**Tuk-Rivet®
Punched rivet system**

**The process**

Punch riveting with a solid rivet permits one or more joined elements such as semi-finished product types, sheet, profile and cast components to be fastened together.

During this process, the workpieces are clamped to the bottom die by the hold-down device. They are then punched by the solid Tuk-Rivet® that acts at the same time as the blanking die. When the stop-point is reached both the hold-down device and rivet punch are flush with the workpiece surface.

As a result of the compressive force applied by the rivet punch and the hold-down device the shape of the bottom die forces material into the peripheral shank groove in the Tuk-Rivet®.

This acts against the flow of material generated by the rivet punch and hold-down device.

**Field of application**

Wherever connections of thin metal mouldings with a high loading capacity have to be produced quickly, the Tuk-Rivet® is the ideal fastening element.

- For joining workpieces made of aluminium to steel as well as rustproof and acid proof sheet steels.
- For joining thin-walled components made of aluminium to sheet steels.
- For joining thick and thin sheets, whereby the lower sheet should have a minimum thickness of 0.9 mm.

**Product characteristics**

- Accurate production quality
- Largely flush finish on both sides
- Self-punching, no hole punching problems, reduced installation costs
- High-strength connection
- Ideal for plastic-coated or surface-treated parts
- Suitable for steel, stainless steel and light alloy sheet
- Replaces spot welding, no environmental pollution
- Integration possible in production lines, no separate workplace required
- The rivet head is covered by painting, no additional work stage required
- Hybrid construction possible
- Greater material thickness difference can be processed with multi-zone rivet
Application

Tuk-Rivet® is a punched rivet made of rust and acid proof material or steel for the manufacture of highly load resistant riveted joints in thin section components.

<table>
<thead>
<tr>
<th>Article number</th>
<th>Works Standard 492 0 / 493 0</th>
<th>Works Standard 492 1 / 493 1</th>
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</table>

Minimum thickness for lower material: ≥ 0.9 mm

Example for locating the article number

Stainless steel Tuk-Rivet® for 3.0 mm total material-thickness, Works Standard 492 0:
Tuk-Rivet® 492 000 004.900

Materials

Steel, tempered, zink/nickel-plated, transparent passivated
Stainless steel, hardened

Other finishes upon request

Tolerances

ISO 2768-m
Punching Rivet and Composites ...

Multigrade Rivet according to Works Standard 492 1
Light-alloy \( t = 1,7 \) mm +
\[22\text{MnB5}\] \( t = 0,8 \) mm +
Light-alloy \( t = 1,7 \) mm

Punching Rivet according to Works Standard 492 0
Magnesium \( t = 3,0 \) mm +
Light-alloy \( t = 2,0 \) mm

Special Rivet according to Works Standard 492 0
FRP \( t = 2,3 \) mm +
Light-alloy \( t = 1,7 \) mm

Repair with Hand Riveter ...

For small piece numbers or repair jobs, a rechargeable battery-operated manual riveter can be used together with suitable solid punched rivets. One battery charge is sufficient for around 300 riveting operations. A full charge takes around 60 minutes. The riveter can also be operated directly from a 230 V mains connection. The riveting operation requires access on both sides.
Enquiry data sheet
Punched rivet / Multi-zone punched rivet
Fax to KerbKonus
+49 9621 679444

Enquiry from: ____________________________
Project: ____________________________
Contact: ____________________________
Company: ____________________________
Mr/Ms: ____________________________
Phone: ____________________________
Fax: ____________________________
Piece no.: ____________________________

I require
- A quotation □
- A sample □
- Technical advice □

1. Application

<table>
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<tr>
<th>Material</th>
<th>Surface</th>
<th>Thickness</th>
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<td>Sheet 3</td>
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</table>

Number of joints/component:

2. Requirements

Joint stress exposure: :: Direction: □ Shear tension □ Peel tension □ Cross tension
Type: □ Static □ Vibratory □ Force [N]
Bottom die projection admissible: □ yes □ no
Corrosion requirements

3. Accessibility

Flange width
Length of rivet points
Disturbance points/Obstacles
(Drawings/sketches)

4. Punched rivet geometry

Length
□ Works Standard 492 0
□ Works Standard 493 0
□ Works Standard 492 1
□ Works Standard 493 1

Schematic diagram

5. Machine design

C frame: □ Balancer □ Stationary □ Robot
Special tool: □ Integrated in press □ Special purpose machine
Operation using: □ Foot pedal □ Hand switch □ Two-hand switching

6. Production

Pcs./year: Running time: Cycle time:

Date/Signature
... Strength values for Data sheet enquiry

Strength values

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<tr>
<th>Material</th>
<th>Thickness above [mm]</th>
<th>Thickness below [mm]</th>
<th>Shear tension [kN]</th>
<th>Cross tension [kN]</th>
<th>Peel tension [kN]</th>
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... Instantly recognisable setting guide for optimum Tuk-Rivet® connections

Correctly pressed in

![Correctly pressed in](fig.4)

Pressed in too far

![Pressed in too far](fig.5)

Not pressed in enough

![Not pressed in enough](fig.6)

Rivet too short/sheet thickness too great

![Rivet too short/sheet thickness too great](fig.7)

Rivet too long/sheet thickness too low

![Rivet too long/sheet thickness too low](fig.8)

Rivet length OK
No embossing — insufficient embossing force

![Rivet length OK](fig.9)