

PRODUCT SELECTION GUIDE

Fasteners • Sealants • Tools & Accessories



JUNE 2023

COMMERCIAL ROOFING AND SIDING

METAL | LOW SLOPE | POST FRAME | PEMB | MISC. CLADDING



- Better Connections Since 1977 -



800.486.1832

www.trianglefastener.com



TRIANGLE FASTENER CORPORATION

OUR VALUE PROPOSITION

From the time we pick up the phone to long after the product is used, we are here to help you!

We provide the most innovative products, superior service, and a focused approach to your specific requirements. Our commitment to developing quality products and programs assure easy installation at low cost.

With every product we supply, you'll get the most comprehensive support programs.



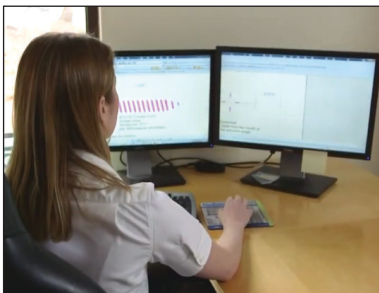
DISTRIBUTION

25 locations are stocked full of standard and specialty fastening system solutions.



MARKET SPECIALISTS

Each location is supported by our product and application specialists.



PRODUCT DESIGN

Our TFC Fastening Systems Design Center can custom design products to meet your application requirements.



PRODUCT RESEARCH

The TFC TECH CENTER provides additional research and technical support to fit your specific needs.

We service the following industries with the a full line of fasteners, sealants & tools.



- Metal Building
- Metal Roofing
- Post Frame
- Misc. Wall Cladding



- Low Slope Roofing



- Interior Construction

"TFC SPECIFIC" Products and Programs

We design them to provide higher performance and easier installation.

- APS 500® Advanced Polymer Sealant
- BLAZER® High Performance Drill Screws
- BRACER® Bracing System Washers
- BURR-BUSTER™ Self Piercing Screw
- BUTYL TAPE-SEAL™ Butyl Tape
- CONCEALOR® Low Profile Head Fastener
- GET-A-GRIP™ In-Stock Painted Rivets
- KALIDA-KOTE™ Paint For Fasteners, Rivets, Closures
- NEED-IT-NOW!™ Market Specific Product Program
- PANEL-TITE® Metal to Wood Fasteners
- PIPE-MASTER® Metal Roofing Pipe Flashing
- PAK-ONE™ Job Pack Program
- SENTRY PLUS FIVE® High Performance Roofing Screws
- STRESS-LESS® Stress Reducing Fastener
- STRESS-LOK® Load Distributing Washer
- TRACER® High Performance Drywall Screws
- TWISTER® Pre-tied Wire
- ULP™ Ultra Low Profile Fasteners
- ULTRA 1000™ Sealant for Metal
- VRT® Vibration Resistant Thread Technology

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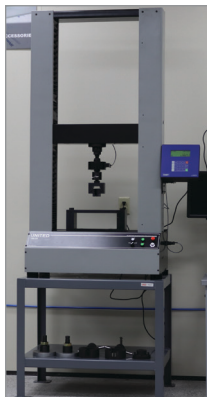


We offer the following services at no charge to you!

- Product development
- Application testing
- Quality assurance

- Engineering support
- Product and application training
- Fastener recommendations

Do you need technical assistance?
Contact us and we are happy to help!



Tensile & Compression (10kips max)

We can conduct pullout, shear, and compression testing for fasteners.



Hardness Test (Rockwell Scales B & C)

The hardness of the substrate effects the pull-out and shear loads of the fastener. That is why we check the hardness of the steel and include that information with our results.

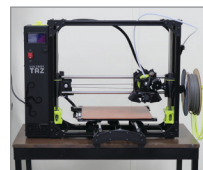


Drill / Pierce Test Machine

We test our fasteners to assure that they drill or pierce quickly and consistently.

Our specifications exceed industry standards, assuring the performance of our products.

Our state of the art drill test machine is capable of testing fasteners up to 8" long.



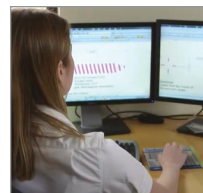
3D Printer

We use the most up-to-date tools to develop the newest innovations in fastening technologies.



Lath, Mill, Grinder, Brake, Shear, Table & Mitre Saw

We can fabricate samples to help in testing and product evaluation.



Product Conformance

We QC all of our products for dimensional, mechanical, and physical performance.

PRODUCT AND APPLICATION TRAINING



Training for up to 20 people

Our TECH CENTER is equipped to train you on fastener installation using a hands-on approach.

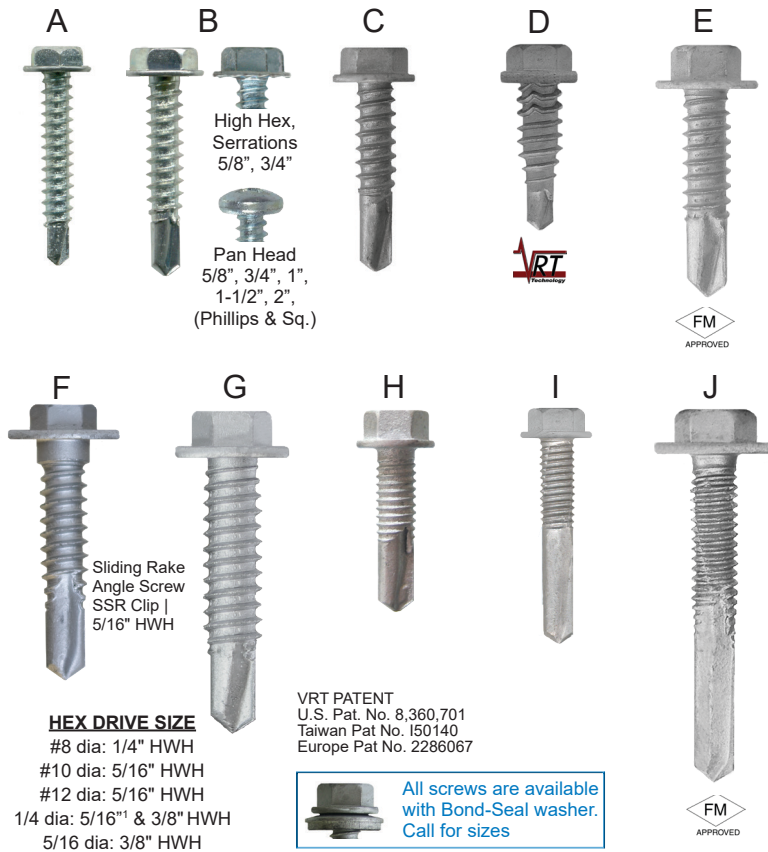
We can help you learn about the best product for your application, provide the best installation techniques and keep you informed on the latest tool technology.

We can simulate your specific application, and help you develop a fastener that meets your needs.

TFC TECH CENTER LOCATION

4661 Hinckley Parkway • Cleveland, OH 44109
P: 216.351.9933 • www.trianglefastener.com

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- 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

Blue colored sizes denotes popular DC items

ITEM	SIZE	Point Type	LENGTHS	Load Bearing Length (MAX)	Box Qty
A	#8-18	DP2	1/2"	.100"	10M
			5/8"	.125"	10M
			3/4"	.250"	10M
			1"	.500"	7.5M
			1-1/4"	.750"	5M
			1-1/2"	1"	5M
B	#10-16	DP3	2"	1.5"	1.5M
			1/2"	.100"	10M
			5/8"	.125"	5M
			3/4"	.250"	5M
			3/4" HH/SERR	.250"	5M
			1"	.500"	5M
C	#12-14	DP3	1-1/2"	1"	3.5M
			2"	1.500"	2M
			3"	2.500"	1M
			3/4"	.125"	5M
			1"	.250"	3.5M
			1-1/4"	.625"	3M
D	1/4-14 ¹ VRT	DP1	1-1/2"	.750"	2M
			2"	1.25"	2M
			2-1/2"	1.75"	1M
			3"	2.25"	1M
			4"	3.75"	500
			7/8" VRT	.325"	2.5M
E	1/4-14	DP3	3/4"	.125"	2.5M
			1"	.250"	2.5M
			1-1/4"	.625"	2M
			1-1/2"	.875"	2M
			2"	1"	1.5M
			2-1/2"	1.50"	1M
F	1/4-14 SHLDR	DP3	3"	1.25" - 2.25"	1M
			4"	1.73" - 3.25"	500
			5"	2.6" - 4.25"	500
			6"	3.6" - 5.25"	250
			8"	5.6" - 7.25"	250
			10"	7.6" - 9.25"	500
G	5/16-12	DP3	1-1/4"	.625"	3.5M
			1"	.250"	1.5M
			1-1/2"	.875"	1M
			2"	1.25"	1M
			3"	2.25"	750
			4"	3.25"	500
H	#12-24	DP4	5"	1.38 - 4.25"	500
			6"	2.50 - 5"	500
			8"	4.25" - 7"	200
			7/8"	.325"	5M
			1-1/4"	.500"	2.5M
			1-1/4"	.500"	2M
I	#12-24	DP5	1-1/2"	.625"	1.5M
			2"	.750"	1.5M
			1-1/2"	.500"	2M
			2-1/4"	1.250"	1M
			2-1/2"	1.500"	1M
			3-1/8"	2.125"	1M
J	5/8" OD washer face	DP5	4"	3"	250
			5"	4"	250
			6"	2.50" - 5"	250
			7"	3.38" - 6"	500
			8"	4.25" - 7"	500
			8"	4.25" - 7"	500

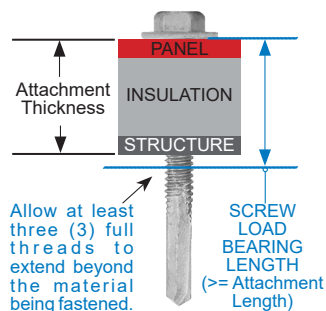
Drill Point and Length Selection

1. Determine the Screw Drill Point Type

- Add up the total thickness that will be drilled by the screw.
- Select the desired drill point (DP) type and screw size located on the size chart below.



