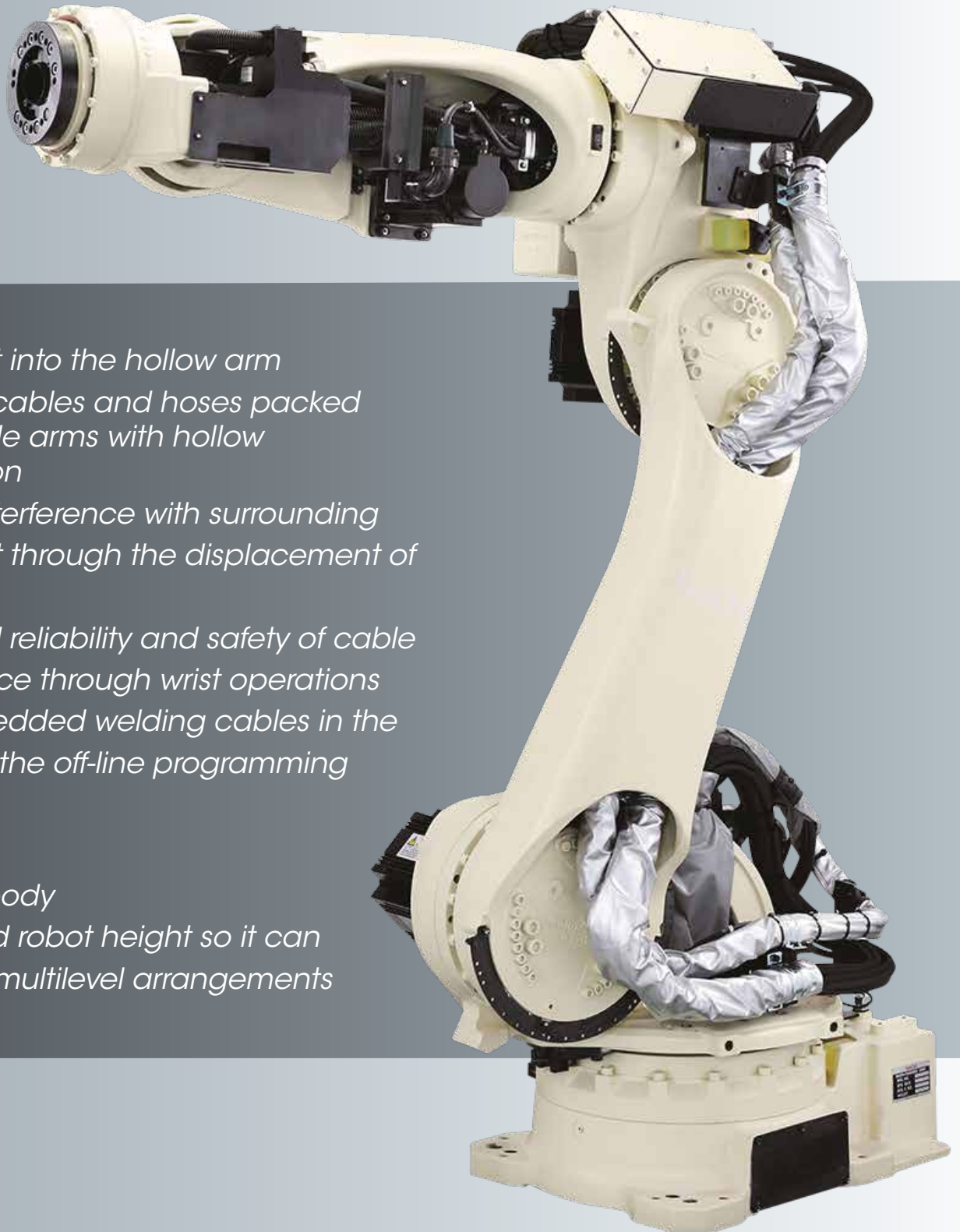


Spot welding robot with built-in cables

# ***SRA100HS/HB***



*Cable built into the hollow arm*

- *Welding cables and hoses packed tightly inside arms with hollow construction*
- *Avoids interference with surrounding equipment through the displacement of cables*
- *Improved reliability and safety of cable performance through wrist operations*
- *The embedded welding cables in the arm make the off-line programming easier*

