Helping our customers make the journey to the flexible, efficient factory of the future while continuing to make work more meaningful

Robotics product range

Helping our customers make the journey to the flexible, efficient factory of the future while continuing to make work more meaningful

- Collaboration: flexibility to accommodate low volume, high mix, short cycle production
- Simplification: managing increased automation complexity and making robots easier to use
- Digitalization: unlocking new levels of performance and reliability in connected robots
ABB Robotics is a pioneer in industrial and collaborative robots and advanced digital services. As one of the world’s leading robotics suppliers, we are active in 53 countries and over 100 locations and have shipped over 300,000 robot solutions in a diverse range of industries and applications. We help our customers to improve flexibility, efficiency, safety and reliability, while moving towards the connected and collaborative factory of the future.
The Factory of the Future
Flexible for growth, efficient at every level

It is not easy to compete while the ground is shifting under your feet. In many industries ‘high mix, low volume’ is the new normal, while automation becomes more complex and product cycles shorter. Is your business ready?

The factory of the future is smart and connected. However, adapting to the realities of today’s manufacturing environment can carry unique pain points:

- Shop floor disruptions and higher engineering costs from more frequent line changes
- Managing increasingly complex automation processes and data
- Higher cost of downtime from shorter product lifecycles
- Lost productivity to maintain safety with the increased need for human and robot interaction

ABB is helping its customers make the journey to the factory of the future – one which is flexible for new growth opportunities and efficient through the entire automation lifecycle.

We combine the experience of 300,000 plus delivered robots with our deep domain expertise and first-mover advantage in digital to prepare our customers to meet tomorrow’s challenges, today.

ABB focuses on three building blocks for the factory of the future – Collaboration, Simplification, and Digitalization.

Collaboration
Collaboration is not only about safety or ‘co-bots.’ It means people and robots working close together with flexibility and productivity. Collaboration also means your robotic solutions are part of the manufacturing ecosystem, not separate islands of automation.

Simplification
Robots that are easy to install, program, and use are imperative to global enterprises & local manufacturing shops alike. As automation becomes more complex, it also becomes more critical to have intuitive dashboards that help people make better decisions.

Digitalization
Securely connecting robots to the digital world can improve the efficiency of each step of the automation lifecycle: engineering, commissioning, operations and maintenance.

Advanced analytics can help improve the performance and reliability of single robots, systems, or even entire fleets across several locations.

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Powerful performance can be unlocked by connecting the virtual world with physical robots, systems, and equipment in factories.

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ABB Ability™ Connected Services provides proactive intelligence that can reduce incidents by up to 25%.

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Safeguard allows people to work closer to robots without unnecessary stoppages.

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YuMi®: Creating an automated future together.
You and Me.

The new era of robotic co-workers is here. YuMi® is the result of years of research and development, making collaboration between humans and robots a reality, but it is also much more.

ABB has developed a collaborative, dual arm, small parts assembly robot solution that includes flexible hands, parts feeding systems, camera-based part location and state-of-the-art robot control. YuMi is a vision of the future. YuMi will change the way we think about assembly automation. YuMi is “you and me”, working together to create endless possibilities.

Human - robot collaboration
YuMi is the innovative human-friendly dual arm robot with breakthrough functionality designed to unlock vast global additional automation potential in the industry.

YuMi is designed for a new era of automation, for example in small parts assembly, where people and robots work side-by-side on the same tasks. Safety is built into the functionality of the robot itself. YuMi® removes the barriers to collaboration by making fencing and cages a thing of the past.

At only 38 kg and approximately the size of a small human, YuMi is quickly and easily installed on the production line to work hand-in-hand with a human colleague. Lead-through programming means YuMi® can be taught a process by being physically guided through it, eliminating the need for complex, time-consuming code-based instruction.

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01 YuMi assembles USB sticks at DEONET in the Netherlands.

02 YuMi manufactures sockets at ABB’s plant in the Czech Republic.

03 YuMi makes electrical socket in Ede, the Netherlands.

World's first truly collaborative human sized dual-arm robot

Precise YuMi is accurate enough to thread a needle

Safe, integrated collision detection, soft padding, and eliminated pinch points

Intuitive lead-through programming requires no special training or programming skills

Image
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At your service. Worldwide.
ABB Robotics Customer Service helps its customers to increase uptime, resolve issues faster and reduce lifetime ownership costs. This includes unlocking the benefits of connected robots & advanced analytics.

Robot Care Service Agreements
A Robot Care service agreement from ABB, ensures that unplanned stops are reduced to a minimum, and if they occur, ABB can deliver a fast response tailored to your needs, further supported via ABB Ability™ Connected Services.

Within the selectable options of our service agreement configuration tool, our experts stand ready to help you choose the service solution that suits your needs. In addition to our flexible service agreements, we offer four standardized Robot Care service agreement packages that are based on extensive experience and an understanding of customer needs.

Value-added life cycle services
Our service teams are on call 24/7 to provide the support you need to maximize your productivity no matter the type, model or age of the robots. For optimized return on equipment investment, you can depend on ABB Robotics’ support during the four life cycle phases of your robot system.

Start-up phase
During the installation Start-up phase, ABB ensures a fast ramp-up, the right operations, and guarantees the longest possible equipment lifetime. This is enabled by simulation and offline programming with RobotStudio®, as well as commissioning services, training, spare part packages and technical support.

Benefits:
- Faster ramp-up
- Risk reduction
- Secured long equipment lifetime

Production phase
For the Production phase, ABB ensures production continuity, increased uptime, availability and cost control. This is secured by our service agreements with ABB Ability Connected Services, Preventive Maintenance and Repair services.

Benefits:
- Production continuity
- Increased uptime
- Increased availability
- Cost control

Production Improvement phase
Finally, during the Production Improvement phase, ABB ensures reduced cycle time, improved productivity, increased production output and reduced costs. This is achieved by equipment upgrades, remanufacturing, and ABB Ability Connected Services.

Benefits:
- Reduced cycle time
- Improved productivity
- Increased production output
- Reduced costs

Lifetime Extension phase
Finally, during the Lifetime Extension phase, ABB ensures secured production, maximized Return On Investment for the equipment, the latest technology performance and safety. This is achieved with the fast and secure replacement of manipulator, controller and complete robot.

Benefits:
- Secured production
- Maximized Return On Investment
- Latest technology
- Safety
**Customer Service**

Value-added services across the entire life cycle

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ABB Robotics is an innovator in advanced, digital services, having introduced its Remote Services offering over a decade ago, long before ‘the Internet of Things’ was even coined. Today all ABB robots are delivered with embedded connectivity, and there are more than 6,000 ABB connected robots in 750+ customer sites in 40 countries.

This is part of the largest service offering and broadest service network in the industry, including over 1,600 service professionals in 53 countries and 24/7 global support through dedicated call centers for immediate response. ABB’s comprehensive offering also includes parts and logistics, field service, training, and expert systems and application services based on ABB’s experience from having sold more than 300,000 robots.

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