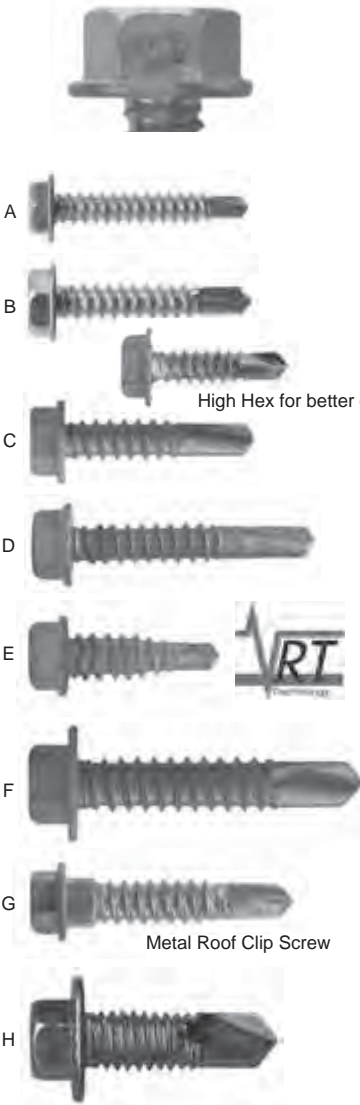


HEX WASHER HEAD



HEX DRIVE SIZE
#8 dia: 1/4" HWH
#10 dia: 5/16" HWH
#12 dia: 5/16" HWH
1/4 dia: 3/8" HWH
5/16 dia: 3/8" HWH

High Hex for better driving stability!

Metal Roof Clip Screw

Heavy Gauge Applications - DP4 & DP5 Points

- Drill and tap up to 1/2" thick steel.
- Supplied with our TRI-SEAL™ long life coating for superior corrosion protection.
- Lengths up to 8" for retrofit metal roof base attachment.



- ▶ The hex washer head is the most popular drive system and provides the best stability during installation.
- ▶ Available with TRI-SEAL™ long life coating for the ultimate corrosion protection...1,000 hrs salt spray with no red rust!

SIZES AND PERFORMANCE SPECIFICATIONS

| Size | Point Type | Drilling Thickness | Attachment Thickness | Box Quantity | |
|------|-----------------|--------------------|----------------------|--------------|------|
| A | #8-18 x 1/2" | DP2 | .036" - .100" | .205" | 10M |
| | #8-18 x 5/8" | DP2 | .036" - .100" | .330" | 10M |
| | #8-18 x 3/4" | DP2 | .036" - .100" | .455" | 10M |
| | #8-18 x 1" | DP2 | .036" - .100" | .705" | 7.5M |
| | #8-18 x 1-1/4" | DP2 | .036" - .100" | 1.000" | 5M |
| | #8-18 x 1-1/2" | DP2 | .036" - .100" | 1.205" | 5M |
| B | #8-18 x 2" | DP2 | .036" - .100" | 1.750" | 1.5M |
| | #10-16 x 1/2" | DP3 | .036" - .175" | .150" | 10M |
| | #10-16 x 5/8" | DP3 (HH) | .036" - .175" | .200" | 10M |
| | #10-16 x 3/4" | DP3 (HH) | .036" - .175" | .325" | 7.5M |
| | #10-16 x 1" | DP3 | .036" - .175" | .575" | 5M |
| | #10-16 x 1-1/2" | DP3 | .036" - .175" | 1.075" | 3M |
| | #10-16 x 2" | DP3 | .036" - .175" | 1.500" | 2M |
| | #10-16 x 3" | DP3 | .036" - .175" | 2.500" | 1M |

"HH" Denotes High Hex

MATERIAL: C1018-1022 Carbon Steel

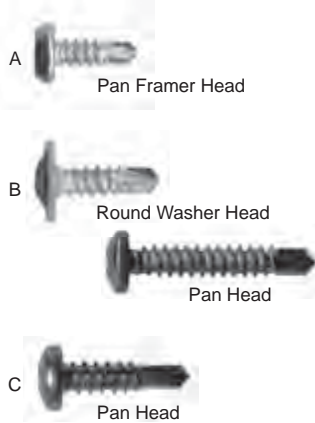
PLATING: Standard: .0003" Min. Electro Zinc (46hrs Salt Spray - ASTM B117)
Meets ASTM C 1513-04 and AISI TS-4-02 Standards

| Size | Point Type | Drilling Thickness | Attachment Thickness | Box Quantity | |
|------|------------------|--------------------|----------------------|--------------|------|
| C | #12-14 x 3/4" | DP3 | .036" - .210" | .290" | 5M |
| | #12-14 x 1" | DP3 | .036" - .210" | .525" | 3.5M |
| | #12-14 x 1-1/4" | DP3 | .036" - .210" | .750" | 3M |
| | #12-14 x 1-1/2" | DP3 | .036" - .210" | 1.000" | 2M |
| | #12-14 x 2" | DP3 | .036" - .210" | 1.500" | 2M |
| | #12-14 x 2-1/2" | DP3 | .036" - .210" | 2.000" | 1M |
| D | #12-14 x 3" | DP3 | .036" - .210" | 2.500" | 1M |
| | #12-14 x 1-1/4" | DP2 LP | .036" - .200" | .750" | 3.5M |
| E | 1/4-14 x 7/8" | DP1 W/VRT | .036" - .090" | .325" | 2.5M |
| | 1/4-14 x 3/4" | DP3 | .036" - .250" | .210" | 2.5M |
| | 1/4-14 x 1" | DP3 | .036" - .250" | .460" | 2.5M |
| | 1/4-14 x 1-1/4" | DP3 | .036" - .250" | .710" | 2M |
| | 1/4-14 x 1-1/2" | DP3 | .036" - .250" | .960" | 2M |
| | 1/4-14 x 2" | DP3 | .036" - .250" | 1.460" | 1.5M |
| | 1/4-14 x 2-1/2" | DP3 | .036" - .250" | 2.460" | 1M |
| | 1/4-14 x 4" | DP3 | .036" - .250" | 3.460" | 500 |
| | 1/4-14 x 5" | DP3 | .036" - .250" | 4.460" | 500 |
| | 1/4-14 x 6" | DP3 | .036" - .250" | 5.460" | 250 |
| F | 1/4-14 x 8" | DP3 | .036" - .250" | 7.460" | 250 |
| | #12-14 x 1-1/4" | DP2 SHLDR | .036" - .200" | .750" | 3.5M |
| | 5/16-18 x 1" | DP3 | .100" - .250" | .460" | 1.5M |
| | 5/16-18 x 1-1/4" | DP3 | .100" - .250" | .710" | 1.5M |
| | 5/16-18 x 1-1/2" | DP3 | .100" - .250" | .960" | 1.5M |
| | 1/4-20 x 1-1/2" | DP5 | .250" - .500" | .500" | 2M |
| | 1/4-20 x 2-1/4" | DP5 | .250" - .500" | 1.250" | 1M |
| | 1/4-20 x 3" | DP5 | .250" - .500" | 2.000" | 500 |
| | 1/4-20 x 4" | DP5 | .250" - .500" | 3.000" | 250 |
| | 1/4-20 x 5" | DP5 | .250" - .500" | 4.000" | 250 |
| G | 1/4-20 x 6" | DP5 | .250" - .500" | 5.000" | 250 |
| | 1/4-20 x 8" | DP5 | .250" - .500" | 7.000" | 150 |
| J | #12-24 x 7/8" | DP4 | .125" - .137" | .325" | 5M |
| | #12-24 x 1-1/4" | DP4 | .125" - .137" | .375" | 3.5M |
| K | #12-24 x 1-1/4" | DP5 | .250" - .500" | .375" | 3.5M |
| | #12-24 x 1-1/2" | DP5 | .250" - .500" | .625" | 2.5M |
| | #12-24 x 2" | DP5 | .250" - .500" | 1.125" | 2M |

MATERIAL: C1018-1022 Carbon Steel

PLATING: Long-Life: TRI-SEAL™ Coating (1,000hrs Salt Spray - ASTM B117)
Meets ASTM C 1513-04 and AISI TS-4-02 Standards

PAN FRAMER - ROUND WASHER - PAN HEAD



#2 Cross Recess Drive

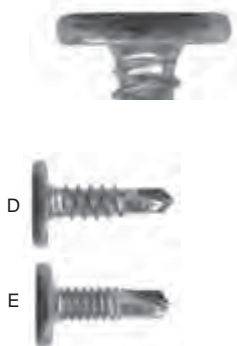
- ▶ General framing applications
- ▶ Cross recess (Phillips) drive.

