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INTERNATIONAL™

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FASTENING THE FUTURE

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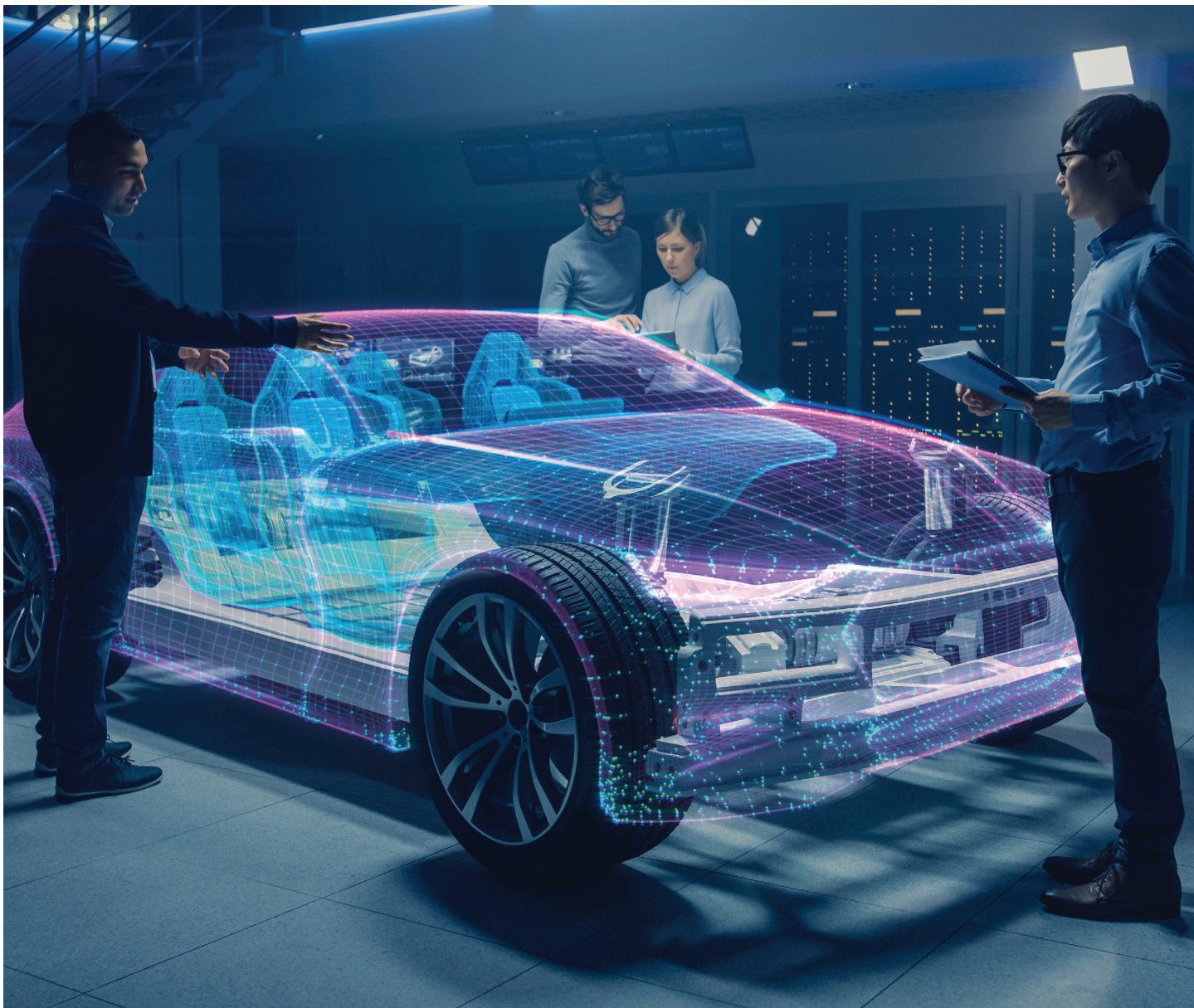
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DID YOU KNOW?

More than 80% of all cars and trucks in
North America have at least one
EFC supplied part.

Visit **EFC-INTL.COM** to learn more.

Panel Clips

Panel Clips offers low insertion, medium retention and some reusability. Used mainly in interior and exterior trim as well as hidden fastener applications.

| Part Number | Hole Size | Panel Range - mm | Neck Dia. | Dog-house Thk (B) | Body Length (Ref) |
|------------------|-----------|------------------|-----------|-------------------|-------------------|
| 08800811-POM03 | 6 | 0.6-1.2 | 6 | 2.8 | 20.6 |
| 11X20182-POM03 | 6 | 0.7-1.0 | 5 | 2.2 | 13.8 |
| 11X20054-A09 | 7 | 0.7-1.0 | 5 | 1.7 | 17.6 |
| 08800191-A08Q | 7 | 1.7-3 | 7 | 2.63 | 23.2 |
| 08800567-E08 | 8 | 0.55-1.4 | 5 | 2.6 | 20 |
| 08800506-POM02 | 8 | 1.8-2.2 | 5.75 | 2 | 19.2 |
| 02C700232-POM08 | 8 | 2 | 6 | 2.7 | 21.4 |
| 08800499-POM02 | 8.5 | 0.7-1.6 | 5.55 | 3.25 | 20.4 |
| 08800485-C02 | 8.5 | 0.7-1.6 | 5.6 | 2.7 | 16 |
| 30601042-POM02 | 8.5 | 0.7-1.6 | 5.6 | 2.6 | 19.9 |
| 08CN00215-00 | 8.5 | 0.7-1.6 | 5.6 | 2.6 | 20.1 |
| 08800492-AP10 | 8.5 | 0.8-1.70 | 5.5 | 2.5 | 18.9 |
| 36P5000350-POM11 | 8.5 | 2.2-2.7 | 5.5 | 2.7 | 19.8 |
| 11X20205-POM03 | 9.5 | 2.3-3.8 | 4.7 | 2.6 | 25.8 |
| 11X20202-PA02 | 10 | 1.2 | 4.7 | 2.6 | 23.1 |



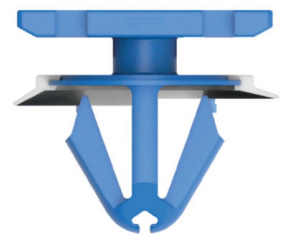
(w/ Seal)

| Part Number | Hole Size | Panel Range - mm | Neck Dia. | Dog-house Thk (B) | Body Length (Ref) |
|------------------|-----------|------------------|-----------|-------------------|-------------------|
| 11X20105-02 | 7.5-8 | 0.7-1.1 | 4.6 | 1.75 | 14.3 |
| 11X20069-97 | 7.5-8 | 0.7-1.3 | 5 | 2.75 | 15.3 |
| 0880094-POM07-R1 | 8 | 0.75 | 5.7 | 2.5 | 17.8 |
| 02C700282-POM08 | 8 | 2 | 6 | 2.7 | 21.4 |
| 08800471-POM03 | 8.5 | 0.7-1.6 | 5.6 | 2.6 | 19.9 |
| 08800376S-C03 | 8.5 | 0.6-1.4 | 5.8 | 3.1 | 20.7 |
| 02C700257-AP99 | 8.5 | 0.8-1.8 | 6 | 2.5 | 21.3 |
| 11X20139-POM02 | 9 | 0.6-1.0 | 6 | 2.9 | 26.2 |
| 11X20136-POM02 | 9 | 0.7-1.3 | 5 | 2.75 | 16.3 |
| 08800444-POM | 9.1 | 0.6-2 | 4.7 | 2.5 | 28.4 |
| 08800495-97 | 9.1 | 0.6-2.0 | 4.3 | 2.5 | 28.4 |
| 08800898-A08 | 9.1 | 2.0-3.1 | 6.1 | 2.7 | 29 |

W-Base

W-Base Retainers are an innovative alternative to multi-component plastic fasteners. An expansive range of clip designs, styles and colors makes this retainer highly versatile for a wide range of applications in many industries.

| Part Number | Hole Size | Panel Range - mm | Neck Dia. | Dog-house Thk (B) | Body Length (Ref) |
|------------------|-----------|------------------|-----------|-------------------|-------------------|
| 08800593-POM07 | 9 | 0.8 | 5 | 2.75 | 15.6 |
| 08800516-97 | 9 | 0.8 | 5 | 2.75 | 10.75 |
| 08S00076-POM02R1 | 9 | 1.5 | 5 | 2.75 | 21.05 |
| 08800614-POM02R1 | 9 | 3 | 5 | 2.5 | 20.3 |



PANEL FASTENERS

W-Base (w/ Foam)

| Part Number | Hole Size | Panel Range - mm | Neck Dia. | Dog-house Thk (B) | Body Length (Ref) |
|------------------|-----------|------------------|-----------|-------------------|-------------------|
| 08800589-POM02 | 6.5 | 0.7-0.8 | 5 | 1.75 | 12.05 |
| 08800550-POM11 | 9 | 0.08 | 5 | 2.75 | 15.6 |
| 08800712-97 | 9 | 0.6-0.9 | 5 | 2.75 | 23.75 |
| 08800584-POM02R1 | 9 | 0.7-1.1 | 5 | 2.75 | 16.3 |
| 08800607-97 | 9 | 1 | 5 | 2.75 | 19 |



Centerlok

Centerloks provide serviceable and reusable panel fastening with low insertion and medium high retention. Used mostly in exterior trim hidden fastener applications and is a great replacement for W-Bases when a serviceable fastener is required.

| Part Number | Hole Size | Panel Range - mm | Neck Dia. | Dog-house Thk (B) | Body Length (Ref) | Additional Notes |
|----------------|-----------|------------------|-----------|-------------------|-------------------|------------------|
| 08800781-POM03 | 9 | 0.7-1.2 | 5 | 2.75 | 19.5 | With Foam |
| 08800963-POM01 | 9 | 0.7-1.2 | 5 | 2.75 | 20.5 | With Foam |
| 08800938-C02 | 9 | 2-2.5 | 5 | 2.3 | 25.8 | |
| 08800939-C02 | 9 | 2-2.5 | 5 | 2.3 | 19.8 | |
| 08800809-97 | 9 | 2.3-2.5 | 5 | 2.6 | 19.35 | With Foam |



Special Note -
Please contact EFC
for specific set up
height details

Push Pins – Dart/Canoe Style

Push Pins, also known as dart type fasteners, are versatile in design for a wide range of applications. When light retention is required, plastic Push Pins can be used as hole plugs, bearings or spacers. They are well-suited for simplified assembly or products knocked down for consumer assembly.

