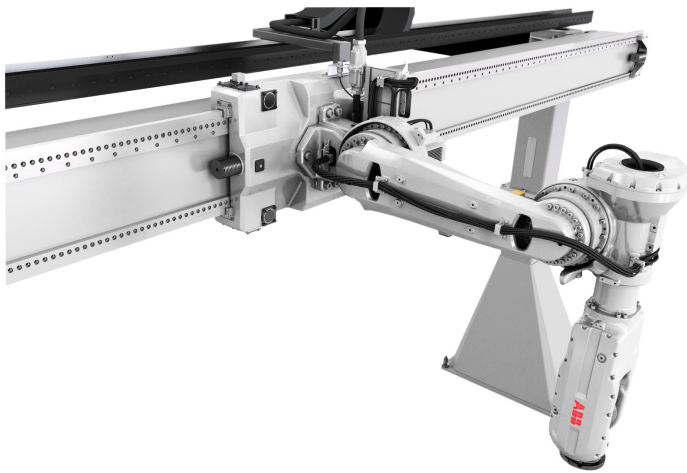


ROBOTICS

## IRB 6620LX

### Industrial robot on linear axis



IRB 6620LX has the combined advantages of both linear axis and articulated robots, resulting in a 6-axis robot with 150 kg capacity, large scalable work envelope and the inherent flexibility of ABB's articulated robots. It is designed with high performance and reliability in mind resulting in high productivity and utilization.

#### **Optimized working range for various applications**

The IRB 6620LX is targeted at various machine tending and material handling applications that can be solved easier, more flexible and cost effective compared to customized linear handling systems. One IRB 6620LX can replace many complex material handling systems, which reduces investment and maintenance costs.

The IRB 6620LX is well suited for applications such as power train assembly, heavy arc welding, grinding, and gluing and opens up for new, cost-effective opportunities beyond the existing use of industrial robots.

#### **The inherent flexibility**

The IRB 6620LX combines the advantages of a linear gantry and articulated robot to perfection. It is a cost effective and flexible solution that can operate several machines or stations within a robot cell without compromising on performance. As a result, productivity and utilization are improved at the same time as investment, maintenance and changeover costs are reduced.

The IRB 6620LX's workspace can be tailored for different applications by adapting the length of the linear axis up to 33 m and the height up to 4 m. The robot arm can be mounted either by side or inverted to ensure optimized working range. The IRB 6620LX can be readily fitted or adapted to existing factory layouts, which reduces investment, installation and capital cost ensuring a quick return on investment.

#### **High performance and reliability**

The unparalleled speed and acceleration on the linear axis of the IRB 6620LX secures the shortest possible cycle time at highest possible accuracy, even at large distances and with a full payload. This is a result of ABB's motion control technology TrueMove™ and QuickMove™.

#### **Foundry Plus 2**

The IRB 6620LX's 5-axis robot arm is available in ABB's Foundry Plus 2 protection which includes IP67. The linear axis has IP66 protection as standard.

#### **Improved accessibility and personal safety**

In machine tending applications the IRB 6620LX offers better handling possibilities compared to conventional solutions as it can access machines either from the top or the side. In addition, overhead rail mounted robots provide open access in front of machines for maintenance work, handling of short batches and quick changeovers. As a result, personal safety is improved, as the robot is not present when operating the machine manually.

#### **Main applications**

- Machine tending
- Material handling
- Powertrain assembly
- Heavy arc welding
- Grinding

## Specification

Robot version	Reach (m)	Payload (kg)	Armload (kg)
IRB 6620LX	1.9	150	50
Number of axes	6		
Number of robot arms	1 - 2*		
Protection	Axis 1: standard + IP66 (connectors IP67) Axis 2-6: standard/Foundry Plus 2 + IP54/ IP67		
Mounting	Inverted, Side		
Controller	IRC5 Single cabinet		

\*Please contact ABB for two robot arms configurations on a single linear axis.

## Performance (according to ISO 9283)

	Position repeatability
IRB 6620LX	0.05 mm

Actual value is equal or below the given value.

## Technical information

### Electrical connections

Supply voltage 200-600 V, 50-60 Hz

### Physical

Linear axis length	1.8 - 33 m	400 mm increments
Linear axis height	2.5 - 4.0 m	100 mm increments
Manipulator weight	610 kg	5-axis manipulator only

### 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. 24h) up to + 70°C (158°F)

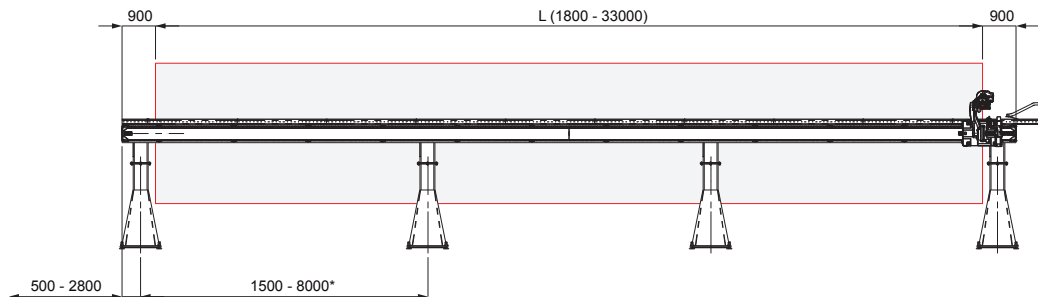
Relative humidity Max. 95%

Safety Double circuits with supervision, emergency stops and safety functions, 3-position enable device

Emission EMC/EMI-shielded

Data and dimensions may be changed without notice.

### Working range, linear axis structure

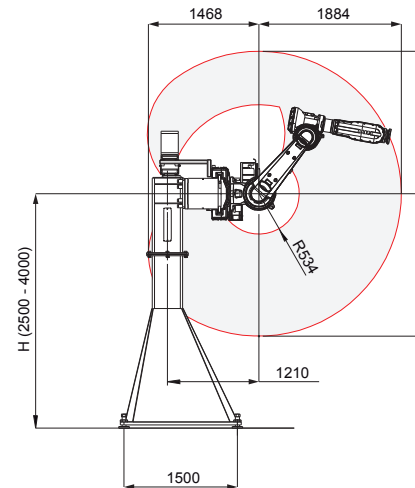


\* = Up to 12000 mm is possible, but performance may be affected

## Movement

Axis movement	Working range	Axis max. speed
Axis 1 Travel length, Linear	1.8 to 33 m	Travel speed 3.3 m/s
Axis 2 Arm	+125° to -125°	90°/s
Axis 3 Arm	+70° to -180°	90°/s
Axis 4 Wrist	+300° to -300°	150°/s
Axis 5 Bend	+130° to -130°	120°/s
Axis 6 Turn	Default: +300° to -300° Max. rev: ± 96	190°/s

### Working range, side



### Working range, inverted

