

## IRBT 15/16/26 Gantry i-X/i-XZ/i-XYZ

The Gantry product range is a modular concept to be used in combination with suspended robot and heavy load positioners specifically designed for arc-welding of large parts.

The gantry is compatible with the following ABB robots:

- IRB 1520 (IRBT 15)
- IRB 1600 (IRBT 16)
- IRB 2600 (IRBT 26)

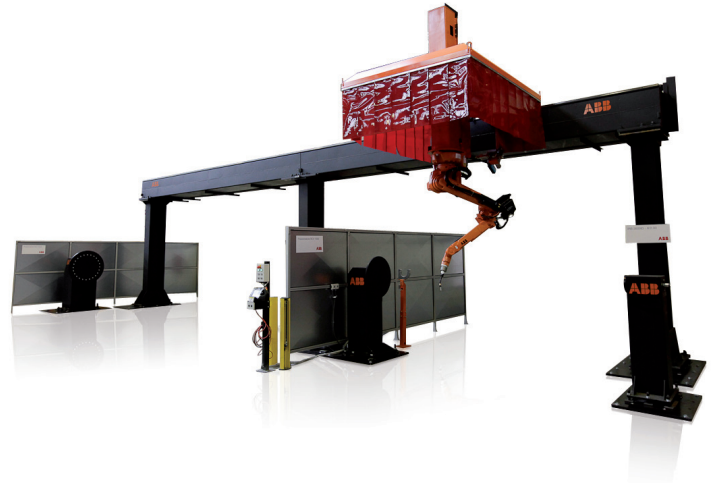
The gantry axes are moved by brushless motors driven by the IRC5 robot controller. The axes are completely integrated and coordinated with the movements of the manipulator. SmarTac and WeldGuide are fully supported. By mounting the robots upside down and moving the external gantry axes, the working volume is significantly increased. The modular structure of the gantry allows customers to optimize the footprint covering the working area, making it the perfect solution for arc welding of large parts including:

- Components for off-road and agricultural machines
- Metal structures
- Forklifts
- Trucks and buses
- Cranes
- Large carpentries

The structure of the gantry is made of welded steel profiles that offers a number of possibilities for modular combinations and allows the customer to obtain variable "X" working ranges.

The "X" axis is built on a sliding carriage where the robot is mounted. It moves linearly along the beam with linear precision.

The "Y" axis is made with a horizontal arm mounted on the carriage at an orthogonal position to the beam assembly.



The "Z" axis is a column, mounted at the end of the previous moving arm, that is lifted and lowered. The robot is secured to the bottom of the column. The entire system is controlled as a unique kinematic sequence.

Models of any specific configuration can be created in RobotStudio.

### Possible working ranges:

The axes of the gantry can be configured with the following working ranges:

- X axis: from 6.6 m to 30.6 m in steps of 2 m
- Y axis: 1.5 m
- Z axis: 1 m or 1.5 m

### Available options:

Available options for safety management:

- safety for 1 working area
- safety for 2 working areas

Both options are based on an ABB safety PLC combined with light barriers to supervise human access.

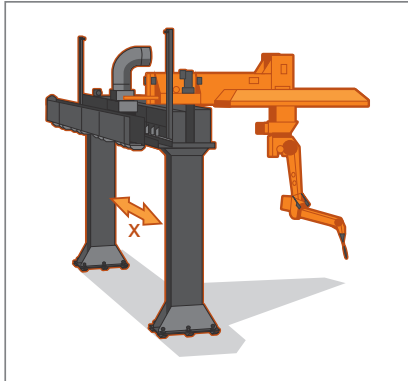
Other available options:

- fume extraction hood (including a suction control sensor)
- TC96
- TSC
- WeldGuide III
- SmarTac
- Process cables
- Marathon kit (wire conduit and auxiliary pneumatic motor to allow positioning of the wire drum on the ground).

