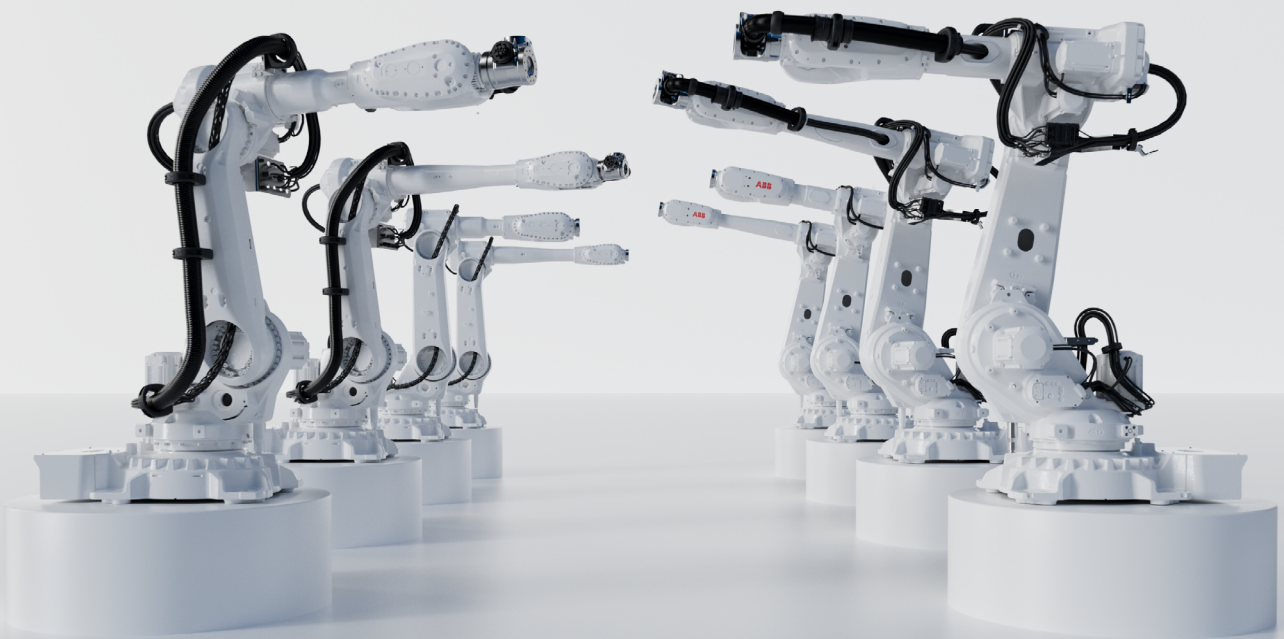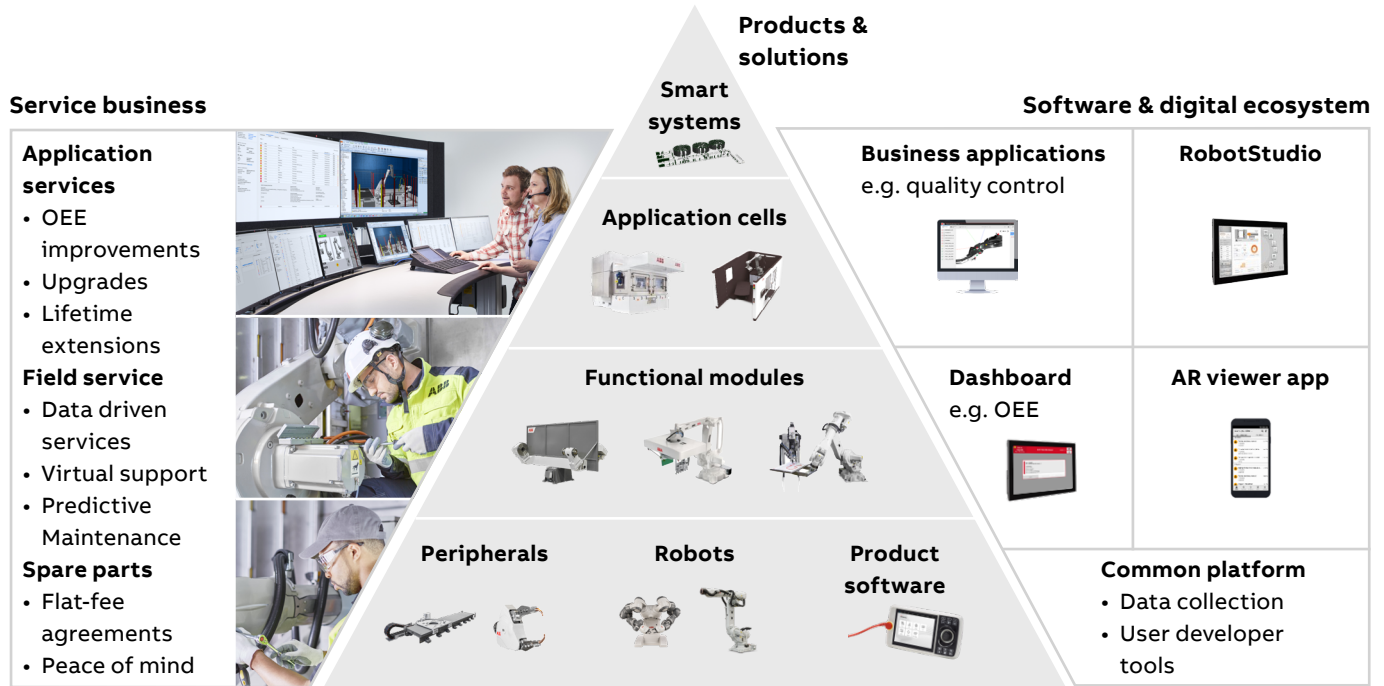# ABB Robotics industrial robots product range

