

RIVSET® Automation H

Self-pierce riveting for modern mixed material design

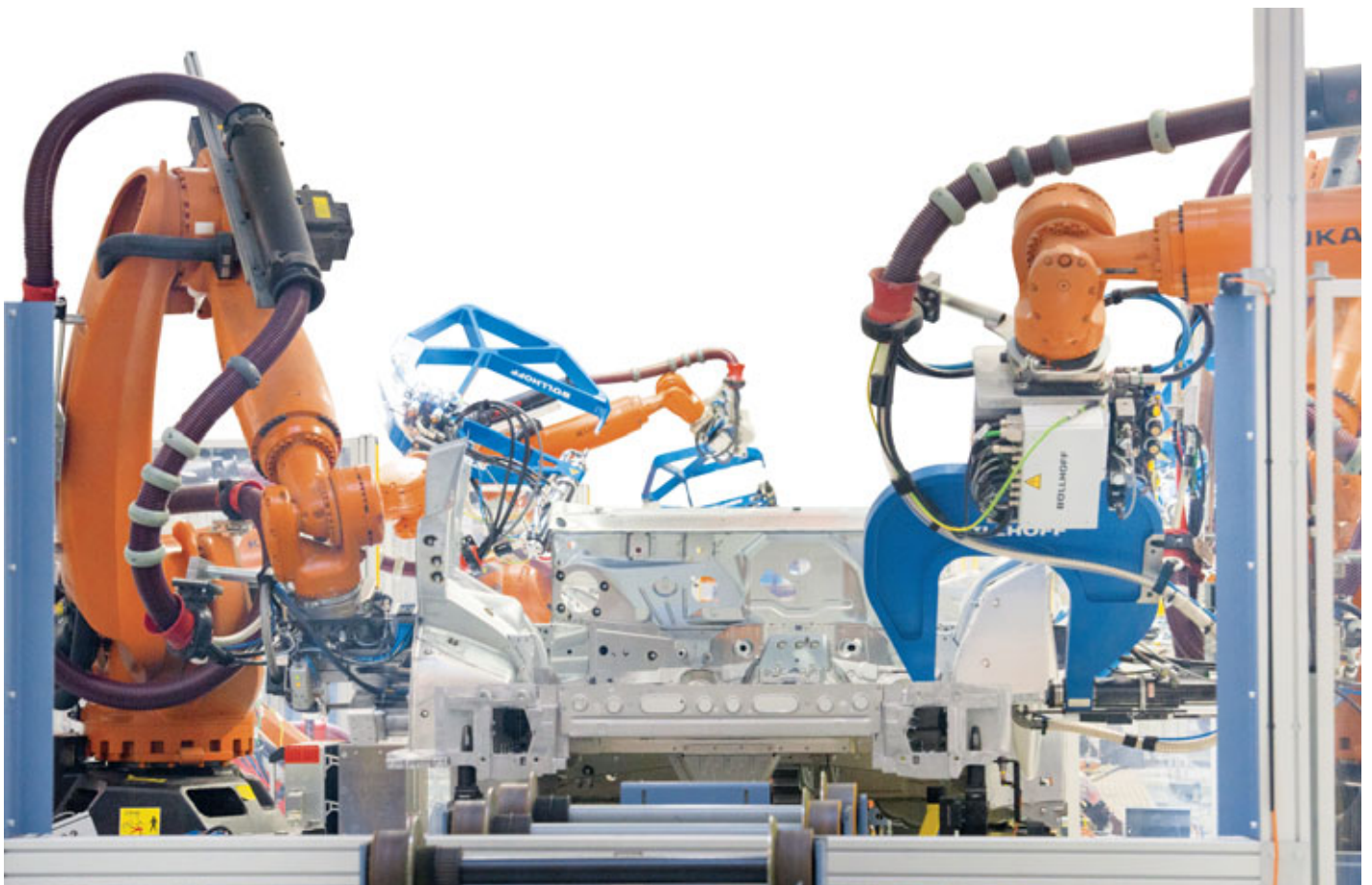
BOLLHOFF

Modular, flexible, efficient!

