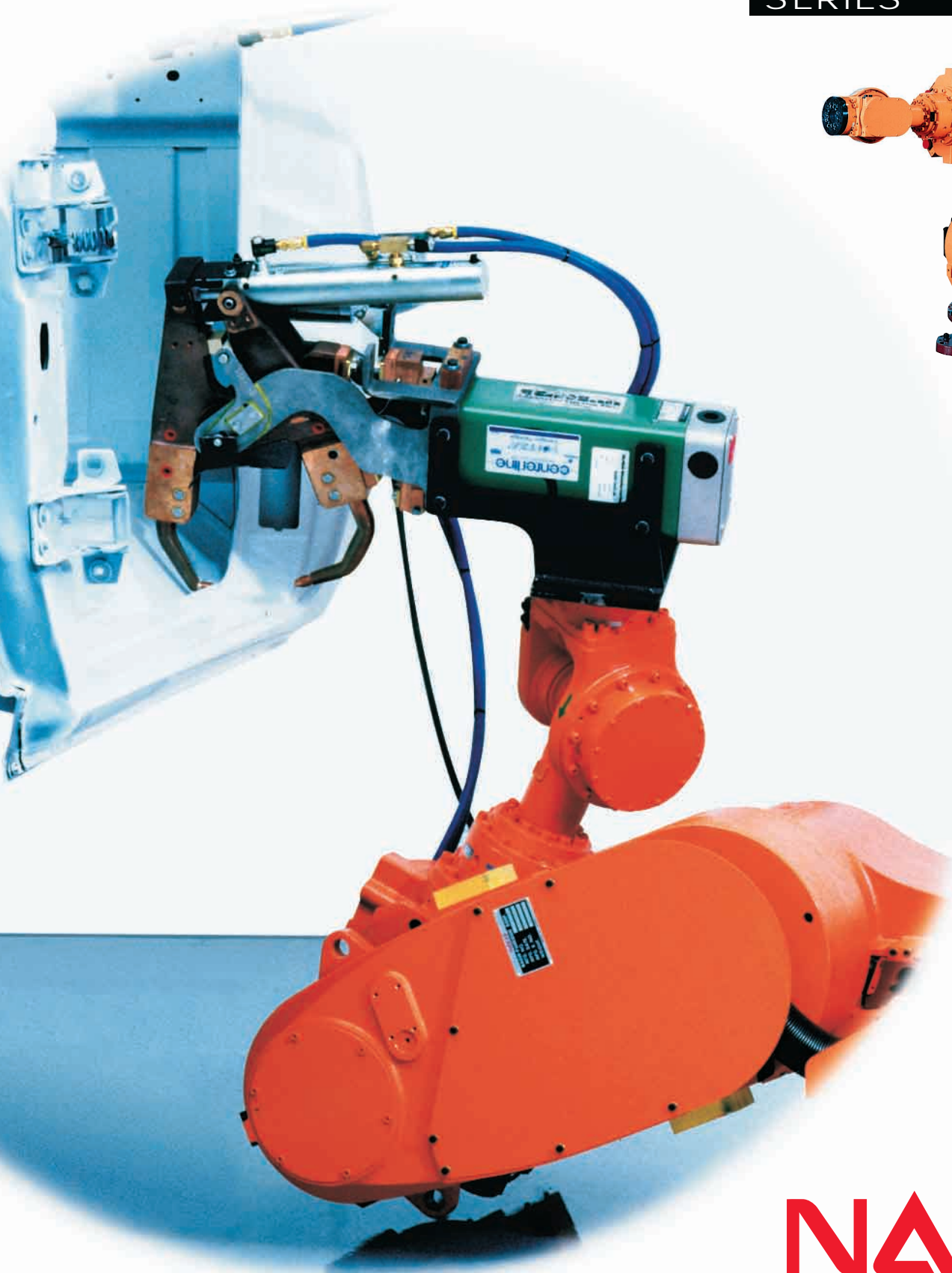


# SG

SERIES



**NACHI**  
NACHI ROBOTIC SYSTEMS INC.

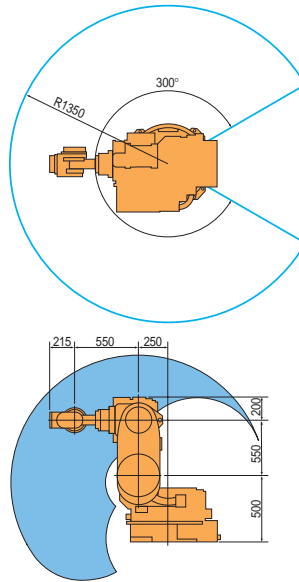
# SG SERIES

## SG ENVELOPES

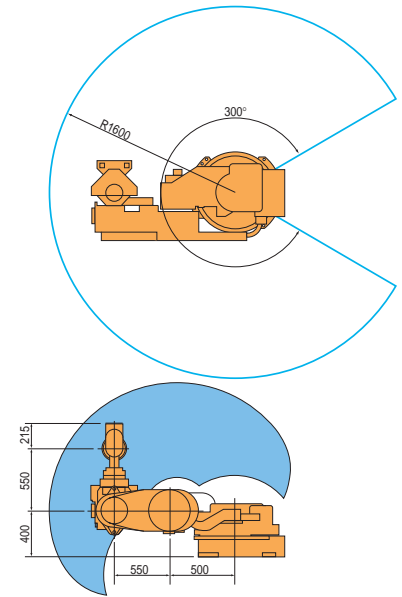
### Benefits

- **Full 160 kg Payload:**  
Supports spot welding
- **High-Density, Line-Shortening Robot**
- **Double Level Installation:**  
Shorten production lines up to 60%
- **Unique Movement:**  
Can work behind itself  
Same horizontal stroke as full size robot  
Can retract from a transfer line

