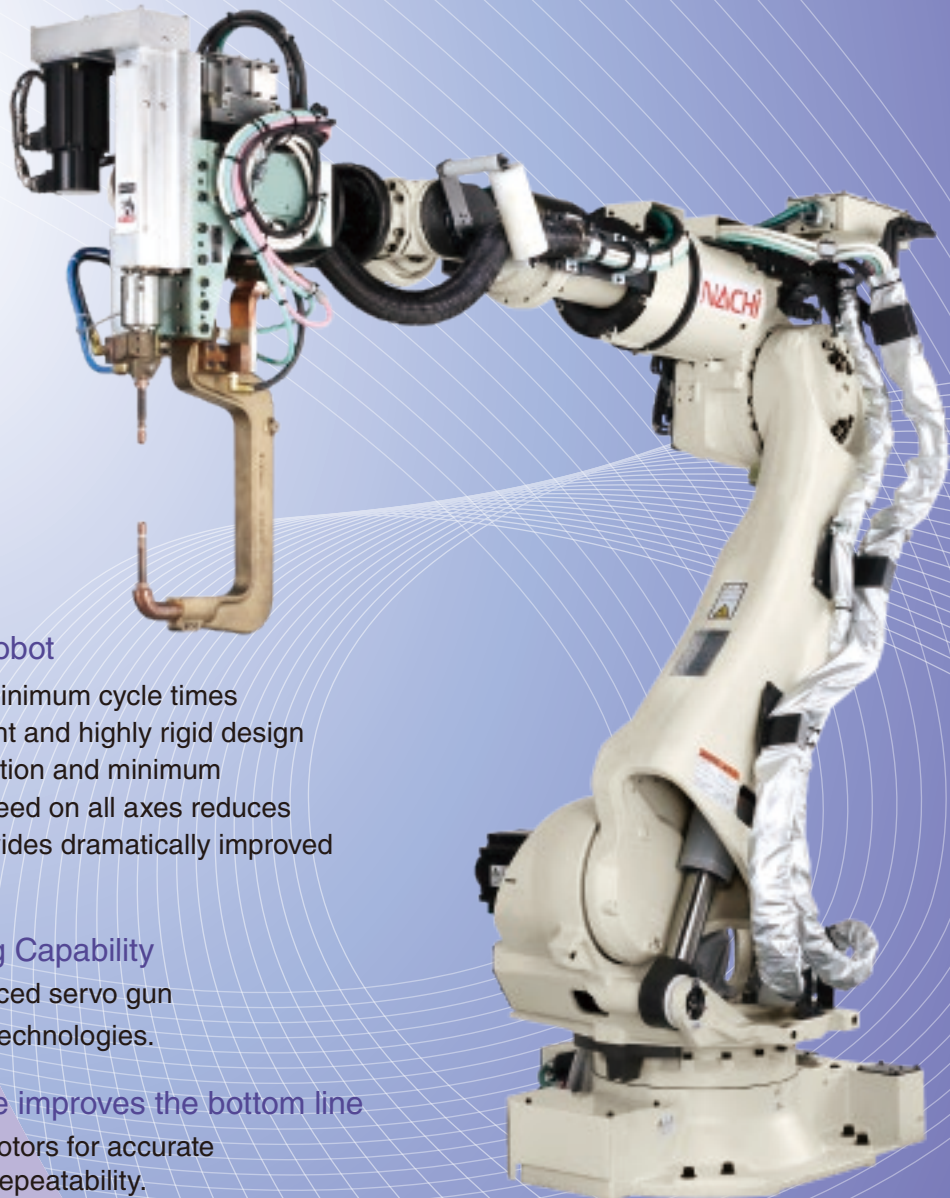


ALL FOR SPEED

SRA166/210-01A



World Class Speed Robot

- Robot motion makes minimum cycle times unbeatable. Light weight and highly rigid design results in high acceleration and minimum vibration. Maximum speed on all axes reduces move time. All this provides dramatically improved productivity.

Superior Spot Welding Capability

- Industry leading advanced servo gun software features and technologies.

SRA robot ease of use improves the bottom line

- Improved drives and motors for accurate positioning and better repeatability.
- Compact design allows closer installation in less floor space.

Improved energy efficiency

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

SRA166/210-01A

◆ Robot specifications

Item		Specifications		
Robot model		SRA166-01A	SRA210-01A	
Structure		Articulated construction		
Number of axes		6		
Drive system		AC servo system		
Max. operating area	Arm	J1 Swivel	±3.14 rad (±180°)	
		J2 Forward/backward	+1.05~−1.40 rad (+60°~−80°)	
		J3 Upward/downward	+2.62~−2.56 rad (+150°~−146.5°)	
	Wrist	J4 Rotation2	±3.67 rad (±210°)	
		J5 Bending	±2.09 rad (±120°)	
		J6 Rotation1	±3.58 rad (±205°)	
Max. velocity	Arm	J1 Swivel	2.18 rad/s (125°/s)	2.01 rad/s (115°/s)
		J2 Forward/backward	2.01 rad/s (115°/s)	1.83 rad/s (105°/s)
		J3 Upward/downward	2.11 rad/s (121°/s)	1.97 rad/s (113°/s)
	Wrist	J4 Rotation2	3.14 rad/s (180°/s)	2.44 rad/s (140°/s)
		J5 Bending	3.02 rad/s (173°/s)	2.32 rad/s (133°/s)
		J6 Rotation1	4.54 rad/s (260°/s)	3.49 rad/s (200°/s)
Payload	Wrist	166 kg	210 kg	
	Forearm*1	15 kg (maximum 60kg)		
Allowable static load torque	J4 Rotation2	951 N·m	1,337 N·m	
	J5 Bending	951 N·m	1,337 N·m	
	J6 Rotation1	490 N·m	720 N·m	
Max. allowable moment of inertia*2	J4 Rotation2	88.9 kg·m ²	141.1 kg·m ²	
	J5 Bending	88.9 kg·m ²	141.1 kg·m ²	
	J6 Rotation1	45.0 kg·m ²	79.0 kg·m ²	
Position repeatability*3		±0.06 mm		
Ambient temperature		0~45 °C		
Installation		Floor mounted		
Robot mass		1,060 kg	1,090 kg	

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.