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ABB Robotics as one of the world's leading robotics suppliers, is the only company with a comprehensive and integrated portfolio covering robots and Autonomous Mobile Robots solutions, designed and orchestrated by our value-creating software. We help companies of all sizes and sectors - from automotive to electronics and logistics – become more resilient, flexible and efficient. ABB Robotics supports customers in the transition towards the connected and collaborative factory of the future. The business area employs approximately 11,000 people at over 100 locations in approximately 53 countries.

abb.com/robotics

Technology and application leadership
"Robotics +" customer value stack

Products & solutions

Service business

Software & digital ecosystem

Application services
- OEE improvements
- Upgrades
- Lifetime extensions

Field service
- Data driven services
- Virtual support
- Predictive Maintenance

Spare parts
- Flat-fee agreements
- Peace of mind

Smart systems

Application cells

Functional modules

Peripherals

Robots

Product software

Business applications
e.g. quality control

RobotStudio

Dashboard
e.g. OEE

AR viewer app

Common platform
- Data collection
- User developer tools

47
Years since we invented the first commercial microprocessor-controlled industrial robot.

500,000+
ABB robots shipped worldwide.

1,500 people
People working in our global service network.

Product range
Wide variety of robots to fit all needs

Articulated robots
ABB's comprehensive 6-axis articulated robot portfolio delivers the ideal solutions for use in material handling, machine tending, welding, cutting, assembling, dispensing, and polishing applications. Best-in-class motion control enables increased speed and accuracy thanks to QuickMove and TrueMove.

Collaborative robots
ABB's collaborative robots are made for a wide range of tasks, in operations of every size. They're easy to set up, program, operate, and scale. Built by industry-leading experts. And serviced by the broadest service network in the industry. Whatever you need, we're here to support every step of your automation journey.

Paint robots
A complete range of paint robots to help you increase the productivity and quality of your paint shop operations. Designed for automotive interior & exterior painting, tiers, and general small & medium parts painting applications.

Delta robots
ABB's Delta robot portfolio is the leader in state-of-the-art high-speed robotic picking and packing technology for use in the picking, packing, and packaging applications. Our delta robots offer the greatest flexibility in a compact footprint.

SCARA robots

Quick, precise, and reliable, ABB's SCARA robots are ideal for customers requiring rapid cycle times, high precision, and high reliability for material handling, loading & unloading, picking & placing, and small part assembly & testing applications.

Palletizer robots

ABB's 4-axis palletizer robots are the fastest in the market. Designed for shortening cycle times and raising productivity for end-of-line, multi-feed-in/-out, and bag palletizing.

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Customer benefits

Our response to the four mega trends (individualized consumer, labor skills shortages, sustainability, and uncertainty) is to create automation solutions that deliver four key customer values: productivity, quality, flexibility, and simplicity, all while doing that in a sustainable way and helping our customers to become more sustainable in their businesses.

