

# Adept Cobra™ i600

## Specifications

Reach	600 mm
Payload (max)	2 kg (rated) 5.5 kg (max)
Joint 4 inertia (max)	450 kg-cm <sup>2</sup>
Downward Push Force	35 kgf
Adept Cycle	
Burst Mode	0.42 sec (2 kg)
Sustained	0.45 sec (2 kg)
Joint Range	
Joint 1	± 105°
Joint 2	± 150°
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 User Connections	
Electrical	24 (12 twisted pairs)
Pneumatic	6 mm (x2) 4 mm (x3)
DeviceNet	
Digital I/O Channels	12 inputs 8 outputs (included)
Weight	41 kg
Environmental Requirements	
Ambient temperature	5 - 40 °C
Humidity range	5 - 90 % (non condensing)
CE and UL compliant	



The Adept Cobra i600 is an affordable, high-performance robot system for mechanical assembly, material handling, packaging, machine tending, screw driving, and many other operations requiring fast and precise automation. With no external electronics, the Adept Cobra i-series is the only line of self-contained, standalone SCARA robots.

The amplifiers and motion controller are built into the robot, making the Adept Cobra i600 one of the easiest robots to design into workcells where space is critical.

Installation is easy. Simply supply power, attach the emergency stop, and plug in digital I/O cables to interface to other peripherals. Add tooling and vacuum lines, then connect a PC directly to the robot, and program the arm using the simple, yet powerful, MicroV+™ robot language. The PC can be removed for runtime.

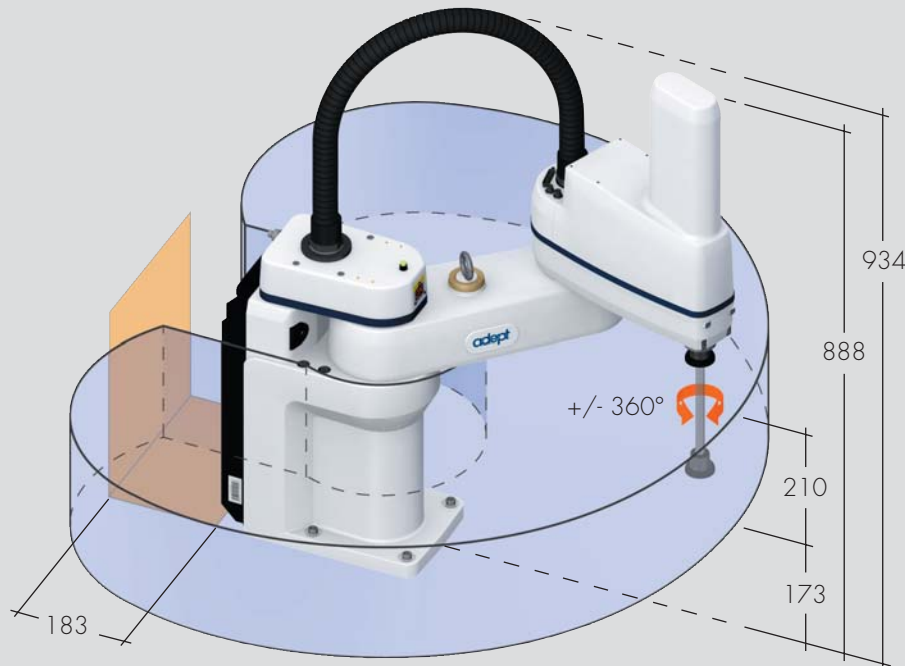
### Product Features and Benefits

- No external electronics – the amplifiers and motion controller are built into the robot arm, significantly reducing the size and number of cables, which dramatically simplifies the system installation
- MicroV+ real-time operating system and easy-to-use programming language

- AdeptDesktop software on CD for programming
- Absolute encoders make for easy calibration
- High-resolution encoders provide high-precision and superior slow-speed following
- High-efficiency motors deliver high performance with more torque per amp
- Low-inertia harmonic drives provide maximum acceleration
- Temperature sensors on the motors and amplifiers maximize performance and reliability
- 8 kHz servo update rate for improved path following and control
- Integrated temperature sensors monitor heat in servo motors to prevent damage
- Diagnostics display on robot enables faster troubleshooting
- Easy replacement of electronic sub-assembly reduces MTTR

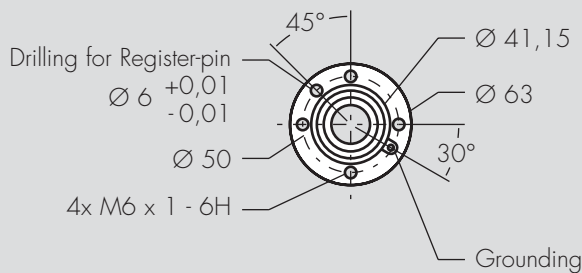
# Adept Cobra™ i600

## Dimensions Adept Cobra i600 (mm)

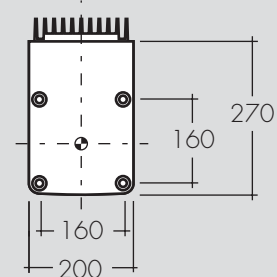


- Work Envelope: Radius 600 mm  
Inner Limit: Radius 163 mm  
Height: 210 mm
- Required clearance to open AIB Chassis

## Dimensions Flange (mm)



## Dimensions foot plate (mm)



## The Adept Cobra i600 system includes the following:

- Adept Cobra i600 Robot with MicroV+ installed
- Front Panel with E-Stop
- Adept DeskTop 2.0 software on CD-ROM
- RS-232 Null Modem Cable
- XPANEL Cable (for connecting E-Stop, Front Panel and MCP)
- User Documentation

## Optional Peripherals:

- T1 Pendant
- IO Blox (8 digital input & 8 digital output channels)
- Hardstop kit
- Solenoid kit

## Downloads:

- Download CAD files from [www.adept.com](http://www.adept.com) using the following download ID:  
Adept Cobra i600 Robot 500007



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Specifications subject to change without notice.

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