

IRB 8700

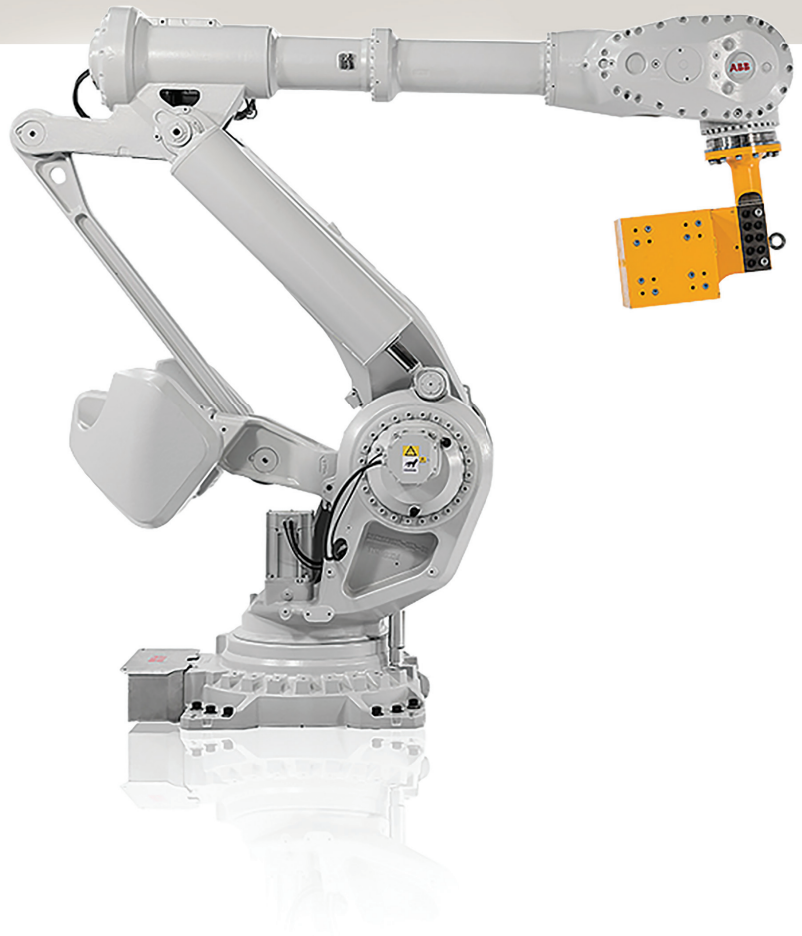
THE LARGEST ROBOT ABB HAS EVER MADE.

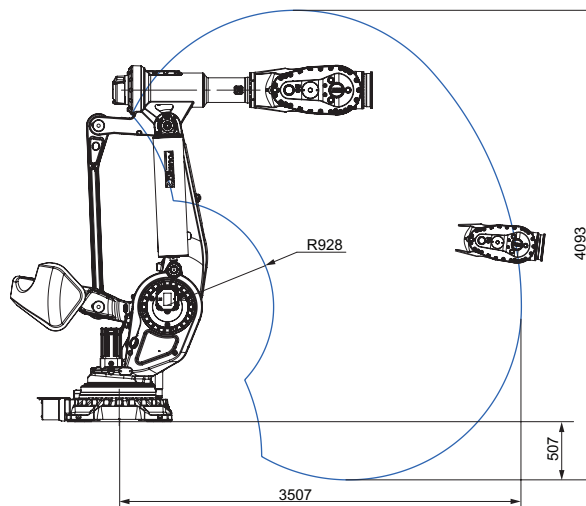
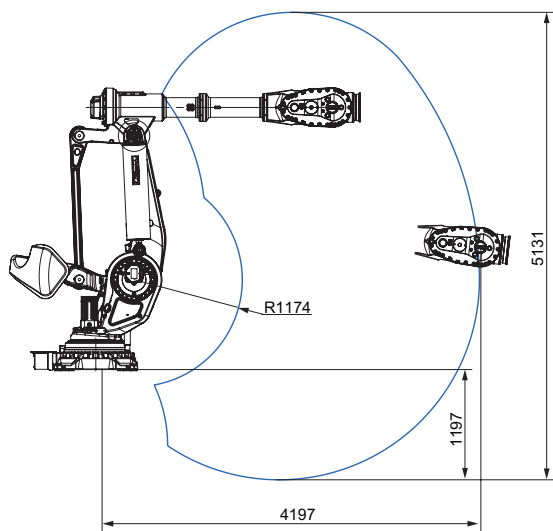
In designing the IRB 8700, the focus was on delivering a very reliable robot with a low total cost of ownership. Through a combination of robust design elements, including simpler parts configurations where possible, ABB Robotics applied decades of engineering experience to combine the high performance that customers require with low overall maintenance needs.

