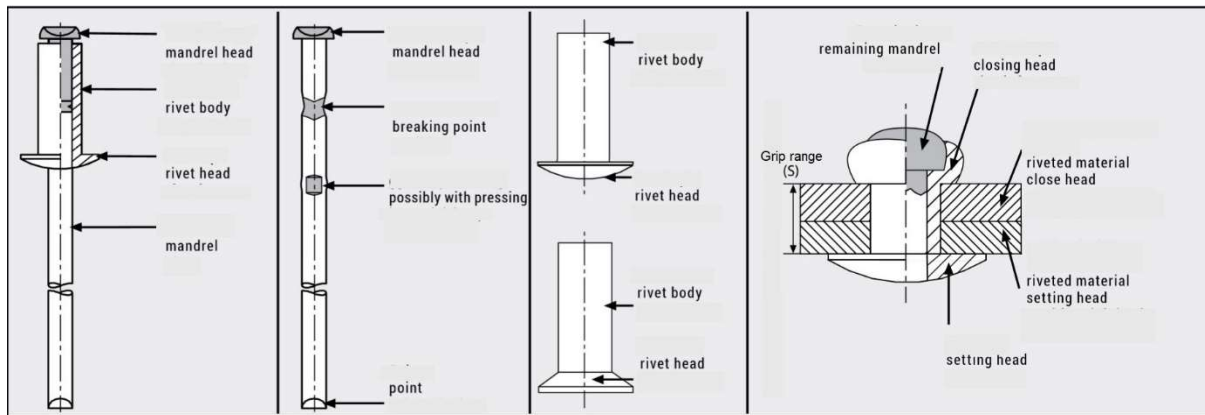




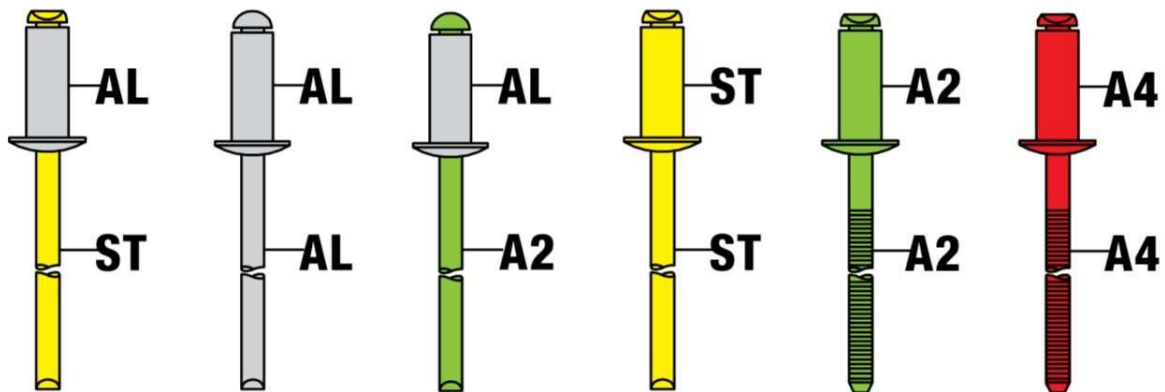
## BLIND RIVETS TECHNICAL GUIDE

Also known as Break-Stem or Pop Rivets. They are called “Blind” rivets because they can be installed from one side of the work. This allows product design to be simplified since only one side of the workpiece needs to be accessible.

