ABB Robotics
Cylindrical Robot Risers

The most important step in Robot installation is the selection of correct Robot riser. The choice of right riser for each robot improves the process, cycle time and maintenance of the application line.

These risers have been designed by ABB to fulfill two main requirements:

a) Perfect fixation of the riser to the floor
b) Fixation of the risers to the steel plate.

Risers are built taken into consideration about the precision of Robots. Risers can be chosen based on the type of Robots. Cylindrical types of risers are the one of the most used ones due to its simplicity and strength characteristics. This model is fixed to the floor and allows the riser to absorb robot loads during its working condition and at emergency stop. This model permits to place the robot from a height of 300 mm to about 2000mm. The Cylindrical shape provides a great advantage when working under stress.

Characteristics

- FEA validated designs
- Cylindrical shape helps in preventing interference while mounting

Fastening Methods

- Fixation of the Robot Risers to the concrete floor
- Fastening the Robots to a metal plate by screws.

Riser

References	Type A	Type B	Type C
Dimensions	H = 300 to 1600 mm Increment = 100 mm	H = 300 to 1600 mm Increment = 100 mm	H= 300 to 2000 mm Increment = 100 mm
			
Robots	IRB 52/1600/2600/4600	IRB 260/2400	IRB 6400R/66XX/6700/7600/660/760/460
Weight (Kgs)	152 -358	154 -359	326-744
Anchorage	Floor : Concrete or metal plate	Floor : Concrete or metal plate	Floor : Concrete or metal plate

Base plate

References	Type A	Type B	Type C
Dimensions	H = 60 to 100 mm	H = 50 mm	H = 60 to 100 mm
			
Robots	IRB 52/1600/2600/4600	IRB /260/2400	IRB 6400R/66XX/6700/7600/660/760/460
Weight (Kgs)	117-130	107	378-440
Anchorage	Floor : Concrete or metal plate	Floor : Concrete or metal plate	Floor : Concrete or metal plate

Floor conditions

For robot riser fixation, consider the following points to assure performance:

- **Floor** should be horizontally levelled.
- **Flatness:** The flatness of the ground on which riser is placed should have a flatness of less than 3mm. If not, it is necessary to compensate by coat of no shrinkage cement not more than 10 to 15mm maximum, of type 702 CALFARGE Embeco ®885 or Embeco ®636
- **Concrete thickness:** ≥ 170 mm for concrete with non -cracked tension zones. ≥ 250 mm for concrete with cracked tension zones of concrete components. Test on site is recommended if minimum thickness is not met.