



## OPTIMIZED BODY SHOP ROBOTS

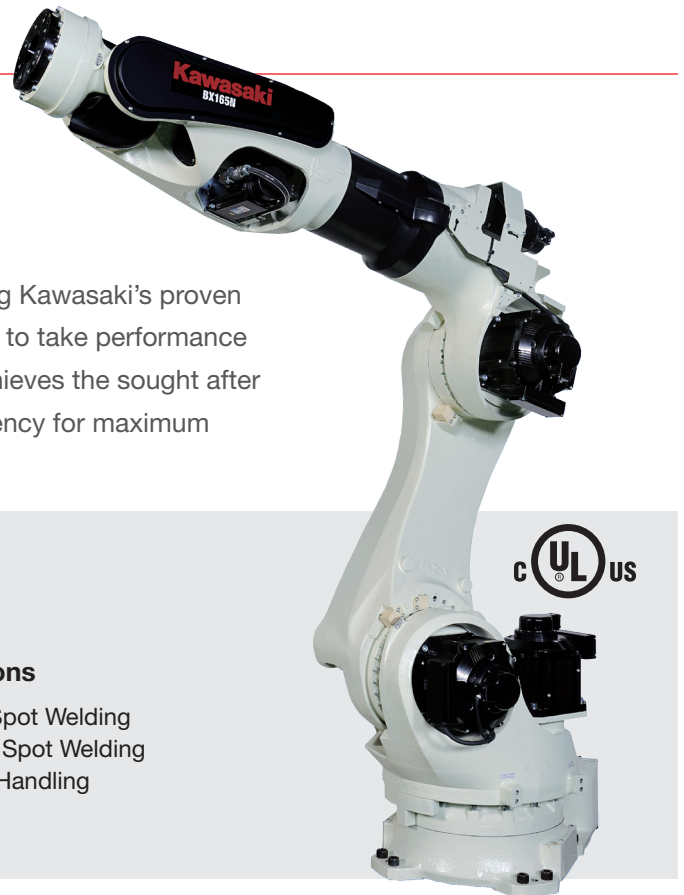
The B-Series line of body shop robots were developed using Kawasaki's proven advanced technology and extensive automotive experience to take performance to the next level. The robust, yet lightweight slim design achieves the sought after optimization of functionality, flexibility and investment efficiency for maximum spot welding effectiveness and multi-purpose use.

# BX165N

<b>Payload</b>	165 kg
<b>Horizontal Reach</b>	2,325 mm
<b>Vertical Reach</b>	3,209 mm
<b>Repeatability</b>	± 0.2 mm
<b>Maximum Linear Speed</b>	5,000 mm/s

### Applications

- Carried Spot Welding
- Pedestal Spot Welding
- Material Handling



### HIGH SPEED SPOT WELDING

Minimized net weight, heavy-duty motors and advanced motion control technology make the B Robot a champion sprinter. It excels at high speed short-pitch movements making it ideal for spot welding. The improved motion sequence by the servo welding guns, as well as the automatic calibration feature to optimize acceleration and deceleration of the gun speed, leads to a significant reduction in cycle time and results in maximum production.

### SPACE SAVING DESIGN

Compared to conventional robots with similar payload capacity, the B Robots have a much smaller footprint and narrower body. The small footprint of these slim arm design robots allows for installation in "high-density" applications without impeding performance. In addition, the B-Series robot line houses the cable harnesses within the robot arm, further reducing the amount of work space required and minimizing potential interference.

### WIDE WORK ENVELOPE

The Kawasaki B Robot combines a long reach arm with a minimal amount of dead space for a wide work envelope and greater flexibility. Kawasaki Robotics' years of automotive experience have culminated into an optimal body shop design for both task effectiveness and multi-purpose usage.

### INTEGRATED DRESS PACKAGE

The B-Series robot line is manufactured using hollow reduction units for the upper arm. This allows for an internal dressing of the robot from the base to the tool mounting plate. With Kawasaki's integrated dress package, the manufacturing line build and digital engineering time is greatly reduced and interference with adjacent robots or peripheral devices is minimized.