### Terms



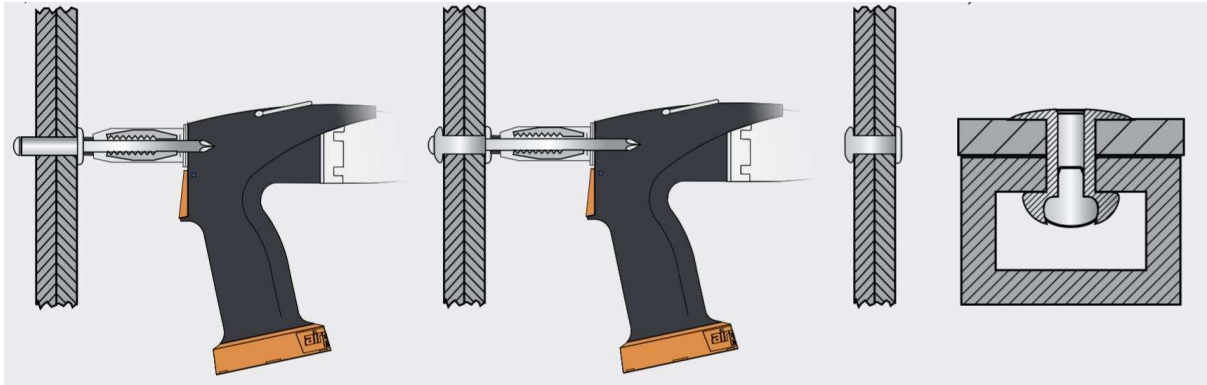
### Material Combinations



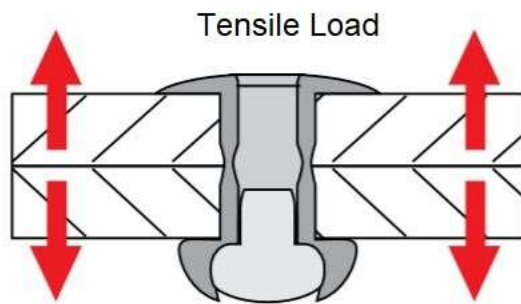
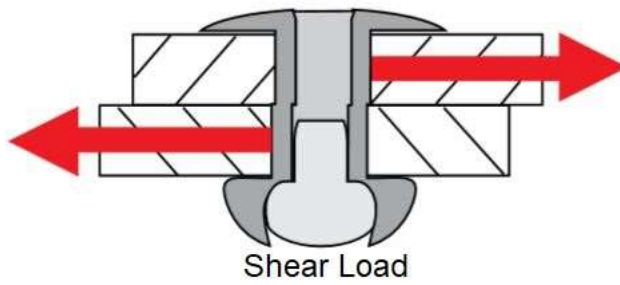
Blind Rivet Material Combinations

Rivet body can be from Aluminium [AL], Steel [ST] or Stainless Steel AISI-304 [A2] AISI-316 [A4]. Corresponding mandrel options are as above.

## Blind Rivet Installation



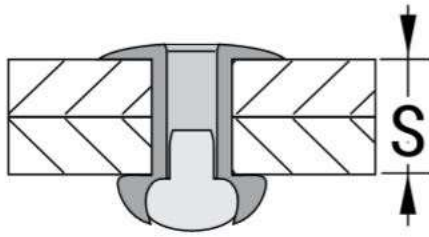
## Loads acting on blind Rivets



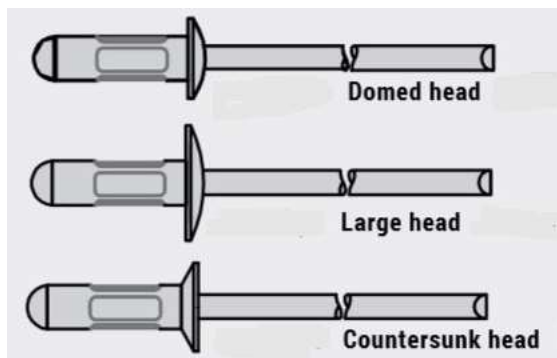
## Selection of Rivet Size

Grip Range

### Grip Range - S



Head Styles - Various head styles are offered to accommodate different assembly needs.



The most popular is the Dome head, whose lower profile head is approx. twice the diameter of the rivet body. This provided adequate bearing surface for nearly all applications.

Large flange head rivet provides greater bearing surface for fastening soft or brittle facing materials.

A countersunk head rivet is for electric or electronic applications and in situations where a flush fixing is necessary.

### Selection Guidelines.

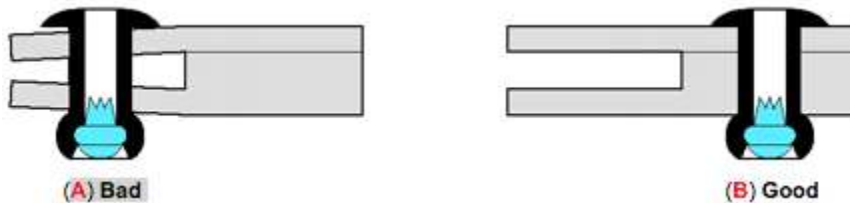
1. The shear and tensile strength of the rivet selected and the number of rivets used in the application should equal or exceed the joint strength requirements. Testing is recommended before final selection and use in product.
2. The rivet body material should be compatible with the materials to be joined to resist galvanic corrosion which may result in reduction of joint strength. If dissimilar materials are widely separated on the galvanic chart, it is advisable to separate them with a dielectric material such as paint or other coating.
3. After determination of strength required by diameter and alloy, the total thickness of materials to be joined must be considered. Select the Rivet grip range which included the total thickness of the material to be joined.
4. Recommended hole sizes listed for each rivet diameter should be followed closely. An under-size hole will not allow insertion of the rivet body; an oversize hole will reduce shear and tensile strengths, and may cause improper rivet setting, all of which promote joint failure.