FEATURES & BENEFITS

Advantages of plastic Push Pins include resistance to corrosion, shock and vibration. In addition, Push Pins will not work loose.

| Part Number | Panel Range (Max/Min) | Hole Dia. Nominal | Overall Height | Head Dia. | Head Height | Prong Length |
|------------------|-----------------------|-------------------|----------------|-----------|-------------|--------------|
| 36P5000271-POM03 | 1.6 - 3.2 | 3.8 | 11.3 | 6.9 | 1.3 | 10 |
| 03417002-A02LL | 2.03 - 2.54 | 3.175 | 9.4 | 6.9 | 1.02 | 8.38 |
| 03417024-A02LL | 2.54 - 4.06 | 4.75 | 12.62 | 9.53 | 1.52 | 11.1 |
| 03408001-A02 | 3.18 - 4.06 | 4.75 | 16.54 | 8.26 | 1.91 | 14.63 |



Dart Type, Circular Tree, Ratchet Fasteners

Fir Tree Fasteners, X-Mas Tree, or Tree Type Fasteners, hold two panels together without the need for screws or secondary fastening products. The barbed feature of Fir Trees easily grabs the panels when applied with minimal force.



| Part Number | Fin Style | Hole Size | Panel | | Head Dia. | Head Height | Fin Length | Notes |
|------------------|---------------|-----------|---------|------|-----------|-------------|------------|------------------------|
| 08602024-A03Q | Combo Fin | 4.7 | 1.5 | 7.9 | 17 | 1.4 | 12.5 | |
| 08800089-A03Q | Split Annular | 4.75 | 0.76 | 4.6 | 11.1 | 1.7 | 12.2 | |
| 02628009-A03QCF | Split Annular | 4.75 | 0.76 | 5.85 | 18.6 | 2.5 | 12.24 | |
| 08800100-A03Q | Full Annular | 5 | 0.7 | 4 | 10 | 1 | 12 | |
| 70008933-A02 | Split Annular | 5 | 1.5 | 7 | 10 | 1 | 15.7 | |
| 08800478-PA6603 | Full Annular | 5 | 2.5 | 9 | 13 | 1.8 | 15 | |
| 08800074-ZY03 | Full Annular | 5 | 2.8 | 3.3 | 11 | 1.8 | 8 | |
| 08800841-A02 | | 5 | 0.8 | 4.8 | 10.9 | 2.7 | 10.8 | |
| 02C700249-PA6603 | | 5 | 1.2 | | 8 | 1.5 | | |
| 02689012-A03QCF | Split Annular | 5.53 | 1.5 | 11 | 12.9 | 2 | 19.7 | |
| 08800418-A03-R1 | Low Force | 5.79 | 5 | 19 | 15 | 1.8 | 27 | |
| 08800127-AHS03 | Split Annular | 6 | 0.8 | 3.9 | 17 | 2.5 | 9.9 | |
| 08800079-A03Q | Low Force | 6.3 | 0.8 | 10 | 18 | 2.5 | 20.5 | |
| 08800016-A03Q | Full Annular | 6 | 0.9 | 5 | 12.5 | 1.5 | 11.1 | |
| 08800016-A03Q | | 6 | 0.9 | 5 | 12.5 | 1.5 | 11.1 | |
| 70009187 | Split Annular | 6.3 | 2 | 6 | 17.78 | 2.5 | 15.5 | |
| 08800164-A03Q | Split Annular | 6.3 | 2 | 6 | 17.8 | 2.5 | 14.5 | |
| 08800008-A03Q | Split Annular | 6.3 | 2 | 13.5 | 17.8 | 2.5 | 20.4 | |
| 02628013-T03QCF | Split Annular | 6.35 | 2.3 | 18.4 | 17.8 | 2.5 | 27 | |
| 02628003-A02Q | | 6.35 | 2.54 | 8.64 | 17.78 | 2.54 | 15.5 | |
| 02628002-A02Q | | 6.35 | 2.79 | 14.2 | 17.78 | 2.54 | 20.32 | |
| 02689124-A03QCF | Split Annular | 6.6 | 2 | 10.1 | 12.5 | 1.8 | 20 | |
| 09300012-9902 | | 6.6 | | | 1.62 | 1.35 | | |
| 08800109-A03Q | Split Annular | 6.7 | 2.7 | 7.5 | 23 | 2.6 | 19.8 | |
| 08800015-A02Q | | 6.76 | 2.5 | 2.5 | 19.1 | 2.9 | | Tree clip for Doghouse |
| 08800364-C02 | | 7 | various | - | 20 | 2.8 | | Tree clip for Doghouse |
| 08800306-A08 | | 7 | 0.5 | 7 | 22.9 | - | | Tree clip for Doghouse |
| 08800138-B03 | Low Force | 7 | 1 | 13 | 19 | 2.5 | 26.3 | |
| 08800287-A30 | Low Force | 7 | 1 | 13 | 25.4 | 2.5 | 26.3 | |
| 08800254-A03 | | 8.2 | 1.8 | 4.2 | 18 | 0.8 | | Tree clip for Doghouse |
| 08800034-AHS03 | Split Annular | 8.65 | 1.4 | 10 | 16 | 2.5 | 19 | |
| 08800049-A03Q | Split Annular | 10 | 1.5 | 20 | 21.5 | 4 | 28.3 | |
| 02689113-A03QCF | Split Annular | 10.31 | 2.3 | 11 | 25.4 | 2.5 | 21 | |
| 36P5000289-5107 | | | | | | | | Panel clip with tree |

PANEL FASTENERS

Pin & Grommet Trim Clips

Pin & Grommet Trim Clips are two-piece, reusable panel fasteners that fit 7.00-12.00mm diameter holes with low insertion values. Pin and Grommet Trim Clips are available in a single-position or a multi-position design. Their performance values can be customized for most applications, and foam seals can be included as needed.



| Part Number | Hole Size | Panel Range | | Neck Dia. | Dog-house Thk | Body Length (Ref) | Special Feature |
|----------------|-----------|-------------|-----|-----------|---------------|-------------------|-----------------|
| 08800820-97 | 8.2 | 1.1 | 1.3 | 4.3 | 1.8 | 12.9 | Overmold Seal |
| 11X20089-POM03 | 9 | 0.8 | 1 | 7.5 | 2.5 | 20.8 | |
| 08800410-C02 | 9.1 | 0.65 | 1.9 | 6.1 | 3 | N/a | Overmold Seal |
| 11X20092-F256 | 9.1 | 0.7 | 1 | 4.75 | 2.8 | 24.5 | |
| 08800714-97 | 9.1 | 1.5 | 2.8 | 8.5 | 4.95 | N/a | Overmold Seal |
| 08800413-97 | 9.5 | 2 | 3 | 4 | 3 | 16.9 | |
| 08800322-C07 | 9.5 | 2.1 | 3.1 | 6.5 | 2.6 | 17 | |

Special Note -
Please contact EFC for specific set up height details

Weatherstrip Clips

Weatherstrip Clips are designed to retain in the weather strip during shipping and then fasten the weather strip to the vehicle. They typically incorporate a T-Head to retain in the soft weather strip.



| Part Number | Hole Size | Panel Thickness (mm) | Body Style | Special Feature |
|-----------------|-----------|----------------------|------------|-----------------|
| 08800520-AHS03 | 4.6 | 0.8-1.1 | Tree | |
| 08800924-A07 | 4.9-5.3 | 0.65-1.60 | Wing | |
| 08800843-A03 | 4.9-5.1 | 0.8-1.6 | Wing | |
| 08801019-VY14 | 5 | 0.7-3.3 | Tree | |
| 08800457-PA6603 | 5 | 0.75-5.0 | Wing | |
| 08800341-PA02 | 5 | 0.8-2.7 | Tree | Overmold |
| 08800854-PA46 | 5 | 0.8-2.7 | Tree | Overmold |
| 08800850-A02 | 5 | 0.8-2.7 | Tree | Overmold |
| 08800501-A02R1 | 5 | 1.1-6.6 | Tree | |
| 08800106-A08 | 5 | 2.0-2.25 | | |

| Part Number | Hole Size | Panel Thickness (mm) | Body Style | Special Feature |
|-----------------|-----------|----------------------|------------|-----------------|
| 08800431-A03 | 5.0-5.6 | 3.5-4.0 / 5.0-5.6 | Wing | |
| 08800701-A02R1 | 5.1 | 0.65-1.6 | Wing | |
| 08800590-PA6602 | 5.2 | 1.92-2.05 | W-base | |
| 08800592-PA6602 | 5.3 | 0.74-2 | Wing | |
| 08800737-ZY03 | 6 | 0.8-3.0 | Tree | |
| 08800839-VY03 | 6.6 | 0.6-7.8 | | |

Floor Mat Clips

Floor Mat Clips are designed to keep car floor mats in place by clipping into the floor and hooking the mat. They are available in various shapes, sizes and colors. Parts sold as carpet mat systems. Please contact EFC for additional details.



Tuflok® Push Pin Rivets

Tuflok® Push Pin Rivets are one-piece fasteners with a pre-driven pin that quickly installs by hand or with automatic equipment.

APPLICATIONS:

- ▶ Front-mounted, removable, reusable push-type plastic rivets are ideally suited for any application requiring a dependable vibration-resistant panel fastener.
- ▶ Please contact EFC International directly for availability of sizes, materials and colors not listed below.



TUFLOK RIVET

| Part Number | Special Feature | Hole Size | Panel | | Prong Length | Flange Dia. |
|----------------|-----------------|-----------|-------|-----|--------------|-------------|
| 08800052-A03Q | | 6 | 2 | 6 | 18.8 | 15 |
| 08100260-VY03 | | 6.25 | 5 | 7 | 16.3 | 17 |
| 08800249-A03Q | Ergo | 6.5 | 4.5 | 7 | 20 | 18 |
| 08800587-AHS03 | | 7 | 3 | 7.5 | 18 | 18 |
| 08800738-POM03 | | 8 | 1.5 | 6 | 17 | 20 |
| 08601034-A03Q | | 8 | 3 | 8 | 21 | 16 |
| 08800259-A03Q | Ergo | 8 | 5 | 7 | 16 | 19 |
| 08800181-A03Q | | 8.5 | 4 | 8 | 23 | 18 |
| 08800339-A03 | Ergo | 8.5 | 4.5 | 7 | 21.5 | 20 |

SCREW TYPE

| Part Number | Hole Size | Panel | | Prong Length | Flange Dia. |
|---------------|-----------|-------|------|--------------|-------------|
| 08800161-A03Q | 5.8 | 3 | 5 | 17.5 | 11 |
| 08800033-A03Q | 6.3 | 2.5 | 8 | 22.8 | 15.5 |
| 08800190-A03Q | 7 | 13.5 | 15.5 | 30.8 | 12.7 |
| 08800122-A03Q | 8 | 3.5 | 8.5 | 20 | 15 |

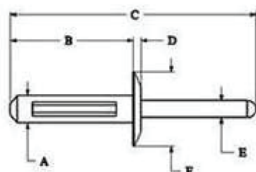
Expansion Type R-Lok® (Plastic Rivets)

Expansion Type R-Lok Plastic Rivets® are unique, one piece design of these Standard Plastic Expansion Rivets provides an enlarged bearing surface that will hold panels together securely without restricting thermal expansion. These rivets quickly insert from either side of the assembly and can be used with most standard pop rivet setting tools. As the tool pulls the pin through the body, it draws the panel together. When set, the pin breaks off even with the head, leaving an attractive, finished appearance. They are particularly effective for soft materials such as rubber, urethane or padded fabrics.



APPLICATIONS:

- ▶ Under front/rear air dam or fascia
- ▶ Wheel-well liners
- ▶ Bracket attachments
- ▶ Cargo net attachments
- ▶ Body side moldings



| Part Number | Hole Dia. | Panel Range | Pin Dia. (A) | Body Length | Overall Length (Ref) | Flange Thickness | Body Dia. | Flange Dia. |
|---------------|-----------|--------------|--------------|-------------|----------------------|------------------|-----------|-------------|
| 70009079 | 5 | 3 - 4.5 | 2.9 | 20 | 48 | 1.8 | 4.95 | 12 |
| 08800310-AC03 | 5 | 3 - 4.0 | 2.9 | 16.5 | 46.5 | 1.8 | 4.95 | 9 |
| 08605012-A03Q | 5 | 3.00 - 6.00 | 2.9 | 20 | 48 | 1.8 | 4.95 | 12 |
| 08605015-A03Q | 5 | 6.00 - 10.00 | 2.9 | 25 | 51 | 1.8 | 4.95 | 12 |
| 27R100369-96 | 6 | 2.99 - 5.99 | 4 | 16.99 | 46.1 | 2.1 | 6 | 12.3 |
| 08800238-A03Q | 6 | 4 - 8.5 | 3.5 | 28 | 56 | 2.5 | 5.95 | 13 |
| 08800020-A03Q | 6.25 | 4.00 - 10.00 | 3.8 | 28 | 56 | 2.5 | 6.25 | 17 |
| 70009082 | 6.3 | 4.00 - 10.00 | 3.9 | 28 | 56 | 2.5 | 6.25 | 13 |
| 27R400118-26 | | .039 - .354 | | | | | | |
| 03401030-A02 | 0.187 | .156 - .281 | | | | 0.437 | | |

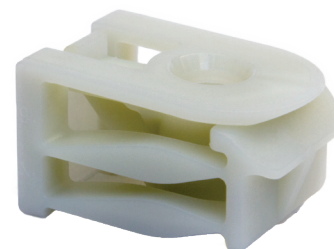
PANEL FASTENERS

Plastic U-Nuts (Vario Clips)

Plastic U-Nuts (Vario Clips), unlike metal clips, allow for easier recyclability when used in plastic substrates (like instrument panels, for example).

