IRBP L
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 L

This positioner is suitable for applications requiring one or two stations and for workpieces requiring rotation around one axis to access optimal process position. The IRBP L is of modular design with four main components – rotary unit, stand for rotary unit, tailstock and support beam.

The positioner IRBP L, which comes in five versions, is designed to handle workpieces including fixture of a weight up to 5000 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

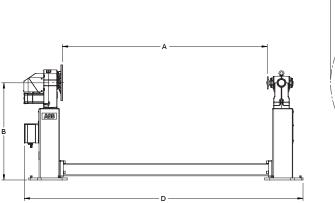| Variants	Handling capacity (kg)	Max continuous torque (Nm)	Max bending moment (Nm)	Repetitive accuracy (r=500)	Max rotation speed (°/s)
IRBP L-300	300	350	600	+/-0.05	180
IRBP L-600	600	650	3300	+/-0.05	150
IRBP L-1000*	1000	900	5000	+/-0.05	150
IRBP L-2000	2000	3800	15000	+/-0.05	90
IRBP L-5000	5000	9000	60000	+/-0.05	39

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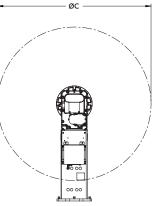
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Measurements

Variants	A	B	ø C	D
IRBP L-300	1250	950	1500	1979
	1600	950	1500	2329
	2000	950	1500	2729
	2500	950	1500	3229
	3150	950	1500	3879
	4000	950	1500	4729
IRBP L-600 & IRBP L-1000	1250	950	1500	2182
	1600	950	1500	2532
	2000	950	1500	2932
	2500	950	1500	3432
	3150	950	1500	4082
	4000	950	1500	4932
IRBP L-2000	1250	950	1500	2423
	1600	950	1500	2773
	2000	950	1500	3173
	2500	950	1500	3673
	3150	950	1500	4323
	4000	950	1500	5173
IRBP L-5000	-	1200	2200	-
	-	1200	2200	-
	-	1200	2200	-
	-	1200	2200	-
	-	1200	2200	-
	-	1200	2200	-

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

Dimension drawings