Drilling and Tapping Thickness													
Gauge	24	20	18	16	14	12	10						
Inch	.024	.036	.048	.060	.075	.100	.105	.135	.175	.210	.250	.375	.500
1/4-14 DP1	.024" - .072"												
#8-18 DP2	.024" - .100"												
#10-16 DP3	.024" - .175"												
#10-24 DP3	.048" - .210"												
#12-14 DP3	.024" - .210"												
1/4-14 DP3	.035" - .250"												
5/16-12 DP3	.048" - .175"												
#12-24 DP4	.175" - .375"												
#12-24 DP5	.175" - .500"												
1/4-20 DP5	.175" - .500"												



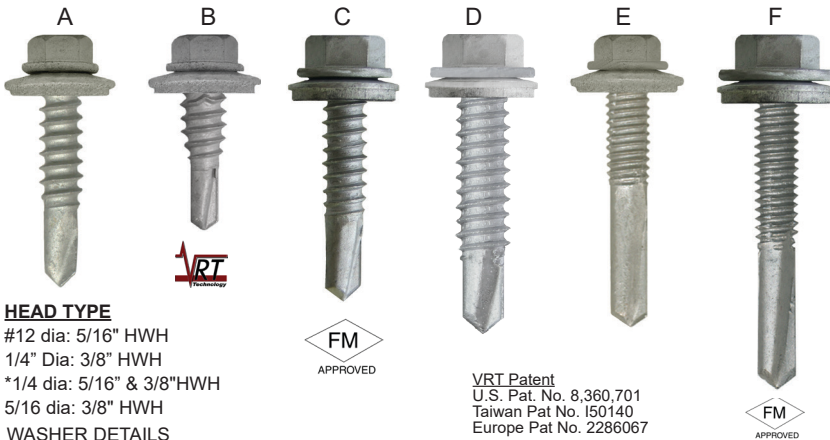
2. Determine Screw Length

- Measure from the top surface of the material being fastened to the underside of the metal that will be drilled and tapped. Be sure to allow for any void or insulation. This is called the attachment thickness.
- Select a screw length where the attachment thickness is less than or equal to the Load Bearing Length listed on the chart to the right.

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BOND-SEAL SEALING WASHER

- The BOND-SEALER™ sealing washer is EPDM vulcanized to a 20 Gauge galvanized backing.
- TRI-SEAL® long life coated for superior corrosion protection.



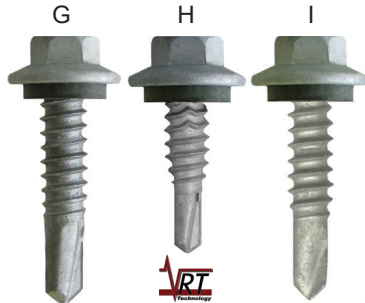
HEAD TYPE

#12 dia: 5/16" HWH
1/4" Dia: 3/8" HWH
*1/4 dia: 5/16" & 3/8" HWH
5/16 dia: 3/8" HWH

WASHER DETAILS

20 ga G-90 Galvanized Steel | Vulcanized to .062" thick non-conductive EPDM | 15MM OD Washer
Special sizes available upon request.

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.

WASHER DETAILS

.125" Thick EPDM
Non-conductive

HEAD TYPE

5/16" HWH with Flange
Undercut

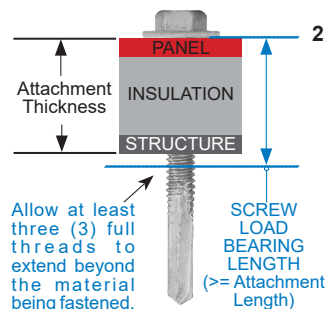
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- Select the desired drill point (DP) type and screw size located on the size chart below.



Drilling and Tapping Thickness													
Gauge	24	20	18	16	14	12	10						
Inch	.024	.036	.048	.060	.075	.100	.105	.135	.175	.210	.250	.375	.500
Screw & Point	1/4-14 DP1	.024" - .072"											
	#8-18 DP2	.024" - .100"											
	#10-16 DP3	.024" - .175"											
	#10-24 DP3	.048" - .210"											
	#12-14 DP3	.024" - .210"											
	1/4-14 DP3	.035" - .250"											
	5/16-12 DP3	.048" - .175"											
	#12-24 DP4				.175" - .375"								
	#12-24 DP5							.175" - .500"					
	1/4-20 DP5							.175" - .500"					



2. Determine Screw Length

- Measure from the top surface of the material being fastened to the underside of the metal that will be drilled and tapped. Be sure to allow for any void or insulation. This is called the attachment thickness.
- Select a screw length where the attachment thickness is less than or equal to the Load Bearing Length listed on the chart to the right.

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SIZES **Blue colored sizes denotes popular DC items**

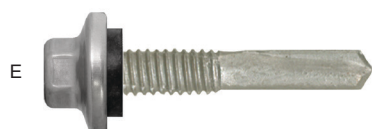
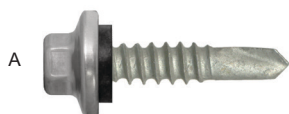
Item	SIZE	Point Type	LENGTH	Load Bearing Length (Max)	Box Qty
A	#12-14	DP2	3/4"	.125"	5M
			1"	.250"	3.5M
			1-1/4"	.625"	3M
			1-1/2"	.750"	2M
			2"	1.25"	2M
			2-1/2"	1.75"	1M
			3"	2.25"	1M
B	1/4-14	DP1-VRT	*7/8" VRT	.325"	2.5M
C	1/4-14	DP3	3/4"	.125"	2.5M
			*1"	.250"	2.5M
			*1-1/4"	.625"	2M
			1-1/2"	.875"	2M
			2"	1"	1.5M
			2-1/2"	1.50"	1M
			3"	1.25" - 2.25"	1M
			4"	1.73" - 3.25"	500
			5"	2.6" - 4.25"	500
			6"	3.6" - 5.25"	250
			8"	5.6" - 7.25"	250
			10"	7.6" - 9.25"	250
D	5/16-12	DP3	1"	.250"	1.5M
			1-1/2"	.875"	1M
			2"	1.25"	1M
			3"	2.25"	750
			4"	3.25"	500
			6"	2.50 - 5"	500
			8"	4.25" - 7"	200
E	#12-24	DP5	1-1/4"	.500"	3M
			1-1/2"	.625"	2M
			2"	.750"	3M
F	1/4-20 5/8" OD washer Face	DP5	1-1/2"	.500"	2M
			2-1/4"	1.250"	1M
			3-1/8"	2-1/8"	1M
			4"	3"	250
			5"	4"	250
			6"	2.50" - 5"	250
			8"	4.25" - 7"	150
FLANGE-SEAL HEAD					
G	#12-14	DP3	1"	.250"	3.5M
			1-1/4"	.625"	3M
			1-1/2"	.750"	2M
			2"	1.250"	2M
			2-1/2"	1.5"	1.5M
			3"	2.25"	1M
H	1/4-14	DP1-VRT	4"	3.25"	500
			7/8" VRT	.325"	2.5M
I	1/4-14	DP3	1"	.250"	2.5M
			1-1/4"	.625"	2.5M
			1-1/2"	.875"	2M
			2"	1"	1.5M

Proper Fastener Installation



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

BLAZER® STAINLESS CAP HEAD WITH EPDM SEALING WASHER



- 304 stainless steel cap head for exceptional corrosion resistance.
- TRI-SEAL® long life coated shank for superior corrosion protection.