FEATURES & BENEFITS

- ▶ Plastic U-Nuts do not rust
- ▶ The use of molded Vario-Clips accommodates screws designed for forming their own threads into plastic with inherent prevailing torque to prevent loosening.



| Part Number | Screw Size | Installation Hole Offset | Installation Hole Diameter |
|-----------------|--------------------|--------------------------|----------------------------|
| 08600932-PA6G07 | Plastic Tapping M5 | 10.5 mm | 7.5 mm |

Riblok™

Riblok™ plastic trim clips are highly versatile and perfect for metal or plastic garnish trim and access panels. Riblok™ panel fasteners for metal panels have thinner legs to provide flexibility both into and out of the panel. Those designed for plastic panels have thicker legs for customized performance.

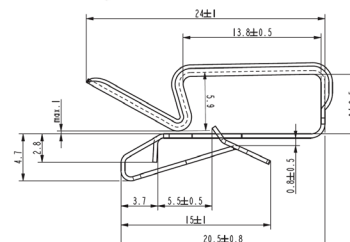
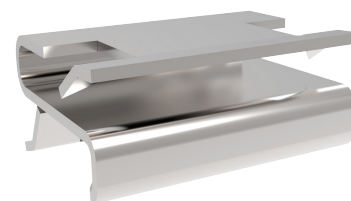


| Part Number | Additional Feature | Slot Size (mm) | Panel Thickness (mm) |
|----------------|--------------------|------------------|----------------------|
| 08800486-POM02 | One-Sided | 4.75x16.00 | 1.50 - 5.00 |
| 08800658-POM02 | Low Profile | 6 x 12.5 | 1.5 - 3 |
| 08800575-POM11 | High Retention | 6.00x12.50 (min) | 1.50 - 5 |
| 08800416-C02 | | 6.00x12.50 (min) | 1.50 - 6.50 |
| 08800594-POM08 | Low Insertion | 6.00x12.50 (min) | 1.50 - 6.50 |

| Part Number | Additional Feature | Slot Size (mm) | Panel Thickness (mm) |
|-----------------|--------------------|------------------|----------------------|
| 08800640-POM03 | | 8 x 14 | 1.5 - 4 |
| 08800836-GFPA10 | | 6.00x12.50 (min) | 1.50 - 5 |
| 08801003-POM07 | | 6.00x12.50 | 1.50 - 6.50 |
| 08800958-POM03 | | 8.0x14.0 | Max 4.0 |
| 08800219-C02Q | | 8.50x16.00 | 1.50 - 5.00 |

Metal Clips

Metal Clips are used for joining panels with spring cushion fastening that prevents chipping or crazing from expansion or strains in handling of delivery, eliminating defects in panels or flanges.



PANEL FASTENERS

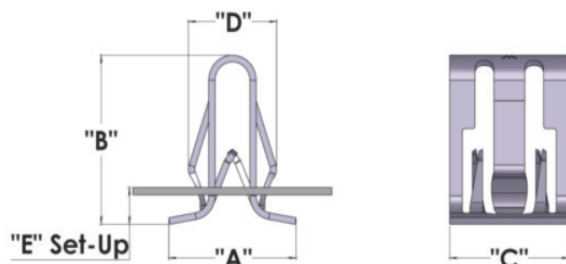
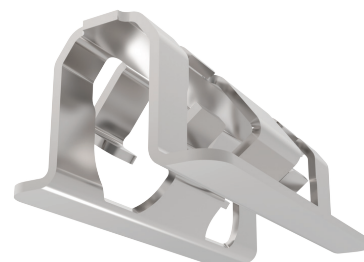
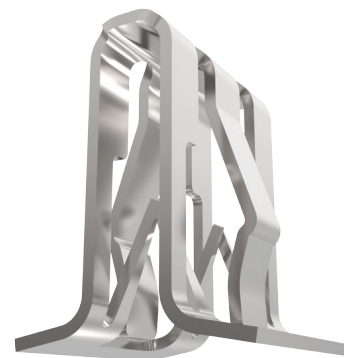
Standard Trim Clips

Standard Trim Clips are ideally suited for trim strips, access plates or any light application where removability is important. Standard Trim Clips are designed for use over rectangular studs or integrally-molded blade ribs. This Trim Clip attaches onto the rib with push-on force. Then the assembly easily mates with the structural panel with a push-to-snap-in force. Insertion and pull-out forces vary depending on the mating panel hole configuration, panel thickness and finish.

FEATURES & BENEFITS

- ▶ Perfect for blind side assembly
- ▶ Removable and reusable
- ▶ Self-retained
- ▶ Provides unblemished exposed panel surfaces
- ▶ Snug, rattle-free installation provided by self-equalizing retaining legs which form into a dart-type configuration

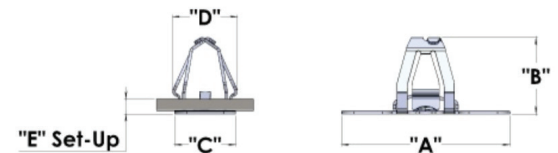
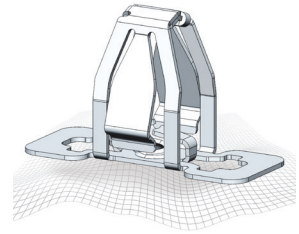
| Part Number | Panel Thickness | Panel Material | Slot Width | Set Up (E) | Part Height (B) | Part Width (C) |
|-----------------|-----------------|----------------|------------|------------|-----------------|----------------|
| 11X20063-CH16 | 0.7/1.2 | Steel | 5.75/6.25 | 1.85 | 16.8 | 12 |
| 11X20091-FD7 | 0.7/1.5 | Steel | 6.75/7.25 | 5.9 | 15.8 | 12 |
| 01500761-3965 | 0.7/2.0 | Steel | 5.3/5.7 | 5.6 | 7.8 | 10.1 |
| 01500131-3963 | 0.7/2.5 | Steel/Plastic | 5.7/6.2 | 6.5 | 14.7 | 8.5 |
| 119400374-FD7 | 0.7/2.5 | Steel/Plastic | 4.75/5.25 | 10 | 18 | 10 |
| 36M000133-3250 | 0.7/3.0 | Steel/Plastic | 7.75/8.25 | 9.3 | 14.5 | 9 |
| 01500410-442 | 0.7/3.0 | Steel/Plastic | 8.0/8.5 | 12.2 | 16.5 | 11 |
| 33002114-96 | 1.0/3.0 | Steel/Plastic | 7.75/8.25 | 5.0 | 14 | 12.7 |
| 01500073-00Q | 1.2/1.4 | Steel | 5.7/6.2 | 12.5 | 18.2 | 9.5 |
| 01500070-24 | 1.2/2.5 | Steel/Plastic | 6.3/6.7 | 6 | 9.5 | 10.1 |
| 11X20043-FD7 | 1.5/3.0 | Steel/Plastic | 5.75/6.25 | 4.35 | 12 | 12 |
| 11X20060-CH16 | 1.5/3.5 | Steel/Plastic | 5.75/6.25 | 7.0 | 16.5 | 11 |
| 11X9400436-99 | 1.5/3.5 | Plastic | 7.75/8.25 | 7 | 16.5 | 9 |
| 166001000-F256 | 1.5/6.5 | Plastic | 5.8/6.2 | 9 | 13 | 8.3 |
| 36M00023-06Q | 1.9/2.1 | Plastic | 4.4/4.6 | 1.9 | 5.4 | 15.6 |
| 36M000231-96 | 1.9/2.1 | Plastic | 4.4/4.6 | 2.1 | 5.4 | 15.6 |
| 36M000008-FD565 | 2.6/2.8 | Plastic | 7.9/8.1 | 12.5 | 16.6 | 8.6 |
| 01500442-3255 | 2.0/3.0 | Plastic | 5.7/6.2 | 8 | 14.7 | 11 |
| 11X00010-G19 | 2.5/3.0 | Plastic | 5.7/6.2 | 4.5 | 15.5 | 12 |



High-Retention Clips

High-Retention Clips provides a robust engineering solution for high-retention needs. The two-winged design provides lower insertion efforts, reduces partial installation while retaining high extraction values. Available in a variety of “set-up heights” and “foot-prints”.

| Part Number | Slot Size | Panel Thick | Min Retention (lbs.) | Width (A) | Height (B) | Set-Up (E) |
|---------------|-----------|-------------|----------------------|-----------|------------|------------|
| 11X20067-CH52 | 9.0x13 | 0.7-3.0 | 250 | 16 | 18.1 | 4 |
| 11X20074-G51 | 9.2x11.2 | 0.7-2.5 | 250 | 16 | 18.1 | 4.1 |
| 11X20056-G51 | 10.0x20 | 1.7-1.8 | 300 | 20.5 | 22.8 | 5.7 |
| 11X20167-G14 | 12.2x20 | 0.7-2.0 | 300 | 26 | 20.1 | 2.8 |
| 11X20116-G19 | 12.2x20 | 1.1-3.0 | 300 | 26 | 20.1 | 3.9 |
| 11X20198-165 | 12.8x20 | 1.0-1.2 | 250 | 23.9 | 20 | 1.9 |
| 11X20153-FD7 | 12.8x20 | 1.0-1.2 | 250 | 43 | 20 | 1.9 |



U-Clips

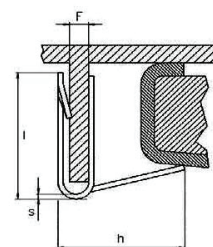
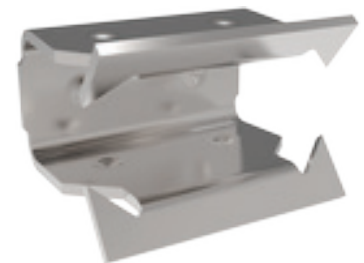
U-Clips are used for clamping and combining panels together, retaining routing and insulation, or providing a spring catch. U-Clips allow quick assembly, and do not need holes, welding, screws or rivets. They can also be designed to apply a more delicate spring tension on fragile surfaces.

FEATURES & BENEFITS

- ▶ Increased grip range
- ▶ Externally threaded receptacles for use in castings or on panels with a retaining nut
- ▶ Encapsulated design, splash-proof

| Part Number | Panel Thickness | Part Width | Part Length |
|-----------------|-----------------|------------|-------------|
| 01500958-00Q | 2.7 - 2.9 | 10 | 12.6 |
| 36M000142CA-ZT2 | 2.7 - 3.7 | 13.5 | 14.1 |
| 02P800168-47 | 4.5 - 6.5 | 12.5 | 15.6 |

| Part Number | Panel Thickness (Max/Min)(F) | | Leg Height (h) | Part Width | Part Length (l) | Material Thickness (s) |
|---------------|------------------------------|------|----------------|------------|-----------------|------------------------|
| 01500412-3963 | 3.10 | 1.10 | 1.00 | 18.00 | 17.5 | 0.640 |

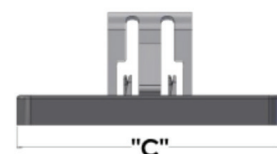
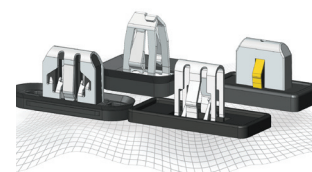
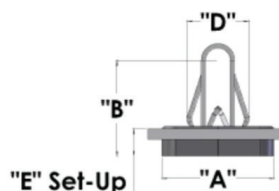


PANEL FASTENERS

Sealed U-Based Clips

Sealed U-Based Clips provide complete dust, air and water seal fastener that you are looking for without foam gaskets. Available in various sizes, materials, orientations, styles and “set up heights.”

