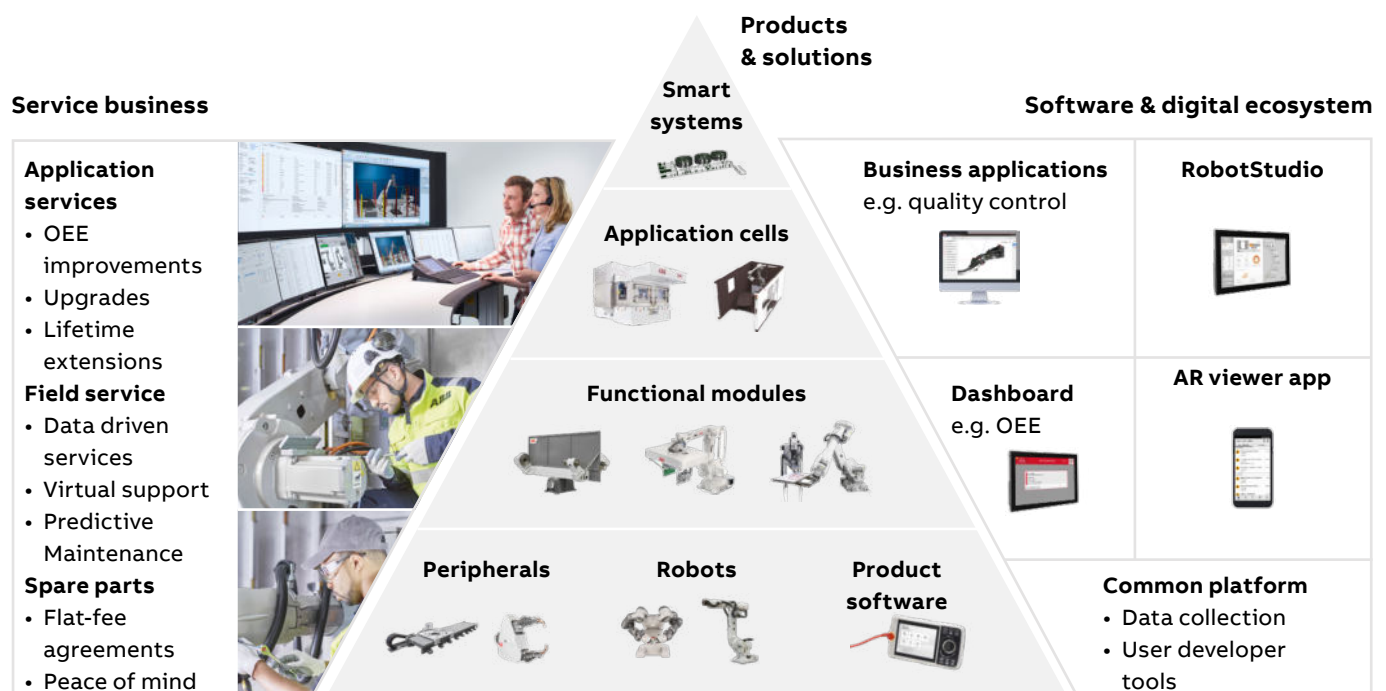# ABB Robotics industrial robots product range

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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.

Solutions.abb/robotics

Technology and application leadership
From the robot to the complete smart system

Service business

Products & solutions

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

Product range
Wide variety of robots to fit all needs

Articulated robots

Leveraging our profound expertise in industry automation and domain knowledge, ABB excels in the creation of high-performance articulated robots designed to elevate our customers' productivity and quality. Featuring ABB's TrueMove and QuickMove motion control technology, the robots can achieve class-leading repeatability and cycle time.

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.
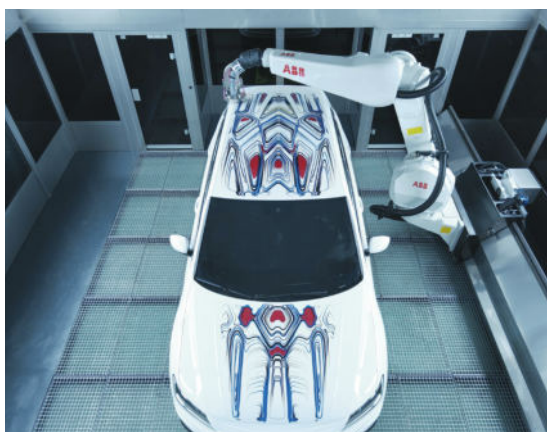

Collaborative robots

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.

