



## **IRB 6620**

**- The agile spot welder**



**ABB**

# IRB 6620

- Compact
- Flexible
  - Shelf
  - Upside down
  - Up to 15° tilt
- Powerful
  - 150 kilo payload
- Agile
  - Unsurpassed agility
- Lean
  - No balancing cylinder
  - Only 900 kilos
- Option
  - Foundry Plus



The perfect robot for numerous applications...  
...from spot welding to machine tending



# IRB 6620 - Compact

## IRB 6640

### General purpose

- Material handling
- Heavy spot welding
- Press brake tending
- Injection moulding
- Die casting
- Sand core handling
- Electronics
- Packaging...
- 235 kilo
- 2,55 m

## IRB 6620

- Compact spot welding robot
- 150 kilo
- 2,20 m

IRB 6620

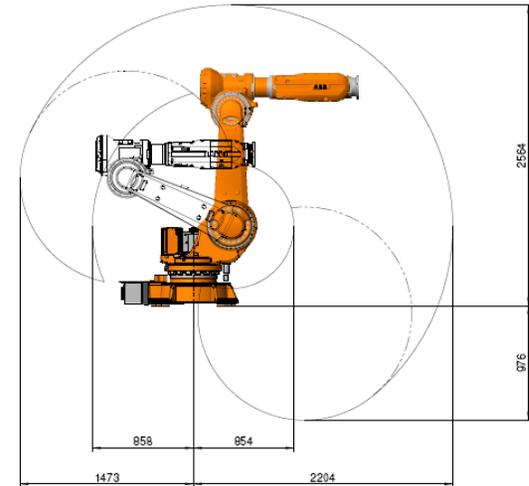


IRB 6640



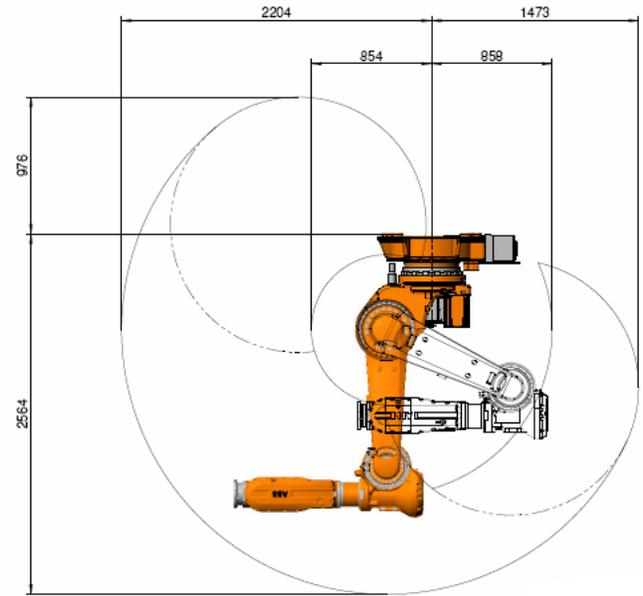
# IRB 6620 - Agile

- Huge working range for its size
- Possible to build more dense packed cells
- Saving floor space...
  - ... by working as a shelf robot
  - ... by inverted mounted robots
  - ... working as a crawler robot



