

# IRBP R

## Positioner



The ABB positioners are optimized to be used for manipulating of work pieces in arc welding, thermal cutting and other applications. All axes can be fully coordinated with the robot when programming as well as during operation.

### IRBP R

This positioner features a twin station solution where the robot works on one side and the operator loads and unloads on the other side. The workpiece is rotating around one axis during operation and all axes are reoriented at station changes. A screen is fitted between the two stations, which protects the operator from the arc.

The positioner IRBP R, which comes in three versions, is designed to handle workpieces including fixture of a weight up to 1000 kg.

The modular design, few and heavy-duty moving parts as well as minimal maintenance demands make the positioner service friendly.

Dynamically adaptive software plus high-speed drives result in fast changeovers and high productivity.

### General positioner features

All ABB positioners offer users a complete and efficient solution. They are of a robust design to ensure excellent stability and are well protected for operation in harsh production environments. All positioners can be combined with any ABB six axes robots except the small IRB 120.

The positioners are easy to use with clear, simple instructions for programming. The control equipment is located in the robot controller and uses the same drive system and software as the robots.

ABB's positioners are designed to be highly functional yet compact to make maximum use of available floor space. Standardized dimensions for all rotating plates greatly simplify the exchange of fixtures.

Dynamic modelling allows rapid acceleration, fast movements and re-orientation so that cycle times are kept to a minimum. The dynamic model automatically compensates for the effects of gravity, inertia and friction to provide fast and accurate movements (QuickMove™) following of the programmed path (TrueMove™).

The Load ID-function is used to calculate the center of gravity and the inertia of the workpiece and of the fixture.

To meet requirements from our users the positioners can be supplied, or retrofitted, with a comprehensive range of pneumatic swivels (1 and 2 channels) and slip-rings (10 power signals and ProfiBus).

ABB positioner systems can be supplied with all necessary safety equipment.

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Specification

Variants	Handling capacity (kg)	Max load diff. sides 1 and 2 (kg)	Max continuous torque (Nm)	Max bending moment (Nm)	Index time (s)	Weld to weld time (s)	Repetitive accuracy (r=500)	Max rotation speed (°/s)
IRBP R-300	300	200	350	650	3.4 - 3.8	5.2 - 5.6	+/-0.05	180
IRBP R-600	600	350	650	3300	3.5 - 3.7	5.8 - 6.0	+/-0.05	150
IRBP R-1000	1000	350	900	5000	3.5 - 3.7	5.8 - 6.0	+/-0.05	150

Maximum handling capacity decreases when the length between the rotary unit and the support collar (dimension R below) is greater than 2000mm.

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Measurements

Variants	ø A	B	C	D	E	ø F
IRBP R-300	1000	950	1900	1368	1250	2380
	1000	950	1900	1368	1600	2620
IRBP R-600/1000	1000	950	1900	1625	1600	3000
IRBP R-1000/1000	1000	950	1900	1625	2000	3350
IRBP R-600/1200	1200	1035	1900	1730	1600	3000
IRBP R-1000/1200	1200	1035	1900	1730	2000	3350

For complementary information, please see the product specification. ABB reserves the right to change data without notice.

Dimension drawings

