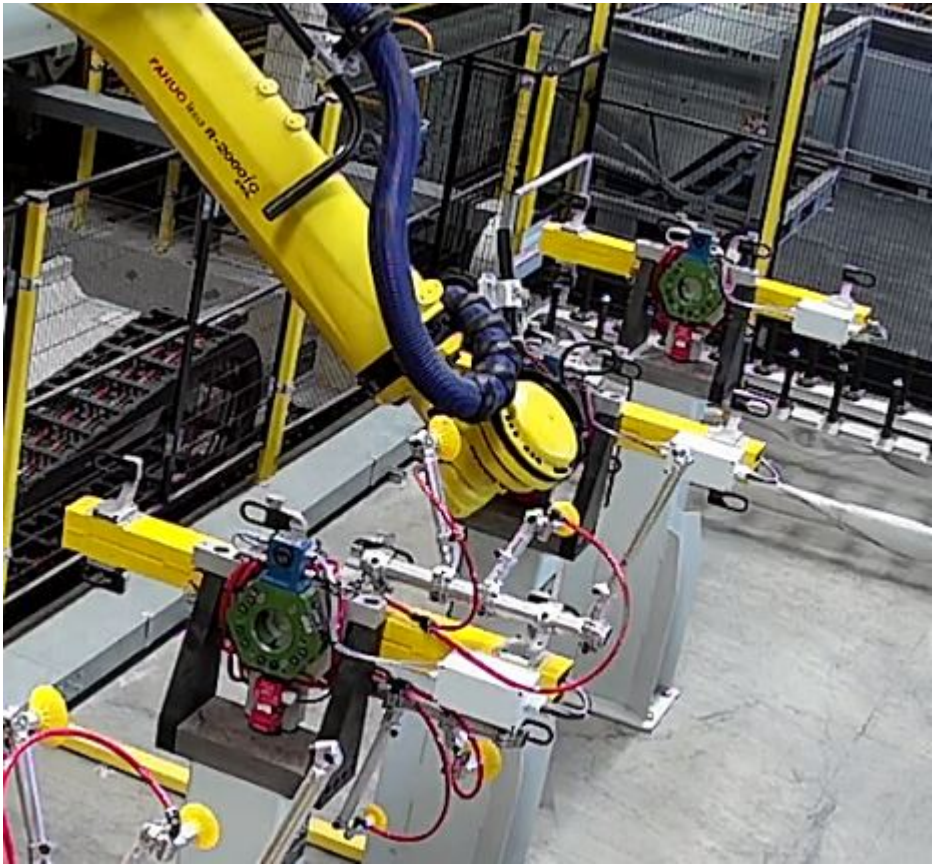


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Solutions | Tool changer |Tool Change Solution for Stamping Process



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Stamping line robots have to be lightweight to move fast and they generally have large EOAT. Those large EOAT's have to be stored on docking stations when you use a tool changer and storing them horizontally can rapidly tend to take up large floor space areas. PES has developed the perfect tool changer solution that gives an answer to both issues. First, the tool changer on axis-6 comes with the minimum equipment that is the pneumatic and electrical interfaces, and the tool presence sensor, all the safe control equipment is placed on a dedicated box that aims at being installed on axis-3 to save robot payload. Second, the tool changer on the tool side is mounted so the EOAT can be uncoupled in a vertical position on a specially designed docking station. In conclusion, you give to the robot the tool change capability while keeping added payload at a minimum and saving floor space.

Electrical Features

- **Axis-3 control box:** power and field bus connections (+ tool changer and pneumatic control components)
- **Tool changer:** discrete I/Os and 8 integrated pneumatic ports
- Tool presence and docking monitoring
- Tool changer status control and monitoring through discrete I/Os or Fieldbus

Mechanical Features

- Cam lock mechanism with integrated wear compensation
- Tough design for payloads up to 200kg (Epsilon 125) and 300kg (Sigma 3)
- Custom robot interface available

Interesting Options

- Vertical docking station
- RFID docking system with communication through the docking station

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Advantages

- Epsilon 125 : lightweight and compact, 8 integrated air connections
- Simple installation and maximum flexibility
- Proven-in-Use turnkey functional package



Benefits

- No need to increase robot payload
- Increased performance/cost ratio
- Low maintenance costs
- Limited integration costs
- Reduced store area



Facts & Figures

- With a good integration, tool change can be performed in **less than 5 seconds**
- Cam locking mechanism can outreach **5 millions of operation cycles**
- **PES Tool Changing Solution complies with Level-D safety performance level requirements**
- **PES is a leading supplier of tool changing systems in the automotive industry worldwide for more than 20 years with hundreds of units in operation**