U.S. Pat. No. 8,360,701
Taiwan Pat No. 150140
Europe Pat No. 2286067

Specifications

Washer
.100" Thick EPDM. Non-conductive

Head Type: 5/16" HWH

Material
HEAD - 304 Stainless Steel
BODY - Carbon Steel



Plating
HEAD - Passivated
BODY - TRI-SEAL® Long-life Coating

Corrosion
HEAD - >2,000hrs Salt Spray
BODY - 1,000hrs Salt Spray

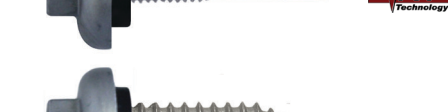
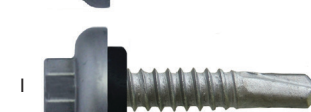
SIZES AND PERFORMANCE SPECIFICATIONS

DIAMETER AND POINT		LENGTH	Load Bearing Length (Max)	Box Qty	LIST PRICE
A	#12-14 BLAZER-2/3 LP	x 1"	.250"	3.5M	
		x 1-1/4"	.625"	2M	
		x 1-1/2"	.750"	1.5M	
		x 2"	1.25"	1.5M	
		x 3"	2.25"	2.5M	
B	1/4-14 BLAZER-1 VRT	x *7/8" VRT	.325"	2M	
		x 1-1/8" VRT	.750"	2M	
C	1/4-14 BLAZER-3	x *1-1/4"	.625"	2M	
		x 3"	2"	1M	
D	#17-14 x 1" TYPE AB W/VRT	x 4"	3"	500	
		x 1"	.750"	2.5M	
E	#12-24 BLAZER-5	x 1-1/4"	.500"	2.5M	
		x 1-1/2"	.625"	2.5M	
		x 2"	.750"	3M	
F	#12-14 1/4-14 BLAZER-3	x 1-7/8"	.875" - 1.125"	2M	
		x 2-3/8"	1.250" - 1.625"	1M	
		x 3-1/4"	1.750" - 2.437"	1m	
		x 4"	2.500" - 3.1875"	500	

LP denotes long-pilot design for metal roofing and siding

SCREW AND POINT	DRILL AND TAP CAPACITIES					
	.036"	.100"	.175"	.210"	.250"	.375"
#8-18 BLAZER-2						
#10-16 BLAZER-3						
#12-14 BLAZER-3						
#12-24 BLAZER-4						
#12-24 BLAZER-5						
1/4-14 BLAZER-1 VRT						
5/16-12 BLAZER-3						
1/4-14 BLAZER-3						
1/4-20 BLAZER-5						

BLAZER® ZINC CAP HEAD WITH EPDM SEALING WASHER



- ZAMAC 5 zinc alloy cap head for premium corrosion resistance WILL NOT RED RUST!
- TRI-SEAL® long life coated shank for superior corrosion protection.



HEAD TYPE
5/16" HWH



WASHER DETAILS
.125" Thick EPDM.
Non-conductive



SIZES AND PERFORMANCE SPECIFICATIONS

DIAMETER AND POINT		LENGTH	Load Bearing Length (Max)	Box Qty	LIST PRICE
G	#12-14 BLAZER-2/3 LP	x 1"	.250"	3.5M	
		x 1-1/4"	.625"	2.5M	
		x 1-1/2"	.750"	2.5M	
		x 2"	1.25"	2M	
		x 2-1/2"	1.5"	1M	
H	1/4-14 BLAZER-1 VRT	x 3"	2.000"	500	
		x *7/8" VRT	.325"	2.5M	
I	1/4-14 BLAZER-3	x 1-1/8" VRT	.750"	2M	
		x *1-1/4"	.625"	2M	
J	#12-24 BLAZER-5	x 1-1/2"	.750"	2m	
		x 2"	1"	2m	
K	#17-14 x 1" TYPE AB W/VRT	x 3"	2"	1M	
		x 4"	3"	500	
L	#12-14 1/4-14 BLAZER-3	x 1-1/4"	.500"	2.5M	
		x 1-1/2"	.625"	2.5M	
M	#12-14 1/4-14 BLAZER-3	x 2"	.750"	3M	
		x 1"	.750"	2.5M	
		x 1-7/8"	.875" - 1.125"	2M	
N	#12-14 1/4-14 BLAZER-3	x 2-3/8"	1.250" - 1.625"	1M	
		x 3-1/4"	1.750" - 2.437"	1m	
		x 4"	2.500" - 3.1875"	500	

LP denotes long-pilot design for metal roofing and siding

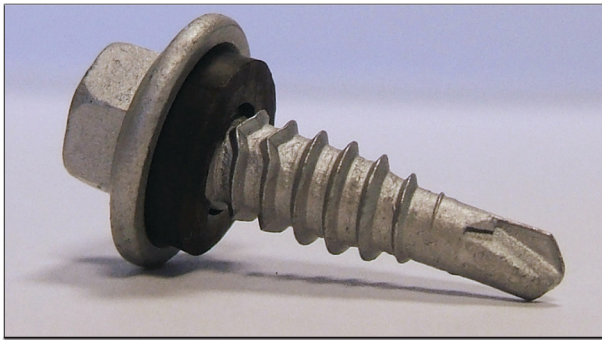
Specifications

Material: HEAD - Zamac 5 Zinc Alloy; THREAD - Carbon Steel

Plating: BODY - TRI-SEAL® Long-life Coating.

Corrosion Resistance: HEAD - No Red Rust; BODY - 1,000hrs Salt Spray

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



BACK-OUT RESISTANT SCREWS



U.S. Pat. No. 8,360,701
Taiwan Pat No. I50140
Europe Pat No. 2286067

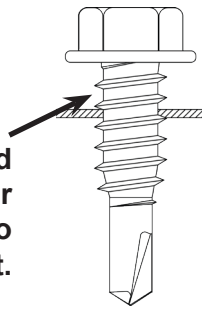
Our Vibration Resistant Thread (VRT®) is designed to significantly increase back-out torque and reduce the potential for leaks. VRT® keeps the fastener tighter in applications where expansion, contraction and vibration are a concern. Independent tests verify that VRT® produces 3-1/2 times more back-out resistance than a standard thread.

PROBLEM



Screws with standard threads can back-out easily with little force. This can cause joint failure resulting in leaks.

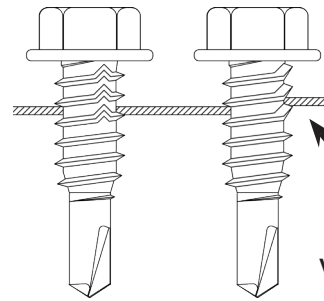
Notice how standard screw threads offer little resistance to back-out.



SOLUTION



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



Innovative patented VRT® thread increases friction as the screw loosens.

Why VRT™?

You can see how the shape of VRT® is designed to increase the resistance to back-out compared to a standard thread. VRT® keeps the fastener tighter in applications where expansion, contraction and vibration are a concern.

VRT Thread

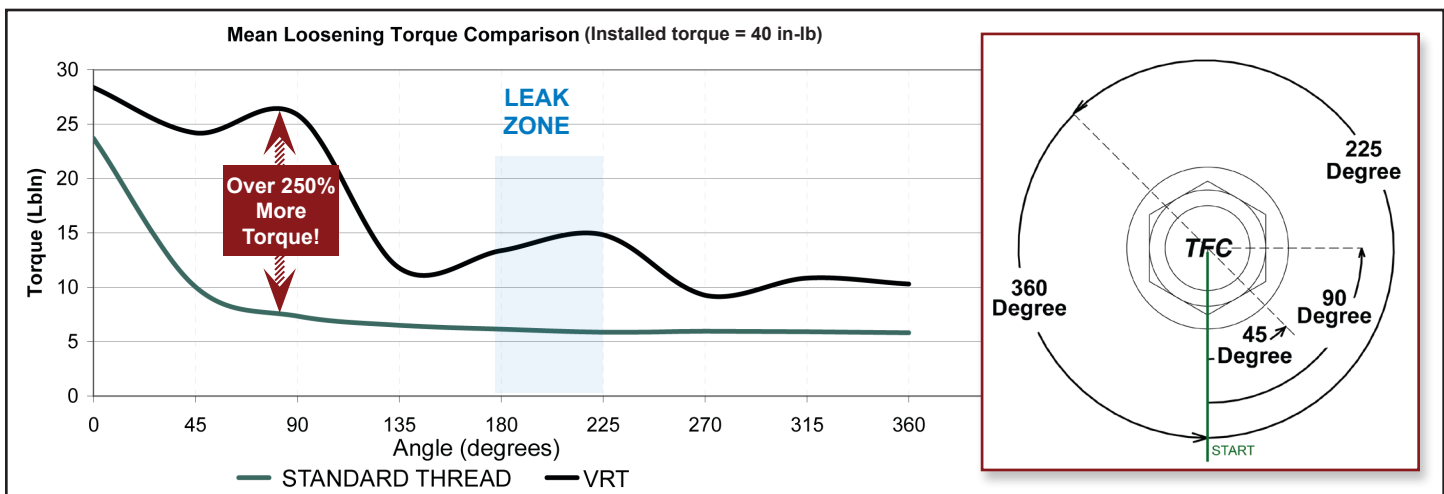


Standard Thread



Test Results

Independent tests verify that VRT produces over 3-1/2 times more back-out resistance than standard threads due to its innovative thread design that increases friction.



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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.



U.S. Pat. No. 8,360,701
Taiwan Pat No. I502140
Europe Pat No. 2286067

BACK-OUT RESISTANT SCREWS

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	14087HW1CSTSVW	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	14087HW1CSTSV	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	14087HW1CSTSVBW	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	14087HW1CSTSVWSC	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	14087HW1CSTSVWZC	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	14112HW1CSTSVWSC	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	17100HWABCSTSVBW	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

Corrosion Resistance

TRI-SEAL®
Salt Spray: 1,000 hrs minimum.