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

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Articulated: small robots

Model Name	IRB 1010	IRB 1090	IRB 1100	IRB 1200	IRB 1300
Payload (kg)	1.5	3.5	4 4	5 7	7 10 11 12
Reach (m)	0.37	0.58	0.475 0.58	0.90 0.70	1.4 1.15 0.9 1.4
Variants	IRB 1010-1.5/0.37	IRB 1090-3.5/0.58	IRB 1100-4/0.475 IRB 1100-4/0.58	IRB 1200-7/0.7 IRB 1200-5/0.9 IRB 1200-7/0.9	IRB 1300-11/0.9 IRB 1300-10/1.15 IRB 1300-7/1.4 IRB 1300-12/1.4
Pose rep. (mm)*	0.01	0.05	0.01	0.02 0.025 0.025	0.03 0.023 0.02 0.05
Mounting	Floor, inverted	Floor, inverted	Any angle	Any angle	Any angle
Protection and special options	Std: IP40	Std: IP40	Std: IP40 Option: Clean Room ISO 4, IP67	Std: IP40. Option: Foundry Plus 2, IP67, Clean Room ISO 3, Food Grade Lubrication, Hygienic	Std: IP40 Option: IP67, Foundry Plus 2, Clean Room ISO 4
Axes	6	6	6	6	6
Controller	OmniCore	OminiCore	OmniCore	IRC5 OmniCore	OmniCore
Remark					

Compliant with ISO 9283.   *Pose repeatability

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Articulated: medium robots

Model Name	IRB 1520ID	IRB 1600	IRB 1660ID	IRB 2400
Payload (kg)	4	6 10	4 6	10 16
Reach (m)	1.50	1.20/1.45 1.20/ 1.45	1.15	1.15
Variants	IRB 1520ID-4/1.5	IRB 1600-6/1.2 IRB 1600-6/1.45 IRB 1600-10/1.2 IRB 1600-10/1.45	IRB 1660ID-4/1.55 IRB 1660ID-6/1.55	IRB 2400/10-1.55 IRB 2400/16-1.55
Pose rep. (mm)*	0.05	0.02 0.02/0.05	0.02	0.03
Mounting	Floor, inverted	Floor, wall, inverted, tilted, shelf	Floor, wall, inverted, tilted	Floor, inverted, wall for 10kg payload
Protection and special options	Std: IP40	Std: IP54 Option: Foundry Plus 2	Std: IP67 (Axis 4: IP40)	Std: IP54 Option: Foundry Plus 2
Axes	6	6	6	6
Controller	IRC5 OmniCore	IRC5 OmniCore	IRC5 OmniCore	IRC5 OmniCore
Remark				

Compliant with ISO 9283.   *Pose repeatability

Find out more details on the data sheets or technical specifications.
https://solutions.abb/robotics

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Articulated: medium robots

Model Name	IRB 2600	IRB 2600ID	IRB 4400 IRB 4400L	IRB 4600
Payload (kg)	12/12 20	15 8	60 10	20/40/ 45/60
Reach (m)	1.65/1.85 1.65	1.85 2.00	1.96 2.55	2.5/2.55/ 2.05/2.05
Variants	IRB 2600-20/1.65 IRB 2600-12/1.65 IRB 2600-12/1.85	IRB 2600ID-15/1.85 IRB 2600ID-8/2.00	IRB 4400/60-1.96 IRB 4400L/10-2.55	IRB 4600-60/2.05 IRB 4600-45/2.05 IRB 4600-40/2.55 IRB 4600-20/2.50
Pose rep. (mm)*	0.04	0.026 0.023	0.05 0.05	0.05 - 0.06
Mounting	Floor, wall, inverted, tilted, shelf	Floor, wall, inverted, tilted, shelf	Floor	Floor, inverted, tilted
Protection and special options	Std: IP67, IP54 (axis 4) Option: Foundry Plus 2	Std: IP67 for base and lower arm. IP54 for upper arm	Std: IP54 Option: IP67, Foundry Plus 2	Std: IP67 Option: Foundry Plus 2, Foundry Prime 2 for 60kg, Clean Room ISO 5
Axes	6	6	6	6
Controller	IRC5 OmniCore	IRC5 OmniCore	IRC5 OmniCore	IRC5 OmniCore
Remark				

Compliant with ISO 9283.　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　*Pose repeatability