SIZES AND PERFORMANCE SPECIFICATIONS

| Size | Point Type | Drilling Thickness | Attachment Thickness | Box Quantity |
|-----------------|------------|--------------------|----------------------|--------------|
| A #7-16 x 3/4" | DP2 | .036" - .100" | .375" | 10M |
| #8-18 x 1/2" | DP2 | .036" - .100" | .205" | 10M |
| #8-18 x 5/8" | DP2 | .036" - .100" | .330" | 10M |
| #8-18 x 3/4" | DP2 | .036" - .100" | .455" | 10M |
| B #8-18 x 1" | DP2 | .036" - .100" | .705" | 7.5M |
| #8-18 x 1-1/4" | DP2 | .036" - .100" | 1.000" | 5M |
| #8-18 x 1-1/2" | DP2 | .036" - .100" | 1.205" | 5M |
| #8-18 x 2" | DP2 | .036" - .100" | 1.750" | 1.5M |
| #10-16 x 1/2" | DP3 | .036" - .175" | .150" | 10M |
| #10-16 x 5/8" | DP3 | .036" - .175" | .200" | 10M |
| #10-16 x 3/4" | DP3 | .036" - .175" | .325" | 7.5M |
| C #10-16 x 1" | DP3 | .036" - .175" | .575" | 5M |
| #10-16 x 1-1/4" | DP3 | .036" - .175" | .825" | 3.5M |
| #10-16 x 1-1/2" | DP3 | .036" - .175" | 1.075" | 3M |

MATERIAL: C1018-1022 Carbon Steel
PLATING: .0002" Min. Electro Zinc (24hrs Salt Spray)

PANCAKE HEAD SCREWS



#2 Square Drive Power Bit

- ▶ Pancake head provides extra clearance compared to round washer head fasteners.
- ▶ #2 Square/cross recess for exceptional driving stability...NO CAM-OUT!

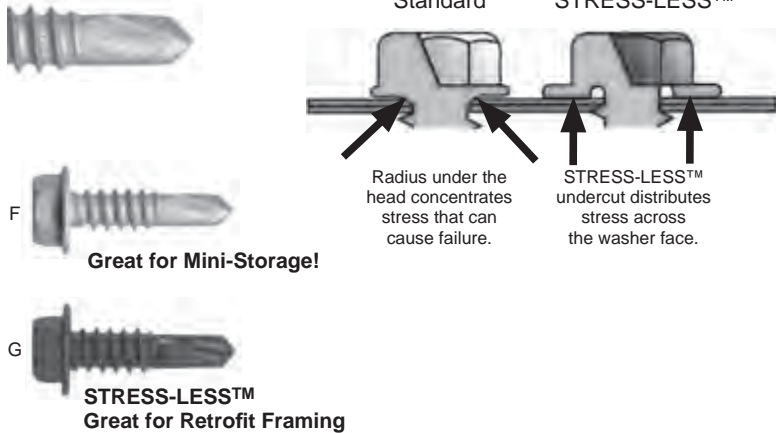
SIZES AND PERFORMANCE SPECIFICATIONS

| Size | Point Type | Drilling Thickness | Attachment Thickness | Box Quantity |
|-----------------|------------|--------------------|----------------------|--------------|
| D #10-16 x 5/8" | DP3 | .036" - .175" | .200" | 10M |
| E #10-24 x 5/8" | DP3 | .036" - .175" | .200" | 10M |

MATERIAL: C1018 - 1022 Carbon Steel
PLATING: .0003" Min. Electro Zinc with yellow di-chromate (48hrs Salt Spray)

LONG PILOT AND STRESS-LESS FEATURE

Long-pilot Point



- ▶ Great for steel framing when multiple thicknesses are used.
- ▶ STRESS-LESS™ undercut head is designed to eliminate stress that concentrates under the head of fasteners.

SIZES AND PERFORMANCE SPECIFICATIONS

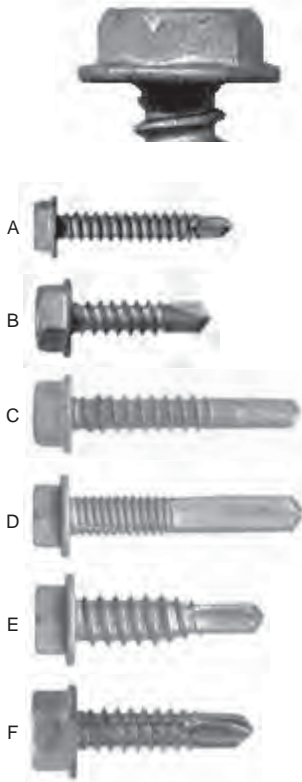
| Size | Point Type | Drilling Thickness | Attachment Thickness | Box Quantity |
|-----------------|------------|--------------------|----------------------|--------------|
| F #12-14 x 7/8" | DP3 | .036" - .210" | .325" | 2.5M |
| G 1/4-14 x 7/8" | DP3 | .036" - .250" | .325" | 2.5M |

MATERIAL: C1018-1022 Carbon Steel
PLATING: .0003" Min. Zinc w/TRI-SEAL™ Coating (1,000hrs Salt Spray)

HEAD TYPE

#12 dia: 5/16" HWH
1/4 dia: 5/16" HWH

410 STAINLESS STEEL DRILL SCREWS



HEAD TYPE
#8 dia: 1/4" HWH
#10 dia: 5/16" HWH
#12 dia: 5/16" HWH
*1/4 dia: 5/16" HWH
1/4 dia: 3/8 HWH

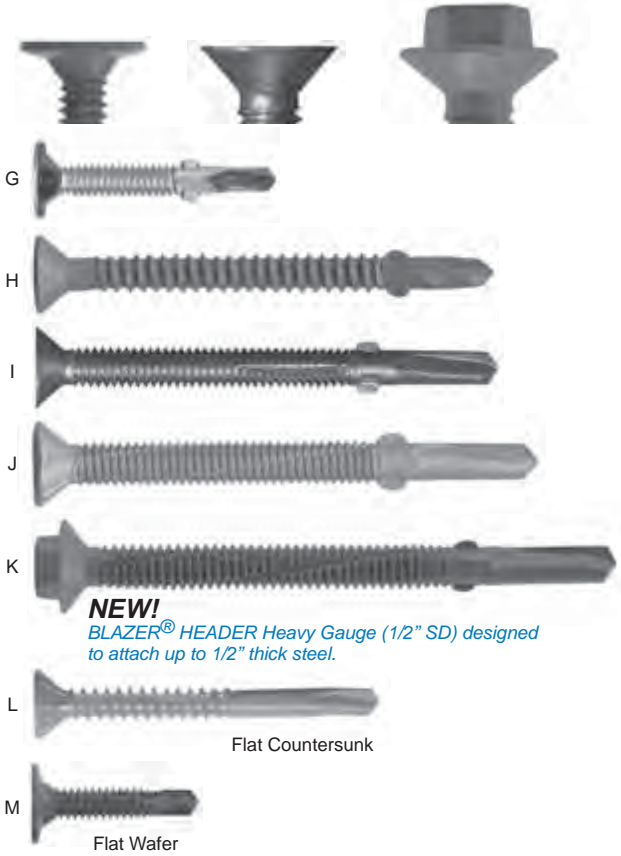
- ▶ Provides corrosion resistance in mild atmospheres.
- ▶ Plated to resist surface rust and to reduce drive torque.
- ▶ For additional corrosion protection, specify TRI-SEAL™ long-life coating.

