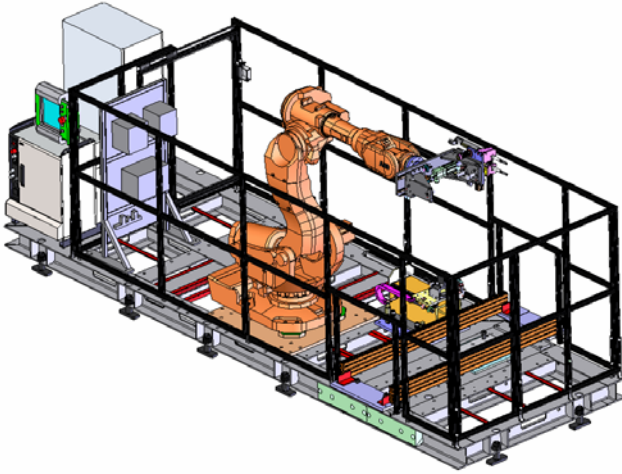




PowerCell™

Single Robot Assembly Cell – Solo 1R



Description:

PowerCell™ is a range of modular robotic assembly cells dedicated to the assembly of automotive, or industrial, components. This single robot cell can be processed into new lines or integrated into existing facilities to free up manpower and lower production costs.

Composed of entirely modular equipment, PowerCell™ production cells can be used independently or combined together to form an assembly zone, or complete assembly system. Cables are completely integrated in the cell and the equipment is installed on the integral platform, making it easy to move or relocate in your facility.

Equipment:

- One (1) dressed ABB robot with IRC5 controller
- Cell electrical cabinet with human/machine interface
- Integral platform and perimeter guarding

Customer Benefits:

- Capacity investment: Since the PowerCell™ is made of modular equipment; a large share of the investment can be reused when another application needs to be put into production. This solution can also be used for small batch production by using quick tooling change units.
- Integrated vision and force control capability: TrueView™ 3D vision guided robotics package added to the PowerCell™ accurately obtains randomly placed objects – reducing the need for manpower. ABB's force control assembly package added to the PowerCell™ provides tactile assembly for difficult to assemble parts, like gears and pistons.
- Reduced time to production: The pre-designed cells decrease the time dedicated to assembly line design and mechanical and automation studies. Working with a modular concept, the basic and specific elements of the project can be realized in the same timeframe to shorten equipment delivery. At the customer site, the modular solution is installed and in production in just a few days.
- Flexible conveyance: PowerCell™ is used on virtually any transport system, including non-powered transport where the robots will transfer parts into and out of the cell.



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Description of Basic PowerCell™ Solo 1R

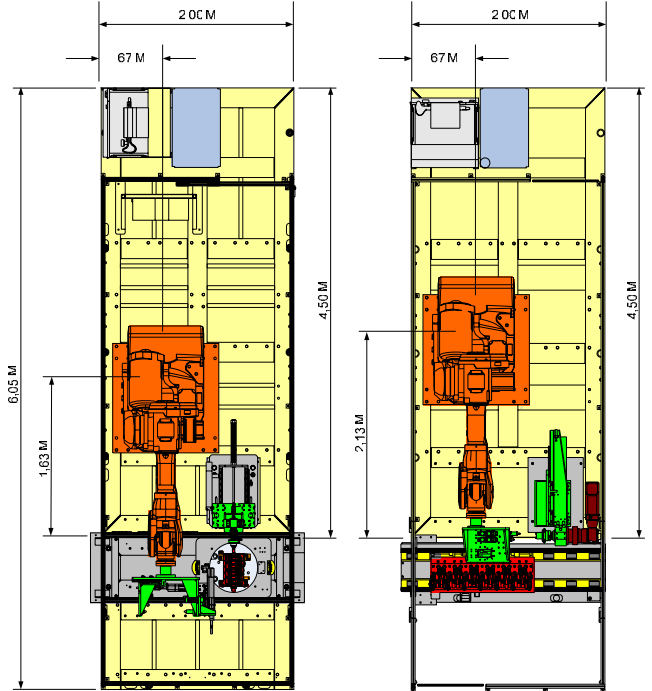
- Platform with fluid supply
- Electrical cabinet with API
- Two (2) supply panels
- ABB IRB 6600 robot
- Human/machine interface with operator panel
- ABB IRC5 robot controller
- Perimeter aluminum frame guarding with PVC coated mesh
- Access door with interlock switch
- Standard mounting interfaces for additional functions

Technical Data: PowerCell™ Solo 1R

- Overall dimensions: 2.00 M X 4.50 M
- Production capacity: Determined by application
- Basic weight (incl. robot): 10,000 Kg (nominal)

Options: PowerCell™ Solo1R

- Platform extension for conveyor mount
- Platform extension for standard machine mount
- Part entering / exiting light screens
- Polycarbonate guarding panels
- Full array of ABB IRB robotic options
- TrueView™ and ABB's force control application packages
- Automotive standard machine columns



Solo PowerCell™

Shown with conveyor and
machine base extension

Solo PowerCell™

Base configuration

Application Examples:

PowerCell™ is usable across a wide array of assembly applications where labor is not cost effective or provides sufficient build quality. Some examples of applications include:

- Flexible assembly applications where precision loading is mandatory, such as, crankshafts, camshafts, cylinder heads, differential cases, main shafts, etc.
- Flexible measurement applications, such as valve lash setting, torque-to-turn, etc.
- Flexible sealant applications – RTV and anaerobic materials
- Flexible torque applications
- Process handling of components to off-line machines – presses, gauge heads, etc.

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