

IN-Trac Cable Management System

# SRA100H/SRA133HL



## Smart Cable Management

■ Spot welding cables and utility lines are routed through the hollow forearm and wrist for protection, ensuring long life. No surprises from swinging dress cables not modeled in simulation. Minimize interferences, much better than external dress solutions.

## World's Fastest Robot

■ The best motion control in the class makes cycle times unbeatable. Light weight, highly rigid design robot for high acceleration with minimum vibration. The high speed of all axes provide minimized movement times. Dramatically improves manufacturing productivity.

## Robot specifications

| Item                               | Specifications   |   |
|------------------------------------|--|---|
| Robot model                        | SRA100H-01   | SRA133HL-01   |
| Structure                          | Articulated construction   |   |
| Number of axes                     | 6  |   |
| Drive system                       | AC servo system  |   |
| Max. working envelope              | J1   | $\pm 3.14\text{rad}$ ( $\pm 180^\circ$ )                        |
|                                    | J2   | $-1.40 \sim +1.05\text{rad}$ ( $-80^\circ \sim +60^\circ$ )     |
|                                    | J3   | $-2.56 \sim +2.62\text{rad}$ ( $-146.5^\circ \sim +150^\circ$ ) |
|                                    | J4   | $\pm 3.66\text{rad}$ ( $\pm 210^\circ$ )                        |
|                                    | J5   | $\pm 2.18\text{rad}$ ( $\pm 125^\circ$ )                        |
|                                    | J6   | $\pm 3.66\text{rad}$ ( $\pm 210^\circ$ )                        |
| Max. speed                         | J1   | 2.18 rad/s (125°/s)   |
|                                    | J2   | 2.00 rad/s (115°/s)   |
|                                    | J3   | 2.11 rad/s (121°/s)   |
|                                    | J4   | 3.66 rad/s (210°/s)   |
|                                    | J5   | 3.05 rad/s (175°/s)   |
|                                    | J6   | 5.41 rad/s (310°/s)   |
| Payload                            | Wrist  | 100 kg  |
|                                    | Forearm*1  | 20 kg   |
| Allowable static load torque       | J4   | 830N·m  |
|                                    | J5   | 830N·m  |
|                                    | J6   | 441N·m  |
| Max. allowable moment of inertia*2 | J4   | 85.0kg·m <sup>2</sup>   |
|                                    | J5   | 85.0kg·m <sup>2</sup>   |
|                                    | J6   | 45.0kg·m <sup>2</sup>   |
| Max. reach                         | 2,654mm  | 2,951mm   |
| Position repeatability*3           | $\pm 0.1\text{mm}$   | $\pm 0.15\text{mm}$   |
| Installation                       | Floor mount  |   |
| Ambient conditions                 | Temperature: 0~45°C*4<br>Humidity: 20~85%RH (No dew condensation allowed)<br>Vibration at the installation surface: Not more than 0.5G (4.9 m/s <sup>2</sup> ) |   |
| Weight                             | 1,040kg  | 1,070kg   |

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

\*On controller display, axis 1 to 6 is displayed as J1 to J6 for each.

\*The specification and externals described in this specifications might change without a previous notice for the improvement.

\*Explosion proof is not available.

\*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.

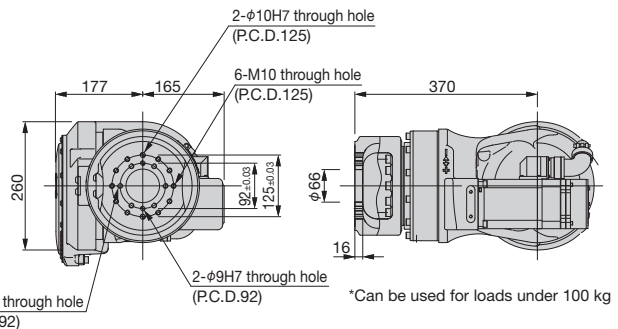
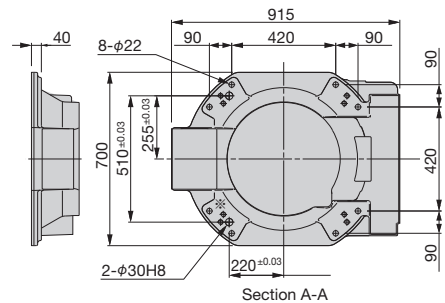
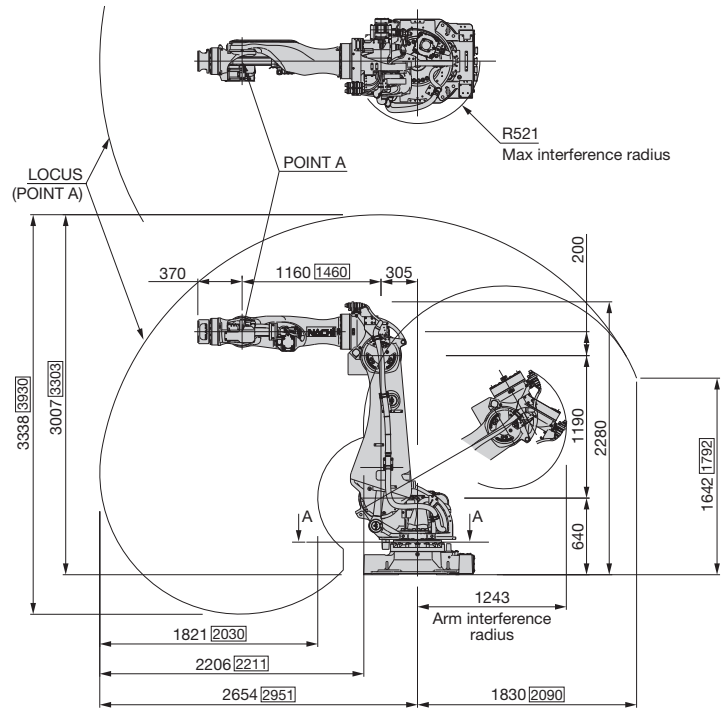
\*3: JIS B 8432 compliant.

\*4: Permitted height is not higher than 1,000m above sea level. If used in higher place, permitted temperature is affected by height.

## Exterior dimensions and working envelope

SRA100H-01/SRA133HL-01

\*Data shown in   for SRA133HL-01.



● 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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