SIZES AND PERFORMANCE SPECIFICATIONS

| Size | Point Type | Drilling Thickness | Attachment Thickness | Box Quantity |
|------------------|------------|--------------------|----------------------|--------------|
| A #8-18 x 1/2" | DP2 | .036" - .100" | .205" | 10M |
| #8-18 x 3/4" | DP2 | .036" - .100" | .455" | 10M |
| #10-16 x 3/4" | DP3 | .036" - .175" | .325" | 7.5M |
| #10-16 x 1" | DP3 | .036" - .175" | .575" | 5M |
| #10-16 x 1-1/2" | DP3 | .036" - .175" | 1.075" | 3M |
| #12-14 x 3/4" | DP3 | .036" - .210" | .290" | 5M |
| *#12-14 x 1" | DP3 | .036" - .210" | .525" | 3.5M |
| *#12-14 x 1-1/4" | DP3 LP | .036" - .210" | .550" | 2.5M |
| *#12-14 x 1-1/2" | DP3 | .036" - .210" | 1.000" | 2.5M |
| #12-14 x 2" | DP3 | .036" - .210" | 1.500" | 2M |
| *#12-14 x 1-1/4" | DP5 | .250" - .500" | 1.000" | 5M |
| #12-14 x 1-1/2" | DP5 | .250" - .500" | 1.205" | 5M |
| *1/4-14 x 7/8" | DP1 | .036" - .090" | .375" | 2.5M |
| *1/4-14 x 1-1/8" | DP1 | .036" - .090" | .875" | 2.0M |
| *1/4-14 x 3/4" | DP3 | .036" - .250" | .210" | 2.5M |
| *1/4-14 x 1" | DP3 | .036" - .250" | .460" | 2.5M |
| *1/4-14 x 1-1/2" | DP3 | .036" - .250" | .960" | 2M |
| 1/4-14 x 2" | DP3 | .036" - .250" | 1.460" | 1.5M |

MATERIAL: 410 Stainless Steel
PLATING: Passivated (24hrs Salt Spray), Zinc Plated (48hrs Salt Spray), * Denotes TRI-SEAL™ Coated (1,000hrs Salt Spray)

WOOD-TO-METAL DRILL SCREWS



NEW!
BLAZER® HEADER Heavy Gauge (1/2" SD) designed to attach up to 1/2" thick steel.

- ▶ Fasten wood-to-metal.
- ▶ No pre-drilling required.
- ▶ TRI-SEAL™ coated for use in ACQ lumber.

SIZES AND PERFORMANCE SPECIFICATIONS

| Size | Point Type | Drilling Thickness | Attachment Thickness | Box Quantity |
|--------------------|------------|--------------------|----------------------|--------------|
| G #10-24 x 1-7/16" | DP3 WW | .036" - .210" | .750" | 4M |
| H #12-14 x 1-3/4" | DP2 WW | .036" - .210" | .750" | 2M |
| #12-14 x 2-1/2" | DP2 WW | .036" - .210" | 1.625" | 1M |
| I #12-24 x 2" | DP4 WW | .036" - .210" | 1.250" | 2M |
| #12-24 x 2-1/2" | DP4 WW | .036" - .210" | 1.750" | 1M |
| J 1/4-20 x 2-3/4" | DP4 WW | .125" - .375" | 2.000" | 900 |
| 1/4-20 x 3-1/4" | DP4 WW | .125" - .375" | 2.750" | 900 |
| 1/4-20 x 3-3/4" | DP4 WW | .125" - .375" | 3.000" | 500 |
| K 1/4-20 x 3-1/8" | DP5 WW | .125" - .500" | 1.625" | 1M |

"WW" Denotes With Wings
MATERIAL: Carbon Steel
PLATING: .0003" min zinc TRI-SEAL™ Coated (1,000hrs Salt Spray)

| Size | Point Type | Drilling Thickness | Attachment Thickness | Box Quantity |
|--------------------|------------|--------------------|----------------------|--------------|
| L #10-16 x 1-3/16" | DP3 | .036" - .175" | .750" | 2.5M |
| #10-24 x 3/4" | DP3 | .036" - .210" | .375" | 5M |
| #10-24 x 1" | DP3 | .036" - .210" | .500" | 5M |
| #10-24 x 1-1/4" | DP3 | .036" - .210" | .750" | 3.5M |
| #10-24 x 1-1/2" | DP3 | .036" - .210" | .875" | 3M |

MATERIAL: Carbon Steel
PLATING: .0003" min zinc TRI-SEAL™ Coated (1,000hrs Salt Spray)

304 STAINLESS STEEL DRILL SCREWS



Triangle Fastener offers a full line of fasteners manufactured from 304 stainless steel. The fastener head and threads are produced from corrosion resistant stainless steel producing exceptional corrosion protection and superior ductility. A carbon steel drill point is hardened and welded to the body allowing the fastener to drill and tap in steel up to 1/2" thick!

SIZES AND PERFORMANCE SPECIFICATIONS

| | ECP Catalog No.† | Size | L Length | Drive System | Point Size | Max. Drilling Cap. | B Maximum Load-bearing Length* | Pieces per 1/4 Keg† | Job Pack: Pieces per Box† | |
|----------------------------------|------------------|--------|----------|--------------|------------|--------------------|--------------------------------|---------------------|---------------------------|------|
| Hex Washer Head | | | | | | | | | | |
| | EAJ110 | 10-16 | 3/4" | 5/16" hex | 2 | .110" | 0.320" | 6000 | 250 | |
| | EAJ185 | | 1" | | | | | 0.500" | 4000 | 150 |
| | EAJ215 | 12-14 | 1-1/2" | | 3 | .210" | .140" | 1.00" | 2500 | 125 |
| | EAJ240 | | 2" | | | | | 1.500" | 2000 | 75 |
| | EAJ190 | | 1" | | 3/8" hex | 5 | .500" | 1.100" | 2000 | 75 |
| | EAJ220 | 12-14 | 1-1/2" | | | | | .210" | 1.00" | 4000 |
| | EAJ260 | | 2-1/2" | | | | 2.00" | 1500 | 50 | |
| | EAJ340 | 12-24 | 2" | 3/8" hex | 2 | .175" | 1.00" | 2000 | 75 | |
| | EAJ415 | | 1" | | | | .500" | 3000 | 125 | |
| | EAJ430 | 1/4-14 | 1-1/2" | | 3 | .312" | .175" | 1.00" | 2000 | 75 |
| | EAJ445 | | 2" | | | | | 1.500" | 1500 | 50 |
| | EAJ540 | | 1" | | 5 | .500" | .500" | 0.500" | 2500 | 125 |
| | EAJ580 | 1/4-20 | 1-1/2" | | | | | 1.00" | 2000 | 75 |
| | EAJ610 | | 2" | | | | | 1.500" | 1500 | 50 |
| | EAJ640 | | 2-1/2" | | 5 | .500" | | 2.00" | 1000 | 50 |
| EAJ615 | 1/4-20 | 2" | | | | | 1.100" | 1500 | 50 | |
| Flat Head Reamers w/wings | | | | | | | | | | |
| | EBN140 | 10-16 | 1-1/2" | #2 phillips | 3 | .140" | 0.800" | 3500 | 125 | |
| | EBN345 | 12-24 | 2-13/16" | #3 phillips | 5 | .500" | 1.710" | 1500 | 50 | |
| | EBN645 | 1/4-20 | 2-13/16" | | | | | 1.710" | 1000 | 50 |
| Flat Head Undercut | | | | | | | | | | |
| | EBN200 | 12-14 | 1" | #3 phillips | 2 | .140" | 0.500" | 4000 | 150 | |
| | EBN240 | | 1-1/2" | | | | 1.00" | 2500 | 125 | |