*Compact body*

- *Minimized robot height so it can be used in multilevel arrangements*

## List of basic specifications

Robot model		SRA100HS	SRA100HB
Structure		Articulated	
Number of axes		6	
Drive system		AC servo system	
Max. operating envelope	J1	$\pm 3.14\text{rad}$ ( $\pm 180^\circ$ )	
	J2	$-2.09$ to $+1.05\text{rad}$ ( $-120^\circ$ to $+60^\circ$ )	$-2.09$ to $+1.05\text{rad}$ ( $-120^\circ$ to $+60^\circ$ )
	J3	$-2.18$ to $+1.57\text{rad}$ ( $-125^\circ$ to $+60^\circ$ )	$-2.64$ to $+1.57\text{rad}$ ( $-151^\circ$ to $+90^\circ$ )
	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. velocity	J1	$2.37\text{rad/s}$ ( $136^\circ/\text{s}$ )	
	J2	$2.00\text{rad/s}$ ( $115^\circ/\text{s}$ )	
	J3	$2.79\text{rad/s}$ ( $160^\circ/\text{s}$ )	
	J4	$3.66\text{rad/s}$ ( $210^\circ/\text{s}$ )	$3.93\text{rad/s}$ ( $225^\circ/\text{s}$ )
	J5	$3.05\text{rad/s}$ ( $175^\circ/\text{s}$ )	
	J6	$5.41\text{rad/s}$ ( $310^\circ/\text{s}$ )	$5.50\text{rad/s}$ ( $315^\circ/\text{s}$ )
Payload	Wrist	100kg	
	Forearm *1	20kg	
Allowable static load torque for wrist	J4	830N·m	650N·m
	J5	830N·m	650N·m
	J6	441N·m	315N·m
Allowable moment of inertia for wrist *2	J4	85kg·m <sup>2</sup>	
	J5	85kg·m <sup>2</sup>	
	J6	45kg·m <sup>2</sup>	
Position repeatability *3		$\pm 0.1\text{mm}$	
Installation		Floor	
Ambient conditions		Ambient temperature : 0 to $45^\circ\text{C}$ *4 Ambient humidity : 20 to 85%RH (without condensation) Vibration : Not more than $0.5\text{G}$ ( $4.9\text{m/s}^2$ )	
Noise level *5		79.6dB	
Robot mass		690kg	750kg

1[rad]=180/p[°] 1[N·m]=1/9.8[kgf·m]

(\*1) This value changes by placement and load conditions of a wrist.

(\*2) The Allowable moment of inertia of a wrist changes with load conditions of a wrist.

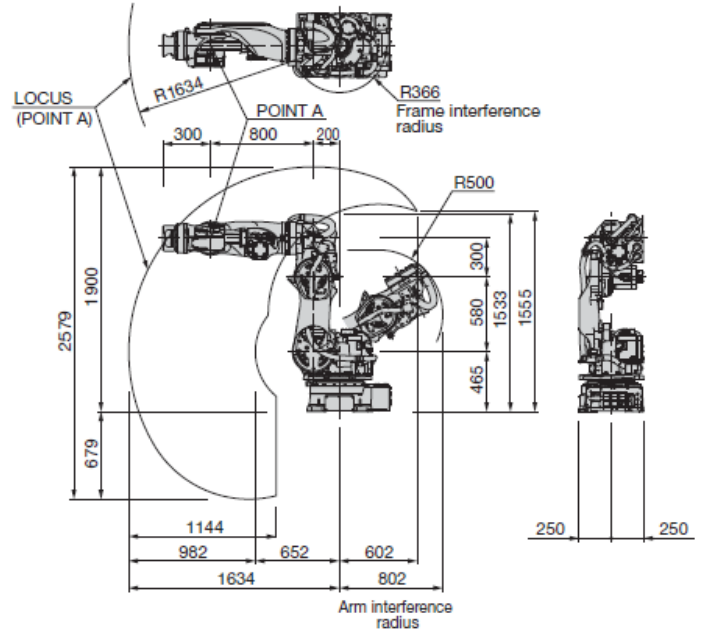
(\*3) This value conforms to "JIS B 8432".

