25
Years
of Innovation

Adept Product Line

Products / Specifications / Services

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Your Intelligent Robotics Partner

Designed to Handle Today's Manufacturing Challenges

While there is emphasis today on outsourcing manufacturing, most companies actually desire to keep manufacturing close to customers. Local manufacturing enables suppliers to streamline the supply chain, reduce inventories and keep a close eye on quality, as well as respond quickly to changes in the marketplace. Manufacturers are also under pressure to supply customized products and/or packaging. Custom products and shortened product lifecycles have dramatically increased the product mix, making it difficult and expensive for companies to manage production needs with dedicated machinery.

Adept flexible and intelligent robotics not only help companies address these challenges while reducing manufacturing costs, but use these challenges to their competitive advantage – enabling manufacturers to make decisions that are good for their customers and for their businesses.

Automotive Applications
- Assembly of components and sub-assemblies*
- Screw driving and attachment of other fasteners*
- Material handling and parts transfer*
- Inspection and testing of assemblies*
- Dispensing sealants and adhesives
- Packaging of parts

Medical Device Applications
- Automation of lab processes such as fluid and material handling*
- Precision dispensing of material*
- Loading and unloading of test stations
- Precise part placement*
- Material packaging

Industrial Applications
- General loading and unloading of machine tools
- Loading and unloading of cutting tools
- Material handling including case packing, loading and unloading of parts trays*
- Robotic grinding of small batches
- Assembly of product*
- Inspection station load/unload*
- Packaging of parts and kits

Food Applications
- Picking product from moving conveyor belt*
- Material handling including case packing, line balancing, sorting and collating*
- Product capping*
- Packaging product into primary and/or secondary packaging

Consumer Goods Applications
- Assembly of product kits*
- Material handling and parts transfer*
- Dispensing sealants and adhesives*
- Packaging of product and product kits

Consumer Electronics Applications
- Assembly of components and sub-assemblies*
- Material handling including sorting, stacking and finishing*
- Screw driving and attachment of other fasteners*
- Inspection and testing of assemblies*
- Packaging of parts

* Vision-guidance provides added flexibility and precision to robotic systems in these applications. It provides a cost-effective alternative to tightly fixtured parts in a fraction of the time. Vision-guidance is also an enabling technology for applications like vision-guided conveyor tracking. Adept has been the industry leader in robotic vision-guidance for over 25 years, and remains the leader today.

Adept Cobra™ s350, s600, s800, i600 & i800

High-performance tabletop SCARA robots with 350, 600 and 800 mm reach.

Adept Cobra s-Series robots – the s350, s600 and s800 – include the Adept SmartController™ equipping each with capabilities unrivaled in the industry.

Adept Cobra i-Series robots feature embedded controls and amplifiers in the robot base. Reduced complexity and required space make the Cobra i600 and i800 robots the easiest robots to design into a system and deploy with the lowest total cost of implementation.

Adept Quattro™ s650

The Adept Quattro s650 robot is the fastest packaging robot in the industry. Its unique four arm design features a flexible rotational platform, which enables maximum speeds, maximum acceleration and exceptional performance across a large work envelope. In addition, it is the only robot of its type to have embedded controls for the best utilization of floor space and ease of installation. The robot is available in dual, wash down and clean room configurations.

Adept Cobra™ s800 Inverted

The Adept Cobra s800 Inverted robot is a high performance ceiling-mount SCARA robot. With an extensive 800 mm reach and support for up to a 5.5 kg payload, this robot is well-suited for a variety of packaging and material handling applications. It is available in dual and wash down configurations.

Controls

With over 30,000 systems installed, Adept has set the standard for industrial robot control. Utilizing Adept SmartServo™ architecture, the SmartController™ platform and embedded controls provide exceptional scalability. From basic pick-and-place to sophisticated vision-guided multi-robot control applications, Adept provides the integrated functionality, superior control and communication networks to enable seamless integration and reliability.

Software

Over 20 years ago, Adept established itself as the leader in the robotics industry with the software innovation of V+, which became an industry standard. Adept remains a leader today, with scalable software platforms enabling faster, more cost-effective integration with other industry solutions. Adept support of open architecture and standards-based tools facilitates application development whether PC-based, controller-based, or PLC-based. Both power users and developers new to robot applications will find the right mix of scalability and ease of use to build robust systems.