Performance Data

Pull-Out Values

| Screw Size | Drill Point Type | Drill Cap (in.) | Pull-Out (Lbs) | | | | | | | | |
|------------|------------------|-----------------|--------------------------|--------|--------|--------|------|------------------------|------|------|------|
| | | | Steel RB60-75 50 – 66KSI | | | | | Aluminum 6063-T5 22KSI | | | |
| | | | 18 ga. | 16 ga. | 14 ga. | 12 ga. | 1/8" | 3/16" | 1/4" | 1/8" | 1/4" |
| 10-16 | 2 | 0.150 | 455 | 677 | 793 | 1394 | 1906 | – | – | 994 | – |
| 10-16 | 3 | 0.187 | – | 616 | 684 | 1242 | 1605 | 1527 | – | 961 | – |
| 12-14 | 2 | 0.187 | 528 | 750 | 892 | 1536 | 2602 | 2514 | – | 1132 | – |
| 12-14 | 3 | 0.210 | 417 | 679 | 802 | 1371 | 2028 | 2499 | – | 974 | – |
| 12-24 | 5 | 0.500 | – | – | – | – | – | 2110 | 2781 | 538 | 1995 |
| 1/4-14 | 2 | 0.210 | 619 | 885 | 1082 | 1830 | 2943 | 3535 | – | 1310 | – |
| 1/4-20 | 3 | 0.375 | – | 680 | 780 | 1442 | 2623 | 3684 | 4069 | 1037 | 2786 |
| 1/4-20 | 5 | 0.500 | – | – | – | – | – | – | – | 2622 | 1724 |

Ultimate Strengths**

| Size | Tensile (Lbs) | Shear Average Lbs Ultimate |
|--------|---------------|----------------------------|
| 10-16 | 1847 | 1282 |
| 12-14 | 2628 | 1950 |
| 12-24 | 2734 | 2284 |
| 1/4-14 | 3459 | 2676 |
| 1/4-20 | 4124 | 2880 |

** Values are for 300 series stainless fastener threaded shank.



Security screws specifically designed for metal siding and roofing applications



TORX® PIN-HEAD

Maximum torque transfer and positive tool engagement means easier drive installation with less pressure and slippage. Torx® Pin Head offers a high degree of security and requires matching drive bit. Available in button head for neat appearance.



T-27 Torx Pin
Recess Drive

Does your building need security?

- ▶ Mini Storage
- ▶ Prisons
- ▶ Government Buildings
- ▶ Banks
- ▶ Dealerships

SIZES AND PERFORMANCE SPECIFICATIONS



- ▶ Assembled with a BOND-SEALER™ sealing washer that has EPDM vulcanized to a 20 Gauge galvanized backing that will withstand harsh weather conditions.

| Size | Point Type | Drilling Thickness | Attachment Thickness | Box Quantity |
|-----------------|------------|--------------------|----------------------|--------------|
| #12-14 x 1-1/2" | DP3 LP | .036" - .210" | 1.000" | 2.0M |
| 1/4-14 x 7/8" | DP1 | .036" - .090" | .325" | 2.5M |

MATERIAL: C1018-1022 Carbon Steel

PLATING: .0003" Min. Zinc plating w/ yellow chromate (48hrs Salt Spray)

**Available in 410 stainless steel.
Call for details.**

Pullout Test Result - Ultimate Average in Pounds

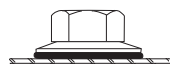
| Fastener Size | GAGE THICKNESS & ROCKWELL HARDNESS OF THE TEST PLATE | | | | | | | | |
|---------------|--|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|----------------------------|
| | 26 Ga. (.018") 45-49Rb | 24 Ga. (.024") 46-52Rb | 22 Ga. (.030") 61-67Rb | 20 Ga. (.036") 54-62Rb | 18 Ga. (.048") 64-73Rb | 16 Ga. (.060") 65-67Rb | 14 Ga. (.075") 68-70Rb | 12 Ga. (.105") 74-86Rb | 1/8" (.125") 75-91Rb |
| #12-14 DP3 | | | | | 533 | 752 | 1163 | 1947 | 2250 |
| 1/4-14 DP1 | 173 | 240 | 337 | 387 | 657 | 1250 | | | |

Manufactured to SAE J78 specifications.



We supply insert bits to make installation fast and easy!

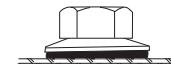
To assure a proper seal, torque the fastener until the EPDM sealant extrudes to the outer edge of the backing material.



CORRECT
Slight circle of sealant extrudes to outer edge.



TOO TIGHT!
Metal backing begins to turn up.



TOO LOOSE
Sealant is not compressed and can not form a seal.

DISCLAIMER: ALL TEST RESULTS AND SPECIFICATIONS ARE A RESULT OF LABORATORY TESTS. APPROPRIATE SAFETY FACTORS SHOULD BE USED BY THE USER OR SPECIFIER. DETERMINING THE PROPER FASTENER IS THE RESPONSIBILITY OF THE USER OR SPECIFIER. SINCE APPLICATION CONDITIONS VARY AND ARE UNCONTROLLABLE BY TFC, WE ASSUME NO LIABILITY FOR THE USE OF THIS INFORMATION.

Contact Triangle Fastener for additional sizes and types for security screws.





Our Vibration Resistant Thread (VRT®) is designed to significantly increase back-out torque and reduce the potential for leaks.

VRT® keeps the fastener tighter in applications where expansion, contraction and vibration are a concern.









Independent tests verify that VRT® produces 3-1/2 times more back-out resistance than a standard thread.



Sizes and Technical Data Sheet

Light Gauge Applications

Maximum Drilling Thickness: .090"

| Description | Part Number | Carton Quantity | WT Per M Pcs |
|---|-------------------|----------------------|--------------|
|  1/4" -14 X 7/8" DP1/LAP w/VRT® CONCEALOR® Pancake Head w/Bonded Sealing Washer TRI-SEAL™ Coated 1,000Hrs Salt Spray | 14087C1TSVBW | 2,500 pcs 250/Bag | 13.5# |
|  1/4" -14 X 7/8" DP1/LAP w/VRT® BLAZER® Flange Head w/Sealing Washer TRI-SEAL™ Coated 1,000Hrs Salt Spray | 14087HW1CSTS VW | 2,500 pcs 250/Bag | 13.5# |
|  1/4" -14 X 7/8" DP1/LAP w/VRT® BLAZER® TRI-SEAL™ Coated 1,000Hrs Salt Spray | 14087HW1CSTS V | 2,500 pcs 250/Bag | 10.2# |
|  1/4" -14 X 7/8" DP1/LAP w/VRT® BLAZER® w/Bonded Sealing Washer TRI-SEAL™ Coated 1,000Hrs Salt Spray | 14087HW1CSTS VBW | 2,500 pcs 250/Bag | 13.5# |
|  1/4" -14 X 7/8" DP1/LAP w/VRT® BLAZER® Stainless Cap Head w/Sealing Washer TRI-SEAL™ Coated 1,000Hrs Salt Spray | 14087HW1CSTS VWSC | 2,500 pcs 250/Bag | 13.5# |
|  1/4" -14 X 7/8" DP1/LAP w/VRT® BLAZER® Zinc Cap Head w/Sealing Washer TRI-SEAL™ Coated 1,000Hrs Salt Spray | 14087HW1CSTS VWZC | 2,000 pcs 250/Bag | 13.5# |
|  1/4" -14 X 1-1/8" DP1/LAP w/VRT® BLAZER® Stainless Cap Head w/Sealing Washer TRI-SEAL™ Coated 1,000Hrs Salt Spray | 14112HW1CSTS VWSC | 2,000 pcs 250/Bag | 19.3# |
|  #17-14 X 1" TYPE AB w/VRT® TAPPER w/Bonded Sealing Washer (3/4"OD) TRI-SEAL™ Coated 1,000Hrs Salt Spray | 17100HHACSTS VOW | 2,000 pcs 250/Bag | 20# |

Technical Data

Specifications

BLAZER Drill Screws conforms to SAE J-78 for self-drilling tapping screws.