IN ADDITION, THE IRB 8700 DELIVERS 25% FASTER SPEEDS THAN ANY OTHER ROBOT IN THIS CLASS SIZE.

Features and benefits:

- » High payloads up to 1000 kg with the wrist down
- » 25% faster speeds than other robots in this size class
- » Highly reliable with simplified design and Foundry Plus 2 protection standard
- » Built around LeanID for reduced wear on dress packs and ease of simulation
- » Built using non-hazardous materials





SPECIFICATION

ROBOT VERSIONS	REACH	HANDLING CAPACITY	CENTER OF GRAVITY	WRIST TORQUE
Without Lean ID				
IRB 8700-800/3.50	3.50 m	800 kg	460 mm	6043 Nm
IRB 8700-550/4.20	4.20 m	550 kg	460 mm	5279 Nm
With Lean ID				
IRB 8700-800/3.50	3.50 m	630 kg	460 mm	6043 Nm
IRB 8700-550/4.20	4.20 m	475 kg	460 mm	5279 Nm
Extra loads can be mounted on all variants. 50 kg on upper arm and 500 kg on frame of axis 1.				
Number of axes		6		
Protection		Complete robot IP67		
Mounting		Floor mounted		
IRC5 Controller variants		Single cabinet		

PERFORMANCE

	IRB 8700-800/3.50	IRB 8700-550/4.20
Pos. repeatability RP	0.05 mm	0.08 mm
Path repeatability RT	0.07 mm	0.14 mm

MAXIMUM AXIS SPEED

	AXIS 1	AXIS 2	AXIS 3	AXIS 4	AXIS 5	AXIS 6
IRB 8700-800/3.50	75°/s	60°/s	60°/s	85°/s	85°/s	115°/s
IRB 8700-550/4.20	75°/s	60°/s	60°/s	85°/s	85°/s	115°/s

ELECTRICAL CONNECTIONS

Supply voltage	200-600 V, 50/60 Hz
Energy consumption ISO-Cube	3.93 kW

PHYSICAL

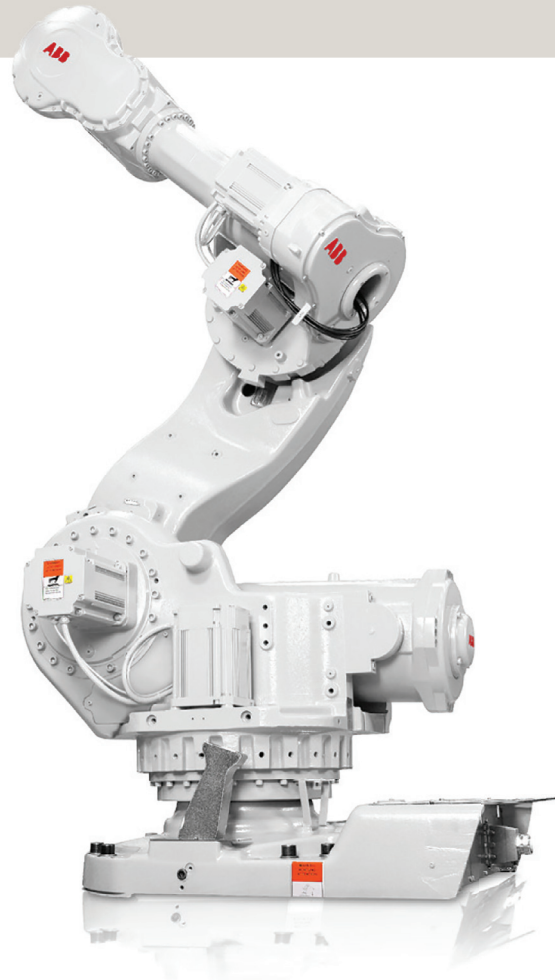
Dimensions robot base	1175 x 920 mm
Weight	4527 - 4575 kg