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Articulated: large robots

Model Name	IRB 5710	IRB 5720	IRB 6620	IRB 6650S	IRB 6660
Payload (kg)	70/90/ 90/110	90/125/ 155/180	150	90 125 200	100 130 205
Reach (m)	2.7*/2.3*/ 2.7/2.3	3.0*/3.0 2.6*/2.6	2.20	3.90 3.50* 3.00*	3.30 3.10 1.90
Variants	IRB 5710-110/2.3 IRB 5710-90/2.7 IRB 5710-90/2.3 LID IRB 5710-70/2.7 LID	IRB 5720-180/2.6 IRB 5720-125/3.0 IRB 5720-155/2.6 LID IRB 5720-90/3.0 LID	IRB 6620-150/2.2	IRB 6650S-125/3.5 or option LID IRB 6650S-200/3.0 or option LID IRB 6650S-90/3.9	IRB 6660-130/3.1 IRB 6660-205/1.9 IRB 6660-100/3.3
Pose rep. (mm)*	0.04-0.05	0.04-0.05	0.03	0.13 0.14	0.10 0.11 0.07
Mounting	Floor, tilted, inverted	Floor, tilted, inverted	Floor, tilted, inverted	Shelf	Floor
Protection and special options	Std: IP67 Option: Foundry Plus 2	Std: IP67 Option: Foundry Plus 2	Std: IP54, Option: Foundry Plus 2 with IP67	Std: IP67, Option: Foundry Plus 2. High pressure steam washable	Std: IP67 Option: Foundry Plus 2
Axes	6	6	6	6	6
Controller	OmniCore	OmniCore	IRC5	IRC5 OmniCore	IRC5 OmniCore
Remark	*Available with LeanID	*Available with LeanID		*Available with LeanID	

Compliant with ISO 9283.　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　*Pose repeatability

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Articulated: large robots

Model Name	IRB 6700		IRB 6700 INV
Payload (kg)	150/155/175 200/205/235 245/300		245/300
Reach (m)	3.20*/2.85*/3.05* 2.60*/2.80*/2.65* 3.00*/2.70*		2.90*/2.60*
Variants	IRB 6700-300/2.70 IRB 6700-270/2.70 LID IRB 6700-245/3.00 IRB 6700-220/3.00 LID IRB 6700-235/2.65 IRB 6700-220/2.65 LID IRB 6700-205/2.80 IRB 6700-200/2.80 LID	IRB 6700-200/2.60 IRB 6700-175/2.60 LID IRB 6700-175/3.05 IRB 6700-155/3.05 LID IRB 6700-155/2.85 IRB 6700-140/2.85 LID IRB 6700-150/3.20 IRB 6700-145/3.20 LID	IRB 6700I-300/2.60 IRB 6700I-270/2.60 LID IRB 6700I-245/2.90 IRB 6700I-210/2.90 LID
Pose rep. (mm)*	0.06/0.08/0.05 0.05/0.05/0.05 0.05/0.06		0.05/0.10
Mounting	Floor		Inverted
Protection and special options	Std: IP67 Option: Foundry Plus 2		Std: IP67 Option: Foundry Plus 2
Axes	6		6
Controller	IRC5 OmniCore		IRC5 OmniCore
Remark	*Available with LeanID		*Available with LeanID

Compliant with ISO 9283.   *Pose repeatability

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Articulated: large robots

Model Name	IRB 6710	IRB 6720	IRB 6730	IRB 6740
Payload (kg)	175–210	150–240	190–270	220–310
Reach (m)	2.66–2.95	2.5–3.1	2.7–3.1	2.8–3.2
Variants	IRB 6710-210/2.65 IRB 6710-200/2.95 IRB 6710-175/2.65 LID IRB 6710-175/2.95 LID	IRB 6720-240/2.65 IRB 6720-210/2.8 IRB 6720-170/3.1 IRB 6720-215/2.5 LID IRB 6720-215/2.65 LID IRB 6720-200/2.8 LID IRB 6720-150/3.1 LID	IRB 6730-270/2.7 IRB 6730-240/2.9 IRB 6730-210/3.1 IRB 6730-220/2.9 LID IRB 6730-190/3.1 LID	IRB 6740-310/2.8 IRB 6740-260/3.0 IRB 6740-240/3.2 IRB 6740-270/2.8 LID IRB 6740-230/3.0 LID IRB 6740-220/3.2 LID
Pose rep. (mm)*	0.03/0.04	0.04/0.05/0.06	0.04/0.07	0.04/0.05/0.06
Mounting	Floor	Floor	Floor	Floor
Protection and special options	Std: IP67 Option: Foundry Plus 2	Std: IP67 Option: Foundry Plus 2	Std: IP67 Option: Foundry Plus 2	Std: IP67 Option: Foundry Plus 2
Axes	6	6	6	6
Controller	OmniCore	OmniCore	OmniCore	OmniCore
Remark				

