

Tuk-Rivet® Punched rivet system



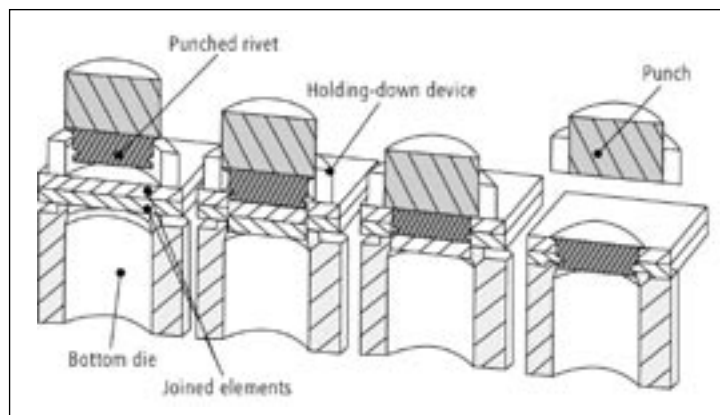
The process

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.

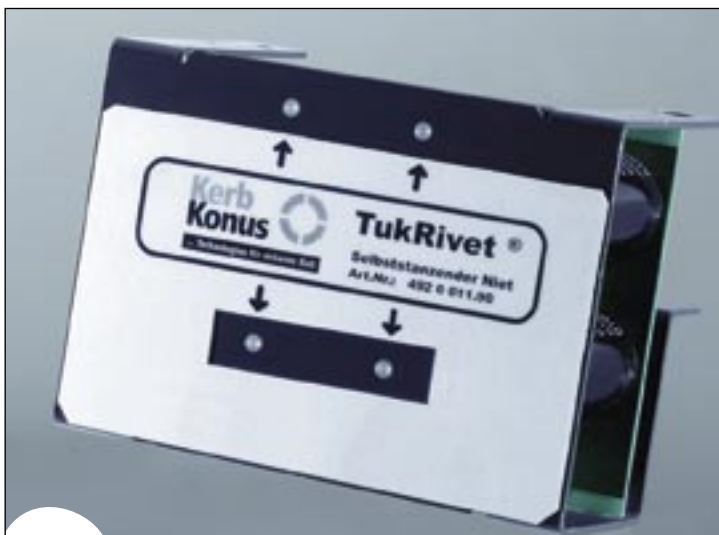
During this process, the workpieces are clamped to the bottom die by the hold-down device. They are then punched by the solid Tuk-Rivet that acts at the same time as the blanking die. When the stop-point is reached both the hold-down device and rivet punch are flush with the workpiece surface.

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.



Schematic sequence diagram



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EU Pat EP 1 013 945
US Pat 6,244,808
CAN Pat Anm 2,291,948

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EU Pat Anm EP 1 054 169
US Pat 6,527,490
CAN Pat Anm 2,308,916

Field of application

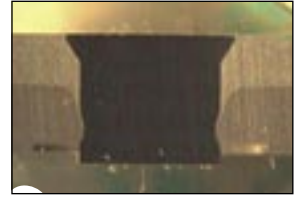
Wherever connections of thin metal mouldings with a high loading capacity have to be produced quickly, the Tuk rivet is the ideal fastening element.

- 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.

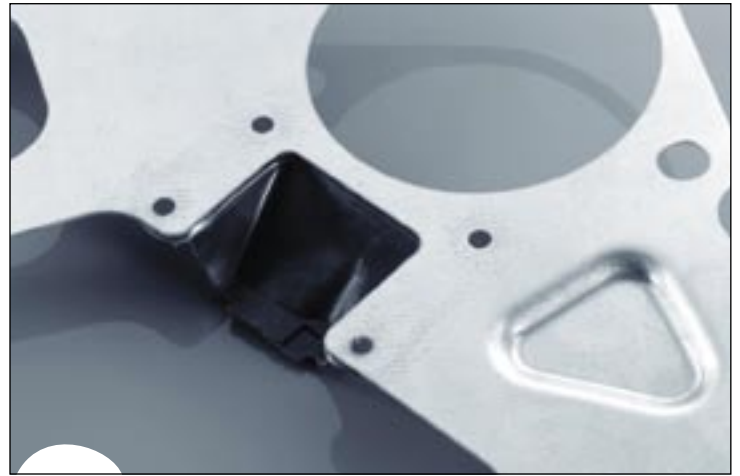
Product characteristics

- 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

Punched rivets in application ...



Cover sheet in galvanized steel
connecting the transmission and
engine in automobiles.



Heat shield sheet in stainless steel
for car exhaust systems.

Guide rails in aluminium for electric
windows.

