

IRB 5320 Workpiece Positioner



The IRB 5320 Workpiece Positioner is a manipulator that is integrated with a six-axis paint robot, simplifying the painting process. It operates with either one or three axes.

Higher productivity with three axes

The three-axis version of the IRB 5320 is used to precisely position workpieces for painting. The turntables are controlled by the fully-integrated robot servo unit alternating as the loading/unloading station and as the place where the robot paints the workpieces. When the painting operation is finished, the painted workpieces are precisely and efficiently rotated to the unloading station. The arm is equipped with a fixed end stop to limit the rotation, electrical cables and purge hoses that are routed through the arm for optimal protection.

Simplified solution

The IRB 5320 one-axis positioner consists of a fully-integrated servo controlled turntable designed to index the workpieces for painting. This single-axis positioner is built, with precision and reliability, on the proven ABB robotics gear box and delivered in several thousand units prior to this introduction. The one-axis positioner provides a flexible solution for accuracy and control of mid-size robotics workpieces.

Appropriate for hazardous areas

Both the one-axis and three-axis positioners are designed for installation in hazardous areas and designed for Ex certification. The parallel purging system provides flexibility as to where the positioner is placed in relation to the robot. The purging system ensures that compressed air is supplied to the parts that include electrical components. In the three-axis assembly, the last servo unit (chamber) in the system contains the purging sensors. The purge exhaust outlet is moved away from the two turntables and close to the main servo unit.

Complete setup for painting

The IRB 5320 makes programming, installation, commissioning, operation, service and maintenance easy – especially with one control system and man-machine interface (MMI) for both the paint robot and the positioner. This standardized solution is particularly appropriate for paint operations in the 3C industry, as alternative to conventional conveyer systems or engineering solutions.

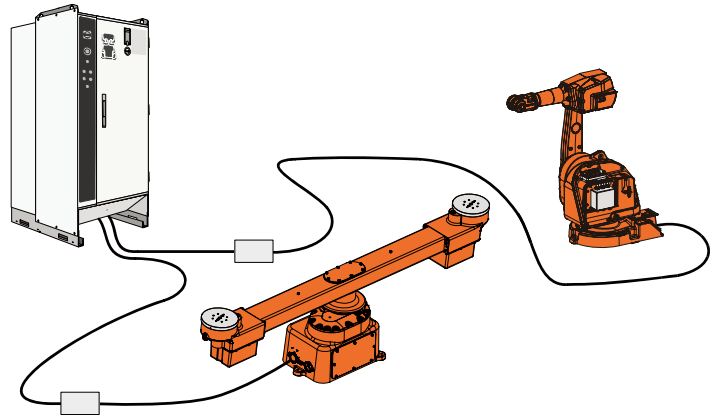
IRB 5320

Workpiece Positioner

IRB 5320	1 Axis Positioner	3 Axes Positioner
Weight	135kg*	215kg*
Power consumption**	600W	600W
Range of motion Axis 1	360° infinite	-15° – +195°
Range of motion Axis 2		360° infinite
Range of motion Axis 3		360° infinite
Airborne noise level	< 72dB (A) Leq (acc. To Machinery directive MD 2006/42/EC).	
Ex-classification	II 2G Ex ib pxb IIB T4 II 2D Ex pb IIIC T65°C FM Class I,II. Div.1, Group C,D,G 135°C (T4)"Type X Pressurization"	
Colour specification	Orange NCS 2070Y0R	
Ambient temperature	0°C – +40°C (Recommended max. ambient temp, < 30°)	
Relative humidity	Max. 95% Non-condensing (Complete robot during transportation storing and operation)	

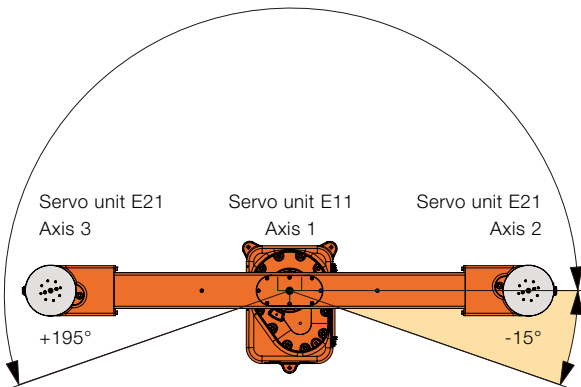
* Weight including main cable.

** During a typical continuous paint process with IRC5P robot control and an IRB 580 paint robot.



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The ABB the IRB 5320, with paint robot IRB 52 and integrated with the IRC5P robot controller, makes operation, service and maintenance easy. No need for additional interface for controlling the positioner.



	Servo Unit E11	Servi Unit E21
Static repeatability	< 1mm	< 1mm
Max velocity	180°/s	291rpm
Max load on servo unit	50 kg	25kg

Information may be changed or updated without notice.



The IRC5P robot controller, fully integrated with the control functions and programming needed for the work piece positioner. No need for further engineering of the interface between the robot and positioner.



The ABB IRB 52 paint robot is specially designed to work together with the IRB 5320 Workpiece Positioner, and both are controlled by the IRC5P robot controller.

For more information please contact:

www.abb.com/robotics