

## Nachi SG Robot Series

SG Robot series is a compact yet rugged class of robots with a payload of 160Kgs. This series was developed for high density installations and to reduce the length of production line to save money for the customers. Though being compact, SG robot series has almost the same horizontal forward and backward strokes of a full size robot. When installed in double levels or in combination with other larger robots, SG series can shorten the length of the production line by up to 60%.

## Robot Features

- 160 Kg payload
- Compact body and large stroke
- Available in two models SG160P and SG160R
- Various applications supported
- WAC (Water, Air and welding Cable) incorporated into the robot body.
- Applications cables or hoses included and built within the robot body

## Benefits

- High density, line shortening robot
- Double level installations could shorten the production lines by 60%
- Only one welding station per 14 robots sufficient in double level installations.
- Unique movements allow the robot to work behind itself.

- Same horizontal stroke as full size robot
- Can retract for transfer lines

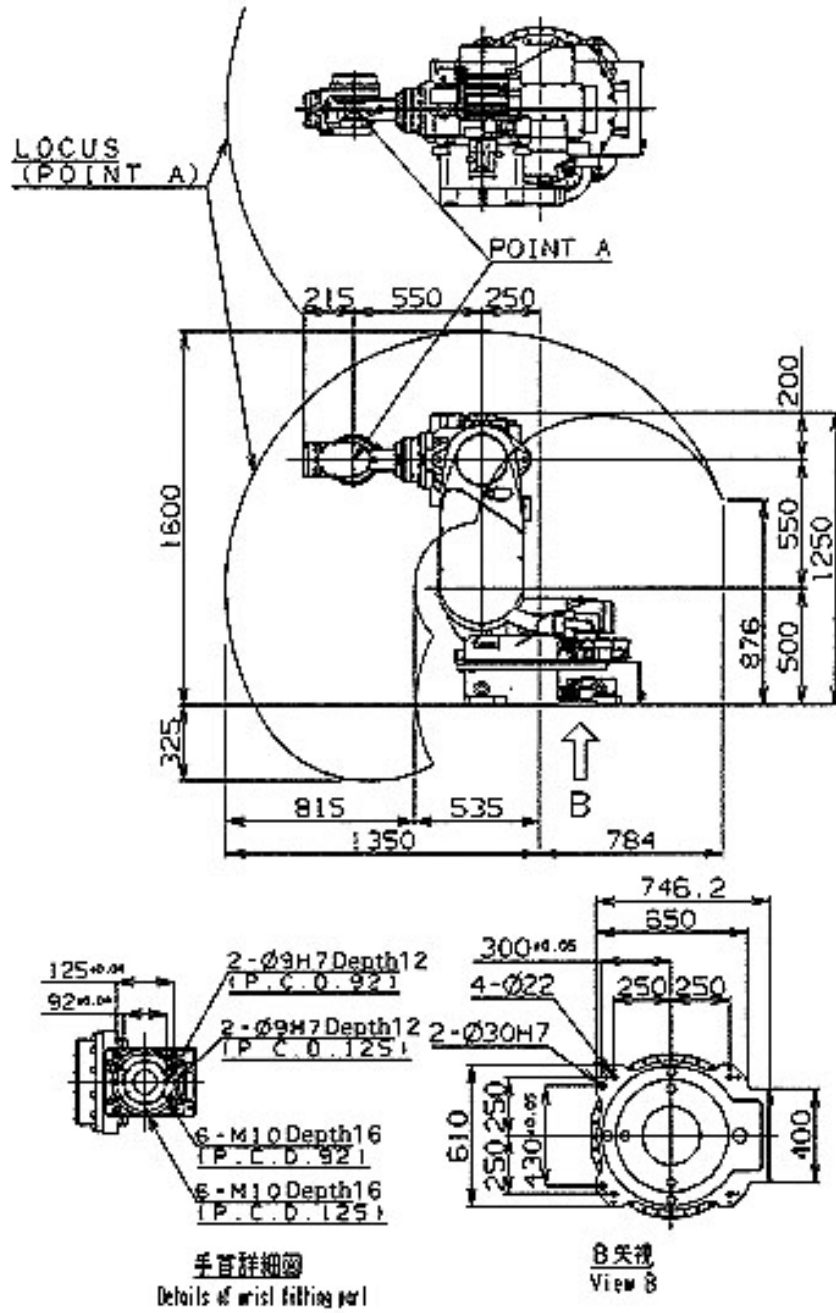
## Applications

- Spot Welding
- Material Handling
- Machine tending

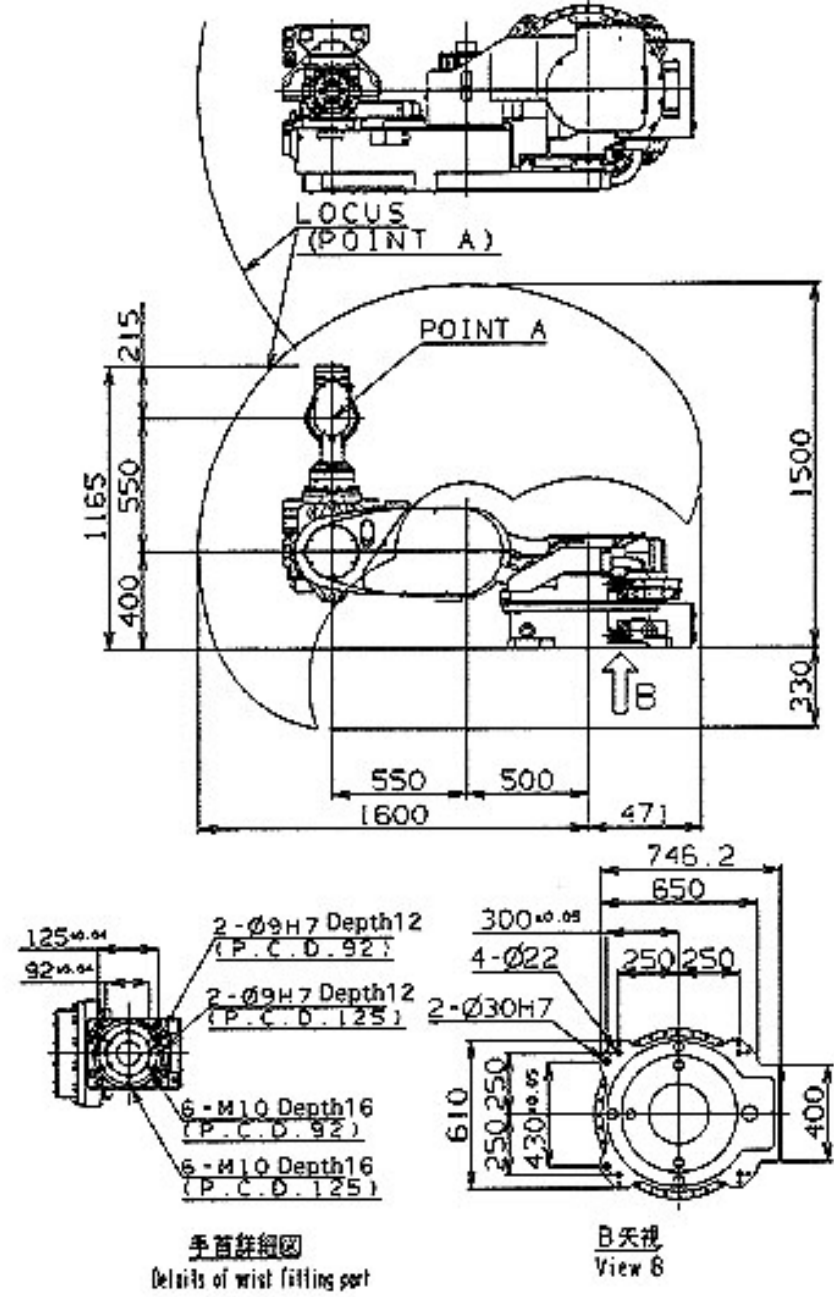


## Operation Ranges

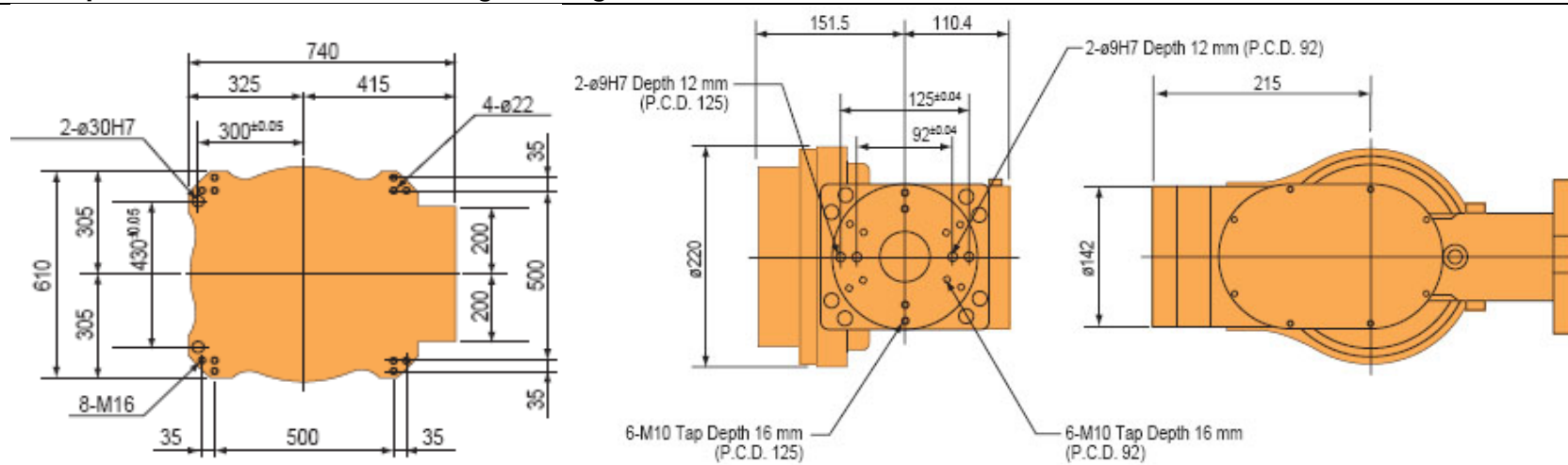
### SG 160R



### SG 160P



## Footprint and Wrist Mounting Configuration



## Specification Table

Specifications		SG160R	SG160P
Construction		Articulated	Articulated
Degrees of Freedom		6	6
Drive		AC Servo Motor	AC Servo Motor
Loading Weight	Wrist	160Kg	160Kg
	Forearm	25 Kg	25Kg
Maximum Stroke	Arm	J1	±150°
		J2	-70° ~ +120°
		J3	-120° ~ +160°
	Wrist	J4	±360°
		J5	±135°
		J6	±360°
Maximum Velocity	Arm	J1	90°/sec
		J2	90°/sec
		J3	90°/sec
