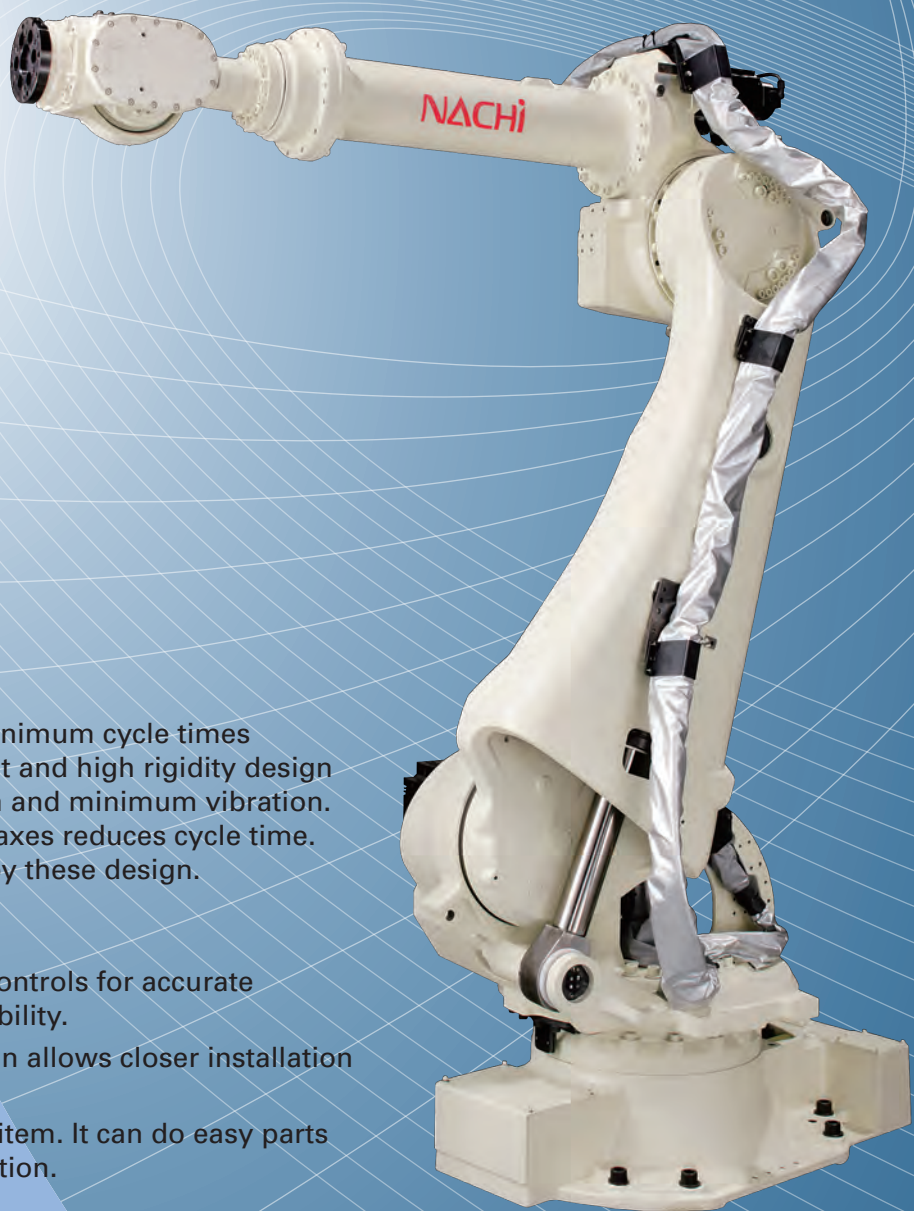
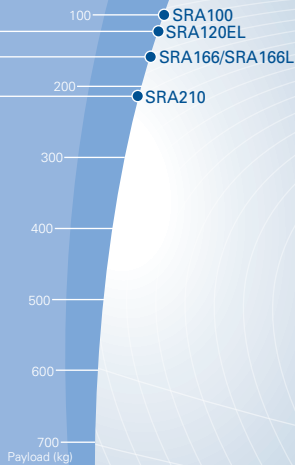


World class Speed Robot

# SRA100/166/210/166L/120EL



## World Class Speed Robot

- Robot motion makes minimum cycle times unbeatable. Light weight and high rigidity design makes high acceleration and minimum vibration. Maximum speed on all axes reduces cycle time. Improved productivity by these design.