#17 TAPPER conforms to ANSI/ASME B18.6.4 for tapping screws.

Material

Carbon Steel: C1022
Stainless Cap: 304 SS
Zinc Cap: Zamac 5

Tensile Strength

1/4-14: 4,275 lbs.
#17-14: 5,200 lbs.

Torsional Strength

1/4-14: 150 lbs-inch
#17-14: 175 lbs-inch

*Pullout (Pounds)

| | 1/4-14 | #17-14 |
|------|--------|--------|
| 26ga | 173 | 201 |
| 24ga | 240 | 280 |
| 22ga | 337 | 342 |
| 20ga | 387 | 395 |
| 18ga | 657 | 725 |
| 16ga | 1,250 | 1,345 |

Corrosion Resistance

TRI-SEAL
Salt Spray: 1,000 hrs minimum.
No Red Rust

Sealing Washers

Flange Head:
EPDM Cut Tubular

Bonded Washer:

EPDM Vulcanized to G-90 Galvanized Steel. (15MM O.D.).

* Pullout values are ultimate averages based on laboratory tests. Appropriate factors of safety should be used. TFC assumes no liability for the use if this information.

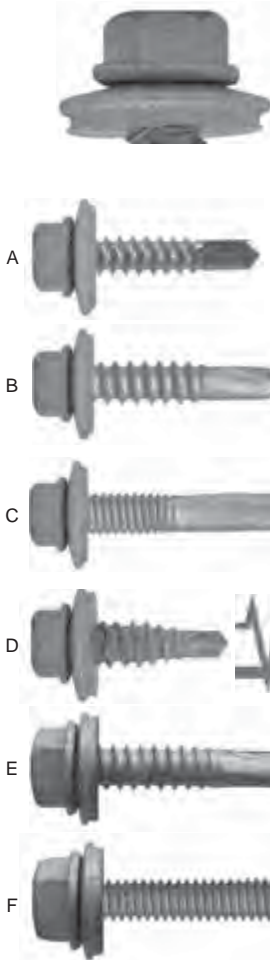
BLAZER® WITH BONDED SEALING WASHER

- ▶ **BOND-SEALER™** is a sealing washer that has EPDM vulcanized to a 20 Gauge galvanized backing that will withstand harsh weather conditions.
- ▶ **TRI-SEAL™** long life coated for superior corrosion protection.

SIZES AND PERFORMANCE SPECIFICATIONS

| | Size | Point Type | Drilling Thickness | Attachment Thickness | Box Quantity |
|---|-----------------|------------|--------------------|----------------------|--------------|
| A | #10-16 x 1" | DP3 | .036" - .175" | .575" | 5M |
| | #10-16 x 1-1/2" | DP3 | .036" - .175" | 1.075" | 3M |
| B | #12-14 x 3/4" | DP3 | .036" - .210" | .290" | 5M |
| | #12-14 x 1" | DP3 | .036" - .210" | .525" | 3.5M |
| | #12-14 x 1-1/4" | DP3 LP | .036" - .210" | .750" | 3.5M |
| | #12-14 x 1-1/2" | DP3 | .036" - .210" | 1.000" | 2.5M |
| | #12-14 x 2" | DP3 | .036" - .210" | 1.500" | 2M |
| | #12-14 x 2-1/2" | DP3 | .036" - .210" | 2.000" | 1M |
| C | #12-24 x 1-1/4" | DP5 | .250" - .500" | .375" | 3.5M |
| | #12-24 x 1-1/2" | DP5 | .250" - .500" | .625" | 2.5M |
| | #12-24 x 2" | DP5 | .250" - .500" | 1.125" | 2M |
| D | 1/4-14 x 7/8" | DP1 W/VRT* | .036" - .090" | .325" | 2.5M |
| | 1/4-14 x 3/4" | DP3 | .036" - .250" | .210" | 2.5M |
| E | 1/4-14 x 1" | DP3 | .036" - .250" | .460" | 2M |
| | 1/4-14 x 1-1/4" | DP3 | .036" - .250" | .710" | 2M |
| | 1/4-14 x 1-1/2" | DP3 | .036" - .250" | .960" | 2M |
| | 1/4-14 x 2" | DP3 | .036" - .250" | 1.460" | 1.5M |
| | 1/4-14 x 2-1/2" | DP3 | .036" - .250" | 2.460" | 1M |
| | 1/4-14 x 4" | DP3 | .036" - .250" | 3.460" | 500 |
| | 1/4-14 x 5" | DP3 | .036" - .250" | 4.460" | 500 |
| | 1/4-14 x 6" | DP3 | .036" - .250" | 5.460" | 250 |
| F | 1/4-20 x 4" | DP5 | .250" - .500" | 3.000" | 500 |
| | 1/4-20 x 5" | DP5 | .250" - .500" | 4.000" | 500 |
| | 1/4-20 x 6" | DP5 | .250" - .500" | 5.000" | 250 |
| | 1/4-20 x 7" | DP5 | .250" - .500" | 6.000" | 150 |
| | 1/4-20 x 8" | DP5 | .250" - .500" | 7.000" | 150 |

MATERIAL: C1018-1022 Carbon Steel
PLATING: .0003" Min. Zinc w/TRI-SEAL™ Coating (1,000hrs Salt Spray)



LP denotes long-pilot design for metal roofing and siding

WASHER DETAILS
20 ga G-90 Galvanized Steel
Vulcanized to .062" thick EPDM
15MM OD Washer

HEAD TYPE
#10 dia: 5/16" HWH
#12 dia: 5/16" HWH
*1/4 dia: 5/16" HWH
1/4 dia: 3/8" HWH



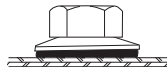
Proper Fastener Installation



CORRECT
Slight circle of sealant extrudes to outer edge.



TOO TIGHT!
Metal backing begins to turn up.



TOO LOOSE
Sealant is not compressed and can not form a seal.

To assure a proper seal, torque the fastener until the EPDM sealant extrudes to the outer edge of the backing material.

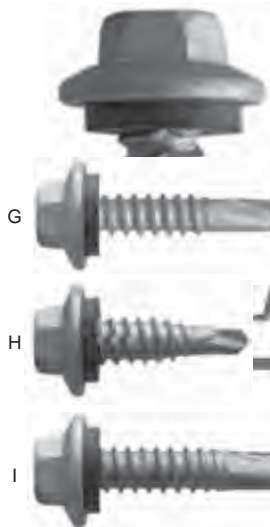
BLAZER® FLANGE-SEAL HEAD WITH EPDM WASHER

- ▶ **FLANGE-SEAL™** self-sealing fastener has a deep undercut head that entraps the EPDM sealing washer to assure a leak free seal.
- ▶ **TRI-SEAL™** long-life coated for superior corrosion protection.

