

# REPORT

Flexible engineering  
with Roxtec in Robotic  
systems



Manufacturers of robotic process systems are moving their positions from tailor-made, customized designs, to standardized and more cost-

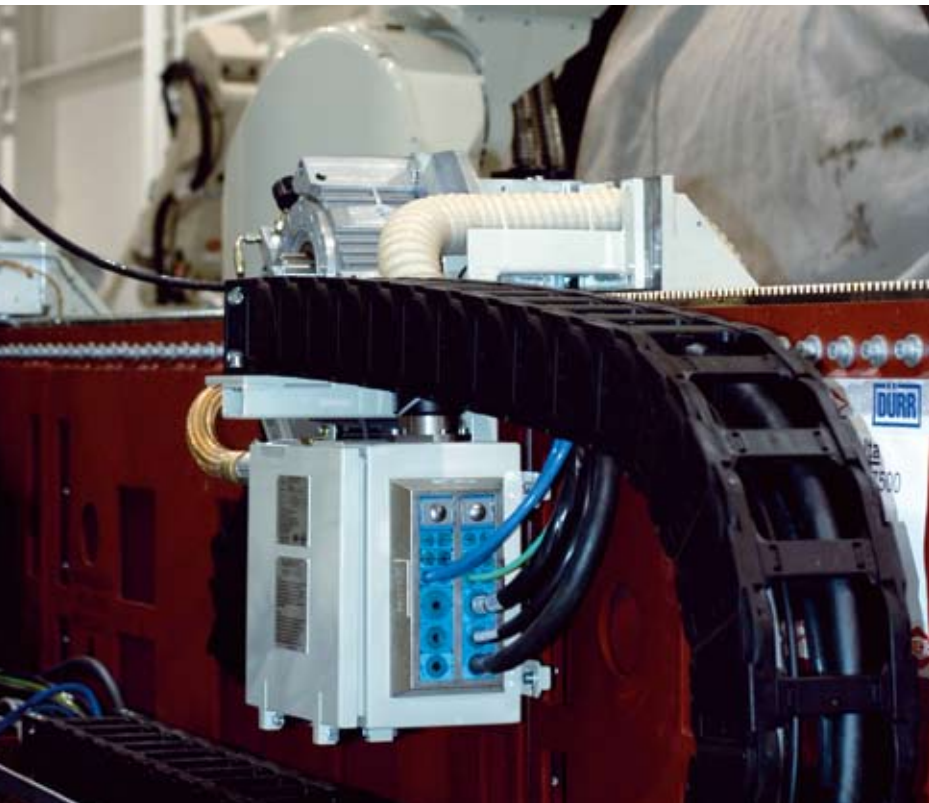
effective solutions. A couple of examples are Mass-production Robotic Paint Shops and Robotic Routing and Waterjet Systems. Here, Roxtec's entry

seals contribute effectively to reducing leadtimes in projects, and adding engineering flexibility to the benefit of the future system users.

## **Roxtec team reports on site**

From the build of robotic process system units in Michigan, USA

# Minimum time-to-market with Roxtec sealing system



*Michael Riley at Dürr Systems Inc. uses Roxtec to handle the constant changes in cable and pipe dimensions.*

*Roxtec CF 32 entry seals allow cables and pneumatic plastic pipes to be routed in the same unit.*

A typical problem for all manufacturers of process equipment is the short window of time for different steps of engineering in a project. First, the design of the process system is to be made, and equipment and materials to be chosen to suit the requirements. Then, during the build phase, everything is put to test as the materials and gear are to be assembled in real life. Chances are that the technical solution and assembly do

not turn out exactly as intended. Subsequently, more time must be spent redesigning and changing components.

## **Exceptional flexibility**

Overall, manufacturers of today face a number of requirements from their own customers. Not only do they need to produce very functional solutions, but the systems must further provide a competitive edge to the user in

terms of higher quality, better productivity and a better process. By use of Roxtec's exceptionally flexible seals, the buildtime of a process system can now be radically reduced, and at the same time add high operational reliability and capacity for future changes for its user.

## **Engineer once**

Roberta L. Zald, P.E., Director of engineering at Robotic Production

*Custom-made Roxtec CF 56 entry seals help manufacturers of Automotive paint shops to securely seal cables passing through the booth walls. Pictures show cables routed through the Roxtec CF 56 before the booth wall has been attached.*

*Two sets of Roxtec CF 32 installed at the bottom of a control cabinet of a routing machine.*



Technology, Inc in Auburn Hills, and a customer of Roxtec, summarizes her view: "With Roxtec we have a much better chance to engineer once and then be installing. With other products for cables and pipes, we would have to design first, then route and adjust the engineering."



*Rock Haas (left), Engineering Design Services, uses Roxtec CF 32 and RG M63 to secure monitor cameras in Robotic sealing systems; Here visited by Jason Hood from Roxtec Inc.*

Similarly, Michael Riley at Dürr Systems Inc. in Michigan, expresses his experience: "Cables and hoses are changing all the time in a project. And it simplifies a lot with Roxtec as it handles all the changes."

### **Saves critical time**

The Roxtec sealing system clearly creates simplicity for everyone involved, from designers and installers to any future users who might want to continue to make changes to their system. The many possible ways to use Roxtec - for cables, pipes, pneumatic hoses in cabinets, for penetrations in booth walls - make it a reliable manufacturing tool. It saves critical time and allows a project to leave the factory more quickly.

Thousands of users around the world are already making savings thanks to Roxtec. And the earlier the Multidiameter technology from Roxtec is allowed into a project, the quicker the results can show up.

Flexibility to cope with a wide array of challenges is important in today's high paced industry and should not be underestimated. "Roxtec is awesome!", concludes Rock Haas at Engineering Design Services in Michigan. "You know it is going to fit!". ■



*Roberta L. Zald of RPT, a robotic systems solutions provider to the plastics industry for 20 years, is appreciative of Roxtec's capacity to fit into a wide range of engineering solutions.*

# Facts

- Project types:** Robotic systems for the automotive industry:
- Mass-production Robotic Paint Shops
  - Robotic Routing and Waterjet Systems
  - Punching/Sawing Automated Robotic Fabrication Systems
- Customers:**
- Dürr Systems Inc. Application Technology, Auburn Hills, MI
  - Robotic Production Technology , Auburn Hills, MI
  - Eagle Manufacturing Corporation, Shelby Township, MI
  - EDSI, Engineering Design Services Inc, Auburn Hills, MI
- Applications:**
- For cables:  
Cable sealing between cabinets and process equipment. Sometimes through booth walls.
- For pipes:  
Pipe sealing from cabinets to robotic equipment, including sealing of pneumatic hoses.
- Requirements:**
- Include IP 66, 67  
Water tight, gas tight, dust proof  
Explosion protection
- Roxtec products:**
- Roxtec CF 8, CF 32 and custom-made CF 56 entry seals, Roxtec RG M63 entry seal. Roxtec S frame transits, R frame transits, and RS seals.
- Reasons for choosing Roxtec:**
- Pre-delivery tests: Roxtec allows the customer to test equipment before it leaves the factory. Once it arrives on site, it is easy to run cables through the Roxtec sealing system and make all the connections.



## Automation Industry References

GE Transportation, Bombardier, USA  
ABB, USA  
Siemens, USA  
Remy Equipment, France  
PSA Peugeot, France  
Max-Planck-Institut, Germany  
Siemens, Germany  
ST Microelectronic, Italy



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