



Kawasaki Robotics (USA), Inc.

UX SERIES

All Electric AC Servo-Drive
Heavy-Duty Industrial Robot
UX100/120/150

KEY FEATURES

Axes: 6 standard (7 optional)

Robot Arm Type: Articulated

Payload: 70~ 300 kg (154 - 660 lbs)

Applications: Spot Welding, Stud Welding, Palletizing, Dispensing, Racking, Material Handling, Machine Tending, Press Tending, Part Transfer, Assembly

Basic Description: The Kawasaki UX series robot provides proven solutions for a wide array of applications. The UX series has an extended user envelope and high speed capabilities. While extending reach and range, the UX robot was designed with a patented space saving design. This feature minimizes required plant installation floor space.

Special Features:
Common C Series Controller

Large Working Envelope

Heavy-Duty Payload

- High wrist torque and inertia capacity
- Maximum payload at entire work envelope at full speed

Space Saving Design

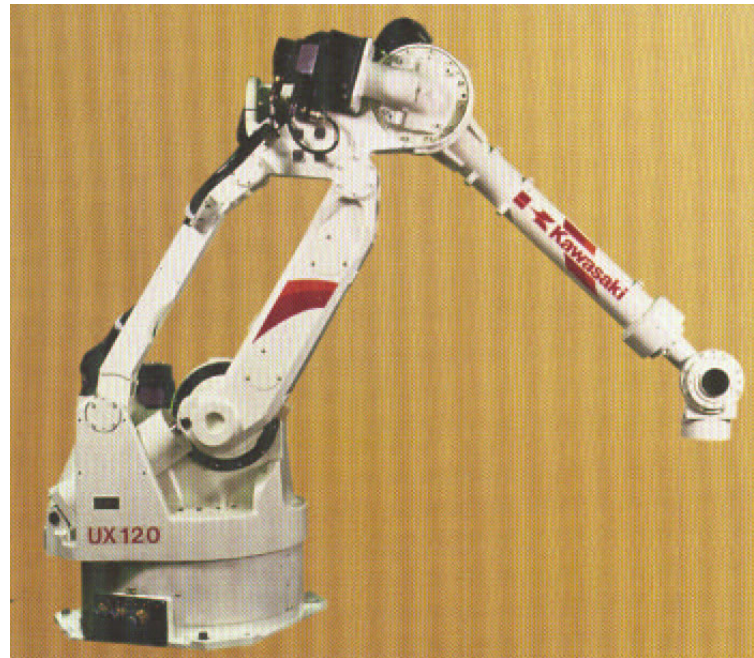
- Small footprint: 550 mm x 500 mm (22 in x 20 in)
- Slim arm construction
- Minimal dead zone

Production Advantages

- High speed capability: up to 8.2 m/sec (27 ft/sec)
- Increased acceleration and deceleration rate
- High speed servo loop and all digital servo control

Reduced Maintenance Costs

- 5000 hour maintenance intervals
- Modular design for quick repairs
- Brushless AC servo motor
- Common spare parts
- Fittings for simple lubrication



User Benefits:

Proven Reliability

- Over 25 years of experience

User Friendly Programming

- Simplified teaching method using multi function panel
- High level "AS" language for advanced programming
- On line error logging
- Menu driven software
- On screen diagnostics
- Automatic speed limitation in teach mode

Safety

- E-stop button on multi function panel and controller
- Overtravel limits

Controller Features:

