

## **Welding Cells / Lines:**

### **Spend Volume per Year:**

- €35 to €45 Mio

### **Types of Cells:**

- SPOT Welding 60%
- ARC Welding 30%
- Laser Welding <5%
- Others (Projections Welding, non-welding operations) >5%

### **Main brands used:**

- PLC: Siemens
- ROBOTS: Fanuc, ABB, KUKA, Panasonic
- WELD GUNS: Centerline, ARO
- SPOT Inverter: Harms & Wende, Serra
- ARC Weld source: Fronius, Panasonic, SKS
- LASER Power source: Trumpf

### **Type of contract:**

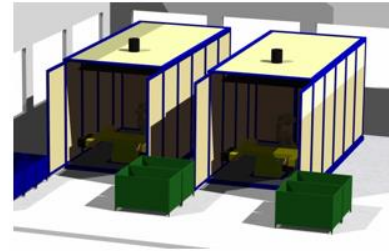
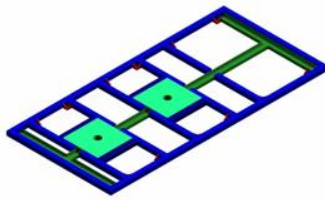
- Turn-key projects, this means supplier is responsible for
  - o Buying all sub-components including welding fixtures
  - o Manufacturing, delivery, installation and commissioning (Including e. g. programming of PLC, robots, weld parameters etc.)
  - o Measurement and proof of geometrical and metallurgical quality (in supplier's plant)
  - o Realisation of contracted cycle time, OEE and part quality in customer's plant  
➔ **Full project responsibility on supplier side!**

### **Materials to be welded:**

- Cold formed parts: mainly out of carbon steels, coated (zinc) and uncoated
- Hot formed parts: AlSi coated and also uncoated
- Aluminium (max. 10% of total applications)

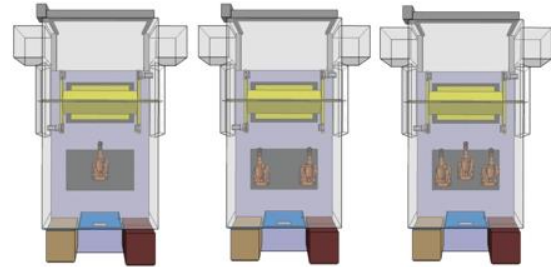
### **Material Thickness:**

- From 0,30 mm up to 12,00 mm (main range 0,5mm to 2,5mm)

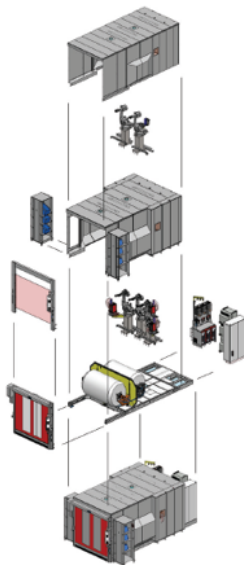


#### Modular Concept with:

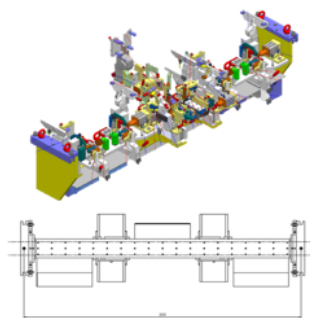
- Limit of Variants
- Limit of Dimensions
- Limit of Components
- + Standard Production Equipment for standard Parts
- + Reliable Planning Szenarios (Costs, Process, Layout)



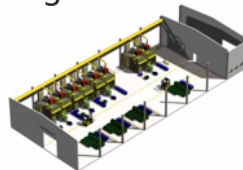
#### Standard Welding Cell



#### Standard Jig Design



#### Standard Building Design



#### Requirements:

- + Several JIG's / Products at one welding Cell possible
- + Standard Mounting & Changeover procedure