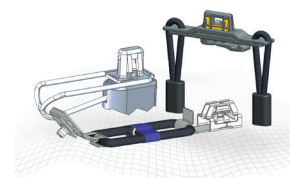
| Part Number | Slot Width | Panel Range | Width (A) | Length (C) | Height (B) | Set-Up (E) |
|----------------|------------|-------------|-----------|------------|------------|------------|
| 11X00015MOD-97 | 6 | 0.7-1.0 | 15 | 38 | 16.9 | 3.4 |
| 11X00015-97 | 6 | 0.7-1.5 | 15 | 35 | 16.1 | 2.7 |
| 11X20037-S439 | 6 | 0.7-1.7 | 17 | 33.7 | 19.7 | 5.2 |
| 11X20197-168 | 6 | 0.7-1.7 | 17.7 | 38.9 | 19.7 | 5.2 |
| 11X20024-FD1 | 6 | 0.9-2.2 | 14 | 36.7 | 21.5 | 3.7 |
| 11X20072-S439 | 6 | 0.9-2.2 | 14 | 36.7 | 21.5 | 3.7 |



Tether Clips

Tether Clips are utilized on vehicle components interfacing with air curtains. Tethers allow your part to move thus permit the air curtain to deploy, without becoming a projectile. Available with various levels of protection and assembly methods.

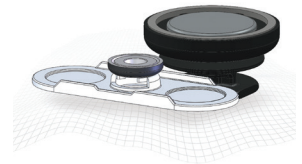
| Part Number | Slot Width | Panel Thick | Max Insertion (lbs.) | Length | Height | Set-Up |
|----------------|------------|-------------|----------------------|--------|--------|--------|
| 11X20051-97 | 6 | 0.8-1.5 | 18 | 82 | 32.7 | 8.1 |
| 11X20057-97 | 6 | 0.8-1.5 | 18 | 72.9 | 26.5 | 8.1 |
| 11X20052-97 | 6 | 0.8-1.7 | 18 | 82.4 | 33.6 | 8.1 |
| 11X20123-G19 | 6 | 0.8-2.0 | 18 | 141.8 | 14.6 | 2.3 |
| 11X20036-AHS03 | 6 | 1.8-2.25 | 18 | 99.1 | 18.7 | 4.1 |
| 11X20101-03 | 10 | 0.9-1.2 | 18 | 80.4 | 18.9 | 3.8 |



Magnets

Magnets are designed to be a robust and flexible solution when traditional fastening methods are not possible. Magnets provide “zero” insertion efforts while providing a reliable and consistent extraction force. Available in various holding strengths, shapes and sizes.

| Part Number | Panel Thick | Width (A) | Dog-House Thick (C) | Set-Up (D) |
|-------------|-------------|-----------|---------------------|------------|
| 11X20134-96 | 1 | 15 | 2 | 6.7 |
| 11X20148-99 | 1 | 15 | 2 | 10.8 |
| 11X20107-03 | 1 | 20.5 | 2 | 10.8 |



Quick Release Fasteners

Quick Release Fasteners, draw latches, solid inserts, locks, hinges, handles and customized solutions providing quick and easy latch engagement systems from low-load to heavyduty lock applications in industrial equipment. The toughness and reliability of these fastening systems ensure the security of your applications. Suitable for use in virtually any industrial applications and some with a wide range of customization options available to ensure you get the perfect fastener for your requirements

FEATURES & BENEFITS

- ▶ Quick release fasteners are captive—they remain attached to the machine or guarding when removed.
- ▶ Provide better sealing under vibration conditions.
- ▶ Draw latches provide an adjustable method for securing machine and equipment parts that must be opened or removed frequently.
- ▶ Locks, hinges and handles offer fixings for industrial door applications.
- ▶ A wide range of finishes and coatings available.
- ▶ Ensure the security and safety of your applications.



Rivet Nuts

Rivet Nuts (also known as blind threaded inserts or blind threaded rivets) provide strong and reusable permanent threads in sheet materials where only one side is accessible for hardware installation. These inserts can be installed before or after finish, with pneumatic/hydraulic tools or special rivet tools available directly through EFC International.

FEATURES & BENEFITS

- ▶ Increased push out loads
- ▶ Superior thread strength provided by cold formed internal threads
- ▶ Superior corrosion resistance provided by standard cadmium finish (72hrs. Salt spray), and others available
- ▶ Uniform installation guaranteed due to dimensional and concentricity tolerances their cold forming process creates.
- ▶ EFC now offers rivet nuts for carbon fiber and composites.



| Part Number | Dia. | Mtg Hole | Grip Range |
|--------------|-----------|----------|---------------|
| 06A0200416 | 1/4 - 20 | 0.375 | 0.165 - 0.260 |
| 06A691021 | 5/16 - 18 | 0.500 | 0.027 - 0.150 |
| 06A031420 | 10 - 24 | 0.375 | 0.027 - 0.150 |
| 06A0200455 | M6 | 9.100 | 2.400 - 4.500 |
| 06A700375 | M6 | 9.530 | 0.700 - 4.200 |
| 06A0200627 | M6 | 9.530 | 4.200 - 6.600 |
| 10S000373 | M6 | 10.000 | 0.700 - 4.200 |
| 06B000021-96 | M8 | 11.000 | 2.500 - 5.000 |



EFC Offers BBA Rivet Nuts

THE fastening solution
for carbon fiber,
fiberglass or ceramic
sheet materials.

Rivets

FEATURES & BENEFITS

- ▶ Perfect for inconsistent grip ranges or oversize out of round holes typical in plastics.

| Part Number | Diameter | Mtg Hole | Grip Range |
|-----------------|----------|-------------|-------------|
| 27100596-19 | .125 | .129 - .133 | .063 - .125 |
| 27100304-26 | .156 | .160 - .164 | .140 - .375 |
| 26400138-FD17Q | 1/4 | .252 - .262 | .187 - .375 |
| 26315516-00Q | 1/4 | .244 - .270 | .187 - .375 |
| 27G00267-26 | 3/16 | .201 - .203 | .040 - .250 |
| 27G00209-26SS | 5/32 | .157 - .165 | .139 - .354 |
| 27100283-26-144 | 3/16 | .192 - .196 | .188 - .250 |
| 27100156-46 | 3/16 | .196 - .209 | .040 - .354 |
| 26400088-2603Q | 3/16 | .197 - .207 | .040 - .354 |
| 27100314-49B | 3/16 | .193 - .198 | .062 - .250 |



SELF-RETAINING NUTS

Mid-Panel & Box Nuts (Single + Multi-Thread)

Vibration-resistant fasteners that provide quick attachment in blind or center-panel locations have spring legs for self-retaining in rectangular holes. If permanent retention is required, a special locking tab can be provided. Easy to apply, Expansion Nuts can be used in place of weld-, clinch-, or stake-type fasteners. No masking is required.

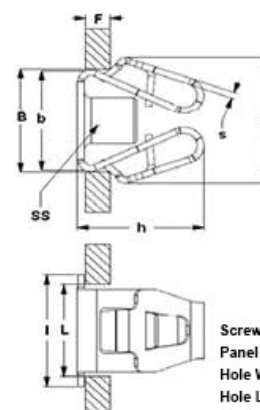
Box style expansion nuts reinforce the attachments and provide low-failure risk primarily in sheet metal applications. Tapered robotics expansion nuts are suited to automation in plastic and metal panels. Available in tapped barrel, key-hole, and speed-nut thread impressions, the tapped barrel offers the strongest attachment and is most beneficial in high volume applications.

FEATURES & BENEFITS

- ▶ One-piece, self-retaining
- ▶ Multiple thread strength and reliability
- ▶ Prevailing torque on screw is inherent
- ▶ Screw will not loosen due to vibration, panel set or migration

| Part Number | Screw Size (SS) | Panel Thickness (Max/Min)(F) | | Hole Width (B) | Hole Length (L) | Height (h) |
|------------------|-----------------|------------------------------|-----|----------------|-----------------|------------|
| 01500726-3963 | M4.2X1.41 | 2.5 | 2.1 | 10.0 | 13.5 | 12.4 |
| 01500012-15Q | M4.2X1.41 | 2.8 | 2.3 | 11.0 | 9.0 | 12.3 |
| 166000733-F213Q | M4.2x1.41 | 2.8 | 2.3 | 11.1 | 9.1 | 12.9 |
| 01500918-3975 | M4.2X1.41 | 4.0 | 2.0 | 11.1 | 16.0 | 10.1 |
| 02P800120-15 | M4.2X1.41 | 4.4 | 3.8 | 11.1 | 12.8 | 12.7 |
| 01500135-GMW3359 | M6x1.0 | 2.5 | 2.0 | 14.9 | 14.9 | 15.0 |
| 01500771-3963 | M6x1.0 | 2.5 | 2.0 | 15.0 | 14.2 | 15.0 |

| Part Number | Screw Size (SS) | Panel Thickness (Max/Min)(F) | | Hole Width (B) | Hole Length (L) | Height (h) |
|----------------|-----------------|------------------------------|-----|----------------|-----------------|------------|
| 166000736-F213 | M4.2x1.41 | 1.5 | 0.7 | 8.6 | 8.6 | 6.5 |
| 166000965-F213 | M4.2x1.41 | 3.0 | 1.5 | 11.1 | 16.0 | 7.9 |
| 166000980-F213 | M6x1.0 | 1.2 | 0.7 | 13.9 | 11.4 | 10.8 |



Screw Size (SS)
Panel Thickness (F)
Hole Width (B)
Hole Length (L)
Height (h)



Cage Nuts

Cage Nuts, also known as “nut retainers,” combine the best advantages of spring steel fasteners with the high strength of a multi-threaded nut. Self-retaining, these nuts snap readily into bolt-receiving position at center-panel locations. Call EFC for sizes.

FEATURES & BENEFITS

- ▶ Serviceable parts disassemble easily and reliably
- ▶ Self-retaining feature facilitates an easy installation
- ▶ Cage nuts maintain strong joints that withstand vibrations.



Single Thread Speed Nuts

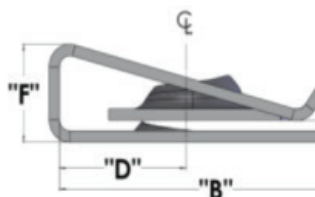
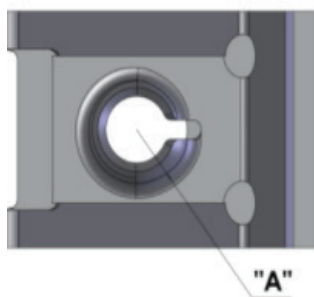
Single Thread Speed Nuts are self-retained in the screw-receiving position to provide simple and rapid attachment of mating panels. They will not turn when the screw is driven and will not corrode or freeze on screw threads. During assembly, these high-performance, single thread nuts are placed over the edge of a stamped panel, or through a pre-stamped slot, then pushed until the fastener inner back locates against the plastic or metal panel edge or snaps into the clearance hole.

They are available in an expansive variety of styles and sizes.

