

### ROBOTICS

# Compact robotic machine tool tending

A standardized and flexible cell for increased machine tool utilization



## The compact robotic cell, equipped with integrated vision, automates machine tool tending for components ranging from 20 mm to 120 mm. The modular and standardized cell easily tends a wide array of CNC machines.

### A new generation of machine tool tending

The ultimate in safety and programming simplicity. The turnkey robot cell from ABB can feed three processing machines at once. Or feed a single processing machine and add on further processes such as deburring, washing and quality control. The cell comes equipped with the robot ideally suited for the reach and payload of the desired application.

The cell can include a conveyor belt or drawer storage. An extra camera can be added for fine-tuning when the placement needs to be very precise.

#### Maximize manufacturing productivity

The flexible and compact machine tool tending cell provides reliable and predictable output from both the robot and the machine tool. When compared with traditional manual machine tools, robotic automation increases machine tool utilization from approximately 50 percent, up to 90 percent in some instances.

This results in a much faster return on investment – in some cases less than 12 months – and provides a sustainable competitive advantage.

#### Vision-guided robotics

The built-in vision system is specifically designed for robot guidance. Control and communications with the robot are tightly integrated into the software, with simple and intuitive programming and operation at all stages. With one of the most user-friendly operator interfaces on the market, the set-up of a new part is typically achieved in less than 10 minutes.

With the aid of vision-guided robotics, the cell becomes even more flexible, easily able to recognize variations in part size and geometrical shape. Additionally, parts need not be fixed in a particular position to be identified and picked and placed by the robot, significantly reducing system cost and complexity.







Features	
Robot	Choose between IRB 1600 or IRB 2600 depending on payload and reach requirements.
Module doors	Choose twin doors or curved doors depending on application.
Vision system	Integrated smart camera. Easy-to-use system for increased flexibility.
Feeders	Choose between conveyor belts or drawers.
Control cabin	Integrated control cabinet with robot controller and electrical equipment.

Specifications	Cell w	Cell with IRB 1600 Cell with IRB 2600		
Length		155 in (3947 mm)	155 in (3947 mm)	
Length without conveyor		95 in (2400 mm)	95 in (2400 mm)	
Width		40 in (1010 mm)	40 in (1010 mm)	
Width including doors		93 in (2360 mm)	93 in (2360 mm)	
Height		107 in (2717 mm)	107 in (2717 mm)	
Max belt load		100 kg 100 kg		
Belt width		16 in 16 i (400 mm) (400 mm		16 in (400 mm)
Robot payload	6 kg	10 kg	12 kg	20 kg
Robot reach	47 in (1.2 m)	57 in (1.45 m)	65 in (1.65 m)	73 in (1.85 m)

#### Advantages

- Low investment cost
- One-day installation
- Small footprint < 43 sq ft / 4 sq m
- Intuitive graphical operator interface
- Higher quality through automation
- Improved cost efficiency dueto global standardization



Maximum height of components 8.7 in/220 mm. Suitable for cycle times from 15 seconds and longer.



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