Compliant with ISO 9283.   *Pose repeatability

Find out more details on the data sheets or technical specifications.
https://solutions.abb/robotics

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Articulated: large robots

Model Name	IRB 6790	IRB 7600	IRB 7710	IRB 7720	IRB 8700
Payload (kg)	205/235	150/325/ 340/400/ 500	280–500	400–620	550 800
Reach (m)	2.80/2.65	3.50/3.10*/ 2.80*/2.55*/ 2.55	2.85–3.5	2.9–3.5	4.20* 3.50*
Variants	IRB 6790-235/2.65 IRB 6790-205/2.80	IRB 7600-400/2.55 or option LID IRB 7600-340/2.8 or option LID IRB 7600-150/3.5 IRB 7600-500/2.55 IRB 7600-325/3.1 or option LID	IRB 7710-500/2.85 IRB 7710-430/3.1 IRB 7710-360/3.3 IRB 7710-310/3.5 IRB 7710-400/2.85 LID IRB 7710-390/3.1LID IRB 7710-325/3.3 LID IRB 7710-280/3.5 LID	IRB 7720-620/2.9 IRB 7720-530/3.1 IRB 7720-510/3.3 IRB 7720-450/3.5 IRB 7720-560/2.9 LID IRB 7720-480/3.1 LID IRB 7720-400/3.3 LID IRB 7720-400/3.5 LID	IRB 8700-800/3.50 or option LID IRB 8700-550/4.20 or option LID
Pose rep. (mm)*	0.05	0.19/0.10 0.27/0.19 0.08	0.06/0.10	0.05/0.06	0.08 0.05
Mounting	Floor	Floor	Floor	Floor	Floor
Protection and special options	Std: IP69, Foundry Prime 3	Std: IP67 Option: Foundry Plus 2	Std: IP67 Option: Foundry Plus 2	Std: IP67 Option: Foundry Plus 2	Std: IP67 Option: Foundry Plus 2
Axes	6	6	6	6	6
Controller	IRC5 OmniCore	IRC5 OmniCore	OmniCore	OmniCore	IRC5 OmniCore
Remark		*Available with LeanID			*Available with LeanID

Compliant with ISO 9283.   *Pose repeatability

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Cobots

Model Name	CRB 15000 GoFa™	CRB 1100 SWIFTI™	CRB 1300 SWIFTI™	IRB 14000 YuMi®	IRB 14050 YuMi®
Payload (kg)	5/10/12	4 4	7/10/11	0.50	0.50
Reach (m)	0.95 (1.05TCP) 1.27 (1.37TCP) 1.52 (1.62TCP)	0.475 0.58	1.4/1.15/0.9	0.559	0.559
Variants	CRB 15000-5/0.95 CRB 15000-12/1.27 CRB 15000-10/1.52	CRB 1100-4/0.475 CRB 1100-4/0.58	CRB 1300-11/0.9 CRB 1300-10/1.15 CRB 1300-7/1.4	IRB 14000-0.5/0.5	IRB 14050-0.5/0.5
Pose rep. (mm)*	0.02	0.01	0.03/0.023/0.02	0.02	0.02
Mounting	Any angle	Any angle	Any angle	Table	Any angle
Protection and special options	Std: IP54 for GoFa 5, IP67 for Gofa 10 and 12, Clean Room ISO 4	Std: IP40	Std: IP40	Std: IP30 and Clean Room ISO 5	Std: IP30 and Clean Room ISO 6
Axes	6	6	6	14	7
Controller	OmniCore	OmniCore	OmniCore	Embedded IRC5	OmniCore
Remark	Functional safety Category 3, PL d	Functional safety Category 3, PL d	Functional safety Category 3, PL d	Functional safety Category B, PL b	Functional safety Category 3, PL d

