The spindle package is an add-on product for robots used in machining applications in order to save up to 80% of engineering costs by using standardized packages instead of customized solutions.

Compatible & ready to use
Spindle packages are used in robotized mechanical finishing applications and are obtainable in different models fitting the respective type of robot.

A spindle package consists of all necessary components for the integration, such as the spindle, the frequency converter, the brake resistor and the standard spindle interface (S²IF).

The spindle itself can be easily mounted via a standardized mechanical interface alternatively on the mounting flange of the robot or stationary in the workcell.

Plug & Play solution
The electrical integration in the system is done with the S²IF, which is a standardized interface (plug & play solution). The parameterization of the spindle package happens via a licensed Human Machine Interface (HMI).

HMI for simplified handling
The Human Machine Interface (HMI) in combination with the S²IF enables the parameterization and operation of the spindle and supports technical personnel on site during start-up. All parameters can be set up with this supporting software so that the handling is simplified. The software contains all relevant program modules for production.

Adapted to the application
Whether the spindle package is needed for a small or a big robot, there are different sizes of spindles available to adapt the system to the application. Furthermore users can choose between single or double shaft spindle types respectively spindles equipped with an automatic tool changer system. Weight, power and rotation speed of the spindle is thereby optimized for the used robot manipulator model.
Spindle Package

Technical requirements

ABB Robot
IRC5 controller equipped with following options:
- 617-1 FlexPendant Interface
- 709-x DeviceNet
- RobotWare 5.11 or higher

Spindle package components

- Spindle
- Frequency converter
- Brake resistor
- Mounting flange for the spindle flange
- Mounting material

Connecting cable between robot and controller in following lengths:
- 3m (only for IRB 140), 7m, 15m, 22m, 30m

Documentation on CD

Optional:
- Standard Spindle Interface (S²IF)
- Hose package and valve plate for the robot
- Stationary mounting possibility for the spindle
  or the S²IF (Tool Stand)

Technical data of the available spindle types

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IRB 140
- single shaft: 0.4kW; 48000/60000Rpm; ER15; 2,5kg
- double shaft: 0.6kW; 48000/60000Rpm; ER15; 3kg

IRB 2400
- single shaft: 2.2kW; 18000/24000Rpm; ER20; 10kg
- double shaft: 2.2kW; 18000/24000Rpm; ER20; 10kg
- automatic tool changer ISO20:
  - 2.2kW; 18000/24000Rpm; ISO20; 10kg

IRB 4400
- single shaft: 5.5kW; 18000/24000Rpm; ER25; 18kg
- double shaft: 5.5kW; 18000Rpm; ER25; 18kg
- automatic tool changer ISO30:
  - 5.5kW; 24000Rpm; ISO30; 28kg

IRB 66x0
- single shaft: 7.5kW; 18000/24000Rpm; ER32; 26kg
- double shaft: 7.5kW; 18000/24000Rpm; ER32; 26kg
- automatic tool changer ISO30:
  - 7.5kW; 24000Rpm; ISO30; 28kg

IRB 6660PreMa/ IRB 7600
- single shaft: 11.8kW; 18000Rpm; ER40; 35kg
- double shaft: 11.8kW; 18000Rpm; ER40; 35kg
- automatic tool changer ISO40:
  - 11.8kW; 18000Rpm; ISO40; 54kg
- automatic tool changer HSK-F63:
  - 11.8kW; 18000Rpm; HSK-F63; 54kg