

# FANUC ROBOSHOT $\alpha$ -S100iA

## Mechanical specifications

Item		Unit	Data						
Clamping unit	Clamping mechanism	---	Double toggle						
	Tonnage	kN	Standard 1000 (100 tonf) / Increased 1250 (125 tonf)(Option)						
	Maximum and minimum die height	mm	Doubleplaten 450 - 150 / Extended die height 550 - 150(Option) Singleplaten 520 - 220 / Extended die height 620 - 220(Option)						
	Clamping stroke	mm	350						
	Locating ring diameter	mm	$\phi$ 100						
	Tie bar spacing (HxV)	mm	460 x 410						
	Platen size (HxV)	mm	660 x 610						
	Minimum mold size (HxV) <sup>*1)</sup>	mm	265 x 240						
	Ejector stroke	mm	100						
Maximum ejector force	kN	Standard 25 (2.5tonf) / Increased 60 (6.0tonf) (Option)							
Injection unit	Screw diameter	mm	22	26	28	32	36	40 <sup>*7)</sup>	
	Injection stroke	mm	75	95	95	128	144	144	
	Maximum injection volume	cm <sup>3</sup>	29	50	58	103	147	181	
	Inj.speed 200mm/s	Maximum injection pressure <sup>*2)</sup>	MPa	260	260	240	220	190	160
		Maximum pack pressure <sup>*2)</sup>	MPa	260	260	220	200	170	140
		Maximum injection rate <sup>*3)</sup>	cm <sup>3</sup> /s	76	106	123	160	203	251
		Maximum injection speed <sup>*3)</sup>	mm/s	200					
		Maximum screw rotation speed	min <sup>-1</sup>	300					
	Inj.speed 200mm/s (High duty)	Maximum injection pressure <sup>*2)</sup>	MPa	---	---	---	220	200	180 <sup>*7)</sup>
		Maximum pack pressure <sup>*2)</sup>	MPa	---	---	---	200	180	160 <sup>*7)</sup>
		Maximum injection rate <sup>*3)</sup>	cm <sup>3</sup> /s	---	---	---	161	204	251
		Maximum injection speed <sup>*3)</sup>	mm/s	200					
		Maximum screw rotation speed	min <sup>-1</sup>	450					
	Inj.speed 330mm/s	Maximum injection pressure (High pressure filling mode) <sup>*2),*4)</sup>	MPa	340	340	320	270	220	---
		Maximum injection pressure <sup>*2)</sup>	MPa	260	260	240	220	190	160
		Maximum pack pressure <sup>*2)</sup>	MPa	260	260	220	200	170	140
		Maximum injection rate <sup>*3)</sup>	cm <sup>3</sup> /s	125	175	203	265	335	414
		Maximum injection speed <sup>*3)</sup>	mm/s	330					
		Maximum screw rotation speed	min <sup>-1</sup>	450					
	Inj.speed 500mm/s	Maximum injection pressure (High pressure filling mode) <sup>*2),*4)</sup>	MPa	340	340	280	---	---	---
		Maximum injection pressure <sup>*2)</sup>	MPa	260	260	240	220	170	---
		Maximum pack pressure <sup>*2)</sup>	MPa	260	260	220	200	170	---
		Maximum injection rate <sup>*3)</sup>	cm <sup>3</sup> /s	190	265	307	402	508	---
		Maximum injection speed <sup>*3)</sup>	mm/s	500					
		Maximum screw rotation speed	min <sup>-1</sup>	450					
	Nozzle touch force		kN	15 (1.5 tonf)					
	Screw & Barrel	Number of pyrometers	Barrel	3					
		Nozzle	1						
Total heater wattage		kW	3.8	6.5	7.2	8.4	9.1	9.9	
Machine Weight <sup>*5)</sup>		t	Inj.speed 200mm/s 4.4 (Doubleplaten) 4.25(Singleplaten) (Approximately) Inj.speed 200mm/s(High duty) 4.4 (Doubleplaten) 4.25(Singleplaten) (Approximately) Inj.speed 330mm/s 4.4 (Doubleplaten) 4.25(Singleplaten) (Approximately) Inj.speed 500mm/s 4.55 (Doubleplaten) 4.4(Singleplaten) (Approximately)						

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

\*2) The maximum injection pressure and maximum pack pressure is not melt pressure but injection unit output.  
The maximum injection pressure and maximum pack pressure is the maximum value can be set.  
The maximum injection pressure and maximum pack pressure might be limited depending on the molding condition.

\*3) 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.

\*4) 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)  
High pressure resistance barrel and nozzle are necessary, when high pressure filling option is selected.(Contact sales for detail)

\*5) The machine without option.

\*6) The pressure conversion is 1MPa=10kgf/cm<sup>2</sup>.

\*7) The molding condition might be limited by the resin.(Contact sales for detail)

## Installation conditions

Item		Data	
Input power source		3-phase AC200V $\pm$ 10% 50/60Hz $\pm$ 1Hz 3-phase AC220V $\pm$ 10% 60Hz $\pm$ 1Hz	
Main breaker <sup>*8)</sup>	Inj.speed 200mm/s	150A (With peripheral devices) <sup>*9)</sup> 60A (With no peripheral device) <sup>*9)</sup>	
	Inj.speed 200mm/s (High duty)	150A (With peripheral devices) <sup>*9)</sup> 60A (With no peripheral device) <sup>*9)</sup>	
	Inj.speed 330mm/s	150A (With peripheral devices) <sup>*9)</sup> 60A (With no peripheral device) <sup>*9)</sup>	
	Inj.speed 500mm/s		200A (With peripheral devices) <sup>*9)</sup> 100A (With no peripheral device) <sup>*9)</sup>
		Ground	Follow relevant laws and standards of the country where the machine is installed when performing grounding.
Installing environment	Temperature	0 ~ 40°C (20 ~ 25°C recommended)	
	Humidity	Below 75% (Below 95% under short term operation)	
	Vibration	Below 0.5G	
	Atmosphere	Take care of corrosive gas.	

\*8) Connect power cable to the machine's main breaker directly. The breaker is ground fault type with 100mA of sensitivity.

\*9) With peripheral devices: When peripheral devices "External outlet + Mold heater controller" or "External outlet + Integrated hotrunner controller" are used in addition to the molding machine  
With no peripheral device: When only the molding machine is used

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