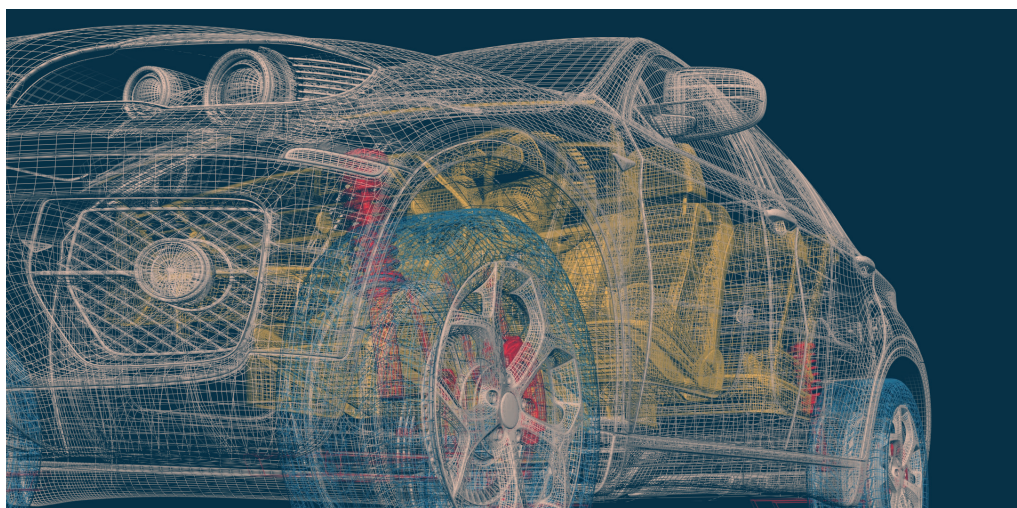
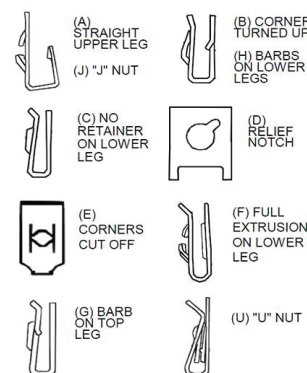
FEATURES & BENEFITS

- ▶ Lowers Production Costs - easy and faster assembly with no special tools, welding or clinching
- ▶ Reduces Service Costs - lower maintenance, parts disassemble easily and reliably
- ▶ Single Component Design - minimizes inventories and handling

| Part Number | Screw Size | Panel Thickness (E) (Max/Min) | | Throat Distance (D) | Hole Dia. (A) | Part Width (C) | Part Length (B) |
|----------------|-----------------|----------------------------------|-------|---------------------|---------------|----------------|-----------------|
| 01179029-01Q | 8-16AB | 0.150 | 0.025 | 0.35 | 0.28 | 0.54 | 0.74 |
| 01115044-00Q | 10-16B & 10-12A | 0.125 | 0.102 | 0.45 | 0.28 | 0.62 | 0.70 |
| 02P800090-00 | M4.2x1.41 | 3.600 | 3.100 | 8.89 | 5.18 | 16.00 | 18.05 |
| 18S000240-565S | K50 PT | 4.000 | 0.800 | 10.80 | 7.20 | 15.00 | 20.30 |
| 166000888-F213 | M6x1.0 | 2.100 | 1.900 | 8.50 | 7.60 | 8.00 | 16.50 |



DESIGN VARIATIONS


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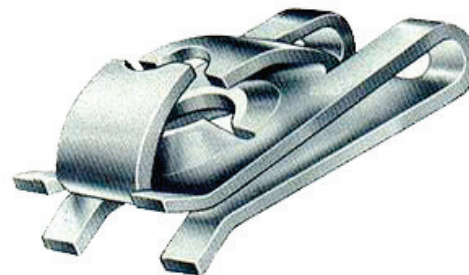
SELF-RETAINING NUTS

5-Prong Prevailing Torque U-Nuts

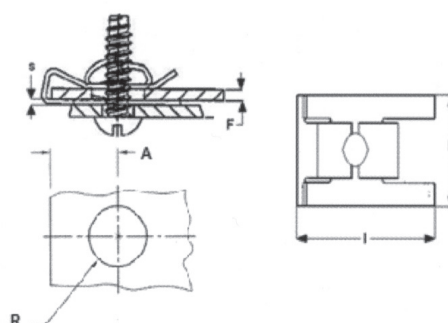
High-Torque U-Nuts are equally at home on metal or plastic. These unique fasteners bring extra strength, reliability and economy wherever vibration, impact or migration prevail.

FEATURES & BENEFITS

- ▶ Dual threads provide prevailing torque - extra strength
- ▶ Cross-threading eliminated
- ▶ Generous lead lips - fast, easy assembly
- ▶ No "freezing" to threads
- ▶ Self-locking
- ▶ Removable, reusable



| Part Number | Screw Size | Panel Thick. (F) (Max/Min) | | Throat Distance (A) | Hole Diameter (R) | Part Width (b) | Part Length (l) |
|-----------------|------------|-------------------------------|-----|---------------------|-------------------|----------------|-----------------|
| 01500069-450Q | M4.2x1.41 | 1.8 | 0.5 | 9.2 | 8.3 | 13.8 | 19.5 |
| 119400450-FD34 | M4.2x1.41 | 2.8 | 2.0 | 8.6 | 7.2 | 11.0 | 15.5 |
| 01500704-65 | M4.2x1.41 | 2.9 | 2.4 | 9.0 | 7.0 | 14.0 | 18.5 |
| 02P800090M-450B | M4.2x1.41 | 3.0 | 2.2 | 8.8 | 5.2 | 9.3 | 12.9 |
| 01500810D-450 | M4.2x1.41 | 3.5 | 1.8 | 9.6 | 8.3 | 23.8 | 19.5 |
| 36M000126-FD34 | M5-2.2x20 | 3.0 | 1.5 | 7.0 | 7.0 | 12.0 | 17.5 |



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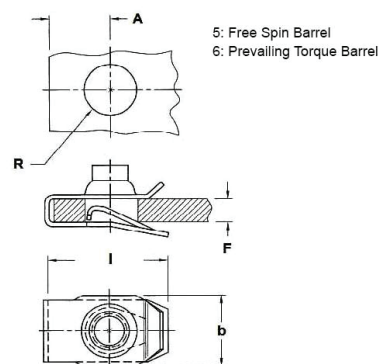
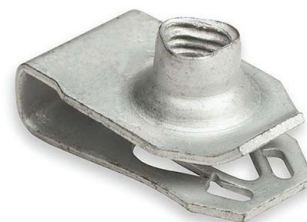
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FOR ADDITIONAL PRODUCTS

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Tapped Barrel SpringNut

The strength of the tapped barrel u-nut is equal to the machine screw used. It allows single-wrench tightening of the thread assembly.

| Part Number | Screw Size | Panel Thickness (Max/Min)(F) | | Throat Distance (A) | Hole Diameter (R) | Part Width (b) | Part Length (l) | Torque (nm) |
|--------------------|-------------|------------------------------|-----|---------------------|-------------------|----------------|-----------------|-------------|
| 166000026-F115 | M4.2x1.41 | 2.0 | 0.5 | 10.2 | 7.5 | 12.5 | 17.3 | 0.7 |
| 01500856-47 | M4.2x1.41 | 3.0 | 2.0 | 9.5 | 7.6 | 12.5 | 17.8 | 0.7 |
| 166000091-F213 | M4.2x1.41 | 3.0 | 2.0 | 9.6 | 7.9 | 12.5 | 16.8 | 0.7 |
| 166000085-F213 | M4.2x1.41 | 3.0 | 2.0 | 9.6 | 7.5 | 12.5 | 16.8 | 0.7 |
| 166000085-F115 | M4.2x1.41 | 3.0 | 2.0 | 9.6 | 7.6 | 12.5 | 17.8 | 0.7 |
| 16101041-FD07Q | M4.2x1.41 | 3.9 | 0.6 | 9.1 | 7.6 | 10.5 | 16.3 | 0.7 |
| 166000073-F147 | M4.2x1.41 | 3.9 | 0.6 | 9.1 | 7.6 | 12.5 | 16.3 | 0.7 |
| 36M000236-4000 | M5 | 4.0 | 0.5 | 6.8 | 6.0 | 12.0 | 15.2 | 0.7 |
| 166000729-F153Q | M6x1.0 | 2.5 | 0.5 | 12.2 | 7.0 | 16.0 | 21.8 | 0.8 |
| 02P605006-G34 | M6x1.0 | 2.5 | 1.0 | 19.5 | 10.3 | 14.5 | 29.5 | 0.8 |
| 36M000248-3200 | M6x1.0 | 4.0 | 0.5 | 11.0 | 8.5 | 15.1 | 22.3 | 0.8 |
| 166000748-F213G | M6x1.0 | 4.0 | 0.8 | 11.5 | 7.0 | 14.5 | 21.5 | 0.8 |
| 166000139-F115 | M6x1.0 | 4.0 | 0.8 | 13.5 | 10.0 | 14.5 | 23.5 | 0.8 |
| 02P696008-CH10 | M6x1.0 | 4.0 | 0.8 | 13.7 | 10.3 | 14.2 | 23.4 | 0.7 |
| 119400490-150 | M6 - 1.0-6H | 3.0 | 0.5 | 11.7 | 7.0 | 15.0 | 21.5 | 0.8 |
| 02P800125-132 | M6x1.0-6H | 3.5 | 2.5 | 12.5 | 8.4 | 15.0 | 24.0 | 0.7 |
| 166000200-F213 | M6x1.0-6H | 4.0 | 0.8 | 13.5 | 10.0 | 14.5 | 23.5 | 0.8 |
| 166000612-F213Q | M6x1.0-6H | 4.0 | 0.8 | 13.5 | 7.9 | 14.5 | 23.5 | 0.8 |
| 02P696001-01Q | M6x1.0-6H | 4.0 | 0.8 | 13.7 | 10.3 | 14.2 | 17.3 | 0.7 |
| 166000272-F213QG | M6x1.0-6H | 4.0 | 0.8 | 19.5 | 7.9 | 14.5 | 29.5 | 0.8 |
| 166000194-F003SRTG | M6x1.0-6H | 6.3 | 3.4 | 13.5 | 7.9 | 12.5 | 23.5 | 0.8 |
| 02P800168-47 | M8x1.25-6H | 5.5 | 1.5 | 21.0 | 11.0 | 17.0 | 31.5 | 0.8 |



Nut Plates

Nut Plates offer a lightweight, high-strength fastener with one or more drawn threaded sleeves attached to the mating component, with unlimited innovative features. They come in three types of attachment; snap-in-place, tab-in-place and weld-in-place.

FEATURES & BENEFITS

- ▶ Snap-In-Place retainers take advantage of the hardened spring steel used for nut plates to create a retainer and allow for float and proper assembly retention.
- ▶ Weld-In-Place are used where no adjustability is required.
- ▶ Tab-In-Place offer a low-cost, positive means of retaining the nut plate with tabs formed from the mating panel and allowing for float.
- ▶ These fasteners are one-fifth the weight of others, and their three attachment options will suit any of your needs.



Lightweight Tapping Screws

ALtracs® Plus screws are thread-forming fasteners developed for maximum strength values in light alloy assemblies and other non-ferrous metals such as zinc, copper or brass. The ALtracs® Plus is designed for direct assembly into cast holes. Compared to metric screws significant cost savings can be realized because the number of work steps is reduced (e.g. thread cutting).

| Part Number | Nom Size | Pitch | Thread | Length | Head/ Fling Dia | Head Ht | Finish |
|---------------|----------|-------|--------|--------|-----------------|---------|---------|
| 253000703-124 | AP30 | 0.5 | EXT | 8 | 6 | 2.4 | A2K/Wax |



Bolt Sleeve Assembly

Bolt Sleeve Assemblies are integrated bolt pre-captured compression limiting sleeve reduces part complexity, plastic fatigue and is easily integrated into molded assemblies.

| Part Number | Nom Size | Pitch | Thread | Length | Head/ Fling Dia | Head Ht | OD | ID | CMPL Fling Dia | CMPL Length |
|----------------|----------|-------|--------|--------|-----------------|---------|------|-----|----------------|-------------|
| 11C100211-Tran | M6 | 1.0 | EXT | 34.5 | 12 | 4.8 | 10.4 | 6.8 | 15 | 17.5 |



Anti-Creeping Rings

Anti-Creeping Rings merge panels, brackets and flexible/composite parts into assemblies that demand extreme prestressing, while optimizing strength-of-hold over time.

FEATURES & BENEFITS

- ▶ Anti-creeping rings transmit the locking torque of the screw while preventing plastic creeping, thus stabilizing the screwing points.
- ▶ A wide range of designs (elastic and non-elastic, round or oblong, etc.) available that are compatible with a variety of panel thickness.

| Part Number | Panel Thickness | Part Width | Part Length |
|----------------|-----------------|------------|-------------|
| 36M000241-5451 | 4 | 9.5 | 14.7 |





Compression Limiters & Isolators

Compression Limiters provide and maintain joint integrity of a plastic assembly. They are designed to protect the plastic components from the compressive force during the assembly of the mating screw or bolt.

FEATURES & BENEFITS

- ▶ Additional lengths and sizes available upon request to accommodate different compressive loads, tolerances and installation methods
- ▶ Press-in or molded-in applications

| Part Number | OD | ID | CMPL Fling | CMPL Length | Finish | |
|------------------|-------|------|------------|-------------|----------------|--|
| 10V03000003-FD37 | 10.18 | 7.18 | - | 12.3 | Zinc Nickel |  |
| 253000675-G14CF | 16 | 10.2 | 20.5 | 3.15 | GMW3359 Type A |  |



GripTide™ Inserts

GripTide™ Steel Threaded Inserts for Plastics are made from cold formed steel at lower material and manufacturing costs while still exceeding minimum torsion and pull out requirements.

