GANTRY SYSTEMS
Modularity and flexibility are key features of ABB’s gantry solutions

Gantry Systems IRBT 15/16/26
i-X/i-XZ/i-XYZ absolute precision, maximum flexibility
Total IRC5 integration ABB solution for welding of large metal structures
Committed to customer support in improving production quality and efficiency, ABB considers robotized welding a strategic business segments.

To maximize the benefits of production process automation, ABB has expanded its offering to include a wide range of equipment that has the flexibility and modularity to meet the needs for middle and large-sized welding systems.

When the parts to be welded become larger and heavier a robot integrated with a gantry system can be equipped for higher payloads by using single or multiple axes positioners. ABB’s gantry solutions ensure a more efficient use of floor space, and are ergonomically designed to facilitate the operator’s task while complying with the highest safety standards.

To optimize production and increase customers’ market competitiveness, production the flexibility has to be improved. Manufacturers can address the rapid changes imposed by consumer needs and market trends with ABB’s assistance. Increasing productivity while containing operating costs; our solutions help improve process, production and quality while reducing waste and footprint. They also upgrade workplace efficiency and worker safety improving processes and production quality while reducing waste and equipment footprint, upgrading workplace efficiency and worker safety.

An advantage of these solutions is that they can control up to three additional axis of gantry motion and be integrated into the IRC5 Robot Controller without having to invest in more external control hardware.

Additionally, all the external axes are coordinated with the robot’s own axes and controlled through the same control unit. This solution is very flexible and scalable and can fulfill the most complex production needs. A wide range of optional accessories, including auxiliary axes, sensors, torch cleaners, TCP, collision units, and safety devices, is available to complete the systems, providing to manufacturers of medium to large-size parts the opportunity to leverage a tested technology integrated within a fully equipped production unit dedicated to robot welding.

ABB’s solutions consist of the equipment required for part manufacturing, but also include a series of software packages for application simulation, installation and control to supervise the systems throughout the entire life cycle.

ABB’s full range of welding solutions

Modular and flexible

IRBP i-L type Single-axes positioners

IRB i-L positioners are designed to facilitate parts loading and ergonomic condition for the operator providing, in the meantime, the best approach to welding joins. They are available in payload versions ranging from 1000 to 20,000 kg and can be equipped with a movable tailstock; thus providing easy adaptability to parts with different lengths.

IRBP i-A and i-T type Multiaxes positioners

Designed to manufacture complex geometry and weights up to 4000 Kg, these positioners provide coordinated and interpolated tilting and rotating movements of the parts, in order to present them in the most suitable position for robotic welding thus improving accessibility and process quality. Together with the gantry they represent the most flexible and complete solutions. Ensuring the best setup for parts with different lengths, the positioners can be equipped with movable tailstocks.

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

Thanks to the IRC5 unit for the integrated and interpolated control of all system axes, IRB 4520, IRB 1600, IRB 1600ID and IRB 2600, IRB 2600ID robots mounted on the gantries are in the ideal configuration when big operational areas are required. As with all ABB welding solutions, process accessories are available, including TSC, SMARTAC, and WELDGUIDE, as well as positioners. An integrated fume aspiration system is available as option.

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