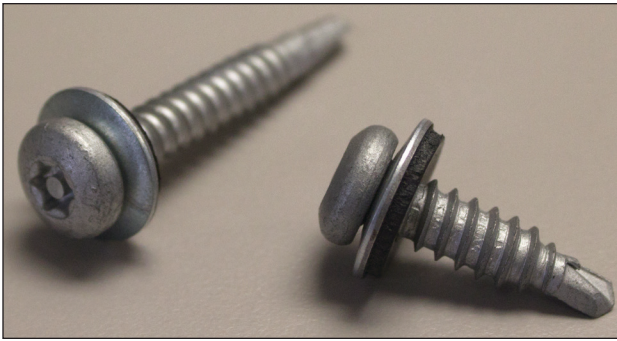
Sealing Washers

Flange Head:
EPDM Cut Tubular

Bonded Washer

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

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Security screws specifically designed for metal siding and roofing applications

TORX® PIN-HEAD

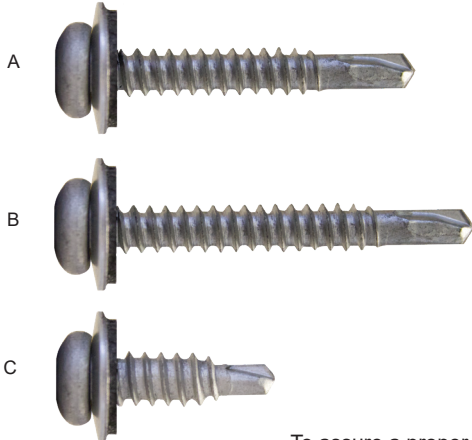
Maximum torque transfer and positive tool engagement means easier drive installation with less pressure and slippage. Torx® Pin Head offers a high degree of security and requires matching drive bit. Available in button head for neat appearance and TRI-SEAL™ 1,000 hours salt spray coating for additional corrosion protection.



T-27 Torx Pin
Recess Drive

Does your building need security?

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



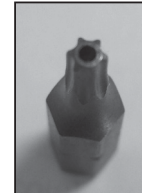
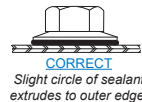
Assembled with a BOND-SEALER™ sealing washer that has EPDM vulcanized to a 20 Gauge galvanized backing that will withstand harsh weather conditions.

SIZES AND PERFORMANCE SPECIFICATIONS

	Size	Point Type	Drilling Thickness	Load Bearing Length	Box Quantity
A	#12-14 x 1-1/2"	BLAZER 3	.036" - .210"	.625"	2.0M
B	#12-14 x 2"			.750"	2.0M
C	1/4-14 x 7/8"			.250"	2.5M

Blue colored sizes denotes popular DC items

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



We supply insert bits to make installation fast and easy!

INSTALLATION TIP

Screw gun: 2,000 RPM

DO NOT USE IMPACT TOOLS

MATERIAL: C1018-1022 Carbon Steel

PLATING: .TRI-SEAL™ 1,000 hours salt spray coating

Pullout Test Result - Ultimate Average in Pounds

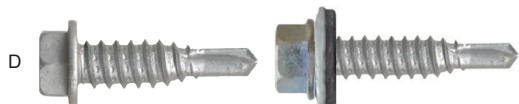
Fastener Information		PULLOUT ULTIMATE LOAD IN POUNDS Calculated Values In Accordance to AISI S100 Section E4													
Screw Size	Nom Dia. (In.)	Grade 50 per ASTM A1011 60Ksi Min. Steel					Grade 50 per ASTM A792/A653/A572/A529 65Ksi Min. Steel								
		26 Ga. (.018")	25 Ga. (.021")	24 Ga. (.024")	22 Ga. (.030")	20 Ga. (.036")	18 Ga. (.048")	16 Ga. (.060")	14 Ga. (.075")	12 Ga. (.105")	1/8" (.125")	10 ga (.135")	1/4" (.250")	3/8" (.375")	1/2" (.500")
#12	.216"	198	231	264	330	397	573	716	895	1,253	1,492	1,611	2,984	*4,475	*5,967
1/4	.250"	230	268	306	383	459	633	829	1,036	1,450	1,727	1,865	3,453	*5,180	*6,906

The tensile strength of the substrate that is used in the chart is typical for metal building and roofing applications.

Contact TFC if other substrate tensile strengths are required.

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

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All screws are available with Bonded Sealing Washers. Call for sizes

HEAD SIZE
SIZE **HEAD TYPE**
 #8 1/4" HWH
 #10, #12, *1/4" 5/16" HWH
 1/4" 3/8" HWH

BONDED WASHER
 #8, #10 = 1/2" o.d.
 #12, #14 = 15mm o.d.
MATERIAL
 304 Stainless Steel
 EPDM Sealant

SCREW AND POINT	DRILL AND TAP CAPACITIES						
	.036"	.100"	.175"	.210"	.250"	.375"	.500"
#8-18 BLAZER-2							
#10-16 BLAZER-3							
#12-14 BLAZER-3							
#12-24 BLAZER-4							
#12-24 BLAZER-5							
1/4-14 BLAZER-1 VRT							
5/16-12 BLAZER-3							
1/4-14 BLAZER-3							
1/4-20 BLAZER-5							

MATERIAL: 410 Stainless Steel

PLATING: Passivated (24hrs Salt Spray), Zinc Plated (48hrs Salt Spray), TRI-SEAL® Coated (1,000hrs Salt Spray). Call for sizes

- Provides corrosion resistance in mild atmospheres.
- Plated to resist surface rust and to reduce tapping torque.
- Optional TRI-SEAL® 1,000 hrs salt spray long-life coated to reduce tapping torque and provide additional corrosion protection.

Blue colored sizes denotes popular DC items

SIZES AND PERFORMANCE SPECIFICATIONS

DIAMETER & POINT	LENGTH	Load Bearing Length (MAX)	Box Qty	LIST PRICE
A #8-18 BLAZER-2	x 1/2"	.100"	10M	
	x 3/4"	.125"	10M	
B #10-16 BLAZER-3	x 3/4"	.250"	7.5M	
	x 1"	.500"	5M	
	x 1-1/2"	1"	5M	
C #12-14 BLAZER-3	x 3/4"	.125"	5M	
	x 1"	.250"	3.5M	
	x 1-1/4" LP	.625"	3M	
	x 1-1/2"	.750"	2M	
	x 2"	1.250"	2M	
	x 2-1/2"	1.750"	1.5M	
	x 3"	2.250"	1.0M	
D 1/4-14 BLAZER-1 VRT	x 7/8"	.325"	2.5M	
	x 1-1/8"	.875"	2.0M	
E 1/4-14 BLAZER-3	x 3/4"	.125"	2.5M	
	x 1"	.250"	2.5M	
	x 1-1/4"	.625"	2M	
	x 1-1/2"	.575"	2M	
	x 2"	1"	1.5M	
	x 3"	2"	1.5M	
	x 4"	3"	500	
	x 5"	4"	500	
	x 6"	2"-5"	500	
F #12-24 BLAZER-5	x 1-1/4"	.500	5M	
	x 1-1/2"	.625"	3.5M	
	x 2"	.875"	2m	

Pullout Loads | Ultimate in Pounds Force

Carbon Steel and 410 Stainless Steel Screws

The tensile strength of the substrate that is used in the chart below is typical for metal building and roofing applications. Contact TFC if other substrate tensile strengths are required.

Fastener Information		PULLOUT ULTIMATE LOAD IN POUNDS													
		Calculated Values In Accordance to AISI S100 Section E4													
		Grade 50 per ASTM A1011 60Ksi Min. Steel							Grade 50 per ASTM A792/A653/A572/A529 65Ksi Min. Steel						
Screw Size	Nom Dia. (in.)	26 Ga. (.018")	25 Ga. (.021")	24 Ga. (.024")	22 Ga. (.030")	20 Ga. (.036")	18 Ga. (.048")	16 Ga. (.060")	14 Ga. (.075")	12 Ga. (.105")	1/8" (.125")	10 ga (.135")	1/4" (.250")	3/8" (.375")	1/2" (.500")
#8-18	.164"	151	177	202	252	303	435	543							
#10-16	.190"	174	203	233	291	349	504	627	786	1,101	1,311				
#12-14	.216"	198	231	264	330	397	573	716	895	1,253	1,492	1,611			
#12-24	.216"										1,492	1,611	2,984	*4,475	*5,967
1/4-14	.250"	230	268	306	383	459	633	829	1,036	1,450	1,727	1,865	3,453		

For allowable loads, please apply an appropriate Factor of Safety as required by local and national code requirements.

AISI S100 Section E4 recommends a Factor of Safety of 3 for allowable loads

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The largest selection of 304 stainless steel bi-metal self-drilling screws
The head and threads are made of 304 stainless steel, providing exceptional corrosion protection and ductility. The drill point is made of hardened carbon steel welded to the body. Sizes that will drill and tap steel up to 1/2" thick!