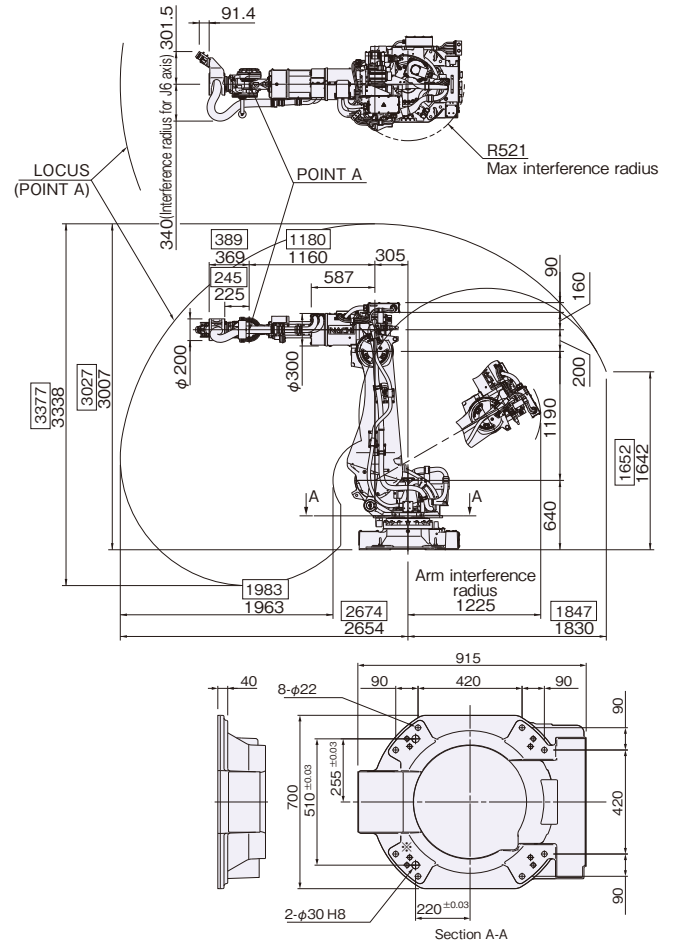
*3 : JIS B 8432 compliant.

◆ Exterior dimensions and operating envelope

SRA166/210-01A

* Data shown in for SRA210-01A.

* The diagram below shows specifications for cable support (A-Trac4) installed on the arm of a spot welding robot.



SRA166/210-01A

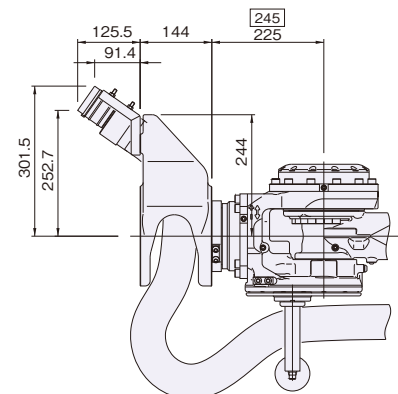
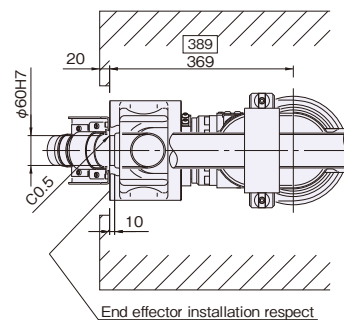
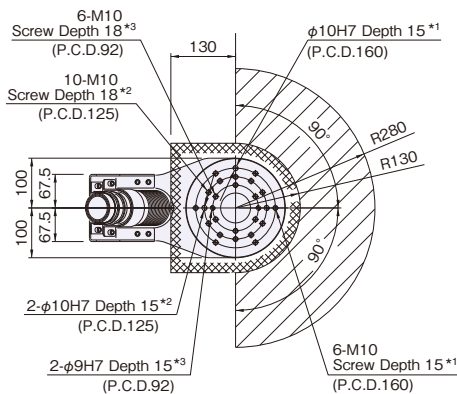
*1 : This screw can be used for 210kg or less. (P.C.D.160)

*2 : This screw can be used for 166kg or less. (P.C.D.125)

*3 : This screw can be used for 100kg or less. (P.C.D.92)

////// Indicates the operating area of the A-Trac4 spring. Prevent intrusion of end effector into this area. Interference of the A-Trac4 spring may damage the end effector. Also note that the cable inside the A-Trac4 spring may be damaged if something catches on or interferes with the A-Trac4 spring.

▣ Indicates area where tools can be mounted.



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● 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 Act. Please go through careful investigation and necessary formalities for export.

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2024.04. * - ABE-ABE