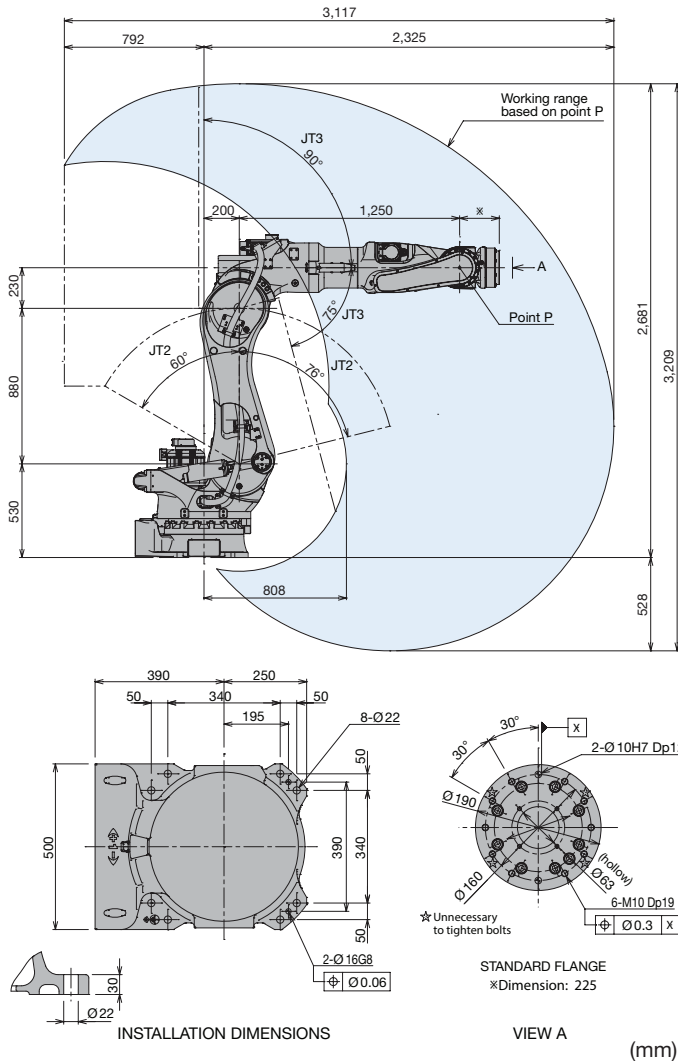
### HIGH QUALITY & LOW-MAINTENANCE

B Robots boast industry leading reliability and 10,000 hours maintenance intervals, which translate to low operating costs and the highest production efficiencies.

### PROTECTION FROM HARSH ENVIRONMENTS

B-Series Robots can operate in some of the harshest environments due to the Kawasaki sealed arm design. Robot maintenance due to contamination can be eliminated.

## MOTION RANGE & DIMENSIONS



BX165N SPECIFICATIONS			
Type	Articulated		
Degrees of Freedom	6 axes		
Payload	165 kg		
Horizontal Reach	2,325 mm		
Vertical Reach	3,209 mm		
Repeatability	±0.2 mm		
Maximum Linear Speed	5,000 mm/s at robot flange		
Work Envelope (degrees) & Maximum Speed (degrees/s)	Axis	Motion Range	Maximum Speed
	JT1	±160°	105°/s
	JT2	+76° ~ -60°	130°/s
	JT3	+90° ~ -75°	130°/s
	JT4	±210°	120°/s
	JT5	±125°	160°/s
Wrist Load Capacity	Axis	Maximum Torque	Moment of Inertia
	JT4	930 N·m	99 kg·m <sup>2</sup>
	JT5	930 N·m	99 kg·m <sup>2</sup>
Wrist Load Capacity	JT6	490 N·m	49.5 kg·m <sup>2</sup>
	Motor(s)	Brushless AC Servomotor	
Brakes	All axes		
Hard Stops	Adjustable mechanical stopper JT1		
Mass	903 kg (excluding Options)		
Body Color	Kawasaki Standard		
Installation	Floor		
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
Options	Linear track options Risers Base plate Adjustable mechanical stopper JT2/JT3 Wrist flange adapter with ø125 mm mounting pattern Adapter bracket for weld guns and other tools Integrated dress package		
Controller	E32 (see E Controller data sheet for specifications)		

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



Assembly • Cutting • Dispensing • Grinding • Handling • Inspection • Packaging • Painting • Palletizing • Polishing • Tending • Welding

### Kawasaki Robotics (USA), Inc.

#### United States

28140 Lakeview Drive  
 Wixom, Michigan 48393  
 Phone (248) 446-4100  
 Email sales@kri-us.com

#### Canada

Phone (905) 304-7784

#### Mexico

Phone (52) 33-3110-1895

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

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