



Innovative Mechanism Solutions

Frangibolt[®] Fasteners

The Fasteners used in the Frangibolt release system are an integral part of the mechanism. For all Frangibolt sizes, a significant amount of testing was performed to derive the optimum material, notch profile, and notch diameter. These features must remain constant for all applications. The design engineer however must specify the Fastener type, grip and thread length, as well as the notch location¹. The figure to the right illustrates some of the more common Fastener configurations that have been successfully used. These are categorized as Bolt, Stud, Lug, Flange, and Clevis (shown from right to left). Each suits a different type of Frangibolt joint design and lends enormous versatility to this unique product.

TiNi Aerospace must provide all Frangibolt Fasteners as these are manufactured per strict tolerances and procedures involving both individual and lot-level testing and inspection.

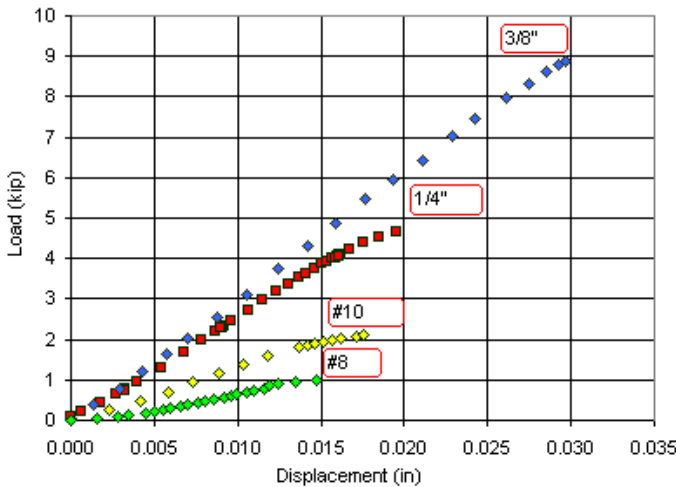
¹ TiNi engineers are available for free consultation regarding all Frangibolt joint designs.



| <u>Actuator Model</u> | <u>Fastener Size</u> |
|-----------------------|----------------------|
| FC6-32-7SR2 | 3/8" |
| FC4-24-10SR2 | 1/4" |
| FC3-20-16SR2 | 10 |
| FC2-16-31SR2 | 8 |

Rev: 5/02

Tensile Strength



Specifications

| | | |
|----------------------|-----------|-----------|
| Material | 6Al-4V | Titanium |
| Minimum Strength | 1104 MPa | (160 Ksi) |
| Breaking Strength | See Chart | |
| #8 Max Grip Length | 4.45 cm | (1.75 in) |
| #10 Max Grip Length | 5.72 cm | (2.25 in) |
| 1/4" Max Grip Length | 6.35 cm | (2.50 in) |
| 3/8" Max Grip Length | 8.26 cm | (3.25 in) |
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