FEATURES & BENEFITS

- ▶ **Strength of Steel** - No chips generated & requires less thread engagement than brass or aluminum
- ▶ **Drop-In** - Operates on conventional equipment
- ▶ **Less Price Volatility** than Brass or Aluminum
- ▶ **Positive Stop** - Flanged Top for positive stop for installation & large bearing surface for mating components
- ▶ **Quality** - Each part is automatically 100% inspected

| Part Number | Nom Size | Pitch | Thread | Length | Head/ Fling Dia | Head Ht | OD | Finish |
|-------------------|----------|-------|--------|--------|-----------------|---------|------|-------------------|
| 24A300090-100X-R1 | M5 | 0.8 | INT | 9.5 | 9.5 | 1.3 | 9.5 | Cold Formed Steel |
| 24A000493-100XMP | M6 | 1 | INT | 10.5 | 11 | 1.25 | 9.73 | Zinklad 1000 |
| 24A000559E-100X | M6 | 1 | INT | 12.7 | 14 | 1.25 | 9.73 | Zinklad 1000 |



GripTide™ Stud

| Part Number | Nom Size | Pitch | Thread | Length | Head/ Fling Dia | Head Ht | Washer Dia | Washer Thk | Shoulder Dia | Shoulder Ht | Patch | Finish |
|----------------|----------|-------|---------|--------|-----------------|---------|------------|------------|--------------|-------------|-------|--------------------|
| 24A000409-G192 | 6 | 1.4 | Ratchet | 25 | 13.25 | 4.97 | - | - | - | - | - | GMW3044 8k 240/120 |

Taptite 2000®

The **Taptite 2000®** provides the benefits of previous Taptite® fasteners with an innovative new thread design - the Radius Profile® thread. The Taptite 2000® maintains the low thread forming torque of Taptite II® fasteners, and maintains or increases the high failure torque and other structural characteristics attained with Duo-Taptite®. They provide the end-user enhanced opportunities to reduce overall costs of assembly.

FEATURES & BENEFITS

- ▶ Eases assembly
- ▶ Superior resistance to vibration loosening
- ▶ Increases drive-to-strip ratio and prevailing torque
- ▶ Lowers required drive torque and end load requirements

| Part Number | Nom Size | Pitch | Thread | Length | Head/Fling Dia. | Head Ht | ATF | Finish |
|---------------|----------|-------|--------|--------|-----------------|---------|-----|--------|
| 24M000350-FD7 | M6 | 1.0 | EXT | 25 | 13.6 | 6.8 | 8 | S439 |



T-Studs

T-Studs are designed to be preassembled into dog house applications. Designed for easy assembly and secured retention during transit of subassembled components.



| Part Number | Nom Size | Pitch | Thread | Length | Head/Fling Dia | Head Ht | Washer Dia | Washer Thk | Shoulder Dia | Shoulder Ht | Patch | Finish |
|----------------|----------|-------|--------|--------|----------------|---------|------------|------------|--------------|-------------|-------|---------|
| 25S3000771-G18 | M6 | 1.0 | EXT | 20 | 16 sq | 2.5 | 16 | 1.5 | 10.1 | 2.75 | 5.5 | GMW4205 |

OTHER INDUSTRIES SERVED » AGRICULTURE / LAWN & GARDEN



EFC provides a range of fasteners that thrive in the strenuous outdoor environment of Lawn & Garden Equipment and Agriculture. Uses range from wheel bolts to routing components to engine components and everything in between.

Double Ended Studs

Double End Studs are threaded rods featuring thread at both ends and a plain shank equal to that of the nominal diameter. Double end studs are used for high strength bolting and are commonly used for automotive or industrial applications.

| Part Number | Thread x Pitch | Length |
|-------------|-----------------|--------|
| 25S9000645 | M8x1.25 | 77 |
| 253001647 | 6x2.14 + M4x0.7 | 40.25 |



Weld Studs

Weld Studs are used in high load bearing structural applications where one-handed tightening is preferred, as in cockpit to body, seat and seat belt attachments, and hinge applications.



OTHER INDUSTRIES SERVED » MARINE / REC VEHICLES



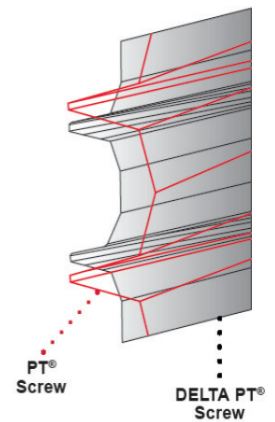
EFC is a global provider of specialty engineered fasteners, uniquely positioned to serve the Marine and Rec Vehicle industries which include RVs, golf carts, personal watercraft, utility vehicles, off-road and ATVs. EFC provides the best in engineered components to these industries and specializes in cost-saving initiatives for our customers.

Delta PT® Screws

Delta PT® Screws provide optimum thread forming without any material damage. The screws provide better clamp loads and increased joint life in a wide range of plastic materials.

FEATURES & BENEFITS

- ▶ Multi-compound 30° flank angle and root for dynamic safety
- ▶ Increased vibrational safety by improved pitch
- ▶ New designed flank geometry for a better deformation of the plastic material during the fastening process.
- ▶ Delta Calc Software validates applications, speeding engineering development time
- ▶ Reduces radial stresses
- ▶ Eliminates the need for inserts
- ▶ Allows for thinner and shorter boss designs
- ▶ Provides higher torsional and tensile strengths compared to the original PT screw



| Part Number | Thread Size | Pitch Max |
|------------------|-------------|-------------------------|
| 25S9000529-100XB | D30-1.12x8 | TRWH |
| 253001670-100XB | D30-1.12x12 | HWH |
| 25S3000582 | D30-1.12x10 | TRWH |
| 25S9000516 | D30-1.12x10 | TP-TRWH * |
| 253000193 | D30-1.12x12 | TRWH |
| 25S3000364 | D30-1.12x6 | TRWH |
| 25S9000435-G42 | D40 | 1.46 |
| 25S9000507 | D40-1.46x12 | TRWH - LF (11.75-12.50) |
| 25S3000318 | D40-1.46x12 | TRWH - LF (10.55-11.3) |
| 25S9000518 | D40-1.46x8 | TRWH |
| 25S9000485 | D40-1.46x10 | TRWH |
| 25S9000435 | D40-1.46x12 | TRWH |
| 25S9000511-G42 | D40-1.46x14 | TRWH |
| 25S9000595-100XB | D40-1.46x14 | TRWH |
| 25S9000436 | D40-1.46x16 | TRWH |
| 25S9000521 | D50-1.80x10 | TRWH |
| 25S3000319 | D50-1.80x12 | TRWH |
| 25S9000437 | D50-1.80x14 | TRWH |

| Part Number | Thread Size | Pitch Max |
|-----------------|-------------|-----------|
| 25S9000464 | D50-1.80x16 | TRWH |
| 253001668-FD7 | D50-1.80x16 | HWH |
| 25S3000397 | D50-1.80x16 | TRWH |
| 25S9000515 | D50-1.80x20 | TRWH |
| 25S9000440-CH33 | D60-2.14x20 | HWH |
| 25S9000506 | D60-2.14x20 | TRWH |
| 25S9000439 | D60-2.14x25 | TRWH |
| 253000204-CH15 | K40-1.79x16 | |
| 25S9000646-ZT5B | M1.9X9.0 | |

TRWH - Torx Round Washer Head • HWH - Hex Washer Head • * Tamper Proof Drive • LF - Large Flange

Please contact EFC for additional sizes and finish configurations.

Stamped Self-Threading Hex Nuts

Stamped Self-Threading Hex Nuts are turned onto non-threaded projections or studs. These fasteners eliminate the cost of cutting threads and cross-threading problems. Self-threading nuts permit simpler, more economical and ultimately better designs.

| Part Number | Stud Size | Drive | Height | Material Thickness |
|---------------|-----------|-------|--------|--------------------|
| 02P611001-01Q | 3/32" | 5/16 | 0.100 | 0.017 |
| 02P800184-00 | 1/4 | M13 | 3.400 | 0.640 |



Stamped Hex Lock Nuts

Stamped Hex Lock Nuts are removable, reusable threaded fasteners. They can be used alone for load-carrying in light-duty assemblies or to secure standard nuts in high-stress assemblies. This alternative to traditional hex nuts can be used to reduce weight where screw length is restricted, and/or with a standard hex nut to act as a jam nut.

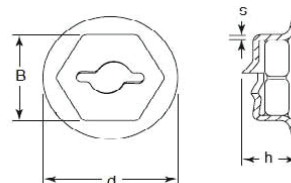
| Part Number | Screw Size | Drive | Height | Material Thickness |
|---------------|------------|-------|--------|--------------------|
| 02P601035-03Q | 3/8-16 | 9/16" | 0.145 | 0.020 |



Stamped Self-Threading Washer Type Nuts

Stamped Self-Threading Washer Type Nuts provide a base that can cover larger clearance holes resulting from build variations. A seal can be added to prevent noise and water intrusion.

| Part Number | Stud Size | Drive (B) | Dia. (d) | Height (h) | Material Thickness (s) |
|------------------|------------|-----------|----------|------------|------------------------|
| 02P610005-03Q | 3/16 | 3/8 | 0.500 | 0.217 | 0.017 |
| 02P800140-132 | 3/16 | 3/8 | 0.750 | 0.153 | 0.018 |
| 02P689131-450 | M5 | M10 | 14.820 | 5.030 | 0.510 |
| 02P800020-FD15QP | M5 | M10 | 15.000 | 5.400 | 0.430 |
| 02P80020-FD7Q | M5 | M10 | 15.000 | 5.650 | 0.430 |
| 02P622006-108 | M6 | M11 | 18.000 | 7.180 | 0.530 |
| 02P691008-450 | 1/4 | 3/8 | 18.000 | 7.060 | 0.530 |
| 02P800091-3963 | 5/16" - M8 | 13mm | 20.000 | 7.850 | 0.580 |
| 02P689107-03Q | 11/32 | 1/2 | 25.400 | 7.980 | 0.580 |



Stud, Rod, Wire and Shaft Retainers (PS, PT & PV Styles)

PS Style Push-ons also known as shaft retainers, are self-threading and self-locking fasteners with inner teeth that slide over a non-threaded stud to secure two panels together. Push-ons have prevailing torques that provide excellent resistance to vibration, and can simplify your designs. Available in standard and metric sizes with 6 to 8 inner teeth plus a variety of materials and finishes.



| Part Number | Stud Size | Stud Diameter (Max/Min) | | Part Diameter | Material Thickness | # of Prongs |
|-----------------|-----------|-------------------------|-------|---------------|--------------------|-------------|
| 02P616003-01Q | 1/8 | 0.128 | 0.122 | 0.375 | 0.009 | 6 |
| 02P616007-01Q | 5/32 - M4 | 0.158 | 0.153 | 0.437 | 0.014 | 8 |
| 02P616008-01Q | 3/16 | 0.191 | 0.185 | 0.437 | 0.010 | 8 |
| 02P70006755-01Q | M4 | 4.051 | 3.924 | 11.100 | 0.250 | 8 |
| 02P689066-01Q | M5 | 5.050 | 4.920 | 11.100 | 0.360 | 8 |
| 02P616010-01Q | 7/32 | 0.222 | 0.216 | 0.531 | 0.012 | 8 |
| 02P689124-03Q | M6 | 6.050 | 5.920 | 13.500 | 0.410 | 8 |
| 02P616014-01Q | 1/4 | 0.253 | 0.247 | 0.531 | 0.012 | 8 |
| 02P616019-01Q | 5/16 - M8 | 0.316 | 0.310 | 0.625 | 0.020 | 8 |
| 02P616032-03Q | 1/2 | 0.503 | 0.497 | 1.000 | 0.035 | 8 |

PV Style Push-ons have more push-off force, allowing these shaft retainers to be easier to slide on and remove than the PS style.

| Part Number | Stud Size | Stud Diameter (SD) | | Part Diameter | Material Thickness |
|---------------|-----------|--------------------|-------|---------------|--------------------|
| 02P616040-09Q | M5 | 5.050 | 4.920 | 23.800 | 0.380 |
| 02P800095-132 | M6 | 6.050 | 5.920 | 23.800 | 0.380 |
| 02P616016-03Q | 1/4 | 0.253 | 0.247 | 0.937 | 0.015 |
| 02P616020-03Q | 5/16 - M8 | 0.316 | 0.310 | 0.937 | 0.015 |



PT Style Bolt Retainers make a positive "bite" on metal, plastic or wood and grip securely even on very smooth, hard surfaces. Attachments can be made permanent or removable as the product requires, by simply using the proper fastener or stud modification recommended.

| Part Number | Screw Size | Part Diameter | Part Height | Material Thickness |
|----------------|------------|---------------|-------------|--------------------|
| 02P694002-03Q | M4 | 9.520 | 1.270 | 0.250 |
| 02P694004-132Q | M6x1.0 | 12.700 | 2.180 | 0.250 |
| 02P689104-137Q | M8x1.25 | 15.900 | 0.001 | 0.360 |
| 02P694008 | M10x1.5 | 19.870 | 0.001 | 0.380 |
| 02P694010 | M12x1.75 | 21.410 | 0.001 | 0.380 |
| 02P689105-163 | M14x2.0 | 25.000 | 0.001 | 0.380 |



Push-ons are available in several materials and a variety of finishes.

