IRB 6400R

A robust, all-steel construction with high material strength Focused applications:

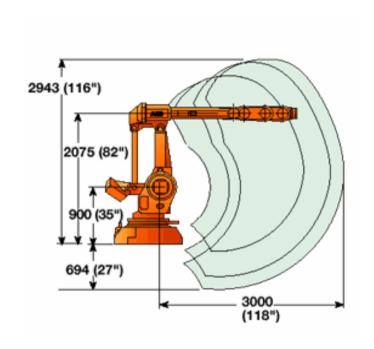
- Spot welding
- Machine tending
- Press tending
- Material handling
- Palletizing/packaging







IRB 6400R



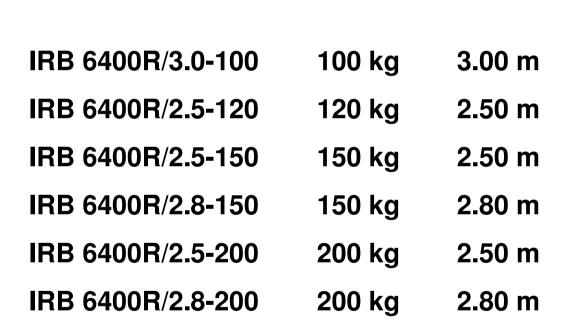




ABB - OI

IRB 6400 Poke & Shelf

IRB 6400PE IRB 6400S _594_ (23")_ 2075 (82") 607 (24") 449 (18") 245 (10") 900 (35") 1840 (72") 2250 (89") 2871_ (113") 5000 N 120 kg 2.25 m 2.90 m ABB = OI ABB - OI



IRB 6400R - Foundry

Whole robot fulfils IP 66/67

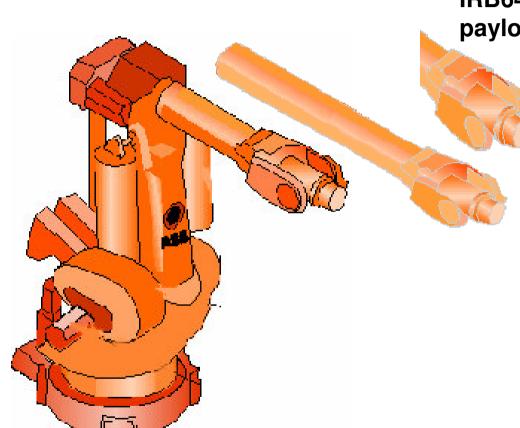
- Special coating
- Resistant to aluminium spatter and splashes
- Steam washable







IRB 6400R - variant flexibility



IRB6400 mechanics are adaptable in payload, performance or reach

Can carry 120kg at higher performance or 150kg at less performance simply by the selection of software parameters.

IRB6400-150kg can be modified easily to carry 200kg by exchanging the wrist so that it can quickly adapt to changes of the application.

IRB6400-2,4m reach can be extended with simple arm extenders to adapt to configuration changes of the cell layout even on site.

IRB 6400R - safety features

Mechanical stops

Fine positioning of mechanical stops (7.5°) on axis 1. Allows for maximum use of working envelope.

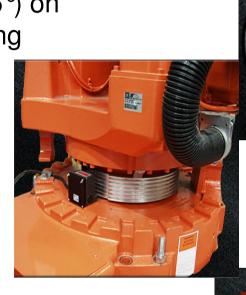
Improved position switches

Fitted with limit switches on axes 1, 2, 3.

Switches are protected from external influence

Insulated tool flange

To eliminate the risk of electrical shocks from the tool.





IRB 6400R - collision detection

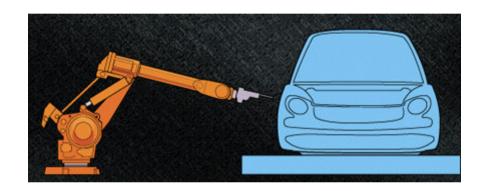
Causes of collisions

Programming the robot
Electrodes get stuck after welds
Grippers do not open properly
Misplaced or inaccurate work pieces



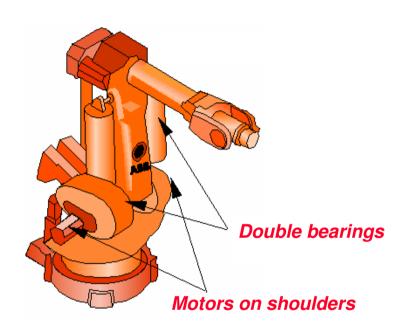
Collision is detected during the first milliseconds (sensitivity dependant).

IRB 6400R retracts along previous path reducing risks and expenses associated with further collisions.





IRB 6400R - All steel construction



- Stiffness is part of stability which is the basis for a robot's accuracy, in positions as well as in paths.
- Steel minimises deformation with temperature
- Double bearings give higher stiffness, improves motion accuracy
- Motors 2 and 3 are symmetrically attached to the shoulders to prevent the arms to bend from asymmetrical heating.



IRB 6400 - Precision machine

Pose repeatability comparison

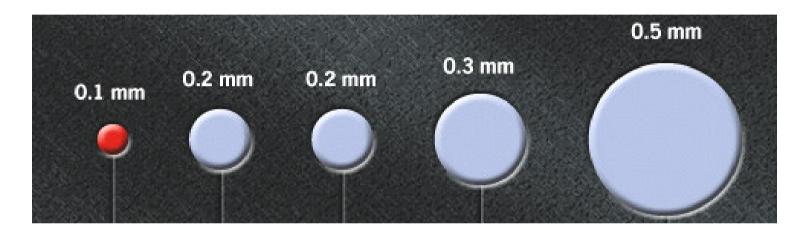


ABB Competitors' comparable robots

Repeatability - important in Spot welding

Tests acc. To ISO 9283



IRB 6400 - Compactness

- Small turning radius enables installations in narrow places
- Large stroke
- Full reach

