ABB SpotPack

Function Package

High Quality and Performance Function Package

ABB offers fully configured, ready-to-use, robot packages for high quality and high performance spot welding and material handling processes. The function packages are built from a combination of hardware and software that are dedicated to optimizing your specific process.

Long experience guarantees your production

ABB has a long experience in delivering spot welding and material handling equipment that solves your unique requirements. We have delivered function packages for the automotive and other industries for more than 25 years.

SpotPack is specifically designed to be a ready-to-use and reliable solution for your spot welding and material handling applications. It contains all hardware, software and electrical modules you require to complete a function package. The components are designed and configured to easily interface with each other.

Seamless integrated with ABB power robots

The function packages are designed and configured to optimize processes together with the ABB power robots families, IRB6600 and IRB7600. The packages are seamlessly integrated with the robot, which ensures high quality and performance. The SpotPack application equipment is easily configured at the same time as you order a power robot.

Main benefits

- Single supplier of power robot and SpotPack guarantees simultaneous delivery and verified system functionality
- Product specifications, drawings, manuals and other information are available at an early stage
- Configurable for various requirements as SpotPack features a modular design to meet your specific process requirements
- Designed for combined processes
- Easy installation of all SpotPack application equipment. This makes programming easier, reduces interference with surrounding equipment and increases uptime.
- High performance and high uptime guarantees high quality production optimized to your needs
- ABB standard solutions with verified suppliers guarantees fast and accurate spare part deliveries
- All SpotPack application equipment is designed and tested to withstand long-term usage reducing maintenance costs and at the same time improving product lifetime and uptime
FUNCTION PACKAGE TYPES

**Type S**
- Designed for pneumatic transformer guns carried by the robot manipulator
- Consists of DressPack for Spot Welding (floor, lower arm and upper arm), Spot Welding Cabinet and Water and Air unit.

**Type Se**
- Designed for electrical servo-driven transformer guns carried by the robot manipulator
- Consists of DressPack for Spot Welding (floor, lower arm and upper arm), Spot Welding Cabinet and Water and Air unit.

**Type H**
- Designed for material handling
- Consists of DressPack for material handling (floor, lower arm and upper arm)

**Type HS**
- Designed for material handling robot together with a pneumatic transformer gun mounted on a pedestal for stationary welding applications
- Consists of DressPack for material handling (floor, lower arm and upper arm), Spot Welding Cabinet and Water and Air unit. In addition, it consists of weld power cable and control signals to the stationary gun

**Type HSe**
- Designed for material handling robot together with an electrical servo-driven transformer gun mounted on a pedestal for stationary welding applications
- Consists of DressPack for material handling (floor, lower arm and upper arm), Spot Welding Cabinet, Water and Air unit. In addition, it consists of weld power cable, servo gun power cable and control signals to the stationary gun

TECHNICAL DATA

**SpotPack is available for most variants of ABB power robot families IRB66xx and IRB760**

**DressPack (Floor, Lower and Upper arm)**
- Application power cable, 2+2*0,5mm² 250VAC/5A
- Process cable package with weld power cable 3*35mm² 600 VAC / 150A rms
- Communication either via BUS or BUS and Parallel. BUS options are Can/DeviceNet, Profibus or Interbus
- Four water and air hoses, ½" max 16 bar/230 PSI (air), max 10 bar/145 PSI (water)

**Spot Welding Cabinet**
- Supports AC and MFDC welding applications with Bosch and WTC Medar weld controllers as standard options
- Weld controllers are available with different power capacities
- Based on IRC5 design and can be stacked on top of robot controller to minimize floor space
- ABB main circuit breaker

**Water and Air Unit**
- Water and air unit fitted on the base of the robot
- Available for both robot carried guns (type S) as well as for stationary guns (type HS)
- Flow switch and electric shut-off valve, air shut-off, silencer and water separator and proportional valve unit (for pneumatic guns)

**Spot Welding Software**
- **Spot** - Welding with pneumatic guns with AC or MFDC weld controllers (type S and HS)
- **Spot Servo** - Welding with electric servo guns with AC or MFDC weld controllers (type S and HSe)
- **Spot Servo Equalizing** - As Spot Servo in addition with software equalizing. Allowing (without mechanical hardware) equalizing of Spot Servo welding guns (type Se and HSe)
- **Servo Tool Change** - Enables on-line change of servo gun during production (type Se)

In addition to the main application equipment described above, ABB SpotPack is validated and tested together with major brands of welding guns, tip dressers, tool changers, and track motion.