

# $\alpha$ -S100iB Mechanical specifications



Clamping unit							
Clamping mechanism		5 Point double toggle					
Tonnage	kN   tonf	1000   100 Increased (1250   125)					
Maximum and minimum die height Double platen	mm	450-150 Increased (550-150)					
Maximum and minimum die height Single platen	mm	520-220 Increased (620-220)					
Clamping stroke	mm	350					
Locating ring diameter	mm	Ø 125					
Tie bar spacing, HxV	mm	460 x 410					
Platen size, HxV	mm	660 x 610					
Minimum mould size, HxV *1	mm	265 x 240					
Maximum mould weight Double platen   Single platen (Moving-Stationary) *2	kg	440-440   600-440					
Ejector stroke	mm	100					
Maximum ejector force	kN   tonf	25   2.5 Increased (60   6.0)					
Injection unit							
Screw diameter	mm	22	26	28	32	36	40 *11
Injection stroke	mm	75	95	95	128	144	144
Max. injection volume	cm <sup>3</sup>	29	50	58	103	147	181
Nozzle touch force *8	kN   tonf	15   1.5 Increased (30   3.0)					
<b>Max. Injection Speed *4</b>	<b>mm/s</b>	<b>200</b>					
Max. injection pressure (high-pressure filling mode) *3 *5	MPa	340	340	320	270	220	-
Max. injection & Hold Pressure 1 *3 *6	MPa	290	290	270	250	190	160
Max. injection & Hold Pressure 2 *3 *7	MPa	290	260	240	220	190	160
Max. injection rate *4	cm <sup>3</sup> /s	76	106	123	160	203	251
Max. screw rotation speed	min <sup>-1</sup>	300					
Machine weight Double platen   Single platen *9	t	4.4   ≈ 4.25					
<b>Max. Injection Speed *4</b>	<b>mm/s</b>	-	-	-	<b>200 (high duty)</b>		
Max. injection pressure (high-pressure filling mode) *3 *5	MPa	-	-	-	270	220	-
Max. injection & Hold Pressure 1 *3 *6	MPa	-	-	-	250	200	180
Max. injection & Hold Pressure 2 *3 *7	MPa	-	-	-	220	200	180
Max. injection rate *4	cm <sup>3</sup> /s	-	-	-	160	203	251
Max. screw rotation speed	min <sup>-1</sup>	-	-	-	450		
Machine weight Double platen   Single platen *9	t	4.4   ≈ 4.25					
<b>Max. Injection Speed *4</b>	<b>mm/s</b>	<b>350</b>					
Max. injection pressure (high-pressure filling mode) *3 *5	MPa	340	340	320	270	220	-
Max. injection & Hold Pressure 1 *3 *6	MPa	290	290	270	250	190	160
Max. injection & Hold Pressure 2 *3 *7	MPa	260	260	240	220	190	160
Max. injection rate *4	cm <sup>3</sup> /s	133	185	215	281	356	439
Max. screw rotation speed	min <sup>-1</sup>	450					
Machine weight Double platen   Single platen *9	t	4.4   ≈ 4.25					
<b>Max. Injection Speed *4</b>	<b>mm/s</b>	<b>550</b>					
Max. injection pressure (high-pressure filling mode) *3 *5	MPa	340	-	-	-	-	-
Max. injection & Hold Pressure 1 *3 *6	MPa	290	260	220	170	-	-
Max. injection & Hold Pressure 2 *3 *7	MPa	260	260	220	170	-	-
Max. injection rate *4	cm <sup>3</sup> /s	209	292	338	442	-	-
Max. screw rotation speed	min <sup>-1</sup>	450					
Machine weight Double platen   Single platen *9	t	4.4   ≈ 4.25					
Screw and Barrel							
Number of heater zones	Barrel	3					
Number of pyrometers	Nozzle	1					
Total heater wattage	kW	3.8	6.5	7.2	8.4	9.1	9.9

● 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)

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## Dimensions / Clamp layout

