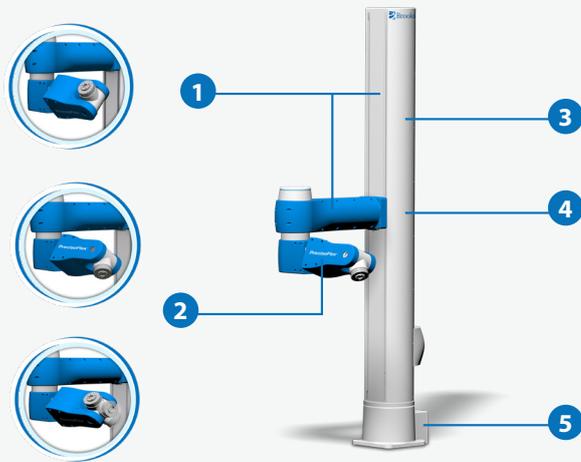
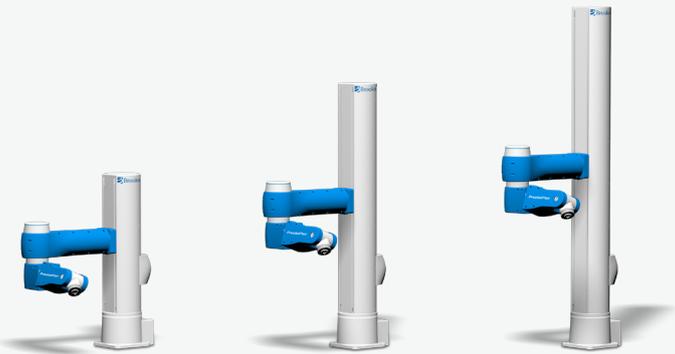


PreciseFlex DD 6-Axis Cobots

6-axis Articulation with Vertical Column Work Envelope



1. Highest Workspace Density

Reach into machines and shelves with tall Z-axis and slim arm design

2. 6-Axis Articulation

When 4-axes are not enough

3. Range of Motion

(Horizontal Reach) 896 mm with Joint 5 at 90°
(Horizontal Reach) 985 mm with Joint 5 at 0°

4. Highest Throughput

Low collision forces enable without sacrificing safety

5. Save Valuable Floorspace

With a compact footprint and embedded controller

Key Benefits

- Fast and easy deployment unlocks the best ROI
- Augments workforce and overcomes labor shortages
- Reduces repetitive stress injuries and frees employees for more meaningful work
- Highest workspace density saves valuable floor space
- Most reliable cobots with MTBF of 125,000 hours and design life of 100,000 hours
- Highest performance increases throughput
- Low maintenance

Always perform a risk assessment before putting any robot into production.

Collaborative robots working alongside people make automation accessible for a wide range of applications. However, accessibility has often come at the cost of reduced speed, reduced precision, higher prices for special sensors, and, in some cases substandard reliability.

PreciseFlex collaborative robots provide an unmatched return on investment (ROI) with the **highest throughput, highest workspace density** and the **most reliable, most energy efficient** cobots available.

Wide Range of Applications

The PreciseFlex DD 6-axis cobot is well suited for Machine Feeding (load/upload), Small Parts Handling, Kitting, Storage and Retrieval, and Mobile applications.

Lowest power consumption

Reduced energy usage and extended runtime in mobile applications.

Highest Workspace Density

The PreciseFlex DD 6-axis cobot has a unique configuration with horizontal articulation for the major axes, and a tall Z-axis (up to 1,420 mm). The Vertical Column work envelope enables the robot to reach into racks, shelves, or stacked machines. The Vertical Column work envelope is much more efficient than the spherical work envelope used by most traditional cobots.



With the vertical column work envelope and embedded controls, PreciseFlex cobots offer the highest workspace density, saving valuable floorspace.