	Wrist	J4	150°/sec
		J5	150°/sec
		J6	200°/sec
Wrist Torque	J4	90 Kg · m	
	J5	90 Kg · m	
	J6	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	800 Kg

**Australia:**

(Head Office) NSW  
3/23-29 South Street, Rydalmere,  
NSW 2116.  
Ph: (02) 9898 1511 Fax: (02) 9898 1678

(Queensland Office)  
3/855 Boundary Road, Coopers Plains,  
QLD 4108.  
Ph: (07) 3345 7388 Fax: (07) 3849 0612

(Victoria Office – Main Robot Div. Setup)  
Nachi (Australia) Pty. Ltd.  
38, Melverton Drive, Hallam,  
Victoria 3803.  
Ph: (03) 9796 4144 Fax: (03) 9796 3899  
[www.nachi.com.au](http://www.nachi.com.au)

**Japan:**

(Head Office – Sales)  
Nachi Fujikoshi Corp.  
Shiodome Sumitomo Bulding, 17 F  
1-9-2 Higashi-shinbashi, Minato-ku,  
Tokyo 105-0021, Japan.  
Ph: +81-(0)3-55685111  
Fax: +81-(0)3-55685206  
[www.nachi-fujikoshi.co.jp/eng](http://www.nachi-fujikoshi.co.jp/eng)

**NACHI**  
NACHI (AUSTRALIA) PTY. LTD