Productivity

Flexibility

Simplicity

Quality

	Payload (kg)	Reach (m)	Pos. rep. (mm)	Mounting	Protection and special options	Axes	Controller	Remark
IRB 1010	1.5	0.47	0.01	Floor, inverted	Std: IP40	6	OmniCore	
IRB 1100	4 4	0.475 0.58	0.01	Any angle	Std: IP40 Option: Clean Room ISO 4, IP67	6	OmniCore	
IRB 1200	5 7	0.90 0.70	0.025 0.02	Any angle	Std: IP40. Option: Foundry Plus 2, IP67, Clean Room ISO 3, Food Grade Lubrication	6	IRC5 OmniCore	
IRB 1300	7 10 11 12	1.4 1.15 0.9 1.4	0.03 0.023 0.02 0.05	Any angle	Std: IP40 Option: IP67, Foundry Plus 2, Cleanroom ISO 4	6	OmniCore	
IRB 1410	5	1.44	0.025	Floor	Std: IP54	6	IRC5	
IRB 1520ID	4	1.50	0.05	Floor, inverted	Std: IP40	6	IRC5	
IRB 1600	6 10	1.20/1.45 1.20/ 1.45	0.02 0.02/0.05	Floor, wall, inverted, tilted, shelf	Std: IP54 Option: Foundry Plus 2	6	IRC5	
IRB 1660ID	4 6	1.55	0.02	Floor, wall, inverted, tilted	Std: IP67 (Axis 4: IP40)	6	IRC5	
IRB 2400	10 16	1.55	0.03	Floor, inverted, wall for 10kg payload	Std: IP54 Option: Foundry Plus 2	6	IRC5	
IRB 2600	12/12 20	1.65/1.85 1.65	0.04	Floor, wall, inverted, titled, shelf	Std: IP67, IP54 (axis 4) Option: Foundry Plus 2	6	IRC5	
IRB 2600ID	15 8	1.85 2.00	0.026 0.023	Floor, wall, inverted, titled, shelf	Std: IP67 for base and lower arm. IP54 for upper arm	6	IRC5	
IRB 4400 IRB 4400L	60 10	1.96 2.55	0.05 0.05	Floor	Std: IP54 Option: IP67, Foundry Plus 2	6	IRC5	
IRB 4600	20/40/ 45/60	2.5/2.55/ 2.05/2.05	0.05 - 0.06	Floor, inverted, tilted	Std: IP67 Option: Foundry Plus 2, Foundry Prime 2 for 60kg	6	IRC5 OmniCore	
IRB 5710	70/90/ 90/110	2.7*/2.3*/ 2.7/2.3	0.04-0.05	Floor, titled, inverted	Std: IP67 Option: Foundry Plus	6	OmniCore	Available with LeanID
IRB 5720	90/125/ 155/180	3.0*/3.0 2.6*/2.6	0.04-0.05	Floor, titled, inverted	Std: IP67 Option: Foundry Plus	6	OmniCore	Available with LeanID
IRB 6620	150	2.20	0.03	Floor, tilted, inverted	Std: IP54 Option: Foundry Plus 2 with IP67	6	IRC5	
IRB 6650S	90 125 200	3.90 3.50* 3.00*	0.13 0.14	Shelf	Std: IP67, Option: Foundry Plus 2. High pressure steam washable	6	IRC5 OmniCore	*Available with LeanID
IRB 6660	100 130 205	3.30 3.10 1.90	0.10 0.11 0.07	Floor	Std: IP67 Option: Foundry Plus 2	6	IRC5	
IRB 6700	150/155/175 200/205/235 245/300	3.20*/2.85*/3.05* 2.60*/2.80*/2.65* 3.00*/2.70*	0.06/0.08/0.05 0.05/0.05/0.05 0.05/0.06	Floor	Std: IP67 Option: Foundry Plus 2	6	IRC5 OmniCore	Available with LeanID
IRB 6700INV	245/300	2.90*/2.60*	0.05/0.10	Inverted	Std: IP67 Option: Foundry Plus 2	6	IRC5 OmniCore	Available with LeanID
IRB 6790	205/235	2.80/2.65	0.05	Floor	Std: IP69, Foundry Prime 3	6	IRC5	
IRB 7600	150/325/ 340/400/ 500	3.50/3.10*/ 2.80*/2.55*/ 2.55	0.19/0.10 0.27/0.19 0.08	Floor	Std: IP67 Option: Foundry Plus 2	6	IRC5	*Available with LeanID

Compliant with ISO 9283.