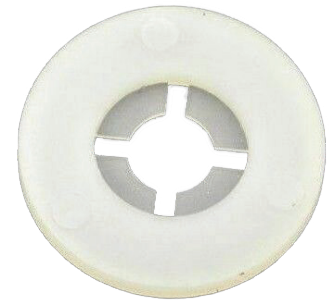
Starlock® Push On Fasteners

Starlock® Push On Fasteners are a precision fastening component designed for applications requiring quick, permanent and efficient means of assembly. The Starlock® eliminates costly threading and grooving operations, facilitates rapid assembly, and once fixed in position, provides permanent fixing and gripping. A full range of Inch sizes are available covering shaft diameters from 1/16 inch (0.0625 inches) to 1.00 inch.



Plastic Washers & Gaskets

Plastic Washers & Gaskets used with a screw fastener such as a bolt and nut serves either to keep the screw from loosening or to distribute the load from the nut or bolt head over a larger area.



| Part Number | Outside Dia. | Inside Dia. | Material Thickness |
|----------------|--------------|-------------|--------------------|
| 30601035-A02 | .750 | .375 / .215 | .062 |
| 30620614-D02 | 20.00 | 10.20 | 1.85 |
| 093000244-PA03 | 25.4 | 6.22 | 1.65 |

OTHER INDUSTRIES SERVED » HVAC / APPLIANCE



As a strategic partner with excellent quality and delivery performance, EFC strengthens its position in the appliance and HVACR industries. EFC enables HVAC, Refrigeration and Appliance manufacturers to reduce time, cost, complexity and risk while improving quality and enhancing the end product.

Constant Tension Band Clamps - UniClamps®

UniClamps® are spring-action hose clamps providing constant leak proof security for low pressure applications. UniClamps® offer improved clamping action without damaging your hoses, and are a low cost solution for high volume production.

FEATURES & BENEFITS

- ▶ Constant Tension - Uniform Pressure
- ▶ Low Cost
- ▶ Applications - Rubber or Plastic Hose Connections



| Part Number | Installed Hose OD (mm) | Free Position Max (mm) | Expanded Min (mm) | Band Width (mm) |
|-------------|------------------------|------------------------|-------------------|-----------------|
| 18000044 | 7.10 | 6.10 | 7.62 | 6.30 |
| 18000008 | 7.90 | 7.65 | 8.76 | 7.90 |
| 18000001 | 9.50 | 8.51 | 10.41 | 7.90 |
| 18000009 | 9.50 | 8.15 | 10.29 | 7.90 |
| 18000025 | 10.30 | 9.53 | 11.43 | 7.90 |
| 18000010 | 11.10 | 10.29 | 12.32 | 7.90 |
| 18000035 | 11.10 | 10.29 | 12.19 | 7.90 |
| 18000083 | 11.10 | 10.29 | 12.32 | 7.90 |
| 18000026 | 11.90 | 10.92 | 13.08 | 7.90 |
| 115008 | 12.70 | 11.68 | 13.84 | 7.90 |
| 18000007 | 12.70 | 11.43 | 13.21 | 7.90 |
| 18000011 | 12.70 | 11.68 | 13.84 | 7.90 |
| 18000085 | 12.70 | 11.68 | 13.84 | 7.90 |
| 18000027 | 13.50 | 12.45 | 14.55 | 7.90 |
| 18000012 | 14.30 | 13.21 | 15.37 | 7.90 |
| 18000028 | 14.30 | 12.70 | 15.77 | 7.90 |
| 18000029 | 15.10 | 13.72 | 16.51 | 7.90 |
| 18000040 | 15.10 | 13.72 | 16.51 | 7.90 |
| 18000013 | 15.90 | 14.81 | 16.97 | 7.90 |

| Part Number | Installed Hose OD (mm) | Free Position Max (mm) | Expanded Min (mm) | Band Width (mm) |
|-------------|------------------------|------------------------|-------------------|-----------------|
| 18000041 | 16.50 | 15.42 | 17.73 | 7.90 |
| 18000030 | 16.70 | 15.75 | 18.42 | 7.90 |
| 18000037 | 16.70 | 15.75 | 18.42 | 7.90 |
| 18000250 | 16.80 | 15.75 | 18.40 | 7.90 |
| 18000251 | 16.80 | 15.75 | 18.40 | 7.90 |
| 11301480 | 17.50 | 14.81 | 18.29 | 7.90 |
| 18000031 | 17.50 | 14.81 | 18.29 | 7.90 |
| 18000081 | 17.50 | 16.64 | 19.05 | 7.90 |
| 18000014 | 17.50 | 16.64 | 19.05 | 7.90 |
| 18000006 | 18.30 | 17.40 | 19.69 | 9.50 |
| 18000015 | 18.30 | 17.53 | 21.21 | 9.50 |
| 18000032 | 19.10 | 16.38 | 21.03 | 9.50 |
| 18000117 | 19.10 | 16.38 | 21.03 | 9.50 |
| 18000016 | 20.60 | 19.05 | 22.86 | 9.50 |
| 18000115 | 20.60 | 19.05 | 22.86 | 9.50 |
| 18000017 | 22.20 | 20.58 | 24.64 | 9.50 |
| 18000018 | 23.80 | 21.84 | 26.16 | 9.50 |
| 18000106 | 23.80 | 21.84 | 26.16 | 9.50 |
| 18000019 | 25.40 | 23.11 | 27.43 | 9.50 |



Pre-Opened Constant Tension Band Clamps

Pre-Opened Constant Tension Band Clamps are ideal for hose connections subject to extreme temperature changes, or which tend to slip away under pressure of the clamp. This version is secured by a small plastic clip. Their integrated spring retaining mechanism provides a continuously readjusting dynamic tightening effect. They are available in band widths of 12 and 15mm with wide range in diameters.

FEATURES & BENEFITS

- ▶ Quick to assemble and install
- ▶ Clip easily removed by hand



Cushion Clamps (P-Clamps)

Extruded Cushion Clamps are perfect for applications requiring a high degree of protection and durability. The EPDM cushion functions properly in a wide range of temperatures and resists oil, chemicals, weather and ozone particularly well.

FEATURES & BENEFITS

- ▶ Contoured configuration clamping diameter facilitates effortless closing and assures proper hole alignment.
- ▶ Optimal cushion materials also available for high temperature applications.



Nylon Cable Clamps

FEATURES & BENEFITS

- ▶ For clamping cable or tubing securely into place.
- ▶ Resist corrosion, salt water, weak acids, gasoline, alcohol, oil, grease, and common solvents. (This feature is not assessed by UL certification or testing.)
- ▶ All parts are size marked in inches and millimeters.
- ▶ Standard material Nylon 6/6. 94V-0 available, consult EFC.



Please contact EFC International directly for availability of sizes, materials and colors.

Stepless Ear Clamps - Low Profile

Stepless Ear Clamps have no steps or gaps on their inner circumference, providing uniform compression with a 360° seal. They are especially well-suited to applications involving flexible and inflexible thin-walled hoses. Parts listed on this page have 7mm wide bands and are degreased.

FEATURES & BENEFITS

- ▶ 360° Stepless - no steps or gaps on inner circumference
- ▶ Narrow band
- ▶ Concentrated seal compression
- ▶ Smooth-edged band steel prevents damage to hose
- ▶ Lightweight
- ▶ Tamper detectable design
- ▶ Higher retained loads
- ▶ Ideal for hard-to-seal applications like molded plastics & Automotive Applications



| Part Number | Description | Clamp Min | Clamp Max |
|-----------------|-----------------------|-----------|-----------|
| 14000180-D19M10 | CLAMP 1EAR | 5.30 | 6.50 |
| 14000062-19Q | CLAMP 1EAR W/INSERT | 5.90 | 7.00 |
| 14000034-19Q | CLAMP 1EAR | 6.80 | 8.00 |
| 14000188-19Q | CLAMP 1EAR | 9.60 | 11.30 |
| 14000190-19Q | CLAMP 1EAR | 9.80 | 12.30 |
| 14000193-19Q | CLAMP 1EAR | 11.30 | 13.8 |
| 14000523-06Q | CLAMP 1EAR MECH INTR | 11.40 | 13.30 |
| 14000091-19Q | CLAMP 1EAR Mec Intrlc | 11.90 | 14.00 |
| 14000525-06Q | CLAMP 1EAR MECH INTR | 12.60 | 14.50 |
| 14000196-19Q | CLAMP 1EAR | 12.80 | 15.30 |
| 14000197-19Q | CLAMP 1EAR | 13.20 | 15.70 |
| 14000527-06Q | CLAMP 1EAR MECH INTR | 13.80 | 15.70 |
| 14000199-19Q | CLAMP 1EAR | 14.50 | 17.00 |
| 14001368-19Q | CLAMP 1EAR | 15.00 | 17.50 |
| 14001546-19 | CLAMP STEPLESS LOPRO | 15.00 | 17.80 |
| 14000529-06Q | CLAMP 1EAR MEC INTRL | 15.10 | 17.00 |
| 14000200-19Q | CLAMP 1EAR | 15.30 | 18.50 |
| 14000530-06Q | CLAMP 1EAR MECH INTR | 15.70 | 18.50 |

| Part Number | Description | Clamp Min | Clamp Max |
|--------------|----------------------------|-----------|-----------|
| 14001030-19Q | CLAMP 1EAR | 16.30 | 18.50 |
| 14000202-19Q | CLAMP 1EAR | 17.80 | 21.00 |
| 14000099-19Q | CLAMP 1EAR MEC INTRL | 18.20 | 21.00 |
| 14000532-06Q | CLAMP 1EAR MEC INTRL | 18.20 | 21.00 |
| 14000205-19Q | CLAMP 1EAR | 22.40 | 25.60 |
| 14003139-19 | CLAMP STEPLESS LOPRO | 23.00 | 26.00 |
| 14000537-06Q | CLAMP 1EAR MEC INTRL | 25.50 | 28.60 |
| 14000211-19Q | CLAMP 1EAR | 31.40 | 34.60 |
| 14000212-19Q | CLAMP 1EAR | 32.90 | 36.10 |
| 14000216-19Q | CLAMP 1EAR | 36.40 | 39.60 |
| 14000351-19Q | CLAMP 1EAR | 36.90 | 30.10 |
| 14000228-19Q | CLAMP 1EAR | 51.30 | 54.50 |
| 14000971-19Q | CLAMP SCREWDRIVE w/ SPRING | 65.00 | 75.00 |
| 14000162-19Q | CLAMP 1EAR ADJ RAD 8 | 77.50 | 86.00 |
| 14000164-19Q | CLAMP 1EAR ADJ RAD 9 | 85.50 | 94.00 |
| 14000433-19Q | CLAMP 1EAR | 92.20 | 95.40 |
| 14000263-19Q | CLAMP 1EAR | 100.80 | 104.00 |

Cable Clips, Swivel Clips & Ties

All **Cable Clips & Ties** are manufactured out of high quality nylon or acetyl materials and are available in assorted tube diameters and bundle sizes. These components accommodate a wide range of tube or wire bundle diameters. Wire management solutions combine cable tie straps with additional features to attach to panels or other components. Additives are included to improve the strength, temperature resistance, and UV stabilization.

