

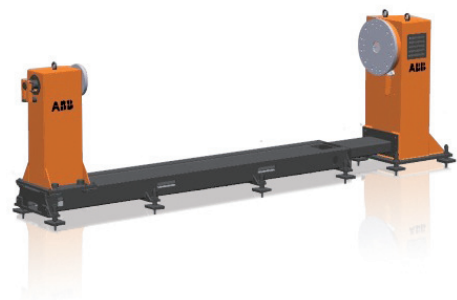
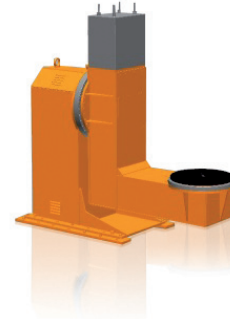
IRBP i-L/ i-T/ i-A High Load Positioners

More and more parts with complex dimensions and heavier payloads are robot welded. As a result, a robot's working volume and positioner capacity, in terms of load and dimensions, must be increased. ABB offers gantry systems, with up to three external axes and matching positioners, for high payloads and large objects.

The new high load positioners offer one-axis manipulation up to 20 tons using head and tailstock geometry. More complex parts can be handled in two axes configurations, either using tilt and turn geometry for loads up to two tons or "A type" for loads up to four tons. If the robot station consists of two zones where each zone is equipped with the same type of positioner, the common drive technology allows for a drive unit set and change of the active positioner.

There is also a tailstock option available for two axes positioners using "head and tailstock mode" where the turning axes is used as headstocks. Payload increases because the weight is divided between the two ends. The tailstocks can be fixed or supplied on a frame, where the position can be manually regulated giving the desired distance to the headstock.

The positioners, the robot and the gantry form one integrated. Movements are coordinated and all programming is done from the FlexPendant.



IRBP i-L POSITIONERS

IRBP i-L positioners are supplied with a motorized headstock on a frame and a freestanding tailstock.

The following types are available:

	IRBP i-L 1000	IRBP i-L 2000	IRBP i-L 5000	IRBP i-L 10000	IRBP i-L 20000
Load [kg]	1000	2000	5000	10000	20000
Bending mom [Nm]	11000	30000	70000	250000	450000
Torque [Nm]	2450	3500	8300	16300	22600
Diameter (mm)	1600-3200, step 400	1600-3200, step 400	2000-3200, step 400	3200	3200
Load height (mm)	820-1620, step 200	820-1620, step 200	820-1620, step 200	1620	1620

Tailstocks, which can be moved manually on a floor-based frame, can be supplied covering lengths between three and 15 meters from the headstock. This is valid for all types with exception for the IRBP i-L 20000.

If a tailstock frame is included in the supply, the above diameters are decreased by 400 mm

IRBP i-T POSITIONERS

IRBP i-T positioners, are ideal for tilting the parts to the desired angle followed by turning the parts and used at e.g. circumferential welding. The tilting axis can rotate the face plate horizontally or vertically, i.e. from zero to 90 degrees, while the turning axis offers free rotation. Having the tilt axis rotated 90 degrees, the positioner can work together with a tailstock, either fixed or manually moveable on a floor based frame resulting in increased payload.

The following types are available:

	IRBP i-T 1000		IRBP i-T 1000/tail	IRBP i-T 2000		IRBP i-T 2000/tail
	1 st axis	2 nd axis		1 st axis	2 nd axis	
Load [kg]	1000		2000	2000		4000
Bending mom [Nm]	30000	11000	11000	70000	30000	30000
Torque [Nm]	3500	2450	2450	8300	3500	3500
Diameter (mm)	1600 – 3200, step 400			1600 – 3200, step 400		
Load height (mm)	900 – 1700, step 200			950 – 1750, step 200		

If a tailstock frame is selected, the diameter will decrease 400 mm in head and tailstock mode.

IRBP i-A POSITIONERS

IRBP i-A positioners are well suited for welding of box type of workpieces where it is necessary to reach inside joints. The arm axis can turn +/- 180 degrees while the second axis is free rotational. Having the arm axis rotated up 90 degrees, the positioner can work together with a tailstock resulting in increased payload. The tailstock can either be fixed or be manually moveable on a floor based frame.

The following types are available:

	IRBP i-A 1000		IRBP i-A 1000/tail	IRBP i-A 2000		IRBP i-A 2000/tail	IRBP i-A 4000	
	1 st axis	2 nd axis		1 st axis	2 nd axis		1 st axis	2 nd axis
Load [kg]	1000		2000	2000		4000	4000	
Bending mom [Nm]	30000	11000	11000	70000	30000	30000	250000	70000
Torque [Nm]	3500	2450	2450	8300	3500	3500	16300	8300
Diameter (mm)	1600, 2200		1600, 2200	2200, 2800		2200, 2800	2800, 3200	
Load height (mm)	720		1220	870		1620	1150	

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