Sizes • Specifications • Part Numbers

Head Style		Description	Drilling Thickness	¹Load Bearing Length W/W	Part Number	
					No Washer	With Washer
5/16" AF HWH	A	#12-14 x 1" DP1	.090" max	.470"		12100HWT1S3BMBW
	B	#12-14 x 1" DP3	.059" - .236"	.350"	12100HWT3S3BM	12100HWT3S3BMBW
		#12-14 x 1-1/4" DP3		.550"	12125HWT3S3BM	12125HWT3S3BMBW
		#12-14 x 1-3/8" DP3		.750"	12137HWT3S3BM	12137HWT3S3BMBW
		#12-14 x 2" DP3		1.375"	12200HWT3S3BM	12200HWT3S3BMBW
	C	#12-14 x 1-1/2" DP5	.157" - .472"	.500"	12150HWT5S3BM	12150HWT5S3BMBW
		#12-14 x 2-1/4" DP5		1.220"	12225HWT5S3BM	12225HWT5S3BMBW
3/8" AF HWH	D	1/4-14 x 1" DP2	.047" - .118" (AL = .125")	.468"	14100HWT2S3BM	14100HWT2S3BMBW
		1/4-14 x 1-1/2" DP2		.970"	14150HWT2S3BM	14150HWT2S3BMBW
		1/4-14 x 2" DP2		1.4327"	14200HWT2S3BM	14200HWT2S3BMBW
	E	1/4-20 x 1-1/8 DP4		.375"	14112HWT4S3BM	14112HWT4S3BMBW
		1/4-20 x 1-1/2" DP4		.718"	14150HWT4S3BM	14150HWT4S3BMBW
		1/4-20 x 2" DP4		1.203"	14200HWT4S3BM	14200HWT4S3BMBW
	F	1/4-20 x 2" DP5		.937"	14200HWT5S3BM	14200HWT5S3BMBW
1/4-20 x 4" DP5		1.3968"	14400HWT5S3BM	14400HWT5S3BMBW		
T25 TORX	G	#12-14 x 1" DP2	.047" - .118"	.340" (n/w)	12100TPCULT2S3BM	
#2 Square	H	#12-14 x 1" DP3	.059" - .210"	.375"	12100SPC3BM	
	I	#12-14 x 2" DP3		1.750"	12200SPC3BM	
T-25 TORX	J	#12-14 x 1" DP1	.090" max	.475"		12100TBT1S3BMBW
		#12-14 x 2" DP2	.059" - .118"	1.475"	12200TBT2S3BM	12200TBT2S3BMBW
	K	#12-14 x 1" DP3	.059" - .236"	.350"	12100TBT3S3BM	12100TBT3S3BMBW
		#12-14 x 1-3/8" DP3		.750"	12137TBT3S3BM	12137TBT3S3BMBW
	L	#12-14 x 1-1/2" DP5	.157" - .472"	.510"	12150TBT5S3BM	12150TBT5S3BMBW
	M	T-25 TORX WEDGE BIT			Part Number: TB25W	

Notes

1. Add .125" to bearing length for no washer.
2. TORX Recess: Must use a T25W Torx Wedge bit.

T-25W TORX RECESS

Must use T-25W Wedge Drive Bits.

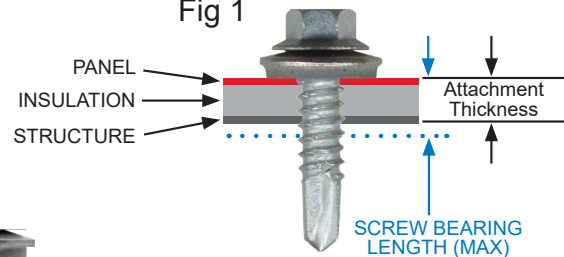


For best installation of button head screws, use the **BUTTON-DRIVE™** tool. #9152600000

Screw Length Selection

The attachment thickness should not exceed the load bearing length of the screw. Refer to fig 1 below.

Fig 1



MATERIAL

Body: 304 Stainless Steel
Drill Tip: Carbon Steel

PLATING

#12 Dia.: Zinc and Wax
1/4" Dia.: Zinc with TRI-SEAL Topcoat

SEALING WASHERS (BOND-SEAL)

15MM OD. 304SS Stainless Steel
Backing to Non-conductive EPDM

Installation Information

Use a 2,000 rpm max screw-gun with torque control or depth sensing.



MANY MORE SIZES AVAILABLE!

Checkout our **CONCEALOR®** pancake line of screws!

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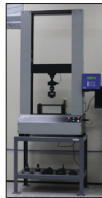


PULLOUT

Because the tensile strength of the substrate dramatically affects the pullout of the fastener, TFC provides published pullout results based on a calculation developed by AISI and **The Aluminum Association Aluminum Design Manual**

The following pullout loads were calculated per AISI S100 | Section 4 of the Supplement No. 2 to the American Specification for the Design of Cold-Form Steel Structural members (S100-07/S2-10).

Many tests were conducted with compressible fiberglass insulation placed between steel sheet samples. It was determined by the results that the equations are valid for steel connections including applications that use compressible insulation. Refer to AISI S100 for more details.



- The pullout calculation requires the use of the nominal diameter of the screw and the tensile strength of the substrate.
- Because substrate tensile and specific fastener details like point diameter affects pullout loads, these pullout loads are conservative.

For tested values, contact Triangle Fastener to conduct actual pullout tests based on a specific fastener style and the tensile strength requirement of the substrate.

PULLOUT LOADS | ULTIMATE IN POUNDS (Carbon Steel, 304 Stainless Steel & 410 Stainless Steel Screws)

The tensile strength of the substrate that is used in the chart below is typical for metal building and roofing applications. Contact TFC if other substrate tensile strengths are required.

STEEL

Fastener Information		PULLOUT ULTIMATE LOAD IN POUNDS Calculated Values In Accordance to AISI S100 Section E4										
Screw Size	Nom Dia. (in.)	Grade 50 per ASTM A1011 60Ksi Min. Steel		Grade 50 per ASTM A792/A653/A572/A529 65Ksi Min. Steel								
		22 Ga. (.030")	20 Ga. (.036")	18 Ga. (.048")	16 Ga. (.060")	14 Ga. (.075")	12 Ga. (.105")	1/8" (.125")	10 ga (.135")	1/4" (.250")	3/8" (.375")	1/2" (.500")
#10-16	.190"	291	349	504	627	786	1,101	1,311				
#12-14	.216"	330	397	573	716	895	1,253	1,492	1,611	2,984	*4,475	*5,967
1/4-14	.250"	383	459	633	829	1,036	1,450	1,727	1,865	3,453		
1/4-20	.250"							1,727	1,865	3,453	*5,180	*6,906

* Denotes load exceeds tensile strength of screw.

ALUMINUM | 6063-T5

Fastener Information			PULLOUT ULTIMATE LOAD IN POUNDS Calculated per The Aluminum Association Aluminum Design Manual						
Screw Size	Nom Dia. (in.)	Tensile	Grade 6063 - T5 (27Ksi Tensile - 21Ksi Yield)						
			.030"	.040"	.050"	.125"	.250"	.375"	
#10-16	.190"	950 ¹	161	201	242	599	2090	3582*	
#12-14	.216"	1135 ¹	183	229	275	680	2231	3928*	
1/4-14	.250"	2138 ²	212	265	318	788			
1/4-20	.250"	2413 ²					2583	4546*	

* Denotes load exceeds tensile strength of screw.

¹ Per ICCES ESR-4009 (Ejot)

² Per CCRR-0387 (SFS)

Fastener Information		Screw Strengths (Ultimate)	
Screw Size	Nom Dia. (in.)	Tension	Shear
#10-16	.190"	950 ¹	695 ¹
#12-14	.216"	1135 ¹	875 ¹
1/4-14	.250"	2138 ²	1703 ²
1/4-20	.250"	2413 ²	1803 ²

¹ Per ICCES ESR-4009 (Ejot)

² Per CCRR-0387 (SFS)

js0721

REPORTS

ICCES ESR-4009 (Ejot)

CCRR-0387 (SFS)

MATERIAL

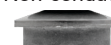
Body: 304 Stainless Steel
Drill Tip: Carbon Steel

PLATING

#10 & #12 Dia.: Zinc and Wax
1/4" Dia.: Zinc with TRI-SEAL Topcoat
Salt Spray Per ASTM B117 - > 2,000 Hrs

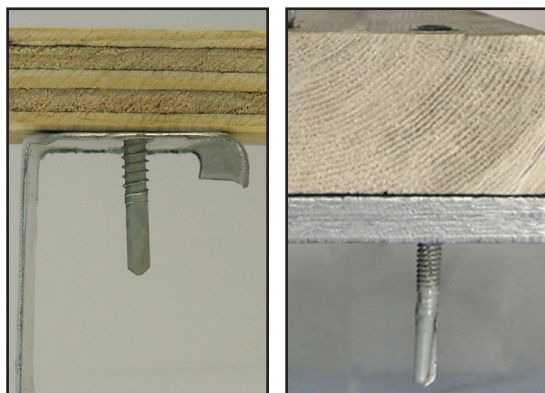
SEALING WASHERS (BOND-SEAL)

15MM OD. 304SS Stainless Steel
Backing to Non-conductive EPDM



For allowable loads, please apply an appropriate Factor of Safety as required by local and national code requirements. AISI S100 Section E4 recommends a Factor of Safety of 3 for allowable loads.

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We have the largest selection of wood-to-metal drill screws engineered to provide high performance and easy installation.

Need to attach wood to metal thinner than 1/4"?

Our full line of sizes are designed to fasten to metal as thin as 18-gauge!