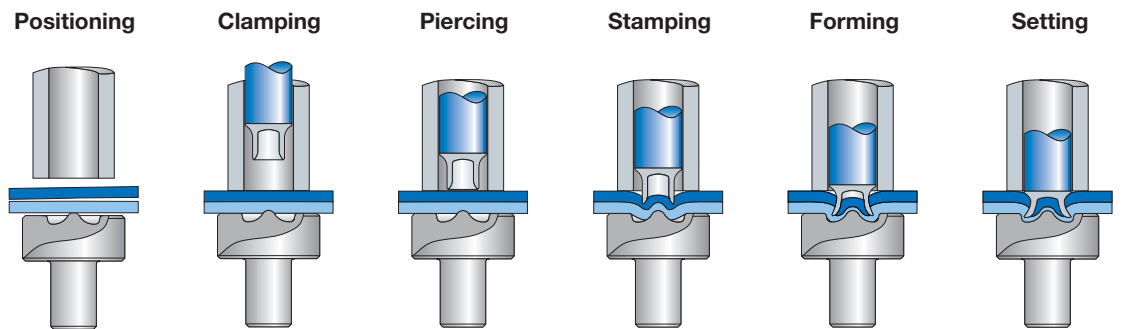
With today's generation of our self-pierce riveting technology with semi-tubular rivets, RIVSET® Automation H, you can join mixed materials as well as high-strength steels at very short process times. This technology is perfect for applications in large-scale production. And you also enjoy the advantages of maximum flexibility in production planning.

Advantages

- Modular construction of the components
- Local control architecture for maximum configurations
- Process cycle of ≤ 1.5 seconds / rivet (depending on the setting tool)
- Consistent machine availability
- Rivet length control with a precision of ± 0.25 mm
- Weight optimised setting tools with setting force max. 78 kN at a robot load capacity of 80 kg
- Multi visualisation of 1 – 5 system(s)
- Optional control centre by software upgrade
- Minimal floor space
- Customisable configurations

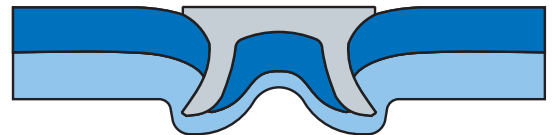


Technology



A simple and fast process:

In one step the semi-tubular rivet pierces through the upper layer/s of the workpiece and forms the locking head in the lower layer.



Materials

Joining materials and material combinations for your high-strength joints:

- Aluminium (pressure cast, extruded, sheet)
- Deep drawing steels with a tensile strength up to 500 MPa
- High-strength steels with a tensile strength up to 1,600 MPa
- Also material combinations with magnesium, copper, films, metal mesh, plastic (with fibre glass), sandwich materials
- Adhesive as a middle layer



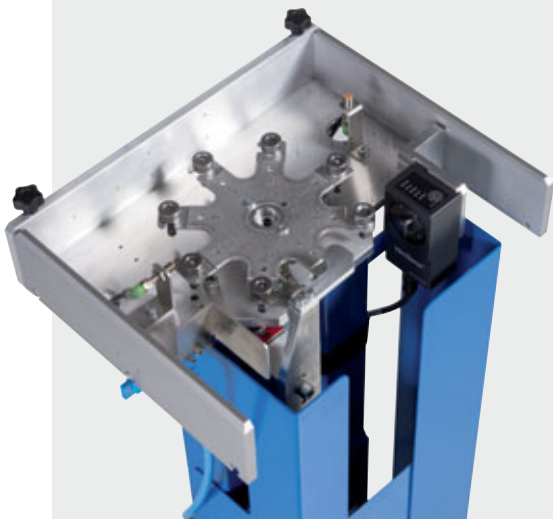
Tool

Setting tool

Product characteristics

- Optimised setting tool dimension at minimised weight
- Setting force levels 50 kN, 60 kN and 78 kN
- C-frame throat depths up to 600 mm as standard and up to 1,000 mm with lightweight frame
- Exchangeable die post
- Die post with die lock (optional)
- Media docking option
- Optimum balance
- Long life of the hydraulic cylinder resulting in low operating costs

NEW!