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

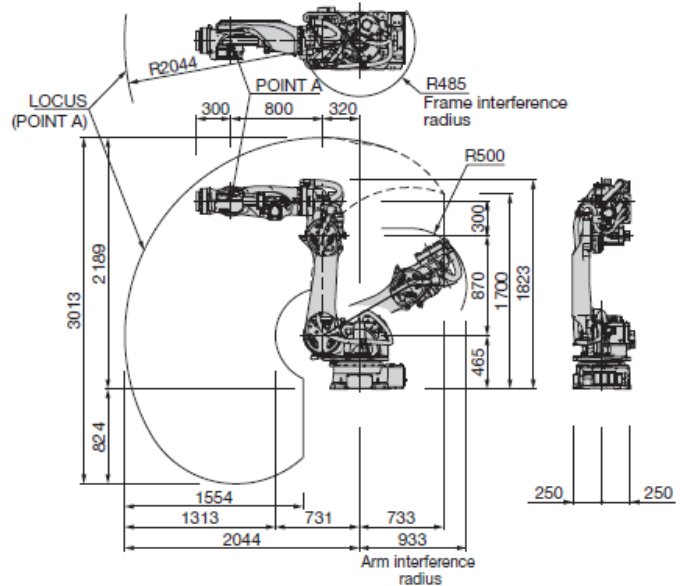
(\*5) A-weighted equivalent sound level measured according to JIS Z 8737-1 (ISO 11201). (while operating at maximum speed with rated load)

## Exterior dimensions and operating envelope

### SRA100HS



### SRA100HB



**NACHI**  
ROBOTIC SYSTEMS INC.

[www.nachirobotics.com](http://www.nachirobotics.com)

NACHI ROBOTIC SYSTEMS INC.  
NACHI AMERICA INC. HEADQUARTERS  
NACHI CANADA INC.  
NACHI MEXICANA, S.A. DE C.V.  
NACHI BRASIL LTDA.  
NACHI EUROPE GmbH  
NACHI TECHNOLOGY (THAILAND) CO., LTD.  
NACHI SINGAPORE PTE. LTD.  
PT.NACHI INDONESIA  
NACHI TECHNOLOGY INDIA PVT. LTD.  
NACHI-FUJIKOSHI (CHINA) CO., LTD.

Michigan, U.S.A.  
Indiana, U.S.A.  
CANADA  
MEXICO  
BRASIL  
GERMANY  
THAILAND  
SINGAPORE  
INDONESIA  
INDIA  
CHINA

Tel: +1-248-305-6545  
Tel: +1-317-530-1001  
Tel: +1-905-660-0088  
Tel: +52-442-153-2424  
Tel: +55-11-4793-8800  
Tel: +49-(0)2151-65046-0  
Tel: +66(38)961679  
Tel: +65-65587393  
Tel: +62-21-527-2841  
Tel: +91-(0)14-9467-1300  
Tel: +86-(0)21-6915-2200

Fax: +1-248-305-6542  
Fax: +1-317-530-1011  
Fax: +1-905-660-1146  
Fax: +52-442-153-2435  
Fax: +55-11-4793-8870  
Fax: +49-(0)2151-65046-90  
Fax: +66(38)961683  
Fax: +65-65587371  
Fax: +62-21-527-3029  
Fax: +91-(0)14-9467-1310  
Fax: +86-(0)21-6915-5427

<http://www.nachirobotics.com>  
<http://www.nachi-america.com/>  
<http://www.nachicanada.com/>  
<http://www.nachi.com.mx/>  
<http://www.nachi.com.br/>  
<http://www.nachi.de/>  
<http://www.nachi.co.th/>  
<http://www.nachinip.com.sg/>  
<http://www.nachi.com.id/>  
<https://www.nachi.com.cn/>

●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.