## Easy to use

- Improved motor drive controls for accurate positioning and repeatability.
- Slim and compact design allows closer installation in less floor space.
- Improved maintenance item. It can do easy parts replacement and inspection.

## Energy saving

- Power consumption reduced 15% from existing model by reducing the robot's weight by 20% and using newest motor drive controls.

# SRA100/166/210/166L/120EL

## ◆ Robot specifications

Item		Specifications					
Robot model		SRA100	SRA166	SRA210	SRA166L	SRA120EL	
Structure		Articulated construction					
Number of axes		6					
Drive system		AC servo system					
Max. operating area (rad/°)	Arm	J1 Swivel	±3.14 [±180]				
		J2 Back & forth	+1.05~-1.40 [+60~-80]				
		J3 Up & down	+2.62~-2.56 [+150~-146.5]	+2.62~-2.33 [+150~-133.4]	+2.62~-2.23 [+150~-127.7]		
	Wrist	J4 Rotation2	±6.28 [±360]				
		J5 Bend	±2.36 [±135]	±2.27 [±130]	±2.36 [±135]		
		J6 Rotation1	±6.28 [±360]				
Max. velocity (rad/s/°/s)	Arm	J1 Swivel	2.37 [136]	2.18 [125]	2.01 [115]		
		J2 Back & forth	2.36 [135]	2.01 [115]	1.83 [105]		
		J3 Up & down	2.36 [135]	2.11 [121]	1.97 [113]		
	Wrist	J4 Rotation2	4.19 [240]	3.14 [180]	2.44 [140]		
		J5 Bend	4.07 [233]	3.02 [173]	2.32 [133]	3.02 [173]	
		J6 Rotation1	6.31 [351]	4.54 [260]	3.49 [200]	4.54 [260]	
Payload (kg)	Wrist	100	166	210	166	120	
	Forearm*1	45 (maximum90)					
Allowable static load torque (N·m)	J4 Rotation2	580	951	1337	951	687	
	J5 Bend	580	951	1337	951	687	
	J6 Rotation1	290	490	720	490	353	
Max. allowable moment of inertia*2 (kg·m <sup>2</sup> )	J4 Rotation2	60	88.9	141.1	88.9	60	
	J5 Bend	60	88.9	141.1	88.9	60	
	J6 Rotation1	30	45	79	45	30	
Max. reach (mm)	2654		2674	2951	3099		
Position repeatability*3 (mm)	±0.1		±0.15				
Installation	Floor mounted						
Ambient conditions*4	Temperature: 0~45°C Humidity: 20~85% RH (without condensation) Vibration of installation surface: 0.5 G (4.9 m/s <sup>2</sup> ) or less						
Robot mass (kg)	960	990	980	985			

1[rad] = 180/π[°], 1[N·m] = 1/9.8[kgf·m]

\*1 : Load specification of number 1 arm varies according to wrist load conditions and installation position.

\*2 : Note that the allowable moment of inertia of wrist varies with the wrist load conditions.