Kawasaki C Series Controller with 32 Bit RISC Type Microprocessor

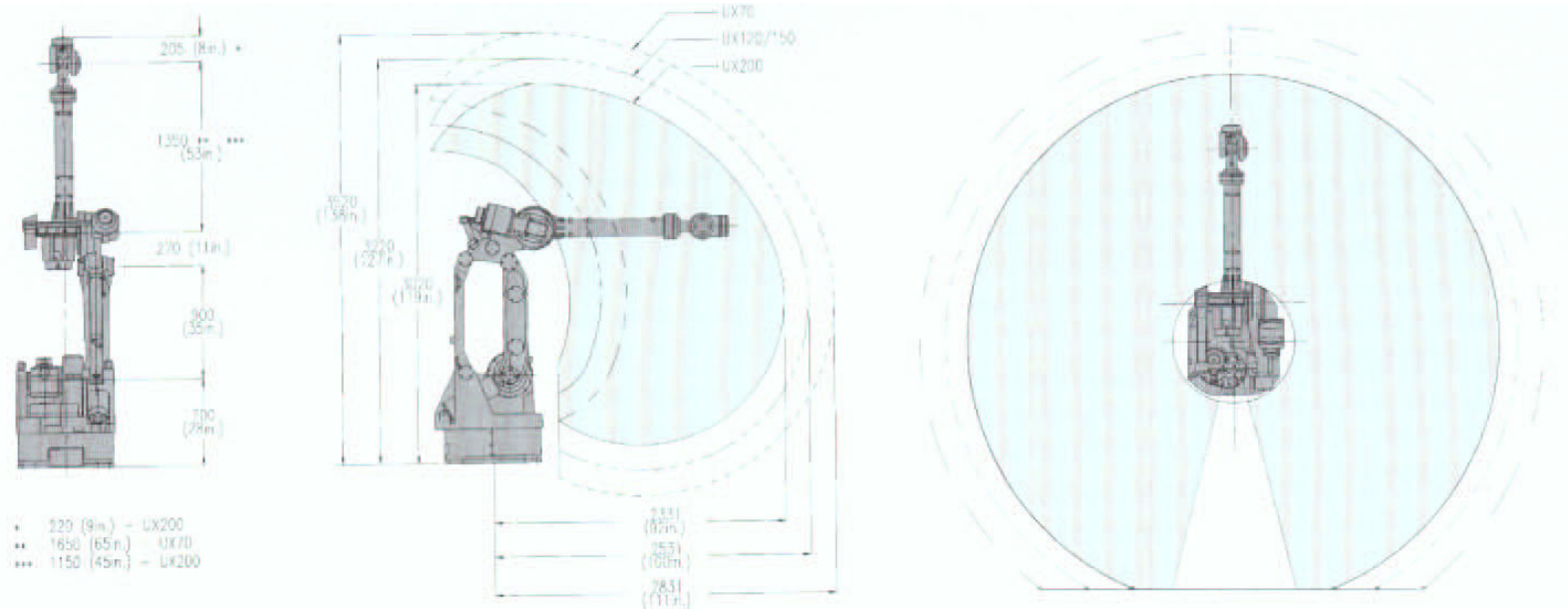
- 1 MB (4,000 steps) of memory
- Up to 4 MB (34,000 steps) of memory (opt)
- PC card (1 MB or 4 MB) port for external memory
- I/O: 32/32 channels, 24V DC
- I/O: expandable to 128 /128 channels (opt)
- Networking capability (ControlNet, Ethernet, etc.)
- Allen Bradley Remote I'O or ControlNet capability (opt)
- Weld serial communication (opt)
- SLOGIC (Internal PLC) (opt)
- Handheld LCD Multifunctional Touch Panel comprising:
 - Teach Pendant
 - I/O Operation Displays
 - Robot Function Menus
 - Status Displays
 - Data Keyboard
 - User I/O Soft Panel

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SPECIFICATIONS OF THE KAWASAKI UX SERIES

Specifications	Type	UX70	UX120	UX150	UX200	UX 300
		Extended Reach	Base Machine	Heavy Duty	Heavy Duty	Heavy Duty
Payload (lbs)		70 kg (154)	120 kg (264)	150 kg (330)	200 kg (440)	300 kg (660)
Axes		6 (7)*	6 (7)*	6 (7)*	6 (7)*	6(7)*
Range of Motion	JT1	360 ^{***}	360 ^{***}	360 ^{***}	360 ^{***}	360 ^{***}
	JT2	135°	135°	135°	135°	130°
	JT3	203°	209°	209°	214°	216°
	JT4	560°	560°	560°	560°	560°
	JT5	250°	250°	250°	240°	240°
	JT6	720°	720°	720°	720°	720°
	(optional)	JT7*	custom lengths	custom lengths	custom lengths	custom lengths
Max. Speed	JT1	120°/sec	120°/sec	100°/sec	100°/sec	100°/sec
	JT2	120°/sec	120°/sec	100°/sec	90°/sec	80°/sec
	JT3	120°/sec	120°/sec	100°/sec	90°/sec	68°/sec
	JT4	150°/sec	150°/sec	125°/sec	120°/sec	80°/sec
	JT5	150°/sec	150°/sec	125°/sec	110°/sec	70°/sec
	JT6	200°/sec	240°/sec	200°/sec	200°/sec	135°/sec
	(optional)	JT7*	1000 mm/sec	1000 mm/sec	1000 mm/sec	1000 mm/sec
Wrist Rated Torque	JT4	50 kg-m	70 kg-m	85 kg-m	120 kg-m	175 kg-m
	JT5	50 kg-m	70 kg-m	85 kg-m	120 kg-m	175 kg-m
	JT6	30 kg-m	40 kg-m	45 kg-m	70 kg-m	85 kg-m
Wrist Rated Moment of Inertia	JT4	5.0 kg-m-s ²	5.0 kg-m-s ²	7.3 kg-m-s ²	12.7 kg-m-s ²	15.2 kg-m-s ²
	JT5	5.5 kg-m-s ²	5.5 kg-m-s ²	7.3 kg-m-s ²	14.3 kg-m-s ²	15.2 kg-m-s ²
	JT6	2.8 kg-m-s ²	2.8 kg-m-s ²	3.2 kg-m-s ²	7.9 kg-m-s ²	10.0 kg-m-s ²
Vertical Reach (in)		3725 mm (147)	3425 mm (135)	3425 mm (135)	3240 mm (128)	3265 mm (129)
Horizontal Reach (in)		3036 mm (120)	2736 mm (108)	2736 mm (108)	2551 mm (100)	2701 mm (106)
Repeatability (in)		±0.5 mm (.02)	±0.5 mm (.02)	±0.5 mm (.02)	±0.5 mm (.02)	±0.5 mm (.02)
Weight (lbs)		1430 kg (3150)	1400 kg (3080)	1500 kg (3300)	1550 kg (3300)	1700 kg (3740)
Positioning Feedback		Absolute Encoder				
Drive Motors		Brushless AC Servo Motor				

* With Traversing Unit

** Standard Stop Setting 220*; With Mechanical Stop 320*