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Product Specifications

ADEPT	SCARA ROBOTS		
Robot Model	**Adept Cobra i600 / i800**	**Adept Cobra s350 / s600 / s800**	**Adept Cobra s800 Inverted**
Number of Axes	4	4	4
Max Payload (kg)	5.5	5.5	5.5
Reach (mm)	600 / 800	350 / 600 / 800	800
Z-Stroke (mm)	210	210	210
Repeatability			
XY (mm)	±0.017	±0.015 / ±0.017 / ±0.017	±0.017
Z (mm)	±0.003	±0.01 / ±0.003 / ±0.003	±0.003
Theta	±0.019°	±0.005° / ±0.019° / ±0.019°	±0.019°
I/O standard	12 in, 8 out (robot)	12 in, 8 out (robot / controller)	12 in, 8 out (controller)
I/O expansion options	IO Blox	IO Blox sDIO	IO Blox sDIO
Controls	Embedded	SmartController	SmartController
Communications			
Ethernet	-	yes	yes
DeviceNet	no	yes	yes
SmartServo	no	yes	yes
RS-232/422/485	no	yes	yes
PLC	no	yes	yes
Vision (optional)	yes	yes	yes
Conveyor Tracking (optional)	no	yes	yes
Environmental Options			
IP Rating	- / IP65	- / - / IP65	IP65 (option)
Cleanroom	yes	- / yes / yes	-
Cleanroom/ESD	-	yes / yes / -	-

ADEPT	6-AXIS ROBOTS	LINEAR MODULES	PARALLEL ROBOT
Robot Model	**Adept Viper s650 / s850 / s1300 / s1700**	**Adept Python L08 / L12 / L18**	**Adept Quattro s650**
Number of Axes	6	1-4	4
Max Payload (kg)	5 / 5 / 10 / 20	20 / 40 / 80	2
Reach (mm)	653 / 854 / 1298 / 1717	100 - 1600	650
Z-Stroke (mm)	n/a	100 - 1500	250 standard (500 max)
Repeatability			
XYZ (mm)	±0.020 / ±0.030 / ±0.070 / ±0.060	±0.010	±0.1
XY (mm)	-	±0.010	-
Z (mm)	-	±0.03°	±0.1
Theta	-	-	±0.4°
I/O standard	12 in, 8 out (controller)	12 in, 8 out (controller)	12 in, 8 out (controller)
I/O expansion options	IO Blox sDIO	IO Blox	IO Blox sDIO
Controls	SmartController	SmartController	SmartController
Communications			
Ethernet	yes	yes	yes
DeviceNet	yes	yes	yes
SmartServo	yes	yes	yes
RS-232/422/485	yes	yes	yes
PLC	yes	yes	yes
Vision (optional)	yes	yes	yes
Conveyor Tracking (optional)	yes	yes	yes
Environmental Options			
IP Rating	IP65 / IP65 / IP40 / IP54	-	IP67
Cleanroom	- / yes / - / -	yes	yes
Cleanroom/ESD	-	-	-

"Adept service supports us in the continued operation of our existing systems. Extremely short response times and highly flexible service are indispensable to us. Our choice of Adept was right."

Michael Otorowski
Continental Teves
  Brake Hose Assembly Division

Unmatched Service and Support

Adept support begins with your decision to purchase. Our application engineers help design and specify exactly what you need to get your project up and running quickly and smoothly. And to ensure your global business needs are met, our application engineers are available worldwide.

Once your Adept robotics system is installed, our customer support team steps in to quickly answer your questions, provide training, and handle any maintenance or repair issues with ease. Our training classes cover everything from maintaining your system to programming the software – particularly important when running new applications or integrating new robots into your existing production line.

Adept continuous worldwide support includes:

- 24/7 emergency phone support
- Free telephone technical support
- Emergency parts depots in strategic locations
- Emergency parts orders that offer same-day shipping

When your business needs change, Adept can extend the productive life of your robotics systems through upgrades, or by completely remanufacturing your robots to the same meticulous standards as our new robots. Your remanufactured robots even carry the same factory warranty. The only difference is significant cost savings to you.

Whether your company is just beginning the process of automating its assembly, handling or packaging processes, or has a fleet of tried-and-true robotic systems already on the job, Adept provides a total service and support package that is second to none.

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ADEPT TECHNOLOGY, INC.

www.adept.com | **info@adept.com** | **1-800-226-6385**