## Available configurations

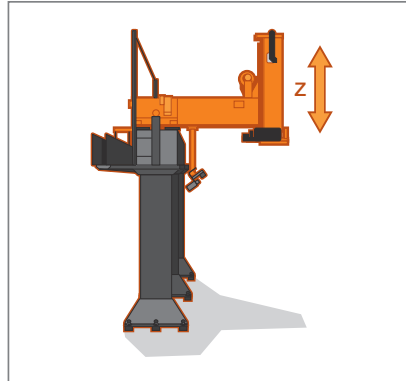
### - X axis

- IRBT 15 i-X for IRB 1520,
- IRBT 16 i-X for IRB 1600
- IRBT 26 i-X for IRB 2600



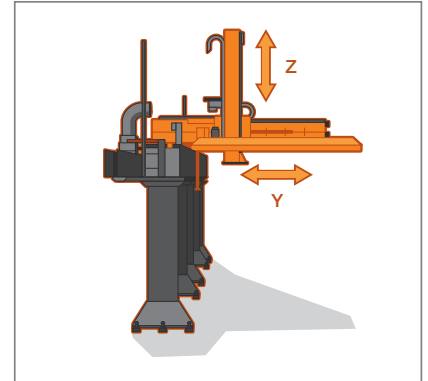
### - X and Z axes

- IRBT 15 i-XZ for IRB 1520,
- IRBT 16 i-XZ for IRB 1600
- IRBT 26 i-XZ for IRB 2600

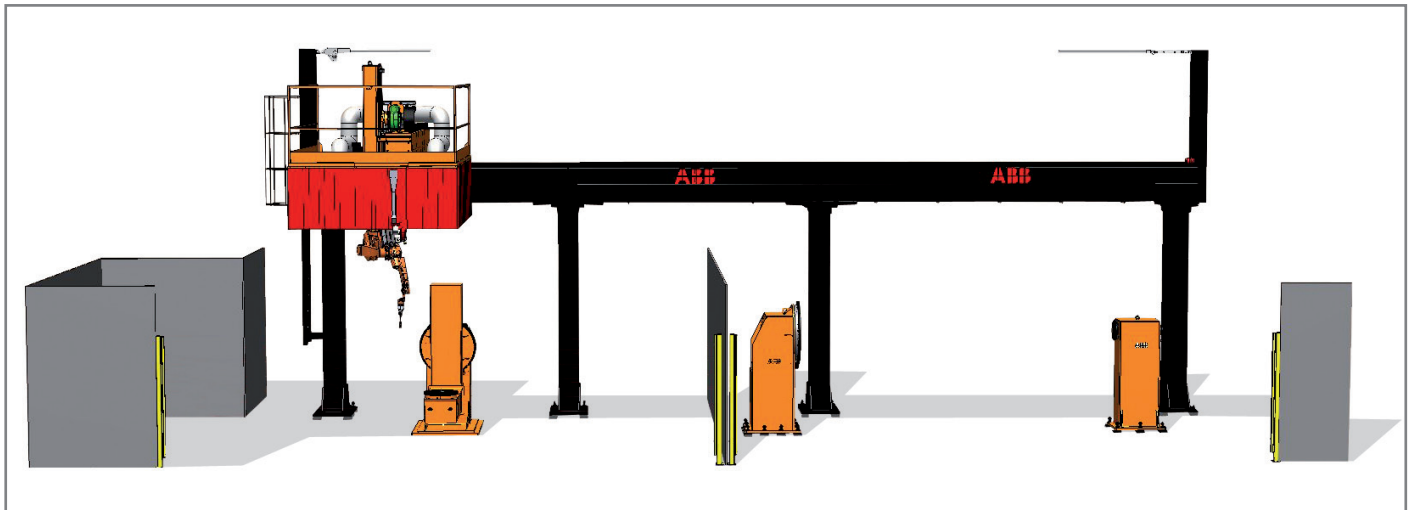


### - X, Y and Z axis

- IRBT 15 i-XYZ for IRB 1520,
- IRBT 16 i-XYZ for IRB 1600
- IRBT 26 i-XYZ for IRB 2600



Gantry\_May2013



### Technical specification

	Axis	Carriage type X	Carriage type XZ (Z=1000)	Carriage type XZ (Z=1500)	Carriage type XYZ (Z=1000)	Carriage type XYZ (Z=1500)
	X [m]	From 6.6 up to 30.6 (steps of 2)				
Working range	Y [mm]	-	-	-	1500	1500
	Z [mm]	-	1000	1500	1000	1500
Column height [mm]	From 2200 up to 4000 (steps of 100)					

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