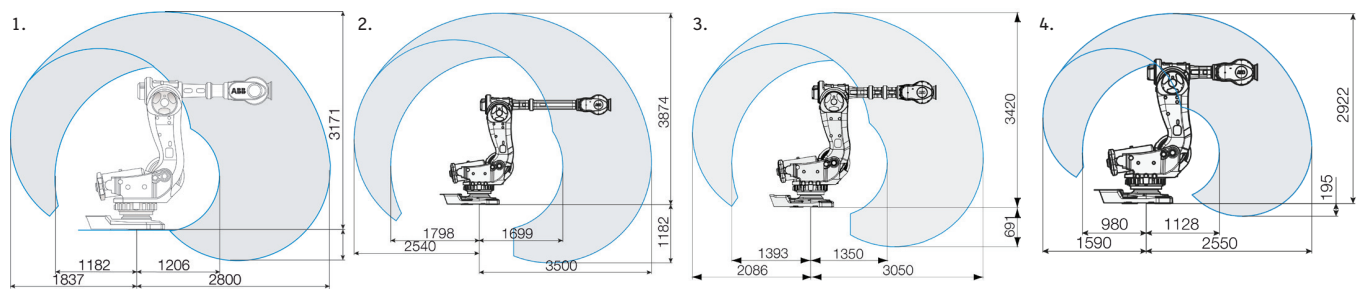
IRB 7600

A NEW WORLD OF POSSIBILITIES OPENS UP WITH ABB'S POWER ROBOT FAMILY.

It comes in several variants, up to 630 kg handling capacities. The IRB 7600 is ideal for weighty applications, regardless of industry. Characteristics such as high available torque and inertia capability, rigid design and powerful acceleration have earned this market leader its “Power Robot” title.

- » Reliable - High production up time
- » Security - A safe investment
- » Fast - Short cycle times
- » Accurate - Consistent parts quality
- » Strong - Maximized utilization
- » Robust - Harsh production environment
- » Versatile - Flexible integration and production





1. IRB 7600-340/2.8 | 2. IRB 7600-150/3.5 | 3. IRB 7600-325/3.1 | 4. IRB 7600-400/2.55/IRB 7600-500/2.55

SPECIFICATION					PERFORMANCE				
ROBOT VERSIONS	REACH	HANDLING CAPACITY	CENTER OF GRAVITY	MAX WRIST TORQUE	AXIS WORKING RANGE				
IRB					Axis 1 Rotation	+180° to -180°			
IRB 7600-500	2.55 m	500 kg	360 mm	3010 Nm	Axis 2 Arm	+85° to -60°			
IRB 7600-400	2.55 m	400 kg	512 mm	3010 Nm	Axis 3 Arm	+60° to -180°			
IRB 7600-340	2.8 m	340 kg	360 mm	2750 Nm	Axis 4 Wrist	+300° to -300°			
IRB 7600-325	3.1 m	325 kg	360 mm	2680 Nm	Axis 5 Bend	+100° to -100°			
IRB 7600-150	3.5 m	150 kg	360 mm	1880 Nm	Axis 6 Turn	+360° to -360°			
(IRB 7600-150 loaded with 100 kg 1660 mm)					AXIS MAX SPEED				
Extra loads can be mounted on all variants 50 kg on upper arm and 550 kg on frame of axis 1.						325/500 KG	400 KG	340 KG	150 KG
Number of axes		6			Axis 1	75°/s	75°/s	75°/s	100°/s
IRC5 Controller variants		Single cabinet, PMC			Axis 2	50°/s	60°/s	60°/s	60°/s
					Axis 3	55°/s	60°/s	60°/s	60°/s
					Axis 4	100°/s	100°/s	100°/s	100°/s
					Axis 5	100°/s	100°/s	100°/s	100°/s
					Axis 6	160°/s	160°/s	160°/s	190°/s
ENVIRONMENT					ELECTRICAL CONNECTIONS				
AMBIENT TEMPERATURE FOR MECHANICAL UNIT					Supply voltage		200-600 V,50/60 Hz		
During operation		+5 °C (41 °F) up to +50 °C (122 °F)			PHYSICAL				
During transportation & storage for short periods (max 24 h)		-25 °C (13 °F) up to +55 °C (131 °F) up to +70 °C (158 °F)			Dimensions robot base		1206.5 x 791 mm		
Relative humidity		Max 95%			Weight		2.400-2.450 kg		
Degree of protection									
Manipulator		Standard: IP67, Option: Foundry Plus 2							
Controller		Air cooled							
Noise level		Max 73 dB (A)							
Safety		Double circuits with supervision, emergency stops and safety functions, 3-positions enable device.							
Emission		EMC/EMI-shielded							

IRB 6700

THE IRB 6700 FAMILY OF ROBOTS IS A NATURAL EVOLUTION FOLLOWING 40 YEARS OF LARGE ROBOT HERITAGE AT ABB.