## Design Guidelines

### Gap Fastening

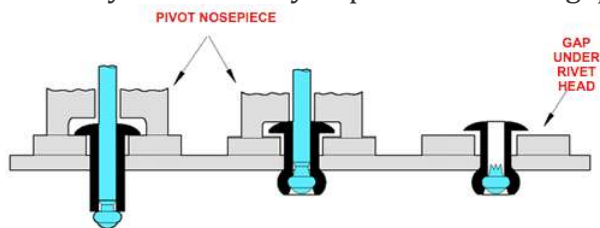
(A) Avoid riveting unsupported internal sections which may result in collapsing, dimpling or buckling the material.

(B) Select supported sections for best success.



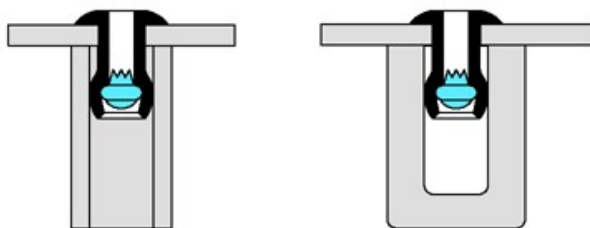
### Pivot Fastening

When the fastened part must rotate on the rivet, a “pivot style” nosepiece on the rivet tool may be necessary to provide a small gap under the rivet head.



### Fastening in a Blind Hole

Blind rivets may be set in a blind hole or milled slot. The success of this depends on the material of the parts to be riveted and the material of the rivet. Testing will be required.



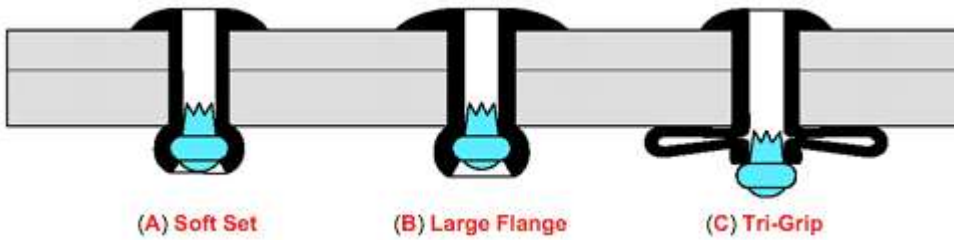
### Riveting Plastic Material

Select:

(A) “Soft Set” aluminum rivets,

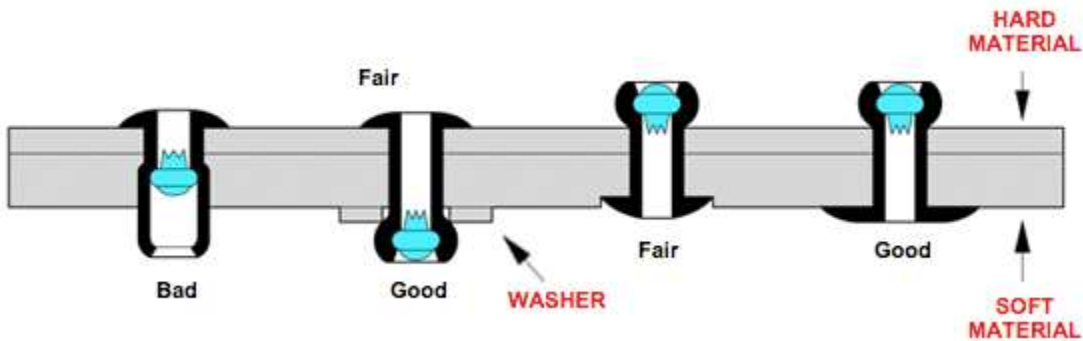
(B) Large Flange style rivets

(C) “Tri-Grip” rivets.



## Hard to Soft Materials

The following illustration is a guide for using standard blind rivets to fasten hard materials to soft materials. Other options are to use Groove Rivets or T-Lok Rivets.



## Edge Distance

We recommend 2 times the rivet body diameter (D) or more from the centre of the rivet to the edge of the work piece to avoid material fracture.

