

Pop Rivets versus Screws

At **Eagle Aluminium** we manufacture aluminium as we would for our own use not for the mass market.

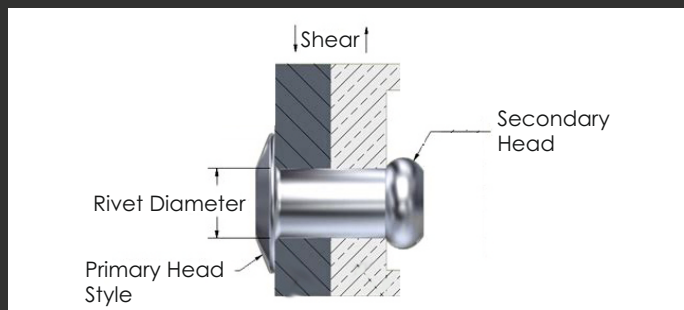
Why Eagle Aluminium use Pop Rivets and Not Screws on Hinges?

Here is why we use monel rivets in favour of stainless self-tapping screws.

- Screws are efficient and look neat when fixing hardware which does not bear much load e.g. flush-pull handles, window handles, escutcheons etc.
- The forces acting on hinges are shear forces.

To resist shear force, the best fastener is one that fills the opening and pulls the materials firmly together. This is what pop-rivets are designed to do.

The contact surfaces on self-tapping screws are very sharp, with minimal "contact patch".



- Architectural aluminium has relatively thin walls.

Self-tappers are very coarse pitched and strip easily when screwed into the thin profile. This makes screws inefficient under heavier loads, (like doors).

This can be "compensated for" by fitting backing plates, which will add material for the screw to thread into but with use and movement there is wear on the thread. This wear develops play and induces more wear and so the issue compounds.

A pop rivet for this application is superior to a self-tapping screw

- Stainless is a very noble metal, whereas aluminium is sacrificial. Galvanic corrosion will ultimately set in between the two dissimilar metals. Once corrosion sets in, replacing door stiles and hardware becomes a very real possibility.

Our products are SANS 613 certified based on the pop rivet as opposed to the screw.

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