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## IRB 5720

High performance large robots,  
payload from 90kg to 180kg



Faster, more robust and accurate, the IRB 5720 brings higher uptime, increased productivity, and better performance in the automotive and general industries.

ABB is expanding its large size robot portfolio with IRB 5720, offering faster performance, more accurate, expanded mounting options, and advanced foundry protection than other competing robots in its class. The IRB 5720 is available in four variants spanning various options for payload from 90kg to 180kg, reach from 2.6m to 3m.

IRB 5720 is ideal for use in material handling, machine tending, and high precision assembly applications in the Electric Vehicle (EV), automotive, and the general industries. For Electric Vehicles, the robots can handle an array of tasks, including EV battery module picking and placing, high precision assembly, and parts handling.

### **Productivity**

Thanks to the robot's robust mechanical design and OmniCore controller V250XT's motion control, the IRB 5720 provides improved speed and accuracy to help increase productivity. IRB 5720 is faster than competing robots and up to 25 percent faster than ABB's large-size robots (IRB 6700 and IRB 6620), enabling more products to be manufactured in less time. With the excellent position repeatability, path accuracy, and path speed, IRB 5720 is more accurate

than other robots, enabling the highest levels of manufacturing quality to be achieved.

### **LeanID Integrated DressPack increases uptime**

By integrating cabling within the body of the robot, ABB's unique Lean ID Integrated DressPack reduces the problem of swinging cables that can cause wear and tear, reducing downtime and maintenance cost. LeanID makes it easier to program and simulate with predictable cable movements at RobotStudio.

### **Flexible production layout**

IRB 5720 has multiple mounting options, including floor, angled, inverted and semi shelf for maximum production layout design flexibility. IRB 5720 offers more mounting options than other robots.

### **Foundry protections**

The robots also include superior harsh environment protection, Foundry Plus, additional sealant protection for high radiant or contact heat, ensuring higher availability, fewer breakdowns and longer equipment lifetime. The optional protection guards IRB 5720 against the harshest of foundry environments.

### Key benefits

- TrueMove and QuickMove software enables best-in-class motion control and improved cycle times, and path accuracy.
- Increased speed and shorter cycle times – faster than other robots, and up to 25 percent faster than IRB 6620 and IRB 6700.
- LeanID Integrated DressPack reduces cable wear and tear, and lengthens service interval.
- Robust design with a rigid structure increases uptime.
- Multiple mounting options for flexible production layouts.
- Built to operate in harsh environments—available with Foundry Plus protection.

### Specification

Robot version	Reach (m)	Handling capacity (kg)*	Center of gravity (mm)	Wrist torque (Nm)
IRB 5720-180/2.6	2.6	180	300	980
IRB 5720-125/3.0	3.0	125	300	573
IRB 5720-155/2.6 LID	2.6	155	300	994
IRB 5720-90/3.0 LID	3.0	90	300	569
Number of axes	6			
Protection	IP67		Option: Foundry Plus	
Mounting	Floor, tilted max 15°		Option: Inverted	
Controller	OmniCore V250XT			

\* LID versions include dresspack, other versions allow 20kg extra load on upper arm

### Performance (according to ISO 9283)

	Position repeatability	Path repeatability
IRB 5720-180/2.6	0.04 mm	0.10 mm
IRB 5720-125/3.0	0.05 mm	0.14 mm

### Technical information

#### Electrical Connections

Supply voltage	380 - 480 VAC, 50/60 Hz
Energy consumption*	2.5 kW

\* ISO-cube at max performance depending on robot version

#### Physical

Robot base	1023 x 724 mm	
Robot weight	Std	Inv
3300-326 IRB 5720-180/2.6	990 kg	1005 kg
3300-327 IRB 5720-125/3.0	985 kg	1000 kg
3300-328 IRB 5720-155/2.6LID	1050 kg	1070 kg
3300-329 IRB 5720-90/3.0LID	1050 kg	1060 kg

### Main applications

- EV Battery modules picking, placing, and high precision assembly.
- Automotive tier 1 parts material handling, and machine tending.
- General Industry material handling, machine tending, die casting, and general high precision applications.

More applications on process applications such as welding, cutting, or dispensing will be released in 2023.