PreciseFlex DD 6-Axis Specifications

Performance

Payload	6 kg
Max Cartesian Speed	X/Y Direction, 500 mm/sec Z Direction, 600 mm/sec
Max Joint Speed	
J1	200°/sec
J2	600 mm/sec
J3	360°/sec
J4	360°/sec
J5	200°/sec
J6	360°/sec
Max Acceleration	5000 mm/sec ² with 6kg payload
Repeatability	±0.020 mm at tool flange center

Range of Motion

Joint 1 (Base)	±168°
Joint 2 (Z-axis)	500, 1000, 1420 mm
Joint 3 (Elbow)	+12° to +348°
Joint 4	+100° to -120°
Joint 5	±110°
Joint 6	±295°

Horizontal Reach	(Horizontal Reach) 896 mm with Joint 5 at 90° (Horizontal Reach) 985 mm with Joint 5 at 0°
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Communications

General	100 Mb Ethernet, TCP/IP EtherNet/IP RS232 Modbus/TCP
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Operator Interface	Web-based operator interface
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Digital I/O	12 inputs, 8 outputs at base of robot optically isolated, 24V @ 100ma Remote I/O available
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Facilities

Power	90 to 264 VAC, auto selecting, 50-60 Hz 70-175 watts typical operation DC Power Option Available
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Pneumatics	Two 3.2 mm OD (1.7 mm ID) airlines provided for end-of-arm-tooling. 4.9 bar max (71 PSI)
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E-Stop	Dual Channel
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Controller Mounting	Embedded into robot base
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Air Lines	Two, 3.2 mm OD, 1.6 mm ID Max pressure 500 kba (75 PSI)
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Weight	46 kg (500 mm Z-axis) 55 kg (1000 mm Z-axis) 65 kg (1420 mm Z-axis)
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Software

Programming	Guidance Motion (web interface) Guidance Programming Language (GPL) TCP Command Server (TCS)
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Enhanced Functions	Hand Guiding (standard)
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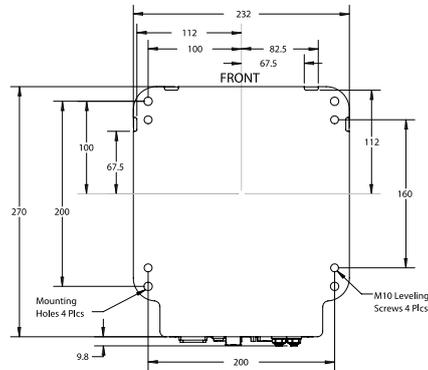
Peripherals and Accessories

General	Remote I/O (RIO)
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Certifications

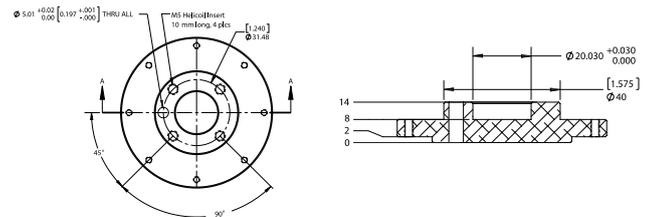
- ISO/TS 15066 / RIA TR R15.806

Robot Mounting

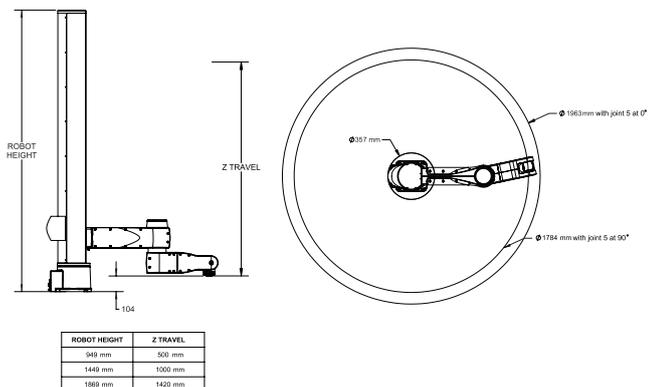


ISO Flange for End-of-Arm Tooling

- ISO-9409-1-31.5-4-M5



Work Envelope



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