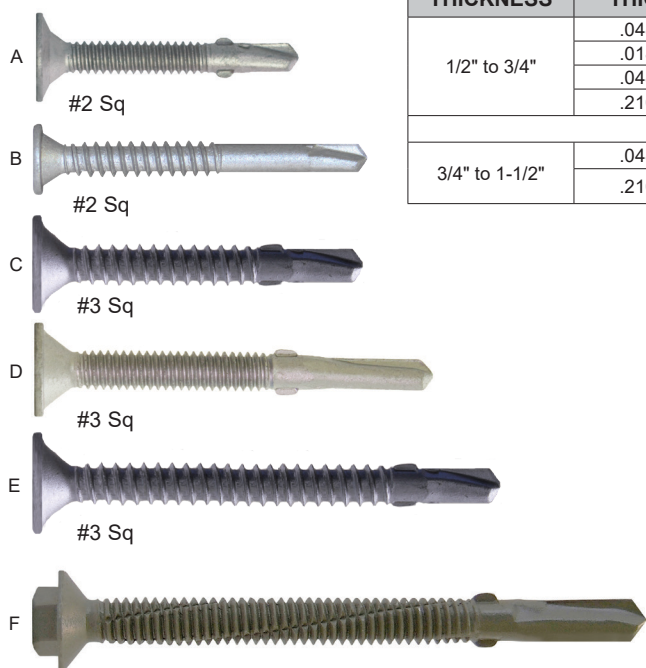
Need to attach wood to steel that is 1/2" thick?

We offer the only wood-to-metal fastener that will drill and tap steel up to 1/2" thick. It has a special hex-countersunk head that provides optimal driving stability and can also be installed flush to the surface of the wood.



Square recess for superior stability during installation.

SIZES



5/16 hex countersunk head provides exceptional stability during installation and can be installed flush to the wood surface.

WOOD THICKNESS	DRILLING THICKNESS	Screw	Diameter Length Point	Head Dia.	Box Qty
1/2" to 3/4"	.048" - .210"	A	#10-24 x 1-7/16" BLAZER-3 With Wings	.460"	4M
	.018" - .175"	B	#10-16 x 1-3/4" BLAZER-3 Long Pilot	.380"	2.5m
	.048" - .210"	C	#12-14 x 1-3/4" BLAZER-2 With Wings	.500"	2M
	.210" - .500"	D	*#12-24 x 2-1/8" BLAZER-5 With Wings	.500"	2M
3/4" to 1-1/2"	.048" - .210"	E	#12-14 x 2-1/2" BLAZER-2 With Wings	.500"	1M
	.210" - .500"	F	1/4-20 x 3-1/8" BLAZER-5 With Wings	.510"	1M

Select a screw based on the thickness of the wood and the thickness of the steel substrate.

Screw Recommendations

Steel ≤ .210" : Screw E
Steel > .210" : Screw F

Screw Recommendations
Steel ≤ .210" : Screw A, B, C
Steel > .210" : Screw D

1/2" to 3/4" WOOD

1" to 1-5/8" WOOD

TECHNICAL DATA

Recommended Screw Gun Speed: 2,000 RPM Max

Fastener Information		PULLOUT ULTIMATE LOAD IN POUNDS Calculated Values In Accordance to AISI S100 Section E4													
Screw Size	Nom Dia. (in.)	Grade 50 per ASTM A1011 50Ksi Min. Steel					Grade 50 per ASTM A792/A653/A572/A529 65Ksi Min. Steel								
		26 Ga. (.018")	25 Ga. (.021")	24 Ga. (.024")	22 Ga. (.030")	20 Ga. (.036")	18 Ga. (.048")	16 Ga. (.060")	14 Ga. (.075")	12 Ga. (.105")	1/8" (.125")	10 ga (.135")	1/4" (.250")	3/8" (.375")	1/2" (.500")
#10	.190"	174	203	233	291	349	504	627	786	1,101	1,311				
#12	.216"	198	231	264	330	397	573	716	895	1,253	1,492	1,611	2,984	*4,475	*5,967
1/4	.250"	230	268	306	383	459	633	829	1,036	1,450	1,727	1,865	3,453	*5,180	*6,906

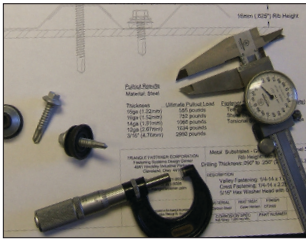
* Denotes load exceeds tensile strength of screw.

Head Type

#10: #2 Sq - Wafer Countersunk
#12: #3 Sq - Wafer Countersunk
1/4": 5/16" Hex Countersunk
Material: C-1022 Carbon steel
Finish: TRI-SEAL® Long-life
Salt Spray: 1,000hrs
Compatible for use in ACQ and fire treated lumber.
Produced to SAE J78 specifications.

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BLAZER® ENGINEERING DATA



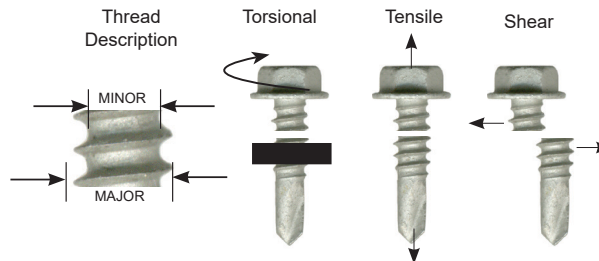
The following information is compiled to assist the design professional in selecting the appropriate fastener for the application. This data is compiled from fastener standards and independent tests. An engineering professional should be consulted to determine expected loads on the connection, environmental 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 B18.6.4 and AISI TS-4-02 specifications. Conforms to ICCES AC118 acceptance criteria for tapping screw fasteners.





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

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	24	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	3,850	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	196	4,550	2,576
5/16-12	0.313	0.315	0.306	0.244	0.236	0.0702	290	5,439	3,264

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

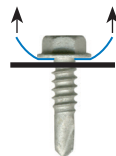
English to Metric Formula to Use
Inch to Millimeter Decimal x 25.4
PSI to Newton / Millimeters² PSI x .007
Pounds Force to Newtons Pounds Force x 4.448

 APPROVED	1/4-14 DP3
	1/4-20 DP5
	#10-16 DP3
	#12-14 DP3
	#12-24 DP5
	1/4-14 DP3
	1/4-20 DP5

PULLOVER TEST RESULTS

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

Note: Estimated pullover for fasteners without sealing washers can be calculated using the following formula per AISI S100.



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

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

* Denotes load exceeds tensile strength of screw.

Fastener Information		PULLOUT ULTIMATE LOAD IN POUNDS													
		Calculated Values In Accordance to AISI S100 Section E4													
		Grade 50 per ASTM A1011 60Ksi Min. Steel					Grade 50 per ASTM A792/A653/A572/A529 65Ksi Min. Steel								
Screw Size	Nom Dia. (in.)	26 Ga. (.018")	25 Ga. (.021")	24 Ga. (.024")	22 Ga. (.030")	20 Ga. (.036")	18 Ga. (.048")	16 Ga. (.060")	14 Ga. (.075")	12 Ga. (.105")	1/8" (.125")	10 ga (.135")	1/4" (.250")	3/8" (.375")	1/2" (.500")
#8-18	.164"	151	177	202	252	303	435	543							
#10-16	.190"	174	203	233	291	349	504	627	786	1,101	1,311				
#10-24	.190"						504	627	786	1,101	1,311				
#12-14	.216"	198	231	264	330	397	573	716	895	1,253	1,492	1,611			
#12-24	.216"										1,492	1,611	2,984	*4,475	*5,967
1/4-14	.250"	230	268	306	383	459	633	829	1,036	1,450	1,727	1,865	3,453		
1/4-20	.250"										1,727	1,865	3,453	*5,180	*6,906
5/16-12	.3125"						829	1,036	1,295	1,813	2,158	2,331			

Pullout Loads for Carbon Steel, 304 Stainless Steel & 410 Stainless Steel Screws
The tensile strength of the substrate that is used in the chart below is typical for metal building and roofing applications. Contact TFC if other substrate tensile strengths are required.

For allowable loads, please apply an appropriate Factor of Safety as required by local and national code requirements.

AISI S100 Section E4 recommends a Factor of Safety of 3 for allowable loads.

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TRI-SEAL® LONG-LIFE COATING

TRI-SEAL® Long-Life Coating is a high performance dip spin finish, developed to minimize corrosion when used in exterior building applications. It consists of three layers; the first layer is a metallic zinc layer, the second layer is a high-grade anti-corrosion chemical conversion film and the third, outer layer, is a baked ceramic surface coating.

The distinguishing feature of **TRI-SEAL®** is the tight joining of the baked ceramic surface coating and the chemical conversion film. These two layers are bonded together through chemical reactions, and this unique method of combining layers result in a rigid combination of the coating films.

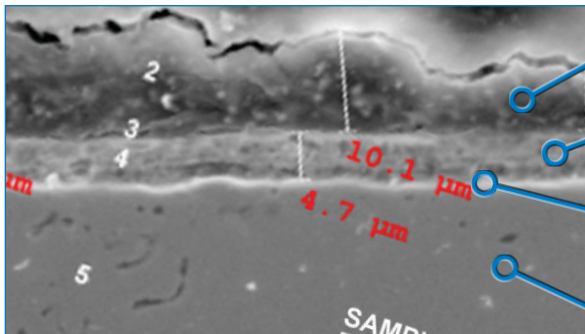
Salt Spray Test Results

1,000hrs Per ASTM B117 - No Red Rust

Applications: Exceeds salt spray requirement specified in ASTM B633, B659, & F1941 (zinc plating).
Compatible for use in treated lumber

- Excellent resistance against gas, weather, and other kinds of corrosion factors, including salt water.
- Compatible for use in ACQ and Fire Treated Lumber.
- Composite layers minimize the effect of scratches on the protection coating.
- Compatible for use in aluminum applications.
- UV resistant. Does not chalk or fade

SEM IMAGING



Layer 1 - Baked Ceramic Surface Coating Layer

Corrosive elements are intercepted by the strong paint film made of ceramic materials.

