stroke	mm	176	208	260	260	260	260
Max. injection volume	cm <sup>3</sup>	318	442	640	836	944	1059
Nozzle touch force *6	kN   tonf						
<b>Max. Injection Speed mm/s *4</b>	<b>mm/s</b>	<b>240 (high duty)</b>					
Max. injection & Hold Pressure 1 *3*6	MPa	270	240	225	175	155	135
Max. injection & Hold Pressure 2 *3*7	MPa	270	240	225	175	155	135
Max. injection rate *4	cm <sup>3</sup> /s	434	509	590	772	871	977
Max. screw rotation speed	min <sup>-1</sup>	400					
Machine weight Double platen   Single platen *9	t	25.2					
<b>Max. Injection Speed *4</b>	<b>mm/s</b>	<b>270</b>					
Max. injection & Hold Pressure 1 *3*6	MPa	270	240	225	175	155	135
Max. injection & Hold Pressure 2 *3*7	MPa	270	240	225	175	155	135
Max. injection rate *4	cm <sup>3</sup> /s	488	573	665	868	980	1099
Max. screw rotation speed	min <sup>-1</sup>	400					
Machine weight Double platen   Single platen *9	t	25.2					
Screw and Barrel							
Number of heater zones	Barrel	3			4		
Number of pyrometers	Nozzle	1					
Total heater wattage	kW	19.7	21.2	23.9	27.2	27.2	26.6

● standard    - not available    ( ) with hardware and/or software option

\*1) Smaller mold than this size may limit clamp force.

\*2) If the weight of a mold exceeds maximum mold weight, the molding condition may be limited.

\*3) Maximum injection pressure and maximum hold pressure are the output of the injection unit, not the resin pressure.

- Maximum injection pressure and maximum hold pressure are the maximum values that can be set.

\*4) Maximum injection rate and maximum injection speed is a theoretical value.

- Maximum injection rate and maximum injection speed can not be guaranteed when the injection pressure is maximum.

\*5) The maximum injection pressure setting at high pressure filling mode option.

- There is a limitation in injection time setting and pack time setting, when high pressure filling mode option is selected. (Contact sales for detail)

\*6) Maximum injection pressure 1 and maximum hold pressure 1 are the values when the wear-resistant and anti-corrosion cylinder etc. is installed.

- Maximum injection pressure and maximum hold pressure may vary depends on the installed screw and cylinder specifications.

\*7) Maximum injection pressure 2 and maximum hold pressure 2 are the values when the general purpose cylinder etc. is installed.

- Maximum injection pressure and maximum hold pressure may vary depends on the installed screw and cylinder specifications.

\*8) Sprue break cannot be used with increased nozzle touch force option.

\*9) The machine without option.

\*10) The pressure conversion is 1MPa=10kgf/cm<sup>2</sup>.

\*11) The molding condition might be limited by the resin. (Contact sales for detail)

\*12) In case of the replacement to different screw diameter after shipment, some covers may be needed to replace. (Contact sales for detail)

# $\alpha$ -S450iB (small capacity) Dimensions / Clamp layout

