



## HIGH-SPEED, HIGH-PERFORMANCE INDUSTRIAL ROBOTS

The new R-Series Robots are setting the benchmark for all small to medium duty industrial robots. The compact design, along with industry leading speed, reach and work range make the R-Series Robots ideal for a wide range of applications throughout a multitude of diverse industries.

# RS20N

<b>Payload</b>	20 kg
<b>Horizontal Reach</b>	1,725 mm
<b>Vertical Reach</b>	3,078 mm
<b>Repeatability</b>	±0.05 mm
<b>Maximum Speed</b>	11,500 mm/s

### Applications

- Assembly
- Dispensing
- Inspection
- Machine Tending
- Material Handling
- Material Removal
- Welding



### ULTRA HIGH-SPEED OPERATION

The new lightweight arm along with high-output high-revolution motors provide industry leading acceleration and high-speed operation. The acceleration rate automatically adjusts to suit the payload and robot posture to deliver optimum performance and the shortest cycle times.

### WIDE WORK RANGE

In addition to extending the robot's maximum reach, the rotation range of each axis has also been increased. The extended motion range translates to a larger usable work area with minimal dead-space and greater flexibility.

### ENVIRONMENTAL PROTECTION

The R-Series incorporates a double-seal construction on all axes and the electrical connections are water-resistant offering an IP67 classification for wrist and IP65 for the remaining axes. If a wash-down arm is required, the entire robot can be provided as IP67.

### HIGH TORQUE

High-output motors, combined with a rigid arm construction, allow for superior wrist torque and load capacity.

### INTEGRATED FEATURES

Built-in pneumatic lines and internal wiring are standard. Mounting pads and taps are provided to allow easy installation of additional cabling, tubing or equipment.

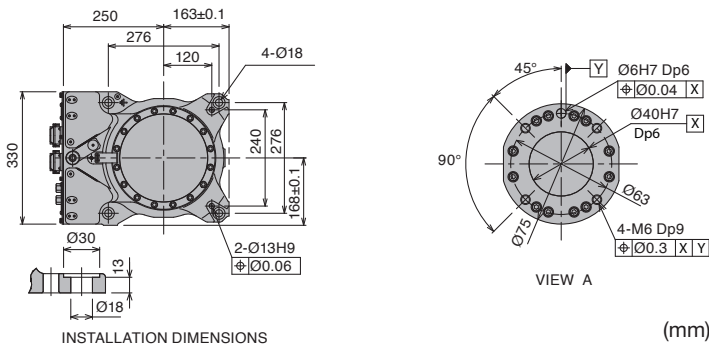
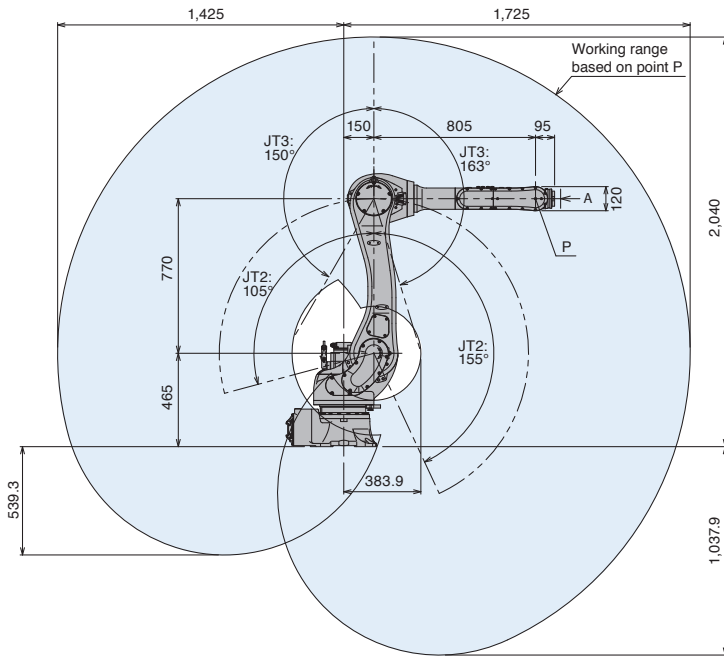
### SPACE SAVING

The slim arm design requires very little floor space. Multiple robots can be installed in "high-density" applications without impeding performance.

### EASY MAINTENANCE

The Kawasaki design requires very little maintenance while boasting industry leading mean time between failures (MTBF).

## MOTION RANGE & DIMENSIONS



**Note:** Detailed drawings are available upon request.

## RS20N SPECIFICATIONS

Type	Articulated		
Degrees of Freedom	6 axes		
Payload	20 kg		
Horizontal Reach	1,725 mm		
Vertical Reach	3,078 mm		
Repeatability	±0.05 mm		
Maximum Speed	11,500 mm/s		
Work Envelope (degrees) & Maximum Speed (degrees/s)	Axis	Motion Range	Maximum Speed
	JT1	±180°	190°/s
	JT2	+155° ~ -105°	205°/s
	JT3	+150° ~ -163°	210°/s
	JT4	±270°	400°/s
	JT5	±145°	360°/s
Wrist Load Capacity	Axis	Maximum Torque	Moment of Inertia
	JT4	45.0 N·m	0.9 kg·m <sup>2</sup>
	JT5	45.0 N·m	0.9 kg·m <sup>2</sup>
JT6	29.0 N·m	0.3 kg·m <sup>2</sup>	
Motor(s)	Brushless AC Servomotor		
Brakes	All axes		
Hard Stops	Adjustable mechanical stopper JT1/JT2/JT3		
Mass	230 kg (excluding Options)		
Body Color	Kawasaki Standard		
Installation	Floor, wall, ceiling		
Environmental Conditions	Temperature	0 ~ 45° C	
	Humidity	35 ~ 85 % (no dew, nor frost allowed)	
	Vibration	Less than 0.5 G	
Protection Classification	Wrist: IP67 Base: IP65 * Equivalent		
Built-in Harness	Sensor harness 12 inputs 24VDC, GND		
Built-in Utilities	Pneumatic piping (ø8 x 2 lines)		
Options	IP67 entire arm JT1/JT2 motor cover Linear track options Riser (300/600 mm) Base plate Double/single solenoid valves (4 units max.) Air cleaning equipment (filter, regulator, mist separator) Limit switch JT1		