SG160R



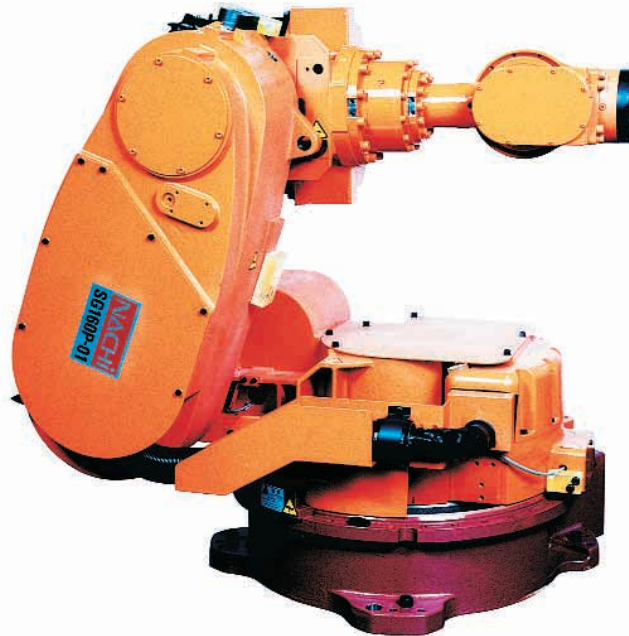
SG160P



### Advanced AW Controller

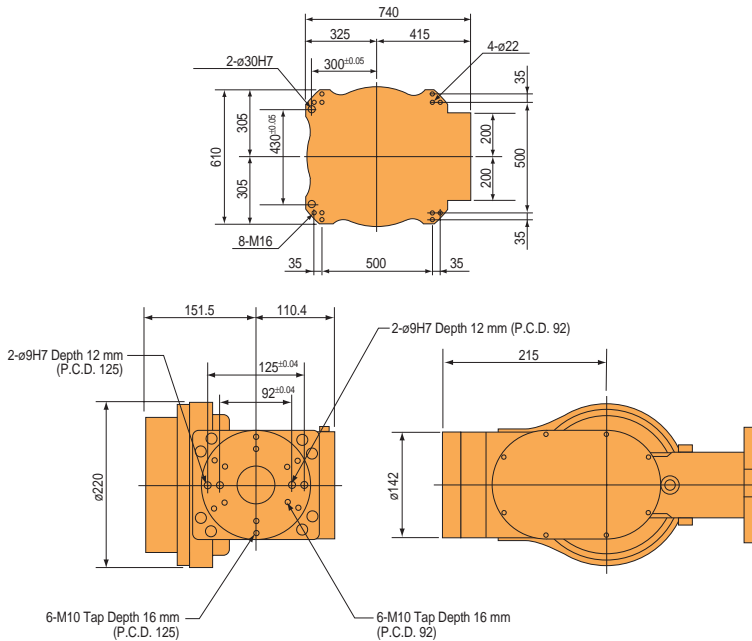
### Applications

- Spot Welding
- Material Handling
- Machine Loading/Unloading



# FOOTPRINT & WRIST MOUNTING CONFIGURATION

## SG160R & SG160P



SPECIFICATIONS			SG160R	SG160P
Construction			Articulated	Articulated
Degrees of freedom			6	6
Drive			AC Servo Motor	AC Servo Motor
Loading Weight		Wrist	160 kg	160 kg
		Forearm	25 kg	25 kg
Maximum Stroke	Arm	S Swivel	±150°	±150°
		H Back & Forth	-70° ~ +120°	-140° ~ +80°
		V Up & Down	-120° ~ +160°	-117° ~ +110°
	Wrist	R2 Rotation 2	±360°	±360°
		B Bend	±135°	±135°
		R1 Rotation 1	±360°	±360°
Maximum Velocity	Arm	S Swivel	90°/sec	90°/sec
		H Back & Forth	90°/sec	90°/sec
		V Up & Down	90°/sec	90°/sec
	Wrist	R2 Rotation 2	150°/sec	150°/sec
		B Bend	150°/sec	150°/sec
		R1 Rotation 1	200°/sec	200°/sec
Wrist Torque		R2 Rotation 2	90 kg · m	90 kg · m
		B Bend	90 kg · m	90 kg · m
		R1 Rotation 1	45 kg · m	45 kg · m
Repeatability			±0.3 mm	±0.3 mm
Ambient Temperature			0~45°C (32~113°F)	0~45°C (32~113°F)
Robot Body Weight			800 kg	850 kg

Nachi Robotic  
Systems Inc. (NRS)  
**North American Headquarters**  
22285 Roethel Dr.  
Novi, MI 48375  
Tel: 248.305.6545  
Fax: 248.305.6542  
[www.nachirobotics.com](http://www.nachirobotics.com)

Indiana Branch Office  
5032 West 79th St.  
Indianapolis, IN 46268  
Tel: 317.870.0390  
Fax: 317.870.0395

Toronto Branch Office  
89 Courtland Ave. #2  
Concord, ONT  
Canada L4K 3T4  
Tel: 905.760.9542  
Fax: 905.760.9477

Mexico Branch Office  
Oficina de Representacion  
Ingenieros Militares 85, "C" 1-2  
Col. Argentina 11230  
Mexico, D.F. Mexico  
Tel: 52.55.5576.7148  
Fax: 52.55.5576.4495