Compliant with ISO 9283.   *Pose repeatability

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Parallel / Delta robots

Model Name	IRB 390 FlexPacker®	IRB 360 FlexPicker®		IRB 365 FlexPicker®
Payload (kg)	10	1		1.5
	15	3		
		6		
		8		
Reach (m)	1.3	1.13/1.60		0.8
	1.3	1.13		1.1
		1.60		1.3
		1.13		
Variants	IRB 390-15/1300	IRB 360-1/1130	IRB 360-1/1600	IRB 365-1.5/1100
	IRB 390-10/1300	IRB 360-3/1130	IRB 360-8/1130	IRB 365-1.5/1300
			IRB 360-6/1600	IRB 365-1.5/800
Pose rep. (mm)*	0.08	0.09/0.03	0.03	0.05
	0.01	0.06	0.05	
Mounting	Inverted	Inverted		Inverted
Protection and special options	Std: IP67, FGL	Std: IP54/67/69K, FGL Option: Clean Room, Wash-down, Stainless		Std: IP54. FGL
Axes	5	4		5
	4			
Controller	IRC5	IRC5		OmniCore
	OmniCore	OmniCore		
Remark				

Compliant with ISO 9283.   *Pose repeatability

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SCARA robots

Model Name	IRB 910INV	IRB 920/IRB 920T	IRB 930
Payload (kg)	1 (max 3)	6	12
	3 (max 6)		12
			22
Reach (m)	0.35	0.45	0.85
	0.55	0.55	1.05
		0.65	1.05
Variants	IRB 910INV-3/0.35	IRB 920-6/0.55	IRB 930-12/0.85
	IRB 910INV-6/0.55	IRB 920-6/0.65	IRB 930-12/1.05
		IRB 920T-6/0.45	IRB 930-22/1.05
		IRB 920T-6/0.55	
		IRB 920T-6/0.65	
Pose rep. (mm)*	0.01	0.01-0.02	0.01
	0.01		0.01
			0.02
Mounting	Inverted	Floor	Floor
Protection and special options	Std: IP30. Option: Clean Room ISO 1, IP54	Std: IP 30 Option: IP54, Clean Room ISO 5	Std: IP30
Axes	4	4	4
Controller	OmniCore	OmniCore	OmniCore
Remark			

Compliant with ISO 9283.   *Pose repeatability

Find out more details on the data sheets or technical specifications.
https://solutions.abb/robotics

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Paint robots

Model Name	IRB 52	IRB 5500	IRB 5510	IRB 5350
Payload (kg)	7	13	13	7
Reach (m)	1.20/1.45	2.97	2.56	1.35 Rail travel length: 3-10
Variants	IRB 52/1.2 IRB 52/1.45	IRB 5500-22. 6 axes IRB 5500-23. 7 axes floor IRB 5500-25. 7 axes elevated IRB 5500-27. 7 axes rotative	6 axes	3 axes 4 axes
Pose rep. (mm)*	0.15	0.15	0.15	0.15
Mounting	Floor, wall, inverted, tilted	Floor, wall, inverted, tilted Elevated	Floor	Floor, rail
Protection and special options	Std: IP66, Ex	Std: IP66, Ex	Std: IP66, Ex	Std: IP66, Ex
Axes	6	6 7	6	3 4
Controller	IRC5P	IRC5P	IRC5P	IRC5P
Remark				

Compliant with ISO 9283.   *Pose repeatability

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Palletizing robots

Model Name	IRB 460	IRB 660	IRB 760
Payload (kg)	110	180 250	450
Reach (m)	2.40	3.15	3.18
Variants	IRB 460-110/2.4	IRB 660-180/3.15 IRB 660-250/3.15	IRB 760-450/3.2 IRB 760-445/3.2
Pose rep. (mm)*	0.20	0.05	0.05
Mounting	Floor	Floor	Floor
Protection and special options	Std: IP67	Std: IP67	Std: IP67
Axes	4	4	4
Controller	IRC5 OmniCore	IRC5 OmniCore	IRC5 OmniCore
Remark			

Compliant with ISO 9283.   *Pose repeatability

Specifications subject to change without notice

OmniCore™
Powering future-ready, sustainable robots today

	E10	C30	C90XT	V250XT	V400XT
	Ultra-slim	Compact	Rugged yet compact	Versatile	Large and flexible
Applicable robots	Articulated, SCARA	Cobot, Delta, Articulated, SCARA	Cobot, Delta, Articulated, SCARA	Articulated, Delta, Palletizer	Articulated, Delta, Palletizer
Designed to power robots with payloads	Up to 22 kg (IRB 1300, IRB 930)	Up to 22 kg (IRB 1600, IRB 930)	Up to 22 kg (IRB 1600, IRB 930)	Up to 310 kg (IRB 6740)	Up to 800 kg (IRB 8700)
Width × Depth × Height	449 × 338 × 89 mm	449 x 443 x 170 mm	500 × 355 × 520 mm	650 × 480 × 960 mm	650 × 480 × 1140 mm
Applicable industries	Electronics General Industries	Electronics Food & Beverage General Industries	Electronics Food & Beverage General Industries	Automotive General Industries Logistics	Automotive General Industries Logistics
#ADU (additional drive unit) Up to…	0	0	1	3	6

IRB 1090 education robot is designed to up-skill students for the future of work

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

Highest productivity and quality
With OmniCore, robots achieve class-leading motion control with path accuracies down to 0.6 mm, even with multiple robots operating at maximum speeds of 1600 mm/s.

