

Adept Cobra i800



The Adept Cobra™ i800 robot is an affordable, high-performance SCARA robot system for mechanical assembly, material handling, packaging, machine tending, screw driving, and many other applications that require fast and precise automation. With a built-in amplifier and motion controller, the Adept Cobra i800 delivers high footprint efficiency and is part of the industry's only line of self-contained, standalone SCARA robots.

Rapidly deploy your robot by connecting it directly to a PC to program your application using Micro V+.

Product Features and Benefits

- No external electronics – amplifiers and motion controller are built into the robot arm, reducing the size and number of cables, and simplifying system deployment
- MicroV+ real-time operating system and easy-to-use programming language
- Adept ACE™ software to deploy your applications through a user-friendly interface
- High-resolution, absolute encoders to provide high accuracy, superior slow-speed following, and easy calibration
- High-efficiency, low-inertia Harmonic Drives™ and a lightweight arm to deliver maximum acceleration
- 8 kHz servo update rate to improve path following and control
- Diagnostics display enables faster troubleshooting

Specifications

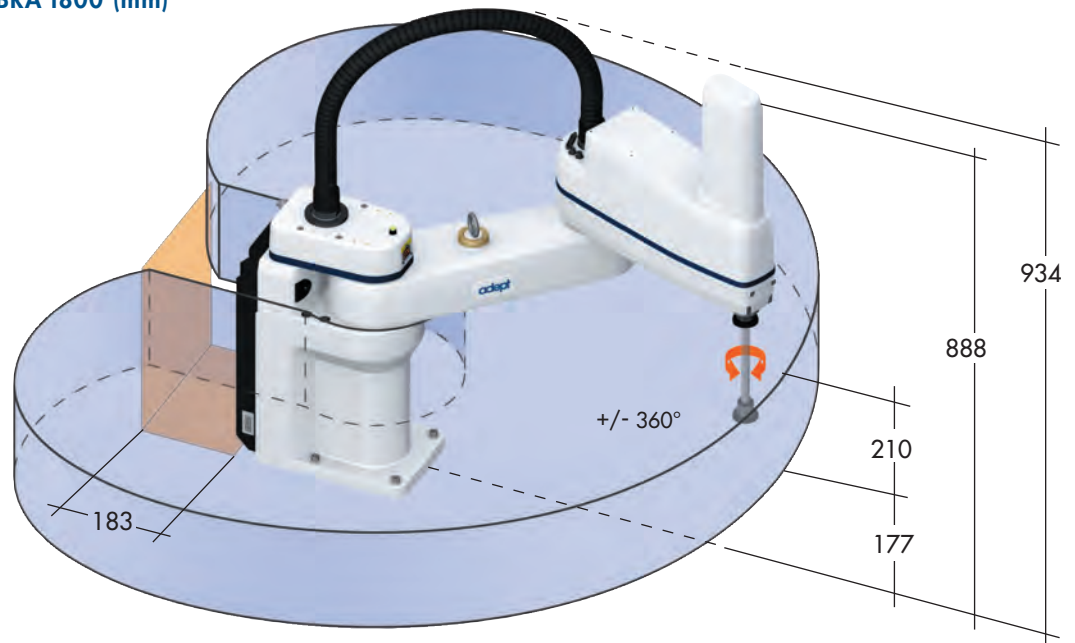
Reach	800 mm
Payload	
Rated	2 kg
Max.	5.5 kg
Adept Cycle	
Burst Mode	0.54 sec
Sustained (20°C)	0.54 sec
Joint Ranges	
Joint 1	± 105°
Joint 2	± 157.5°
Joint 3	210 mm
Joint 4	± 360°
Joint Speeds	
Joint 1	386°/sec
Joint 2	720°/sec
Joint 3	1100 mm/sec
Joint 4	1200°/sec
Repeatability	
XY	± 0.017 mm
Z	± 0.003 mm
Theta	± 0.019°
Pass-Through Connections	
Electrical	24 (12 twisted pairs)
Pneumatic	6 mm (x2) 4 mm (x3)
DeviceNet	1
Digital I/O Channels	
AIB:	12 inputs, 8 outputs
Optional solenoid:	4 outputs
Weight	43 kg
Environmental Requirements	
Ambient Temperature	5 - 40 °C
Humidity Range	5 - 90 % (non-condensing)
Power Requirements for AIB	
24 VDC	: 6 A
200 - 240 VAC	: 10 A, single-phase
CE and cULus Compliant	

ADEPT COBRA i800

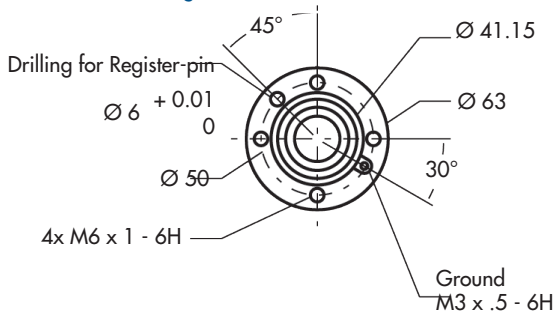
DIMENSIONS OF THE ADEPT COBRA i800 (mm)

- Work Envelope: Radius 800 mm
- Inner Limit: Radius 164 mm
- Height: 210 mm

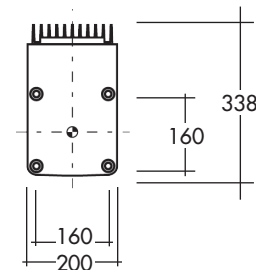
- Required clearance to open AIB Chassis



Dimensions: Flange (mm)



Dimensions: Flange (mm)



The Adept Cobra i800 system includes the following:

- Adept Cobra i800 robot with MicroV+ installed
- Front panel with E-Stop
- Adept ACE software
- Cables to connect to E-Stop and other peripherals
- User documentation

Options and Peripherals:

- AdeptSight™ vision guidance and inspection system
(requires a PC—Adept recommends using the Adept SmartVision™ EX)
- T2 manual control pendant
- IO Blox I/O module (8 digital input and output channels each)
- High-resolution Joint 4 option
- Solenoid valve kit
- Cleanroom ISO4 (class 10) option
- Adjustable Hardstop Kit

Downloads:

- Download CAD files for the Adept Cobra i800 robot from <http://www.adept.com/support/downloads/file-search> using the following download ID: 500008



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Specifications subject to change without notice.

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