SIZES AND PERFORMANCE SPECIFICATIONS

| | Size | Point Type | Drilling Thickness | Attachment Thickness | Box Quantity |
|---|-----------------|------------|--------------------|----------------------|--------------|
| G | #12-14 x 3/4" | DP2/DP3 | .036" - .210" | .290" | 5M |
| | #12-14 x 1" | DP2/DP3 | .036" - .210" | .525" | 3.5M |
| | #12-14 x 1-1/4" | DP2/DP3 LP | .036" - .210" | .750" | 3.5M |
| | #12-14 x 1-1/2" | DP2/DP3 | .036" - .210" | 1.000" | 2.5M |
| | #12-14 x 2" | DP2/DP3 | .036" - .210" | 1.500" | 2M |
| | #12-14 x 2-1/2" | DP2/DP3 | .036" - .210" | 2.000" | 1M |
| H | 1/4-14 x 7/8" | DP1 W/VRT* | .036" - .090" | .325" | 2.5M |
| I | 1/4-14 x 3/4" | DP3* | .036" - .250" | .210" | 2.5M |
| | 1/4-14 x 1" | DP3* | .036" - .250" | .460" | 2.5M |
| | 1/4-14 x 1-1/2" | DP3* | .036" - .250" | .960" | 2M |

MATERIAL: C1018-1022 Carbon Steel
PLATING: .0003" Min. Zinc w/TRI-SEAL™ Coating (1,000hrs Salt Spray)



LP denotes long-pilot design for metal roofing and siding

HEAD TYPE
#12 dia: 5/16" HWH
1/4 dia: 5/16" HWH

WASHER DETAILS
.125" Thick EPDM



BLAZER® STAINLESS CAP HEAD WITH EPDM SEALING WASHER



- ▶ 304 stainless steel cap head for exceptional corrosion resistance.
- ▶ Our special head is designed to produce maximum torsional strength and a leak free seal.
- ▶ TRI-SEAL™ long life coated shank for superior corrosion protection.

SIZES AND PERFORMANCE SPECIFICATIONS

| | Size | Point Type | Drilling Thickness | Attachment Thickness | Box Quantity |
|---|-----------------|---------------|--------------------|----------------------|--------------|
| | #12-14 x 1" | DP2/DP3 | .036" - .210" | .525" | 3.5M |
| F | #12-14 x 1-1/4" | DP2/DP3 LP | .036" - .210" | .750" | 3.5M |
| | #12-14 x 1-1/2" | DP2/DP3 | .036" - .210" | 1.000" | 2.5M |
| | #12-14 x 2" | DP2/DP3 | .036" - .210" | 1.500" | 2M |
| G | 1/4-14 x 7/8" | DP1 W/VRT | .036" - .090" | .325" | 2.5M |
| | 1/4-14 x 3/4" | DP3 | .036" - .250" | .210" | 2.5M |
| H | 1/4-14 x 1" | DP3 | .036" - .250" | .460" | 2.5M |
| | 1/4-14 x 1-1/4" | DP3 | .036" - .250" | .375" | 2M |
| | 1/4-14 x 1-1/2" | DP3 | .036" - .250" | .960" | 2M |
| I | #17-14 x 1" | TYPE AB W/VRT | 20ga or less | .750" | 2.5M |

F LP denotes long-pilot design for metal roofing and siding

G

WASHER DETAILS
.100" Thick EPDM

H

I

HEAD TYPE
#12 dia: 5/16" HWH
1/4 dia: 5/16" HWH
#17 dia: 5/16" HWH

MATERIAL

HEAD: 302 Stainless Steel
THREAD: Carbon Steel

PLATING

HEAD: Passivated
THREAD: .0003" Min. Zinc with TRI-SEAL™ Long-life Coating

CORROSION

HEAD: >2,000hrs Salt Spray
THREAD: 1,000hrs Salt Spray

BLAZER® ZINC CAP HEAD WITH EPDM SEALING WASHER



- ▶ ZAMAC 5 zinc alloy cap head for premium corrosion resistance **WILL NOT RED RUST!**
- ▶ Special head is designed to produce maximum torsional strength and a leak free seal.

SIZES AND PERFORMANCE SPECIFICATIONS

| | Size | Point Type | Drilling Thickness | Attachment Thickness | Box Quantity |
|---|-----------------|------------|--------------------|----------------------|--------------|
| | #12-14 x 1" | DP2/DP3 | .036" - .210" | .525" | 3.5M |
| A | #12-14 x 1-1/4" | DP2/DP3 LP | .036" - .210" | .750" | 3.5M |
| | #12-14 x 1-1/2" | DP2/DP3 | .036" - .210" | 1.000" | 2.5M |
| | #12-14 x 2" | DP2/DP3 | .036" - .210" | 1.500" | 2M |
| B | 1/4-14 x 7/8" | DP1 W/VRT | .036" - .090" | .325" | 2.5M |
| | 1/4-14 x 3/4" | DP3 | .036" - .250" | .210" | 2.5M |
| C | 1/4-14 x 1" | DP3 | .036" - .250" | .460" | 2.5M |
| | 1/4-14 x 1-1/4" | DP3 | .036" - .250" | .375" | 2M |
| | 1/4-14 x 1-1/2" | DP3 | .036" - .250" | .960" | 2M |
| D | 1/4-14 x 1" | TYPE AB | 20ga or less | .750" | 2.5M |
| E | #17-14 x 1" | TYPE AB | 20ga or less | .750" | 2.5M |

A LP denotes long-pilot design for metal roofing and siding

B

WASHER DETAILS
.125" Thick EPDM

C

HEAD TYPE
#12 dia: 5/16" HWH
1/4 dia: 5/16" HWH
#17 dia: 5/16" HWH

D

E

MATERIAL

HEAD: Zamac 5 Zinc Alloy
THREAD: Carbon Steel

PLATING

HEAD: Plain Finish
THREAD: .0003" Min. Zinc with TRI-SEAL™ Long-life Coating.

CORROSION RESISTANCE

HEAD: No Red Rust
THREAD: 1,000hrs Salt Spray

**Need a 3/8" Hex Washer Head?
Contact us for available sizes.**

BLAZER® ENGINEERING DATA

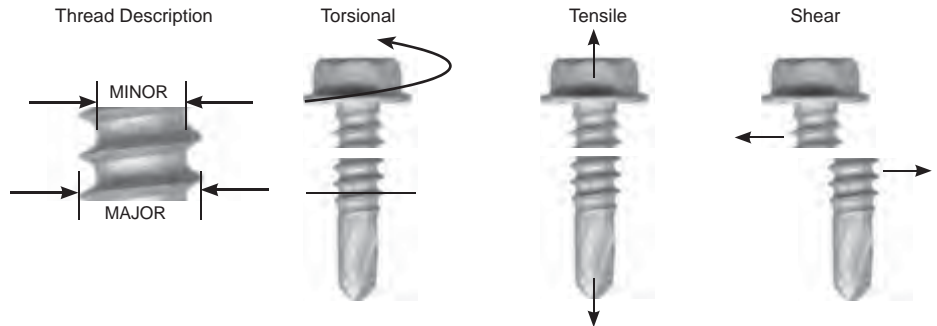


The following information is compiled to assist the design professional in selecting the appropriate fastener for the application. Data supplied is compiled from fastener standards and independent tests. An engineering professional should be consulted to determine expected loads on the connection, environmental effects, and any other conditions that could effect the performance of the fastener. Selecting a fastener is the responsibility of the engineer and changes to a fastener should not be made without approval. Using the wrong fastener can lead to failure.
TFC WILL NOT WARRANTY, EITHER EXPRESSED OR IMPLIED, THE USE OF THIS INFORMATION.

TECHNICAL DATA



BLAZER® self-drilling fasteners are produced and perform to SAEJ78, ASME/ANSI 18.18. and AISI TS-4-02 specifications. Conforms to ICCESAC18 acceptance criteria for tapping screw fasteners.



