PRODUKTIONS+ MONTAGETECHNIK

Orbital riveting technology

Connection Technology
Orbital Riveters
- Your specialist for reliable connections
Welcome.

For many years now, we have been developing innovative and successful solutions for our partners in the assembly and automation technology sector.

Uncompromising support, sound knowledge, unsurpassable quality and a self-confident approach in addressing challenges are the key to our success. Assisted by a well-tried network of specialists, we offer holistic solutions from one source. This makes us both flexible and cost-efficient.

Profit from our experience.

Your success is our mission.

We thrive on new and interesting challenges.

Marc Heiter
Chief Executive Officer

Areas of Application

Examples

Automobile supplier industry:
Airbag, belt tensioner, safety belt, ignition lock, steering column, steering wheel, car seat, CD and cassette drives, motor auxiliaries, convertible hood mechanics, exhaust gas regulation valve, door locks, hinges, fittings, motor bearings, cigarette lighter, instrumentation, rollers, boot and bonnet hinges, attachment systems in vehicles, exhaust pipe fittings, windscreen wipers, shifter pegs, horns, ABS motors, fuse boxes, clutches, brakes, dynamos, etc.

Lock, construction fitting and furniture industry:
Locks, hinges, window fittings, door fittings, pullouts, castors, gas fittings, handcuffs, loudspeakers, gutters, etc.

Electrical industry:
Connections, switches, sockets, relays, fuses, razors, plugs, electrical motors, automatic circuit breakers, lighting, force sensors, condensers, electrical boiler connection terminals, switch blades for high voltage. As well as a variety of other applications, e.g. for use in medical technology or optical and precision industries, etc.

Aerospace industry:
Turbine elements, security technology, undercarriage components, hydraulics, installation material, mounting elements, etc.

Sport equipment and household appliance industry:
Ski bindings, ski stoppers, sports shoes, bicycle technology, helmets, golf shoes, bicycle chains, aviation, water sport, tin openers, kitchen appliances, mixers and grain mills, gears, etc.

In our well equipped laboratory, we determine the best possible rivet connection for your components. Many rivet connections have already been manufactured and tested in our laboratory during the prototype phase of product development.
Your advantages

- for high-speed riveting, extra fast feed, spindle speed 1360 rpm or 2800 rpm on request
- for use as a shaft riveting unit with centering collar or as a standard unit (rear fixation)
- not restricted to a specific position, can also be used overhead
- stepless force adjustment via pressure setting
- standard version with end position damping and feed speed setting
- maintenance-free
- with stroke limiting ring (stepless return stroke setting)
- standard stroke 40 mm optional 80 mm or 100 mm, other possibilities on request
- for 2 rivet processes: rotational or radial orbital riveting units also used for crimping and curling

Modular construction ✓

Thanks to their modular construction, all mechanical and control-related components can be combined as desired.

High flexibility ✓

Thanks to their modular construction, our systems can be easily adapted to the requirements on hand. High flexibility is guaranteed - Modular construction permits flexible usage!

Service-friendly ✓

Easy to operate and service-friendly are just two of the standard features of our products. Speedy on-site service whenever needed goes without saying!

Quality control ✓

For monitoring production and quality assurance, the units can be equipped with our well-proven force/displacement control!!

Technical data

<table>
<thead>
<tr>
<th>Riveting force at 6 bar:</th>
<th>Step I</th>
<th>2.8 kN</th>
<th>Step I</th>
<th>4.5 kN</th>
<th>Step I</th>
<th>6.5 kN</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Step II</td>
<td>7.5 kN</td>
<td>Step II</td>
<td>12.5 kN</td>
<td>Step III</td>
<td>19.4 kN</td>
</tr>
<tr>
<td>Weight:</td>
<td>13 kg</td>
<td>19/23 kg</td>
<td>20/27 kg</td>
<td>27 kg</td>
<td>19 kg</td>
<td>25 kg</td>
</tr>
<tr>
<td>Standard stroke:</td>
<td>50 mm</td>
<td>40 mm</td>
<td>40 mm</td>
<td>40 mm</td>
<td>100 mm</td>
<td>100 mm</td>
</tr>
</tbody>
</table>
Orbital riveters - Multi-spindle heads

Riveters

Roller head

2-spindle orbital head

4-spindle orbital head

7-spindle orbital head

Rivet examples
Rivet/rivet head shapes

A
roof-shaped

B
straight

C
flat semi-circular

D
semi-circular

E
hollow rivet

K
contact rivet

Progressive modular conception

Controls

Control ST 1
for standard, uncomplicated riveting
- main switch with emergency-off
- pilot lamp, automatic mode, fault indicator
- preselection switch - rivet force, step I and II
- preselection switch - automatic / manual mode
- preselection switch - rivet/stroke time
- Actuation of riveting process
  - foot-operated switch
  - optional: 2 hand start
  - external actuation
  - sliding device

Control ST 2
for high-quality automatic and manual riveting
- simple menu-guided operation of all functions via display
- positioning in 0.01 mm or 0.01 bar increments
- up to 6 mm stroke range
  (depending on measuring system (e.g. laser) 10 mm also possible)
- 1 - 10 bar pressure range
- same features as ST 1 plus:
  - stroke monitoring with measured value display
  - or alternative pressure monitoring with measured value display
  - part counter
  - service menu
  - installed software – pressure or displacement

Control ST 3
for top quality-monitored automatic and manual riveting
- with automatic realization of rivet parameters: unfinished rivet length, force/displacement curve
- identification system in work stroke
- automatic positioning and monitoring of rivet displacement
- compressive force monitoring during forming
- same features as ST 2 plus:
  - software pressure and stroke monitoring
  - 3x analogous processing
  - storage of up to 10 different riveting programs on request
  - optional:
    - parallel interface for data output
    - external actuation via I/O or BUS
    - serial RS 485 interface
    - storage of more than 10 different riveting programs for different parts
    - data remote maintenance via modem
    - Profinet
    - rivet protrusion measurement via sensor
    - graphics representation of rivet parameters
    - SPC

The guarantee for a future-proof investment