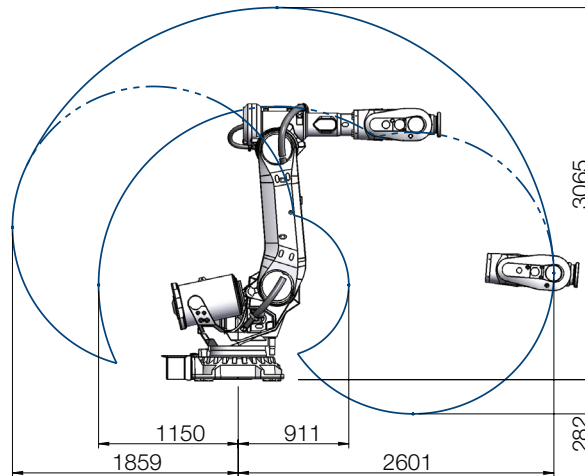
This 7th generation of large ABB robots features a multitude of next generation improvements derived from intimate customer relationships and exhaustive engineering studies. The IRB 6700 is more robust than its predecessor and maintenance has been simplified, making it the highest performing robot for the lowest total cost of ownership in the 150-300 kg class.

Features and benefits:

- » Increased service intervals and decreased service times
- » Longer uptime—mean time between failures: 400,000 hours
- » Available with Lean ID for cost, effectively increasing dress pack lifetimes
- » More robust with a rigid structure and a new generation of motors and compact gearboxes
- » Increased speed and shorter cycle times—on average 5 percent faster
- » Improved accuracy and higher payloads
- » Built to operate in the harshest environments—available with Foundry Plus 2 package
- » 15% lower power consumption



IRB 6700-200/2.60



SPECIFICATION WITHOUT LEANID					SPECIFICATION WITH LEANID				
ROBOT VERSIONS	REACH	HANDLING CAPACITY	CENTER OF GRAVITY	WRIST TORQUE	ROBOT VERSIONS	REACH	HANDLING CAPACITY	CENTER OF GRAVITY	WRIST TORQUE
IRB					IRB				
6700-200	2.60 m	200 kg	300 mm	981 Nm	6700-200	2.60 m	175 kg	300 mm	981 Nm
6700-155	2.85 m	155 kg	300 mm	927 Nm	6700-155	2.85 m	140 kg	300 mm	927 Nm
6700-235	2.65 m	235 kg	300 mm	1324 Nm	6700-235	2.65 m	220 kg	300 mm	1324 Nm
6700-205	2.80 m	205 kg	300 mm	1263 Nm	6700-205	2.80 m	200 kg	300 mm	1263 Nm
6700-175	3.05 m	175 kg	300 mm	1179 Nm	6700-175	3.05 m	155 kg	300 mm	1179 Nm
6700-150	3.20 m	150 kg	300 mm	1135 Nm	6700-150	3.20 m	145 kg	300 mm	1135 Nm
6700-300	2.70 m	300 kg	300 mm	1825 Nm	6700-300	2.70 m	270 kg	300 mm	1825 Nm
6700-245	3.00 m	245 kg	300 mm	1693 Nm	6700-245	3.00 m	220 kg	300 mm	1693 Nm
Extra loads can be mounted on all variants 50 kg on upper arm and 250 kg on frame of axis 1.					Extra loads can be mounted on all variants 50 kg on upper arm and 250 kg on frame of axis 1.				
Number of axes		6			Number of axes		6		
Protection		Complete robot IP67			Protection		Complete robot IP67		
Mounting		Floor mounted			Mounting		Floor mounted		
IRC5 Controller variants		Single cabinet, panel mounted controller			IRC5 Controller variants		Single cabinet, panel mounted controller		

PERFORMANCE

	6700-200	6700-155	6700-235	6700-245	6700-205	6700-175	6700-150	6700-300
Pos. repeatability RP (mm)	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
Path repeatability RT (mm)	0.06	0.12	0.08	0.12	0.08	0.12	0.14	0.07