Physical Properties

| Fastener Diameter | Nominal Screw Diameter | Major Diameter (inch) | | Minor Diameter (inch) | | Area Of Minor Dia. (sq in.) | Torsional (Lb-In.) | Tensile (Pounds) | Shear (Pounds) |
|-------------------|------------------------|-----------------------|-------|-----------------------|-------|-----------------------------|--------------------|------------------|----------------|
| | | Max | Min | Max | Min | | | | |
| #6-20 | 0.138 | 0.139 | 0.135 | 0.104 | 0.099 | 0.0077 | 25 | 1,125 | 750 |
| #8-18 | 0.164 | 0.166 | 0.161 | 0.122 | 0.116 | 0.0106 | 42 | 1,575 | 1,000 |
| #10-16 | 0.190 | 0.189 | 0.183 | 0.141 | 0.135 | 0.0143 | 61 | 2,100 | 1,400 |
| #10-24 | 0.190 | 0.190 | 0.182 | 0.144 | 0.137 | 0.0147 | 65 | 3,400 | 2,275 |
| #12-14 | 0.216 | 0.215 | 0.209 | 0.164 | 0.157 | 0.0194 | 92 | 2,778 | 2,000 |
| #12-24 | 0.216 | 0.216 | 0.209 | 0.189 | 0.185 | 0.0269 | 100 | 3,188 | 2,100 |
| 1/4-14 | 0.250 | 0.246 | 0.240 | 0.192 | 0.185 | 0.0269 | 150 | 4,275 | 2,600 |
| 1/4-20 | 0.250 | 0.250 | 0.242 | 0.218 | 0.214 | 0.0360 | 156 | 4,275 | 2,700 |
| #18-9 | 0.306 | 0.306 | 0.300 | 0.217 | 0.209 | 0.0343 | 170 | 4,550 | 2,576 |
| 5/16-12 | 0.313 | 0.329 | 0.327 | 0.309 | 0.299 | 0.0702 | 250 | 8,550 | 5,700 |

Material: C1018-C1022 / 410 SS
 Heat Treatment: Case Harden
 Case Hardness: 52-58 Rockwell C
 Case Depth:
 #6 Dia = .002" - .007"
 #8, #10, #12 Dia = .004" - .009"
 1/4" = .005" - .011"
 Core Hardness
 Carbon Steel: 32-40 Rockwell C
 410 Stainless: 42-48 Rockwell C
 Ductility: 5 Degree minimum bend

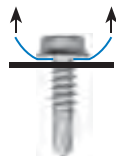
| English to Metric | Formula to Use |
|--|----------------------|
| Decimal to Millimeters | Decimal x 25.4 |
| PSI to Newton / Millimeters ² | PSI x .007 |
| Pounds Force to Newtons | Pounds Force x 4.448 |

| Gauge Thickness | Decimal | Metric |
|-----------------|---------|--------|
| 29 GA | .013" | .33mm |
| 28 GA | .015" | .38mm |
| 26 GA | .018" | .46mm |
| 24 GA | .024" | .61mm |
| 22 GA | .030" | .76mm |
| 20 GA | .036" | .91mm |
| 18 GA | .048" | 1.22mm |
| 16 GA | .060" | 1.52mm |
| 14 GA | .075" | 1.91mm |
| 12 GA | .105" | 2.67mm |
| 1/8" | .125" | 3.18mm |
| 10 GA | .135" | 3.43mm |
| 1/4" | .250" | 6.35mm |
| 5/16" | .312" | 7.92mm |
| 3/8" | .375" | 9.53mm |
| 1/2" | .500" | 12.7mm |

DISCLAIMER: ALL TEST RESULTS AND SPECIFICATIONS ARE A RESULT OF LABORATORY TESTS. APPROPRIATE SAFETY FACTORS SHOULD BE USED BY THE USER OR SPECIFIER. DETERMINING THE PROPER FASTENER IS THE RESPONSIBILITY OF THE USER OR SPECIFIER. SINCE APPLICATION CONDITIONS VARY AND ARE UNCONTROLLABLE BY TFC, WE ASSUME NO LIABILITY FOR THE USE OF THIS INFORMATION.

PULLOVER TEST RESULTS

These pullover results are for self-sealing fasteners listed in this catalog.



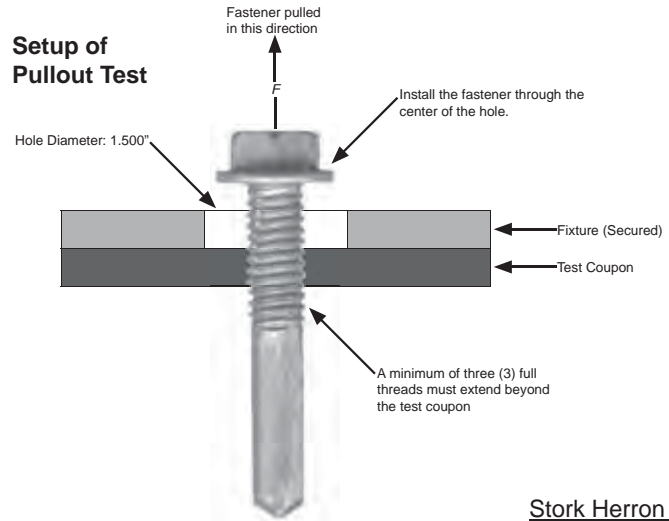
Pounds - Ultimate Average

| Steel Thickness | BOND-SEALER | | FLANGE SEALER | ZINC CAP HEAD | STAINLESS CAP HEAD |
|-----------------|-------------|---------|---------------|---------------|--------------------|
| | 12.7MM OD | 15MM OD | | | |
| 22 ga | 945 | 1,249 | 1,298 | 1,647 | 1,298 |
| 24 ga | 704 | 1,056 | 1,102 | 1,310 | 1,102 |
| 26 ga | 519 | 654 | 692 | 794 | 692 |

Note: Estimated pullover for fasteners without sealing washers can be calculated using the following formula per AISI.

Pullover force = 1.5 -x- Thickness of the member in contact with the screw head.
 -x- Larger of the screw head diameter or washer diameter. -x- Tensile strength of the member in contact with the screw head.

PULLOUT TEST RESULTS



The following fastener pullout loads are a result of independent tests conducted at Stork Herron Testing Laboratories. The results are ultimate averages as a result of conducting three pullouts per fastener size in each material thickness.

Stork Herron Report #
TRI081-05-01-88910-1
Test Material: 55ksi - 100ksi

Pullout Test Result - Ultimate Average in Pounds

| Fastener Size | GAGE THICKNESS & ROCKWELL HARDNESS OF THE TEST PLATE | | | | | | | | | | | |
|---------------|--|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|----------------------------|-----------------------------|----------------------------|----------------------------|
| | 26 Ga. (.018") 45-49Rb | 24 Ga. (.024") 46-52Rb | 22 Ga. (.030") 61-67Rb | 20 Ga. (.036") 54-62Rb | 18 Ga. (.048") 64-73Rb | 16 Ga. (.060") 65-67Rb | 14 Ga. (.075") 68-70Rb | 12 Ga. (.105") 74-86Rb | 1/8" (.125") 75-91Rb | 3/16" (.188") 83-85Rb | 1/4" (.250") 92-96Rb | 1/2" (.500") 92-93Rb |
| #6-20 DP2 | 120 | 183 | 248 | 296 | 241 | 679 | 847 | | | | | |
| #8-18 DP2 | 120 | 193 | 243 | 297 | 447 | 703 | 910 | | | | | |
| #10-16 DP3 | 153 | 207 | 243 | 293 | 487 | 710 | 900 | 1327 | 1503 | | | |
| #10-24 DP2 | 161 | 238 | 293 | 324 | 517 | 1096 | 1544 | 1906 | | | | |
| #12-14 DP2 | | | | | 577 | 790 | 1137 | 1697 | 1920 | | | |
| #12-14 DP3 | | | | | 533 | 752 | 1163 | 1947 | 2250 | 2870 | | |
| #12-24 DP5 | | | | | | 687 | 986 | 1850 | 1670 | 2673 | 3844* | 1873 |
| 1/4-14 DP1 | 173 | 240 | 337 | 387 | 657 | 1250 | | | | | | |
| 1/4-14 DP3 | | | | 343 | 533 | 886 | 1077 | 2170 | 2060 | 3863 | 4493* | |
| 1/4-20 DP5 | | | | | | 708 | | | | 3853 | 4283* | 4680* |
| 5/16-12 DP3 | | | | 457 | 706 | 1609 | 1707 | 2831 | 2915 | 3745 | | |

