

# FANUC ROBOSHOT $\alpha$ -S50iA

## Mechanical specifications

Item		Unit	Data					
Clamping unit	Clamping mechanism	---	Double toggle					
	Tonnage	kN	Standard 500 (50 tonf) / Increased 650 (65 tonf) (Option)					
	Maximum and minimum die height	mm	Doubleplaten 350 - 150 / Extended die height 400 - 150 (Option) Singleplaten 410 - 210 / Extended die height 460 - 210 (Option)					
	Clamping stroke	mm	250					
	Locating ring diameter	mm	$\phi$ 100					
	Tie bar spacing (HxV)	mm	360 x 320					
	Platen size (HxV)	mm	500 x 470					
	Minimum mold size (HxV) <sup>*1)</sup>	mm	205 x 185					
	Ejector stroke	mm	70					
	Maximum ejector force	kN	Standard 20 (2.0tonf) / Increased 60 (6.0tonf) (Option)					
Injection unit	Screw diameter	mm	20	22	26	28	32 <sup>*7)</sup>	
	Injection stroke	mm	75	75	95	95	95	
	Maximum injection volume	cm <sup>3</sup>	24	29	50	58	76	
	Inj.speed 330mm/s	Maximum injection pressure (High pressure filling mode) <sup>*2), *4)</sup>	MPa	360	340	290	250	---
			MPa	280	260	210	190	150
			MPa	280	240	190	160	130
			cm <sup>3</sup> /s	103	125	175	203	265
			mm/s	330				
			min <sup>-1</sup>	450				
	Inj.speed 500mm/s	Maximum injection pressure (High pressure filling mode) <sup>*2), *4)</sup>	MPa	360	340	275	240	---
			MPa	280	260	210	190	---
			MPa	280	240	190	160	---
			cm <sup>3</sup> /s	157	190	265	307	---
			mm/s	500				
			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	3.5	3.8	6.5	7.2	8.4	
Machine Weight	<sup>*5)</sup>	t	Inj.speed 330 mm/s 2.9 (Doubleplaten) 2.85 (Singleplaten) (Approximately) Inj.speed 500 mm/s 3.1 (Doubleplaten) 3.05 (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) After shipment, the machine equipped with screw diameter  $\phi$ 20- $\phi$ 28mm cannot install  $\phi$ 32mm.

The machine equipped with screw diameter  $\phi$ 32mm can install  $\phi$ 26- $\phi$ 32mm and cannot install  $\phi$ 20mm and  $\phi$ 22mm.

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 330mm/s	150A (With peripheral devices) <sup>*9)</sup>
		50A (With no peripheral device) <sup>*9)</sup>
	Inj.speed 500mm/s	175A (With peripheral devices) <sup>*9)</sup>
		75A (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

All specifications are subject to change without notice.

ROBOSHOT  $\alpha$ -S50iA(A)

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