Pose repeatability

Articulated robots	Payload (kg)	Reach (m)	Pos. rep. (mm)	Mounting	Protection and special options	Axes	Controller	Remark
IRB 8700	550 800	4.20* 3.50*	0.08 0.05	Floor	Std: IP67 Option: Foundry Plus 2	6	IRC5	Available with LeanID
Cobots								
CRB 15000 GoFa™	5	0.95	0.05	Any angle	Std: IP54	6	OmniCore	Functional safety Category 3, PL d
CRB 1100 SWIFTI™	4 4	0.475 0.58	0.01	Any angle	Std: IP40	6	OmniCore	Functional safety Category 3, PL d
CRB 1300 SWIFTI™	7/10/11	1.4/1.15/0.9	0.03/0.023/0.02	Any angle	Std: IP40	6	OmniCore	Functional safety Category 3, PL d
IRB 14000 YuMi®	0.50	0.559	0.02	Table	Std: IP30 and Clean Room ISO 5	14	Embedded IRC5	Functional safety Category B, PL b
IRB 14050 YuMi®	0.50	0.559	0.02	Any angle	Std: IP30 and Clean Room ISO 6	7	OmniCore	Functional safety Category 3, PL d
Parallel robots								
IRB 390 FlexPacker®	10 15	1.3 1.3	0.08 0.01	Inverted	Std: IP67, FGL	5 4	IRC5	
IRB 360 FlexPicker®	1 3 6 8	1.13/1.60 1.13 1.60 1.13	0.09/0.03 0.06 0.03 0.05	Inverted	Std: IP54/67/69K, FGL Option: Clean Room, Wash-down, Stainless	4	IRC5 or OmniCore	
IRB 365 FlexPicker®	1.5	1.1	0.05	Inverted	Std: IP54. FGL	4	IRC5 OmniCore	
SCARA robots								
IRB 910INV	1 (max 3) 3 (max 6)	0.35 0.55	0.01 0.01	Inverted	Std: IP30. Option: Clean Room ISO 1, IP54	4	OmniCore	
IRB 920T IRB 920	6	0.45/0.55/0.65	0.01-0.02	Floor	Std: IP 30 Option: IP54, Cleanroom ISO 5	4	OmniCore	
Paint robots								
IRB 52	7	1.20/1.45	0.15	Floor, wall, inverted, tilted	Std: IP66, Ex	6	IRC5P	
IRB 5500-22 IRB 5500-23 IRB 5500-25	13	2.97	0.15	Floor, wall, inverted, tilted Elevated	Std: IP66, Ex	6 7 7	IRC5P	
IRB 5500-27	13	2.97	0.15	Wall, floor, inverted	Std: IP66, Ex	7	IRC5P	
IRB 5510	13	2.56	0.15	Floor	Std: IP66, Ex	6	IRC5P	
IRB 5350	7	1.35 Rail travel length: 3-10	0.15	Floor, rail	Std: IP66, Ex	3/4	IRC5P	
Palletizing robots								
IRB 460	110	2.40	0.20	Floor	Std: IP67	4	IRC5 OmniCore	
IRB 660	180 250	3.15	0.05	Floor	Std: IP67	4	IRC5 OmniCore	
IRB 760	450	3.18	0.05	Floor	Std: IP67	4	IRC5 OmniCore	
Hygienic robots								
IRB 1200 Hygienic	5 7	0.90 0.70	0.025 0.02	Any angle	Wipe down, wash down with cover. Ax IS6 P69K, max. 30bar	6	IRC5 OmniCore	

Compliant with ISO 9283.   Pose repeatability

OmniCore™ robot controllers offer faster, scalable and more energy efficient manufacturing

	E10 Ultra-slim	**C30** Compact			**C90XT** Rugged yet compact		**V250XT** Versatille	
Applicable robots	Articulated / SCARA	Cobot / Delta / Articulated / SCARA			Articulated / SCARA		Articulated / Palletizer	
Designed to power robots with payloads	Up to IRB 1300	Up to IRB 1600			Up to IRB 1600		Up to IRB 6700	
Width × Depth × Height	449 × 338 × 89 mm	449 x 443 x 170 mm			500 × 355 × 520 mm		650 × 480 × 960 mm	
Applicable industries	Electronics General Industries	Electronics Food & Beverage General Industries			Electronics Food & Beverage General Industries		Automotive Food & Beverage Electronics General Industries Logistics	

IRB 1300 class-leading powerful performance in a compact package

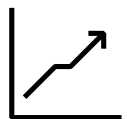IRB 1010 smallest industrial robot with class-leading payload and accuracy

Up to
20%
lower power consumption and energy saving.

