



Automated Robotic Cell Application for Riveting and Drilling Endeffectors.

Benefit:

- Replace heavy duty assembly stations by light-weight automation
- Flexible investment for program ramp-up's and rate changes
- Easy retooling of machines by industrial robots
- High precision assembly
- Fullfillment of aerospace quality and certification requirements
- World wide service and support

Technical data

Spindle:

- 8 KW, 20.000 RPM, 3.8 NM
- through drill bit lubrication and cooling possible
- HSK-E

Max. feed speed:

400 [mm/sec]

Max. feed force:

60 daN

Materials:

Aluminium, titanium, CFRP, glare, mixed stacks

Hole diameters:

0 – 13 [mm]

Material thickness:

up tp 65 [mm]

Auto-normalisation:

± 5° (Accuracy: < 0.3°)

Pressure force:

100 - 1800 N

Countersink accuracy:

± 0.015 [mm]

Positioning accuracy:

± 0.3 [mm]

3D position measuring accuracy:

< 0.015 [mm]

Error correction models:

Library of bestfit, 3-2-1, linear correctors, plane matching



Technical specifications

Modular ARCARDE functionality			
Robot quick coupling unit	Basic module		
High precision spindle	Basic module		
Tool holder quick release	Basic module		
Automatic swarf extraction	Basic module		
Chip blast system	Basic module		
Adjustable clamping force unit	Basic module		
Normalisation sensors		Option module	
Two side mounting		Option module	
Micro lubrication device		Option module	
Through the drill bit lubrication		Option module	
Broken drill bit detection		Option module	
User ergonomic HMI	Basic module		Custom module
Integrated database	Basic module		Custom module
Flexible drill process design	Basic module		Custom module
Countersink depth control system	Basic module		Custom module
Riveting / fastening		Option module	Custom module
Video supervision		Option module	Custom module
Robot model selection		Option module	Custom module
Automatic tool changing unit		Option module	Custom module
Replaceable nose piece		Option module	Custom module
Auxiliary devices			
Automatic Tool Changing Station		Option module	Custom module
RFID Tool Data Management		Option module	Custom module
Milling Application Head			Custom module
Auxiliary services			
Remote service access		Option module	Custom module
Webserver data collection module		Option module	Custom module
Offline programming system			Custom module
MES integration			Custom module



Contact

thyssenkrupp System Engineering GmbH

systemengineering@thyssenkrupp.com
www.thyssenkrupp-system-engineering.com

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