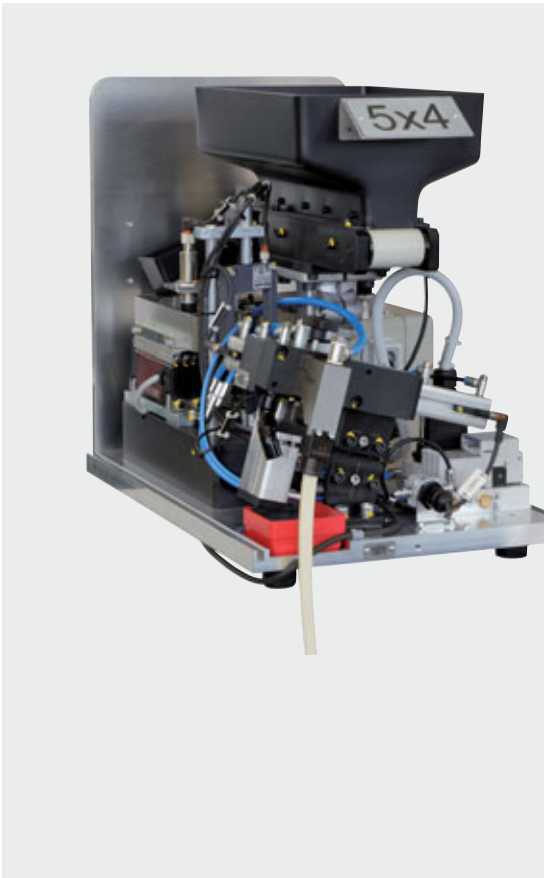
Die changer

Product characteristics

- Suitable for up to 8 dies
- Die changing in ≤ 5 s
- Identification of the die type via its position in the die changer
- Assignment of the die ID for each joining point
- Mechanical locking of the die in the die post of the setting tool
- Optional automatic die identification using the coding on the die shaft



Feed



Rivet feed

Product characteristics

- Circulation at 60 rivets/minute
- Storage of approx. 15,000 rivets (depending on the rivet geometry)
- Minimum maintenance
- Pre-separation of rivets and rivet length measurement precise to ± 0.25 mm

Special configurations

We offer further special configurations such as multi-feeding.
We will be pleased to advise you!



NEW!



Magazine feed

Product characteristics

- Consists of a loading station (on the left) and the magazine at the setting tool (see below)
- Processing of four rivet lengths in one magazine (standard)
- Capacity of max. 49 rivets \varnothing 5 mm / 69 rivets \varnothing 3 mm
- Magazine change in ≤ 4 s
- Optional processing of up to 8 different rivet lengths (e.g. rivet range \varnothing 5 mm)



Power unit



Control unit

Product characteristics

- Central controlling of all modular machine components via internal BUS-system
- “Embedded PC” based control
- Drive up to four rivet feeders (standard)
- Open interface to diverse robot interfaces (ProfiNet, Interbus etc.)
- Mobile panel with full process monitoring (plug & play)
- Multi visualisation of 1 – 5 system(s) by one control panel (optional)
- Using of the multi visualisation as control centre by software upgrade (optional)



Drive unit

Product characteristics

- Modular and compact hydraulic system
- For setting forces up to 78 kN
- Valve block on the setting tool
- Process cycle ≤ 1.5 seconds/rivet – depending on the setting tool



Standard configurations

The system consists of setting tool, feeding unit, drive technology and control cabinet.

The configuration of the feeding can vary according to the number of used rivet length:

Single – One rivet diameter and one rivet length

Twin – One rivet diameter and two rivet lengths

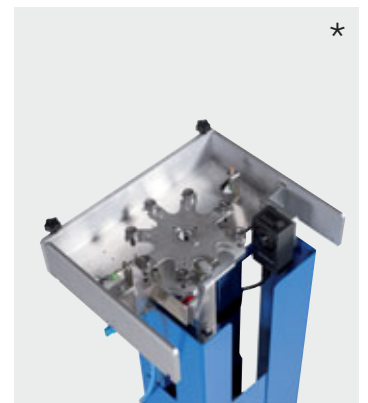
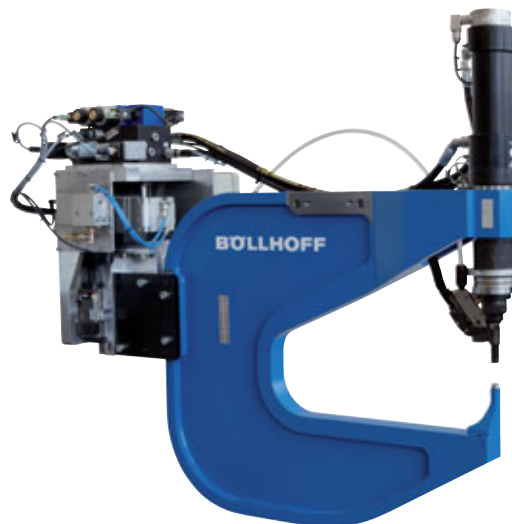
Triple – One rivet diameter and three rivet lengths

Quadruple – One rivet diameter and four rivet lengths

RIVSET® Automation H advantages

- Mechanical joining with setting forces of 50 kN, 60 kN or 78 kN
- Automatic or manual handling
- Alternative feeding solutions available
- Multifeeding as option
- Flexible by module configurations and open interfaces

*Optional modules for configuration



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