*Compared with IRC5
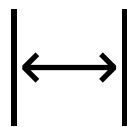
1000+
scalable functions, e.g. RobotWare, SafeMove, TrueMove, QuickMove, stop position simulation, Externally Guided Motion, Wizard Easy Programming, Robot Control Mate, IoT gateway, and vision.

Up to
25%
faster than previous robots.

Built-in connectivity to the ABB Ability™ digital platform and Connected Services.

—
IRB 365 FlexPicker® five axis Delta robot fastest for lightweight product picking

—
IRB 5710, IRB 5720 large robots for material handling

Key innovations
Expertise and support you can rely on

ABB Robotics is a pioneer in robots, software and advanced digital services, and has supplied many breakthrough innovations since introducing the world's first micro-processor-controlled robot in 1974.

- **1974** IRB 6, the world's first micro-processor-controlled robot

- **1979** IRB 60 the world's first electrical robot for spot welding

- **1983** First joystick FlexPendant for robot control

- **1986** IRB 2000, first robot driven by AC motors

- **1994** Dynamic motion control with TrueMove and QuickMove

- **1995** The world's highest speed delta robot

- **1998** RobotStudio, first offline programming tool

- **2001** IRB 7600, first industrial robot to handle 500 kg

- **2004** MultiMove, coordinated multiple (up to four) robot control

- **2005** Remote Services, a decade before the term 'internet of things' was known

- **2010** IRB 460 - The fastest palletizing robot in the world

- **2015** YuMi, the world's first truly collaborative robot; ABB Connected Services

- **2018** OmniCore; world's first connected paint atomizer

- **2021** GoFa and SWIFTI, the next generation of cobots

- **2022** IRB 5710 and IRB 5720 for EV battery production

  IRB 365 FlexPicker®, five axis and fastest-in-class

  IRB 1010, ABB smallest industrial robot
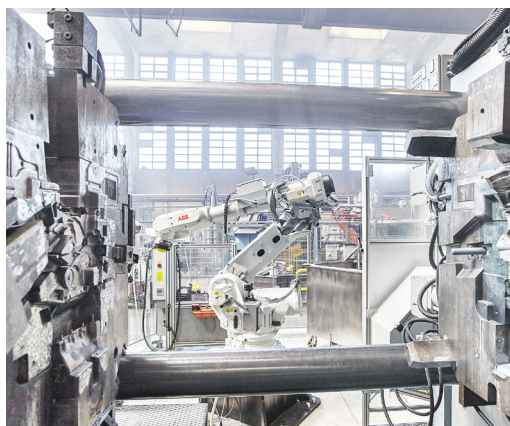
Strongly positioned to benefit from market dynamics

Broadest portfolio amongst our peers
As the only player with both a strong robotics and automatio portfolio in-house, we are in an ideal position to provide our customers with flexible automation solutions from individual machines to whole plants. We have a balanced portfolio of products, cells and solutions, systems and services. Integrated solutions like machine-centric robotics and digital services open new high growth applications.

Innovation strength
We are expanding our portfolio of products (e. g. robots and controllers), cells and systems (e. g. flexible manufacturing systems). We focus especially on our software and digital portfolio. We already monitor ~9000 installed robots remotely and are constantly adding new digital services on ABB Ability. We have established incubators to accelerate the developments in artificial intelligence, digital factory automation, collaborative robotics and healthcare.

A true global player
We are very well positioned to serve our customers globally. We have local sales, service and application engineers in all relevant markets, and we produce robots in Sweden, China and the USA. With six R&D centers in Europe, Asia and the USA, we can tap into talent pools across the globe and do research close to all key markets.

Applied domain expertise
Deep domain know-how is the base for the development of value creating solutions to serve our customers. Through the alignment of our organization with customer segments, we are best positioned to serve their specific needs.

ABB
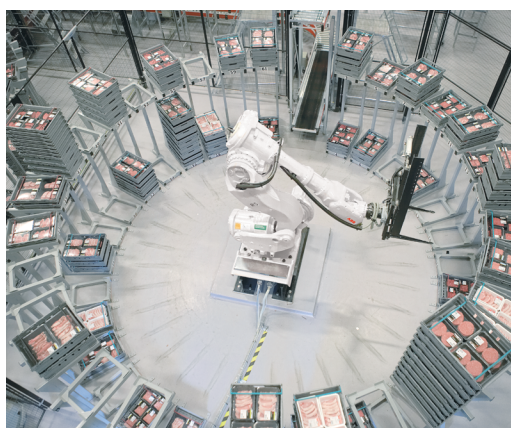
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