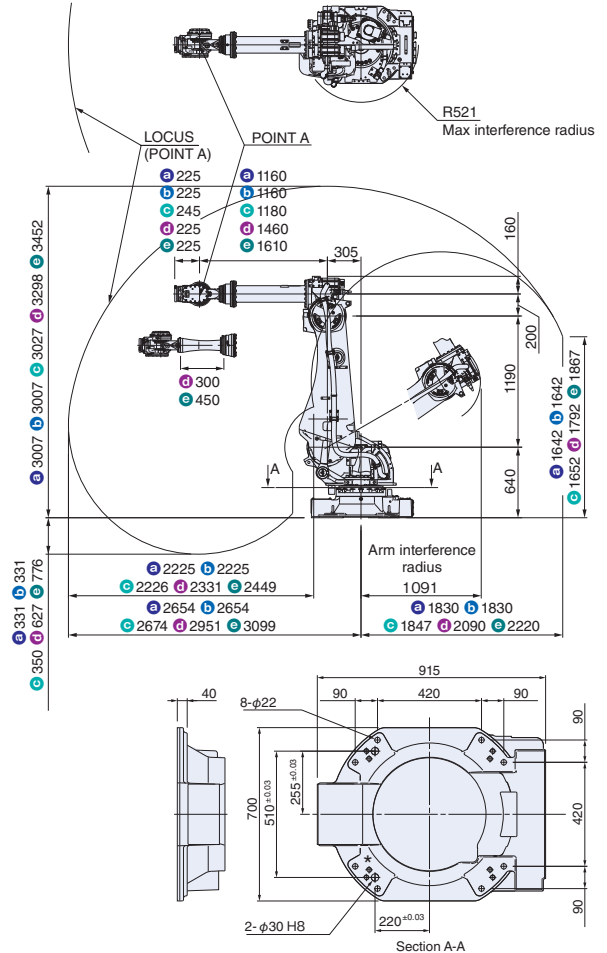
\*3 : JIS B 8432 compliant.

\*4 : Permitted height is not higher than 1,000m above sea level.

## ◆ Exterior dimensions and operating envelope

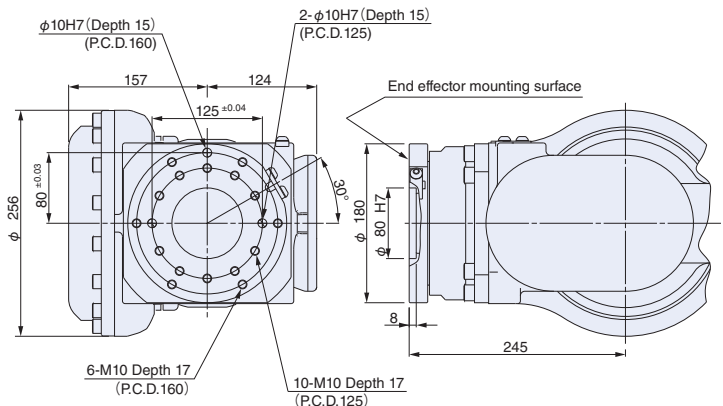
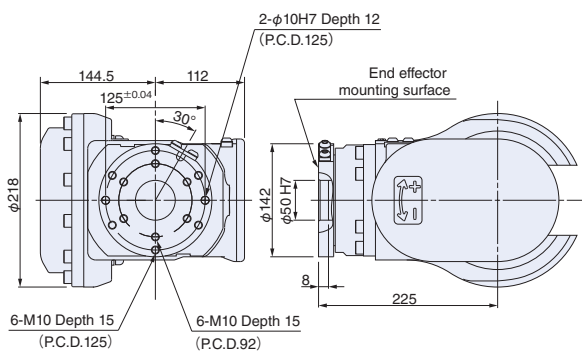
SRA100/166/210/166L/120EL

\*Values in diagram indicated as a SRA100 b SRA166 c SRA210 d SRA166L e SRA120EL



SRA100/166/166L/120EL

SRA210



● The specifications are subject to changes without notice.

● In case that an end user uses this product for military purpose or production of weapon, this product may be liable for the subject of export restriction stipulated in the Foreign Exchange and Foreign Trade Control Law. Please go through careful investigation and necessary formalities for export.

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