

Innovation Matrix

Product Catalog

Introducing



Bridging the Pacific with Automation Technology

Adept Cobra™ s800

90566-002/90566-003

Robot Specifications

| | |
|-------------------------------|--|
| Reach | 800 mm |
| Payload | 2 kg (rated) 5.5 kg (max) |
| Joint 4 inertia | 450 kg-cm ² (max) |
| Downward Push Force | 30 kgf |
| Adept Cycle | |
| Burst Mode | 0.54 sec (2 kg) |
| Sustained | 0.54 (2 kg) |
| Joint Range | |
| 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 | 1,100 mm/sec |
| Joint 4 | 1,200°/sec |
| Repeatability | |
| XY | ±0.017 mm |
| Z | ±0.003 mm |
| Theta | ±0.019° |
| Pass-Through User Connections | |
| Electrical | 24 (12 twisted pair) |
| Pneumatic | 6 mm (x2), 4 mm (x3) |
| DeviceNet | |
| Digital I/O Channels | 12 inputs, 8 outputs (included) 4 solenoid outputs (end of arm) |
| Weight | 43 kg |
| CE Compliant | |



The Adept Cobra s800 is a high-performance robot system for mechanical assembly, material handling, packaging, machine tending, screwdriving, and many other operations requiring fast and precise automation. Adept Cobra s-series robots are available with 600 mm and 800 mm reach.

Performance

- 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 for improved path following and control

Reliability and Maintenance

- Integrated temperature sensors monitor heat in servo motors to prevent damage
- Diagnostics display on robot enables faster troubleshooting
- Easy replacement of electronic sub-assembly in the robot reduces MTTR

System Includes

The Adept Cobra s800 system includes the following:

- Adept Cobra s800 Robot
- Adept SmartController CX (with software installed)
- Front Panel with E-Stop
- AdeptWindows Software
- Network File Server (NFS) software
- Ethernet TCP/IP capability
- User Documentation

User Supplied Items

The user must supply the following items:

- Power to robot and controller (see power requirements)
- Cell-based emergency stop wiring
- Windows™-based PC (not required at run-time)

Adept Cobra™ s800

Adept SmartController CX Specifications

| | |
|----------------------------|-------------------------------|
| SmartServo ports | 2 |
| IEEE 1394 (FireWire) ports | 2 |
| Ethernet ports (100 baseT) | 1 |
| DeviceNet ports | 1 |
| RS-232 ports | 3 |
| RS-422/485 ports | 1 |
| Digital I/O | |
| Inputs | 12 (4 fast) |
| Outputs | 8 |
| Expansion available | (see optional peripherals) |
| Encoder Latching | 8 edges (rise/fall) |
| Conveyor Tracking Support | Requires V+ Extension License |
| Belt Encoder ports | 2 |

Environmental Requirements

| | |
|--|---------------|
| Ambient temperature | 5°C to 40°C |
| Humidity range (non-conducting) | 5 to 90% |
| Altitude | Up to 2,000 m |
| See user's documentation for controller enclosure recommendations. | |

Power Requirements for SmartController

24VDC (+/- 10%), 120W (5A), User-Supplied

Power Requirements for Cobra s800 Robot

24VDC (+/- 10%), 120W (5A), User-Supplied
 200V to 240V, 1-phase, 50/60Hz (10A), User-Supplied

Downloads

Download CAD files from www.adept.com using the following download ID's:

| | |
|------------------------|--------|
| Adept Cobra s800 Robot | 500008 |
| SmartController CX | 136358 |
| Front Panel | 135905 |

For More Information

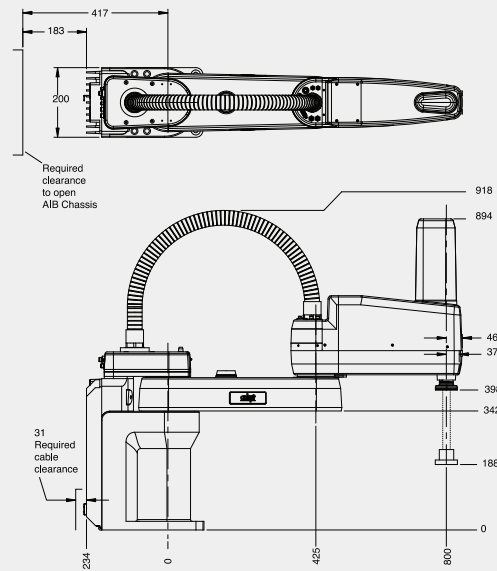
Call for a quotation 800-226-6385.

The Adept Cobra s800 robot is available as part of the following systems:

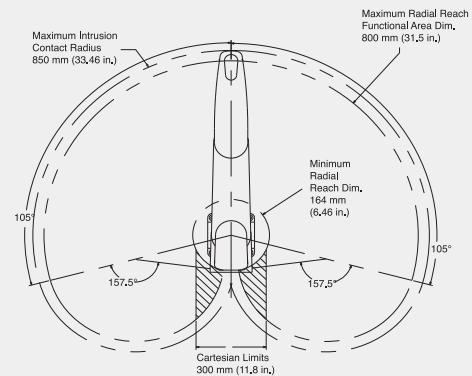
- Adept Cobra s800 with SmartController CX 90566-002
- Adept Cobra s800 Dual Robots with SmartController CX 90566-003



ADEPT SMARTCONTROLLER



Top and Side Dimensions



Work Envelope



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Specifications subject to change without notice.

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