* Exceeds Tensile Strength

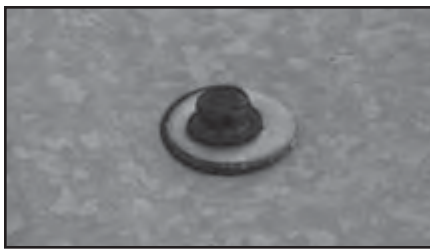
SHEAR TEST RESULTS



| Size | 26 Ga. (.018") | 24 Ga. (.024") | 22 Ga. (.030") | 20 Ga. (.036") | 18 Ga. (.048") | 16 Ga. (.060") | 14 Ga. (.075") | 12 Ga. (.105") |
|------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| #6-20 DP2 | 278 | 466 | 526 | 758 | 845 | | | |
| #8-18 DP2 | 294 | 496 | 560 | 740 | 1,060 | | | |
| #10-16 DP3 | | | | 728 | 1,266 | 1,540 | 1,552 | |
| #12-14 DP3 | | | | 769 | 1,358 | 1,620 | 1,970 | 1,986 |
| #12-24 DP5 | | | | | | | | 2,650 |
| 1/4-14 DP3 | | | | 930 | 1,442 | 2,100 | 2,584 | 2,650 |
| 1/4-20 DP4 | | | | | | | | 2,650 |

Shear tests are a result of installation of the fastener in the noted gauge thickness and applying load until failure occurs.

DISCLAIMER: ALL TEST RESULTS AND SPECIFICATIONS ARE A RESULT OF LABORATORY TESTS. APPROPRIATE SAFETY FACTORS SHOULD BE USED BY THE USER OR SPECIFIER. DETERMINING THE PROPER FASTENER IS THE RESPONSIBILITY OF THE USER OR SPECIFIER. SINCE APPLICATION CONDITIONS VARY AND ARE UNCONTROLLABLE BY TFC, WE ASSUME NO LIABILITY FOR THE USE OF THIS INFORMATION.

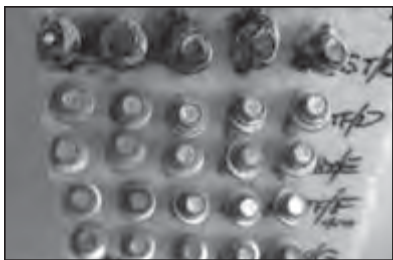


CORROSION PROTECTION INFORMATION

The following information was compiled from known data that compares various finishes in a controlled environment. The material set forth herein is for general information only and cannot be construed as a substitute for competent professional advice or service. Any part considering application use of this information does so at their own risk and assumes any and all liability from application or use. Consult a corrosion specialist to determine the best fastener for your condition.

SALT SPRAY RESULTS

The chart to the right provides general information with regard to corrosion resistance of various plating and coatings. Contact TFC for detailed information.



SALT SPRAY Per ASTM B117 (Hours to red rust) Carbon steel and 410 stainless steel materials

| Coating | Salt Spray |
|---|------------|
| .00015" min. (3 um) zinc plate with clear chromate | 24hrs |
| .0002" min. (6um) zinc with clear chromate | 32hrs |
| Passivated 410 Stainless Steel | 48hrs |
| .0003" min. (8 um) zinc plating with clear chromate | 48hrs |
| .0003" min. (8 um) zinc plating with yellow di-chromate | 144hrs |
| .0005" min. (12 um) zinc plating with clear chromate | 60hrs |
| .0007" min. (14 um) mechanical zinc with clear chromate | 72hrs |
| Epoxy (E-Coat) | 500hrs |
| TRI-SEAL™ Long-life coating | 1,000hrs |

FASTENER COMPATIBILITY FOR METAL ROOFING AND WALL CLADDING

Table developed by the Metal Construction Association Members (Rev. by MCA 09.27.10)

| Metal Roof or Wall Cladding Material | Fastener Material | | | | | | | | |
|--------------------------------------|---------------------------------------|--|--|------------------------------|------------------------------------|----------|--------------------------|----------------------------|----------------------------|
| | Zinc Plated Steel Screws ² | Organic Coated Steel Screws ² | Hot-Dip Galvanized Steel Nails ³ and Screws | Zinc-Alloy Head Steel Screws | Stainless Capped Head Steel Screws | Aluminum | Copper and Copper Alloys | 300 Series Stainless Steel | 400 Series Stainless Steel |
| Unpainted Galvanized Steel | Yes ⁴ | Yes | Yes | Yes | Yes | Yes | No | Yes | Yes |
| Painted Galvanized Steel | Yes ⁴ | Yes | Yes | Yes | Yes | Yes | No | Yes | Yes |
| Unpainted Galvalume Steel | No | Yes | Yes | Yes | Yes | Yes | No | Yes | Yes |
| Painted Galvalume Steel | Yes ⁴ | Yes | Yes | Yes | Yes | Yes | No | Yes ⁴ | Yes ⁴ |
| Aluminum | No | Yes | No | No | No | Yes | No | Yes | No |
| Copper & Copper Alloys | No | No | No | No | No | No | No | Yes | Yes ⁴ |
| Stainless Steel | No | No | No | Yes | Yes | Yes | Yes | Yes | Yes |
| Zinc alloy | No | No | No | No | No | Yes | No | Yes | Yes |

Note 1: Cautionary Guideline: This table serves as a guideline for the selection of fasteners used with metal roofing. The performance of compatible fasteners shown in this table matches the expected life of the metal roof or wall cladding materials. However, in highly corrosive environments such as heavy industrial, coastal marine, high airborne pollutants or salt spray, preservative treated lumber or fire-retardant lumber, the compatibility of certain fasteners with metal roofing or wall cladding materials may be affected. In those types of applications, the manufacturers of the fastener and metal panel will have specific and unique recommendations.

In addition, in the event that certain coating barriers are damaged or scratched through to the substrate there is increased potential for premature corrosion. Care should be taken during installation and during routine maintenance of the panels in order to protect the integrity of the coatings used for metal panels.

Note 2: Screws should be plated/coated per ASTM F1941

Note 3: Nails should be galvanized per ASTM A153

Note 4: Not recommended for coastal and heavy industrial environments

Special Note: Preservative-Treated Lumber Applications

ACQ, Penta, CA or CBA preservative-treated lumber can be incompatible with certain types of fasteners. In those cases where any type of metal roof or wall cladding materials are being attached to preservative treated lumber, the following fasteners are not compatible: zinc plated screws, zinc-alloy headed screws, stainless capped screws, aluminum, copper and copper alloy. When attaching metal panels to those types of preservative-treated lumber, a moisture barrier should be used between the lumber and the panel material. Metal panel fasteners that are compatible with preservative-treated lumber are stainless steel fasteners, or hot dip galvanized nails manufactured to ASTM A153 class D or heavier. Other types of fasteners coated with proprietary anti-corrosive technologies are also available for use with preservative-treated lumber. In addition, zinc-plated screws can be used in CCA and MCQ pressure-treated lumber.

