

α -S450iB (ultra 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	40	44	48	52 **11	56 **11
Injection stroke	mm	150	176	176	208	260
Max. injection volume	cm ³	188	268	318	442	640
Nozzle touch force *6	kN tonf	30 3.0 / Increased (50 5.0)				
Max. Injection Speed mm/s *4	mm/s	280 (high duty)				
Max. injection pressure (high-pressure filling mode) *3 *5	MPa	320	280	-	-	-
Max. injection & Hold Pressure 1 *3 *6	MPa	280	260	230	200	172
Max. injection & Hold Pressure 2 *3 *7	MPa	280	260	230	200	172
Max. injection rate *4	cm ³ /s	351	425	506	594	689
Max. screw rotation speed	min ⁻¹	400				
Machine weight Double platen Single platen *9	t	24.8				
Max. Injection Speed *4	mm/s	350				
Max. injection & Hold Pressure 1 *3 *6	MPa	280	240	190	160	140
Max. injection & Hold Pressure 2 *3 *7	MPa	260	220	190	160	140
Max. injection rate *4	cm ³ /s	439	532	633	743	862
Max. screw rotation speed	min ⁻¹	400				
Machine weight Double platen Single platen *9	t	24.8				
Screw and Barrel						
Number of heater zones	Barrel	3				4
Number of pyrometers	Nozzle	1				
Total heater wattage	kW	14.9	15.9	17.9	20.2	23.5

● 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/cm².
- *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)

α -S450iB (ultra small capacity) Dimensions / Clamp layout