Unmatched scalability
OmniCore powers the market's most extensive range of robots and manipulators, providing 5 different controllers that run on the same platform.

Commitment to sustainability
Featuring built-in power back into the grid and re-generation technology to achieve up to 20% energy savings compared to its predecessor.

Easy integration
The integration of all major communication protocols in a single controller platform accelerates commissioning times from weeks to days, with additional gains from the leading number of pre-engineered application software tools and over up to 1000 time-saving features.

Cybersecurity and full traceability
Built-in cybersecurity and traceability features allow businesses to increase quality and productivity by reducing downtime.

Safety
OmniCore complies with future safety standards and includes up to 100 safety configurations to meet the needs of diverse use cases.

Future proof design
Designed for easy integration of market-leading computing power, enabling AI, Cloud, and advanced vision systems.

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

—
IRB 7710 and IRB 7720 alongside wider portfolio offer new levels of flexibility and greater choice with almost 50 variants.

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** RAPID high level programming language, TrueMove, QuickMove

- **1998** FlexPicker, a delta robot uniquely designed for the picking and packing industry

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

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

- **2004** MultiMove delivers high precision and speed with multiple robots

- **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 innovative human-friendly dual arm robot with breakthrough functionality unlocks vast global additional automation potential in industry

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

- **2021** GoFa™ and SWIFTI™ cobot unlock automation for new sectors and first-time users.

- **2022** IRB 5710, IRB 5720, IRB 365, IRB 1010, IRB 920

- **2023** IRB 6710~IRB 6740, GoFa 10, GoFa 12, OptiFact

- **2024** IRB 7710~IRB 7720
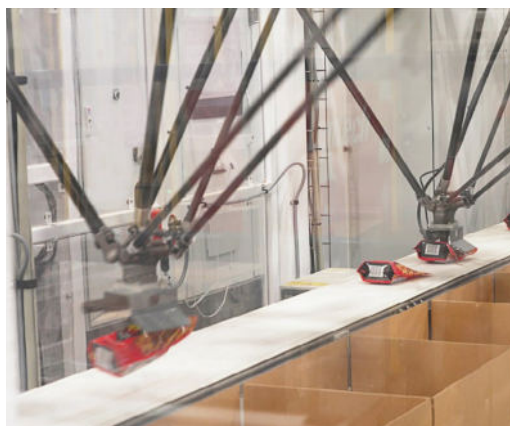
Strongly positioned to benefit from market dynamics

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. 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
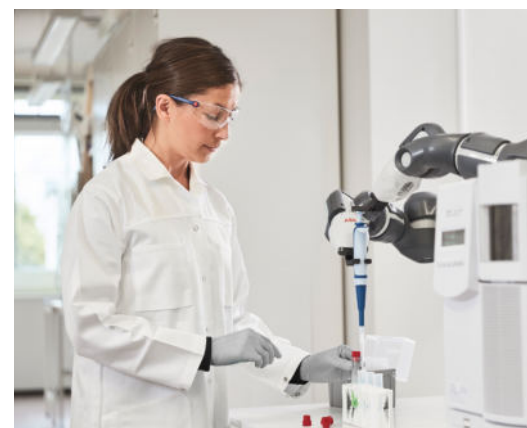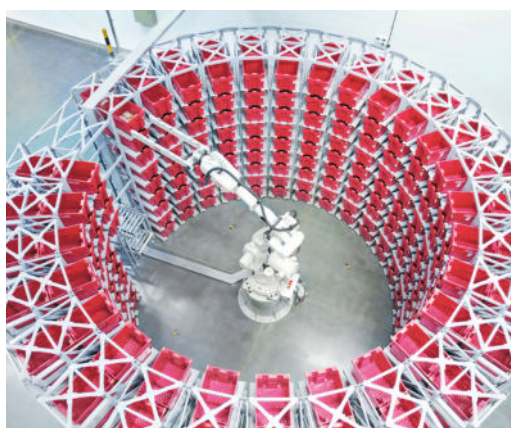
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abbrobotics

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