Layer 2 - Chemical Conversion Coating Layer

Rust proof performance is improved as the chemical conversion inactivates the zinc plated surface and creates a tight adhesion between the chemically converted layer and the paint layer.

Layer 3 - Metallic Zinc Layer

The steel / iron substrate is protected from corrosion by the self-sacrificial galvanic effect of the zinc coating.

Layer 4 - Fastener

MATERIAL PROPERTIES

Test Items	Test Methods	Test Results
Hardness	Peeling test by pencil hardness	Over 4H
Adhesion	Peeling test by adhesive tape on cross scribed test piece in 1 mm width	Nothing abnormal
Acid Resistance	Immersion in 5% sulfuric acid solution for 24 hours	Nothing abnormal
Alkali Resistance	Immersion in 5% sodium hydroxide solution for 72 hours	Nothing abnormal
Heat Resistance	Exposure to 250 C (482 F) heat for an hour	Nothing abnormal
Accelerated Weathering	Sunshine weather-0-meter test for 1,000 hours	Free from red rust
Contact Corrosion w/other Metals	Corrosive investigation after Salt Spray Test (JIS Z2371) done comparatively on surface treated steel bolts/nuts tightened on a stainless steel plate	Clearly superior to zinc electroplated (colored chromate) and hot dip galvanizing

Corrosion Testing

Salt Spray: 1,000hrs.
Per ASTM B117.
No red rust

Kesternich:
30 cycles | 1.0 L
15 cycles | 2.0 L
ASTM G87
No Red Rust

UV Resistant

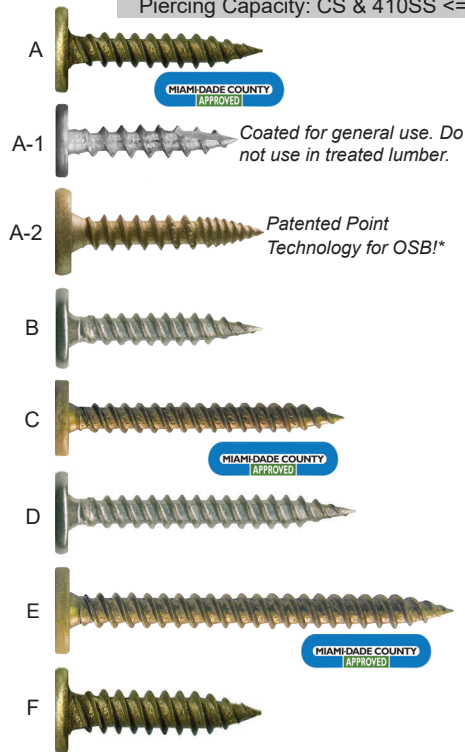
Exceeds salt spray requirements specified in ASTM B633, B695, & F1941 (zinc plating).

Contact TFC for additional details on TRI-SEAL®.

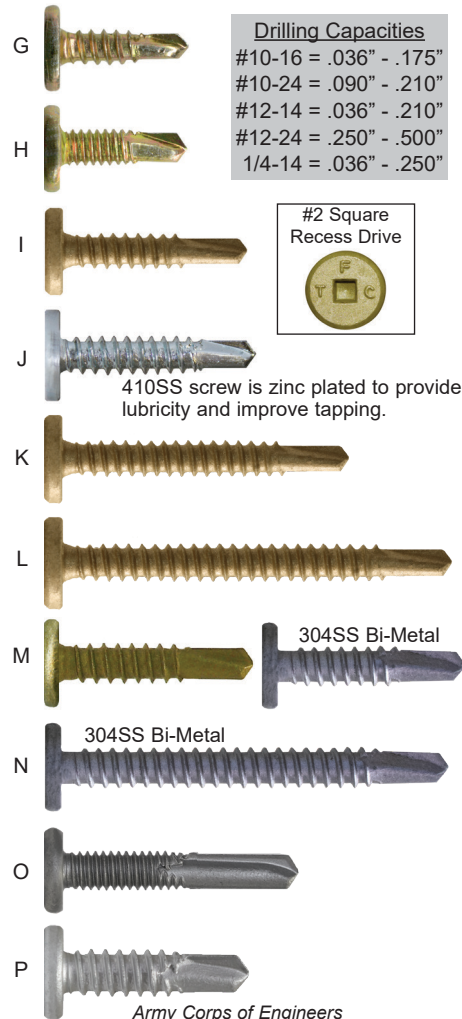
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WOOD OR THIN METAL

Piercing Capacity: CS & 410SS <=20 ga



METAL SUBSTRATES



#10, #12, & 1/4" PIERCING POINTS AND DRILL POINTS

CONCEALOR® low profile head fasteners are engineered to perform in a variety of applications. They are specified in many metal roofing systems to attached SSR clips to metal or wood. They are easy to install and provides optimal strength.

Bagged 250 pcs. per bag

SIZES

MEETS FLORIDA BUILDING CODE 1506.6 & R904.5.2 (TRI-SEAL® & SS ONLY)

	Description	Load Bearing Length (Max)	Part Number	Box Quantity	WT Per Box
A	#10-13 X 1" GP Long-life TRI-SEAL® coated	*Note	10100SPCGCSTS	5,000 pcs	36.0 lbs.
A-1	#10-9 X 1" Type 17 Coated for general use	*Note	10100SPC17CSCZ	5,000 pcs	36.0 lbs.
A-2	#10-12 X 1" BURR BUSTER Long-life TRI-SEAL® coated	*Note	10100SPCGBBCSTS	5,000 pcs	36.0 lbs.
B	#10-13 X 1" GP 302 Stainless Steel	*Note	10100SPCGS3	5,000 pcs	39.0 lbs.
C	#10-13 X 1-1/2" GP Long-life TRI-SEAL® coated	*Note	10150SPCGCSTS	3,000 pcs	31.0 lbs.
D	#10-13 X 1-1/2" GP 302 Stainless Steel	*Note	10150SPCGS3	3,000 pcs	32 lbs.
E	#10-13 X 2" GP Long-life TRI-SEAL® coated	*Note	10200SPCGCSTS	1,500 pcs	19.0 lbs.
F	#12-11 X 1" GP Long-life TRI-SEAL® coated	*Note	12100SPCGCSTS	5,000 pcs	44.0 lbs.
G	#10-16 X 5/8" DP3 .0003" Zinc and Yellow	.125"	10062SPC3CS	5,000 pcs	27.0 lbs.
H	#10-24 X 5/8" DP3 .0003" Zinc and Yellow	.125"	10062SPC3CSYZ	5,000 pcs	27.0 lbs.
I	#10-16 X 1" DP3 Long-Life TRI-SEAL® coated	.500"	10100SPC3CSTS	5,000 pcs	37.0 lbs.
J	#10-16 X 1" DP3 410 Stainless Steel / ZP	.500"	10100SPC3S4	5,000 pcs	37.0 lbs.
K	#10-16 X 1-1/2" DP3 Long-Life TRI-SEAL® coated	1"	10150SPC3CSTS	3,000 pcs	32.0 lbs.
L	#10-16 x 2" DP3 Long-Life TRI-SEAL® coated	1.5"	10200SPC3CSTS	1,500 pcs	21.0 lbs.
M	#12-14 X 1" DP3 Long-Life TRI-SEAL® coated	.375"	12100SPC3CSTS	5,000 pcs	43.0 lbs.
	#12-14 X 1" DP3 304SS Bi-Metal	.375"	12100SPC3BM	5,000 pcs	43.0 lbs.
N	#12-14 X 2" DP3 304SS Bi-Metal	1.5"	12200SPC3BM	1,500 pcs	21.0 lbs.
O	#12-24 X 1-1/4" DP5 Long-Life TRI-SEAL® coated	.500"	12125SPC5CSTS	4,000 pcs	52.0 lbs.
	#12-24 X 1-1/2" DP5 Long-Life TRI-SEAL® coated	.625"	12150SPC5CSTS	4,000 pcs	43.8 lbs.
P	1/4-14 X 1" DP3 Long-Life TRI-SEAL® coated	.325"	14100SPC3CSTS	2,500 pcs	27.0 lbs.

* NOTE: For wood applications less than 1" thick, allow tip to extend beyond bottom of wood for optimal pullout strength. Screw length should be at least .3125" longer than the overall attachment length.

SPECIAL APPLICATIONS

Assemble CONCEALOR® with a bonded sealing washer that locks out weather!