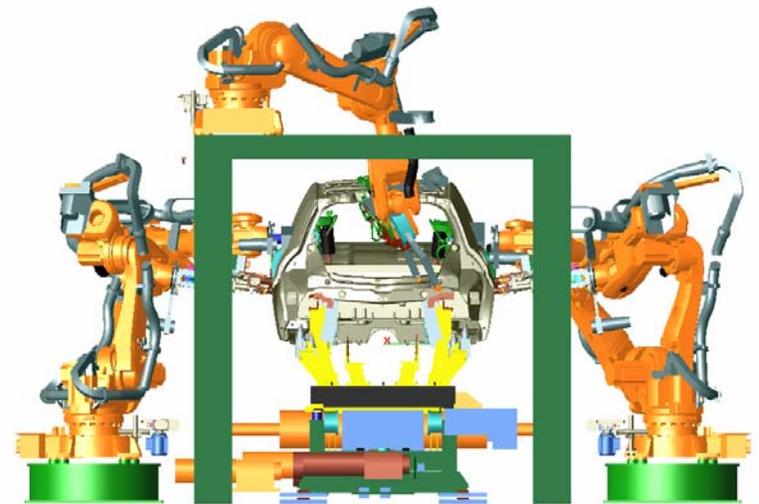
# IRB 6620 - Agile

- Working range – Inverted mounted



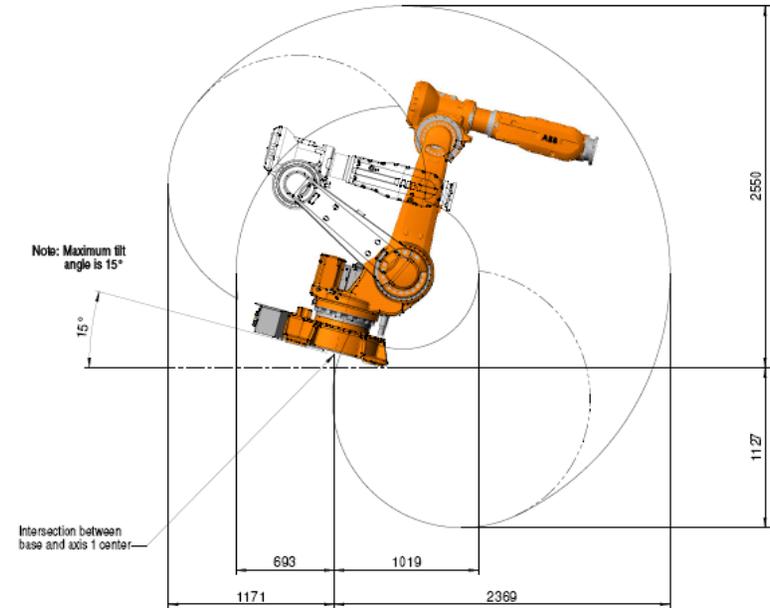
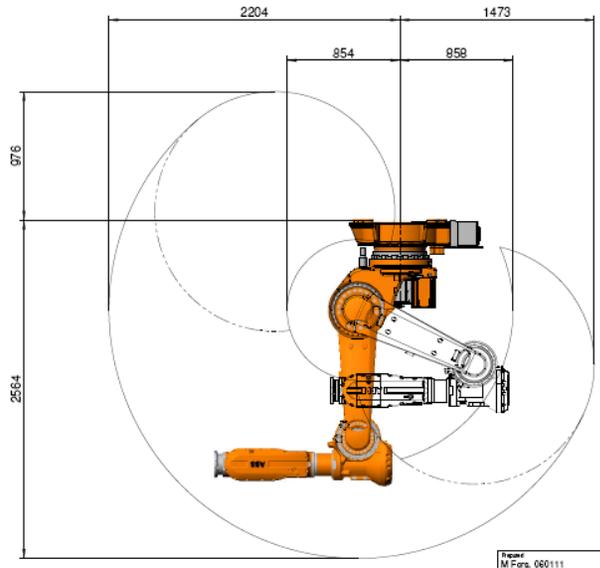
# IRB 6620 - Flexible

- Two robots in one
  - Normal robot
  - Shelf robot
- Easier to mount the robots
  - inverted
  - on top of another machine



# IRB 6620 - Flexible

- Flexible in mounting
  - Floor standing
  - Tilted
  - Inverted (with 150 kilo payload)



# IRB 6620 – Designed for Spot Welding

- **50 kg load capacity on rear upper arm**

*Can handle all available dress pack designs*

- **No motors on rear upper arm**

*Compactness in retracted position and no interference with cablings*

- **Extra space inside robot foot**

- **Large center hole through axis 1**

*Easy change of dress pack and long life time dress pack routing*



# IRB 6620 – Designed for Spot Welding

- **No counter balancing cylinder**

*Easy dress pack routing*

- **Calibration in process**

*The robot can be calibrated with dress pack mounted*

- **Lifting devices on foot**

*The robot can be lifted with dress pack mounted*

- **Visible synchronization scales**

*With dress pack mounted*

- **Commonality with IRB 66X0**

*Foot print, wrist interface etc too simplify auto project logistics*



# IRB 6620 – Designed for Spot Welding

- **Low total weight**  
*Simplifies installation*
- **Rigid upper arm design**  
*Collision resistance*
- **Flexible working range limitation**  
*Electronic Position Switches on all axes*



# IRB 6620 – Designed for Spot Welding

- **Insulated wrist flange**

*Available as option*

- **Large working range axis 5 also with axis 6 dress pack bracket mounted  $\pm 125^\circ$**

- **Large moment of inertia capability**

*Flexibility to handle also large tools*

- **Prolonged wrist with smooth surfaces**

*Dress pack cannot get stuck and life time is enhanced*



# IRB 6620 – Designed for Spot Welding

- **Large working range axis 2**

*Semi shelf concept useful in many SW installations*

- **Gear box weld spatter protection**

*For harsh spot welding*

- **Axis 2 center as low as possible**

*To reduce the robot total height*



# IRB 6620 – Designed for Spot Welding

- **Tip dresser on robot foot (option)**
  - Extended wrist (so the cables don't get stuck)
  - Wrist designed for a wide working range on axis 5, even with dresspack mounted
  - Easy to exchange dresspack because of excellent reachability
    - No balancing cylinder (no interference when working on robot)
    - Extensive hole through the gear for axis 1 (where the dressing cables pass by)
  - Plenty of room in the robot foot (your hands easily fit when mounting the dressing cables)



# IRB 6620 / IRB 6600 - Commonality

- **Compact gears (axes 1, 2, 3, 6)**
  - All compact gears from the same supplier
  - Axis 6 same as IRB 6640
- **Motors**
  - All motors from the same supplier
  - Axes 4, 5, 6 same as IRB 6640



# IRB 6620 / IRB 6640 - Commonality

Reuse of components IRB 6620 / IRB 6640:

- Calibration equipment
- SMB and Brake Release
- Floor cable interface
- Foot Print
- Bearings axis 4
- Flange interface
- Insulated wrist flange
- Controller and Teach Pendant
- Process cabinet
- 7 and 8 axes configurations
- Spot Welding software





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