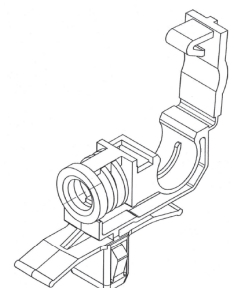
FEATURES & BENEFITS

Mounting features include fir trees, darts, edge biters and other assembly options - all provide self-retaining features for ease of assembly and quick installation.

| Part Number | Description | Cable Bundle Range (mm) | Hole (mm) | Panel Range (mm) | Tensile Strength | Length (mm) |
|-------------------|-----------------------------|-------------------------|----------------------------|------------------|------------------|-------------|
| 02C700365-A03 | Cable Tie X-Mas Tree | .75 - 30 | 6.35 | 0.6 - 3.5 | - | 158.6 |
| 36P5000234-97 | Tie Strap w/ Seal | 1 - 15 | 6.50 | 1.25 - 2.0 | - | - |
| 36P5000130-PA6603 | Cable Tie X-Mas Tree | 1 - 40 | - | .70 - 4.0 | - | - |
| 36P5000351-PA03 | Tie Cable Pushmount | 1.5 - 25 | 6.5 | 0.7 - 1.7 | 150 | 130 |
| 46T00098-AHS03 | Cable Tie w/ Edgeclip | 1.5 - 31 | - | 1.0 - 3.0 | 50 lbs. Min | 150 |
| 36P5000201-97 | Edgebiter Clip | 1.5 - 43 | - | - | - | 180 |
| 36P5000204-97 | Edgebiter Clip | 1.5 - 43 | - | 1.5 - 3.5 | - | 186 |
| 46T00114-A03 | Tie Cable Pushmount | 1.6 - 30 | 6.35 | .7 - 5.0 | - | - |
| 46T00112-97 | Tie Assembly | 1.6 - 50 | 6.1 - 7.0 | .6 - 8.25 | 50 lbs. Min | - |
| 02C700148-AP03 | Cable Strap - Swivel Clip C | 2 - 36 | Clip range 12.5 - 15.5 | - | - | 203 |
| 46T00133-AHS03 | C-Clip | 2 - 50 | Swivel Clip 15-18 | - | - | - |
| 46T00117-AHS03 | Tie Cable w/ Swivel Clip | 2.0 - 35 | Swivel Clip 15-18 | - | 50 lbs. Min | - |
| 46T00136-AHS03 | C-Clip | 2.0 - 35 | Clip 10-14 | - | 50 lbs. Min | 155 |
| 46T00138-AHS03 | Tie Cable Pushmount | 2 - 45 | 6.3 - 6.7 | .7 - 1.8 | 50 lbs. Min | 200 |
| 70009868 | Cable Tie | 3 - 45 | - | - | - | 200 |
| 46T00125-A03 | Tie Cable w/ Bolt Stud | 3 - 30 | Applicable Stud Bolt - M10 | - | 150 | 175 |
| 46T00110-A03 | Tie Cable M6 Stud Mount | 4 - 35 | 6.00 | - | 200 | 160 |
| 09300036-A07Q | Wire Tie | 9.0 - 34.0 | 5.0 - 6.0 | | | 160 |
| 03483011-99 | Adhesive Backed Cable Clip | 9.5 | - | - | - | 25.4 |
| 46100050-T03 | Fir Tree Push Mount Tie | 50 Max | 6.5 - 6.6 | - | 50 lbs. Min | 210 |
| 46T00059-PX03 | Clip Arrow | - | 6.5 - 13.0 | .7 - 3.0 | - | - |



| Part Number | Description | Hole (mm) | Panel Range (mm) |
|----------------|----------------------|-------------------------------|------------------|
| 46T00130-AHS03 | Clip Oval Slide On | 6.2 - 1.2 | 1.7 - 2.3 |
| 46T00132-AHS03 | Clip Oval Slide On T | 6.2 - 1.2 | 1.7 - 2.3 |
| 46T00057-AT03 | Clip | 6.3 - 6.7 | 1.7 - 2.3 |
| 02636007-A01Q | Clip, Relay Mount | 6.5mm / 5mm Anti-rotation Peg | 0.6 - 2.5 |



Routing Clips

Routing Clips securely hold multiple wires using fir tree anchoring systems or adhesive backed clips to accommodate different hole depths.

| Part Number | Description | Hole (mm) | Cable Bundle Range (mm) | Panel Thickness |
|-------------------|---------------------------|-------------|-------------------------|-----------------|
| 36P5000304-POM03 | M6 Mount - Double Tube | - | 4.75 | - |
| 09300114-A03Q | Cable Line Retainer | 6.35 | 5.08 | 0.60 - 2.10 |
| 36P5000319-PA03 | Cable Clip | 6.50 - 6.70 | 1.60 - 18.50 | 1.00 - 6.00 |
| 02C700283-POM03 | Cable Clip | 6.70 | 3.00 - 8.00 | 0.70 - 2.50 |
| 09700056-E03Q | Cable Clip - Double Tube | 6.50 | 4.00 - 6.00 | 0.80 - 4.00 |
| 36P5000342-PA03 | Cable Clip | 6.50 | 11.50 - 13.00 | 1.00 - 6.00 |
| 36P5000328-PAHS03 | Swivel Clip - Double Tube | 6.50 | 16.00 - 17.00 | 0.80 - 6.00 |
| 9300008-A02Q | Brake Line Clip | 6.60 | 4.75 - 9.52 | 0.16 - 6.48 |
| 09300232-A03 | Vent Hose Clip | 6.70 | 8.70 | 1.55 - 4.00 |
| 02C700091-C02 | Cable Clip - Double Tube | 7.50 - 7.70 | 4.75 | 1.50 - 4.00 |
| 09974200-A03 | Cable/Pipe Retainer | 7.00 - 7.30 | 4.76 - 6.35 | 1.80 - 2.80 |
| 02C700167-POM03 | Cable Clip - Double Tube | 8.00 | 8 - 10 | 0.70 - 8.00 |



Flame Retardant Insulation Materials

ITW Formex® **Flame Retardant Insulation Materials** provide superior electrical insulation. The material is available in rolls and sheets and can be easily fabricated into a wide range of shapes. No other flame retardant, electrical insulating material can match the flexibility and performance of Formex™ for cost-effective fabricated parts. Formex™ has successfully replaced a variety of electrical papers, thermoplastic materials, and injected molded parts.

Products offered include: Formex™ GK, Formex™ GL, Formex™ GS and Formex™ N3. Please contact EFC International directly for availability of sizes and materials.



Heat Shrinkable Protection Sleeves

Protection Sleeves are ideal for fluid systems or electrical systems (automotive, mass transit, etc.), and are high-quality products that deliver dependable performance and come in the sizes and lengths you need.

Products offered include: Heat-Shrinkable (Halogen-Free) Tubing, Heat Shrinkable Double Wall Tubing with Meltable Liner, Semi Rigid Heat Shrinkable Tubing with Meltable Liner and Woven Heat Shrinkable Sleeves. Please contact EFC International directly for availability of sizes and materials.



Tether Assemblies

Tether Assemblies are customized for a variety of applications, Special U-Clips are employed across most industries.



Motion Products

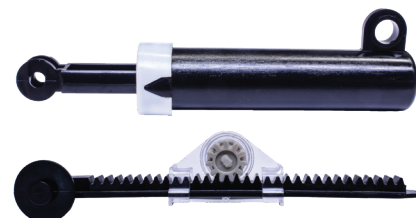
Rotary Dampers fasten to or snap into a panel configuration and give dampening motion for several automotive interior applications.

Linear dampers provide a smooth linear motion. They are available with dampening in one direction while allowing free run in the other and dampening in both directions.

Air dampers provide damped, linear motion in one direction while allowing free motion in the other.

Hinge dampers are rotary dampers that mount at the hinge point and are designed to fit into small spaces.

Latches snap into a given panel configuration and provide dependable latching and unlatching.



COMMON AUTOMOTIVE APPLICATIONS

- ▶ Glove Box
- ▶ Middle Arm Rest
- ▶ Overhead Console
- ▶ Cup Holder
- ▶ Truck Cover
- ▶ Grab Handle
- ▶ Sunglass Compartment
- ▶ Door Handle Interior & Exterior
- ▶ Make-up Mirror

| Part Number | Description | # of Tooth Gears | Torque |
|---------------|-------------------|------------------|----------------|
| 08DCN00026-00 | Small Gear Damper | 11 | 0.70 ±0.17 Ncm |
| 08DCN00024-00 | Gear Damper | 13 | 0.15 ±0.07 Ncm |
| 08DCN00034-00 | | | |

Molded Rubber Components

EFC offers a wide range of small and medium sized molded rubber parts to the automotive industry. Pictured are examples of the wide product range. Contact EFC for your application requirements.

COMMON AUTOMOTIVE APPLICATIONS

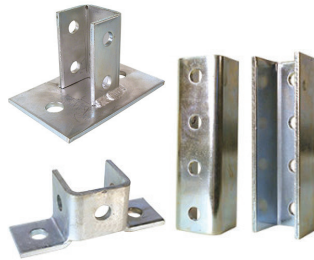
- ▶ Bumpers
- ▶ Spacers
- ▶ Overhead Console
- ▶ Grommets
- ▶ Sleeves
- ▶ Hole Plugs
- ▶ Mounts
- ▶ Custom
- ▶ Sealing Rings



| Part Number | Description | Mounting Hole Dia. | Inside Dia. | Head Dia. | Overall Height |
|---------------|----------------|--------------------|-------------|-----------|----------------|
| 20300913-AC03 | Rubber Grommet | .312 | .190 | .440 | .190 |
| 20300924-AC03 | Rubber Grommet | .375 | .250 | .500 | .250 |



CHANNEL



BASES & BRACE PLATES



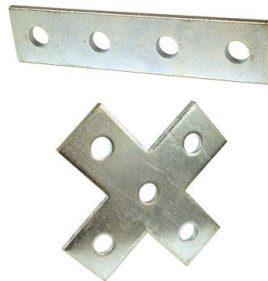
BEAM CLAMPS



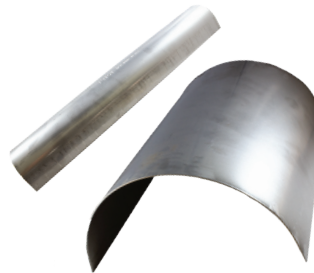
CONCRETE INSERTS



CORNER ANGLES



FITTINGS



SHIELDS



PIPE/STRUT CLAMPS



SLIP-ON LOCK NUTS



SPRING NUTS



ARC AND CD STUDS:
STANDARD OR SPECIALS



ARC & CD STUD
WELDING ACCESSORIES



ARC & CD STUD
WELDING SYSTEMS



STUD WELDING REPAIRS
FOR ALL MAKES

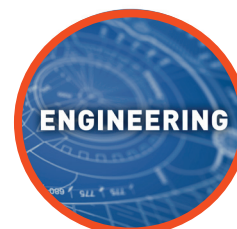
THE EFC DIFFERENCE



EFC offers the industry's strongest & most extensive relationships with a dedication to our customers that goes beyond all others.



EFC Employees bring deep industry knowledge & diverse points of view from all over the world.



EFC is a solutions provider. Innovation is the engine that fuels our dedication to solving problems.



At EFC, the absolute highest level of quality is our only level of quality. Compromise is never part of our vocabulary.



With offices all over the world, EFC employees give you local face-to-face support while bringing you global advantages.



There are many ways to get from point A to point B. It is through our ability to engage many experts in looking at an issue differently that makes EFC unique.

EFC
INTERNATIONAL™





The EFC Difference allows us to deliver a unique, customized combination of:
Connections, Expert People, Engineering, Quality, Local Support | Global Presence, Logistics,
giving EFC the flexibility to adapt to each customer's unique needs and requirements. We solve problems.