### Environment

Ambient temperature for mechanical unit	
During operation	+5°C (41°F) to +50°C (122°F)
During transportation and storage	-25°C (13°F) to +55°C (131°F)
During short periods (max 24 hours)	up to +70°C (158°F)
Relative humidity	Max 95%
Noise level	75 dB
Safety	Double circuits with supervision, emergency stops and safety functions, 3-position enable device
Extended safety	SafeMove
Emission	EMC/EMI-shielded

### Movement

Working range	IRB 5720-180/2.6 IRB 5720-125/3.0	IRB 5720-155/2.6LID IRB 5720-90/3.0LID
Axis 1*	±170°	±170°
Axis 2	-75°/+145°	-75°/+145°
Axis 3	-180°/+70°	-160°/+70°
Axis 4	±300°	±300°
Axis 5	±130°	±120°
Axis 6	±360°	±200°

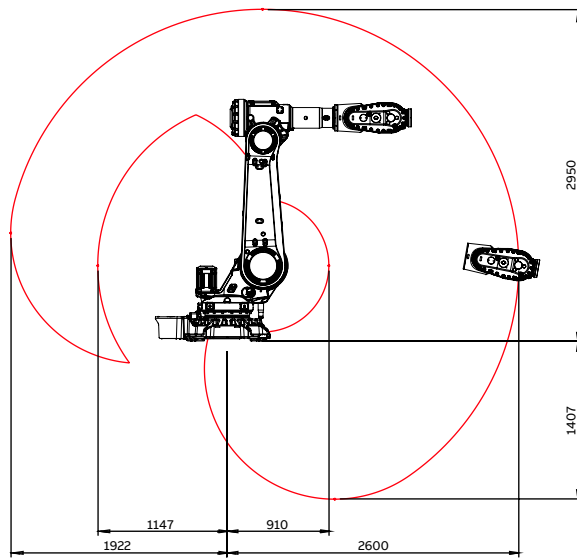
\* Option ±220° working range is the same for inverted variant.

### Axis max speed

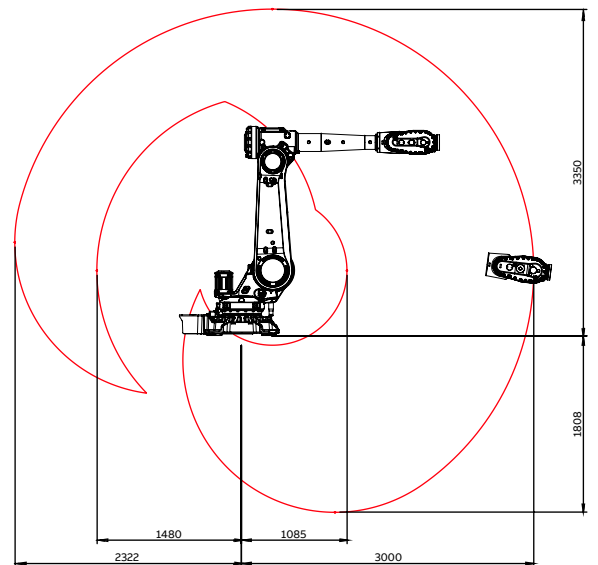
	Axis 1	Axis 2	Axis 3	Axis 4	Axis 5	Axis 6
IRB 5720-180/2.6	110°/s	90°/s	110°/s	200°/s	150°/s	210°/s
IRB 5720-125/3.0	110°/s	90°/s	110°/s	250°/s	200°/s	250°/s
IRB 5720-155/2.6LID	110°/s	90°/s	110°/s	200°/s	150°/s	210°/s
IRB 5720-90/3.0LID	110°/s	90°/s	110°/s	250°/s	200°/s	250°/s

More information about the data specification is found in the Product Specification  
Data and dimensions may be changed without notice

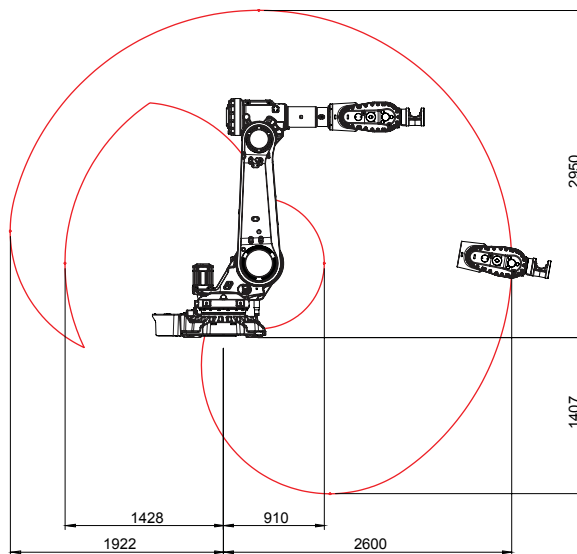
**Working range IRB 5720-180/2.6**



**Working range IRB 5720-125/3.0**



**Working range IRB 5720-155/2.6 LID**



**Working range IRB 5720-90/3.0 LID**

