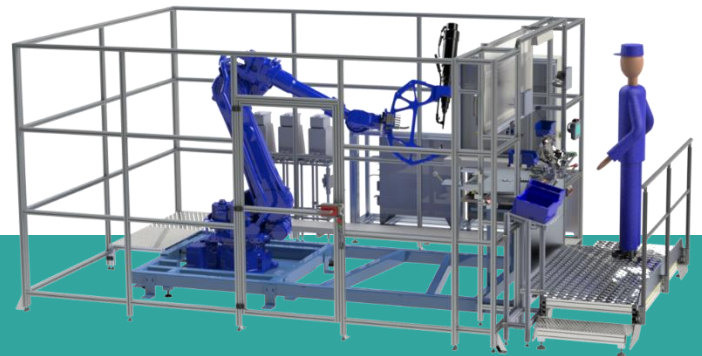


Automatic assembly machine Punch rivets



- Machine with robot-guided punch riveting tool for the assembly of multi-part free-form sheet metal parts.

- Assembly principle:
 1. Manual pre-assembly of the individual components
 2. Workpiece supply via the dial table
 3. Automatic riveting processes
 4. Automatic separation of OK and NOK parts
 5. Manual removal of the finished part

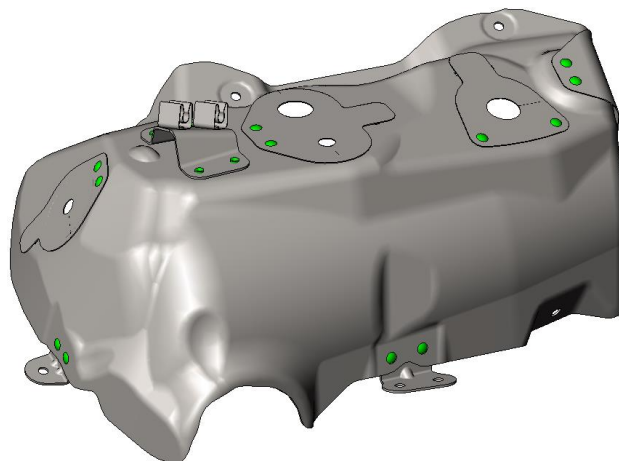
- Automatic rivet supply of different rivet types

- Variety of different workpiece types

- Optimally shaped workpiece carriers (manual or automatic re-equipment)

- Short cycle times due to robotic handling, even for extremely varying rivet positions

- High riveting process reliability due to force displacement measuring system



Technical Data

Workpiece	multi-part free-form sheet metal parts (car engine heat shields)	
Workpiece dimensions		
Sheet thickness	approx. 2–4 mm	
Outer dimension	approx. 500 mm	
Number of individual components	3–8	
Assembly operation	Punch rivets	
Tools		
Punch rivet system	with rivet supply unit	
Industrial robot	YASKAWA® or KUKA®	
Rivet	loose hollow punch rivets	
Number per workpiece	8–20	
Cycle time	1–6 sec moving from rivet to rivet 3 sec riveting process	
Machine control	SIMATIC S7 PLC	
Visualisation	Mobile touch panel	
Electrical characteristic data	IEC	UL / CSA
Supply	400 V / 50 Hz / 63 A	480Y/277 VAC / 60 Hz / 63 A
Control voltage	24 V DC	24 V DC
Connected load	12 kVA	12 kVA
Compressed air connection	6 bar	
Airborne noise emission		
Maximum sound pressure level	<83 dB(A)	
Equivalent permanent noise level	<75 dB(A)	
Machine dimensions		
Width	approx. 4.0 m	
Depth	approx. 5.4 m	
Height	approx. 2.5 m	
Weight	3,000 kg	