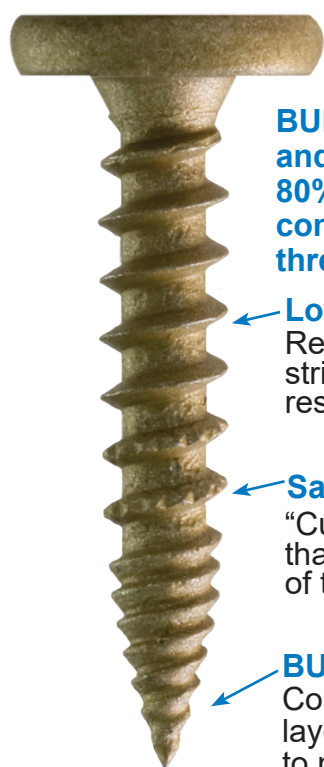
We can color match to your exact requirements in three days or less!



Installation: Do NOT use impact drivers. Use 2,500 RPM max variable speed screw drivers with torque control or depth sensing nosepiece.

*Pat. No.: 11,105,362

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BURR BUSTER® Thread and Point produces 80% more pullout load compared to low root threads!

Low Angle Thread
Reduces over-driving, stripping, and increases resistance to loosening.

Saw Cut Thread
“Cuts” the OSB layers that enhances tapping of the thread.

BURR-BUSTER Point
Compresses the OSB layers during penetration to minimize delamination.

The CONCEALOR® screws with our patented BURR-BUSTER® point and thread technology are engineered for superior performance in OSB.

Supplied with TRI-SEAL® 1,000-hours salt spray coating for exceptional corrosion resistance.



Bagged 250 pcs. per bag!

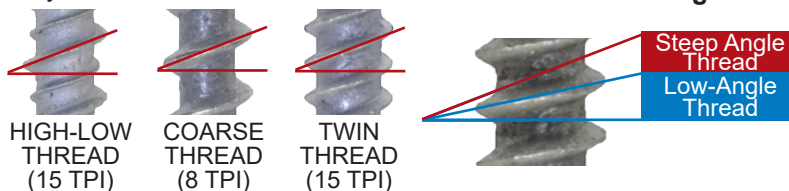
SIZES

#10-12 x 1" with BURR-BUSTER Point.
Carbon Steel | TRI-SEAL COATED
Part Number: 10100SPCBBBCSTS

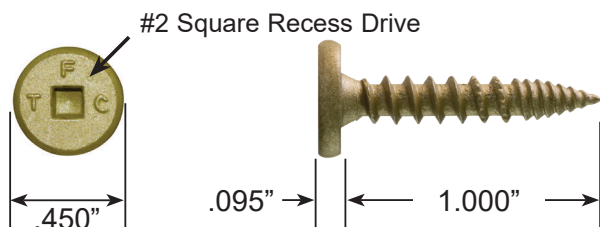
Patented Anti-burr Thread and Point Technology!*

Ordinary metal-to-wood screws have steep angled threads that are easily over-driven and can back-out.

A low-angle thread helps keep the screw from loosening



TECHNICAL INFORMATION



Pullout - Average Ultimate in Pounds

Fastener Dia. & Point	5/8" Ply	3/4" Ply	7/16" OSB	19/32" OSB	2x4 SYP
#10-12 Burr Buster	450	706	258	381	648*

Test Report # T279-17 & T299-17 | Farabaugh Engineering.

*NOTE: 1" embedment into face of 2x.
Deeper embedment will increase pullout.

Fastener Strength

Size	Torsional (min. in-lbs)
#10-12	65

Corrosion Protection

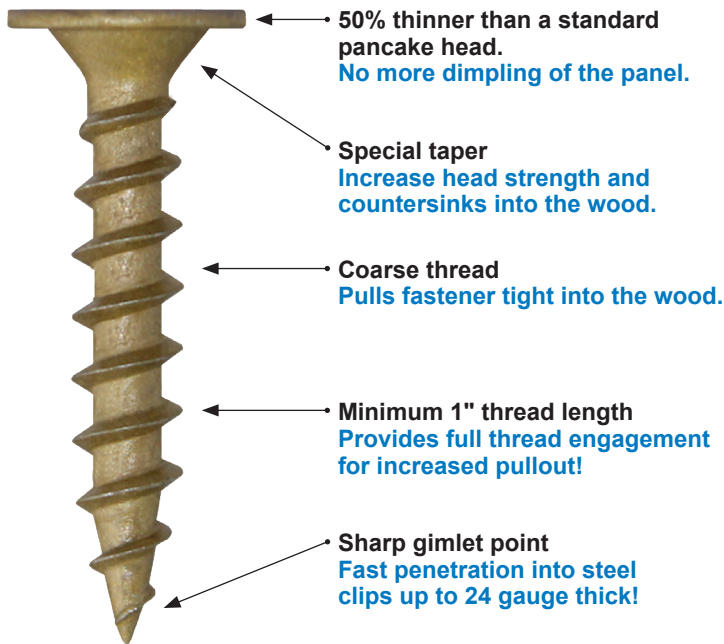
CORROSION TESTING	Results
SO ₂ Test Per ASTM G87	20 Cycles
Salt Spray Per ASTM B117	1,000 hrs

TRI-SEAL® COATED | COMPATIBLE FOR USE IN TREATED LUMBER.

***Pat. No.: 11,105,362**

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Need it Ultra Low?



Available in lengths up to 2-1/8"!

Trust the original Ultra Low Profile Screw!

The CONCEALOR® ULP screws are engineered to attach standing seam roof clips to wood. They are the preferred screw for attaching clip-less nail hem metal roof panels, are easy to install, and provide optimal strength. ULP's are supplied with TRI-SEAL® 1,000-hours salt spray coating which can be used in treated and fire treated lumber.



Bagged 250 pcs. per bag for your convenience!

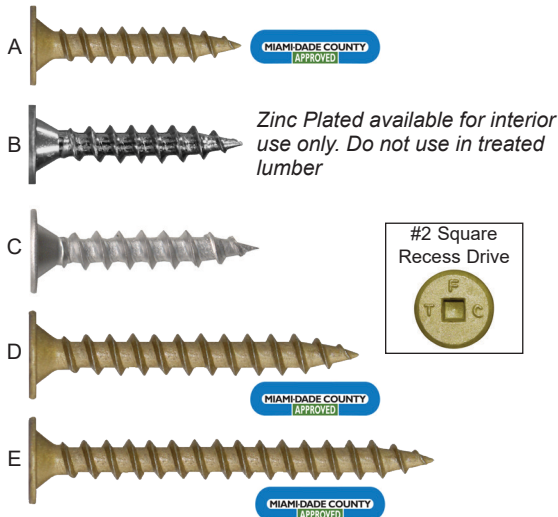
MEETS FLORIDA BUILDING CODE 1506.6 & R904.5.2 (TRI-SEAL® & SS ONLY)

Sizes

Pierce up to 20 ga steel

	Description	Part Number	Box Quantity	WT Per Box	Price
A	#10-9 X 1-1/8" ULP (CS) Long-life TRI-SEAL™ coated	10112SPCUGCSTS	5,000	31.0 lbs	
B	#10-9 X 1-1/8" ULP (CS) Zinc Plated Interior Use Only	10112SPCUGCSZP	5,000	31.0 lbs	
C	#10-9 X 1-1/8" ULP (410 SS) Passivated	101125SPCUGS4	5,000	32.0 lbs.	
D	#10-9 X 1-5/8" ULP (CS) Long-life TRI-SEAL™ coated	1062SPCUGCSTS	3,000	34.0 lbs.	
E	#10-9 X 2-1/8" ULP (CS) Long-life TRI-SEAL™ coated	10212SPCUGCSTS	1,500	17.0 lbs.	

CS = Carbon Steel - C1018 / C1022
410 SS = 410 Stainless Steel



TECHNICAL INFORMATION

Description: #10-9 Gimlet Point self-tapping screw
Head Style: Ultra low pancake head with taper.
Drive System: #2 square recess
Head Thickness: .040"
Material: C1022 carbon steel
410 Stainless steel
(Copper Roofing Compatible)
Heat Treat: Case hardened to ANSI/ASME B18.6.4 specification
Finish:
Carbon Steel: TRI-SEAL™ long-life coating (1,000hrs. salt spray)
Stainless Steel: Passivated (48hrs. salt spray)

Thread Detail

Major Diameter: .195"
Minor Diameter: .125"
Stress Area: .01267 in²

Pullout - Average Ultimate in Pounds

Fastener Dia. & Point	Wood Type						
	1/2" Plywood	5/8" Plywood	3/4" Plywood	7/16" OSB	19/32" OSB	23/32" OSB	2 x 4 SYP
#10-9 GP	383	395	574	136	356	514	813

Farabaugh Engineering Test: Project No. T279-10

Rev 040711

Fastener Strength

Torsional	60 lb-in
Tensile	1,520 lbs. min.
Shear	1,150 lbs. min.

Installation: Do not use impact drivers!
Use 2,500 RPM max variable speed screw drivers
with torque control or depth sensing nosepiece.

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TFC VALUE PROPOSITION

Large Selection
Lengths to meet your application needs.

Best Quality
Assures low in-place cost.

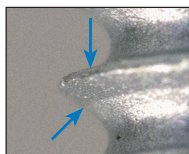
Fast Delivery / Need-it-Now!
Reduces your inventory costs.

SS Denotes available sizes in stainless steel **SS**

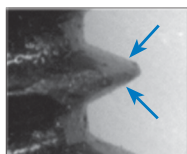
Here is why we use a special thread...

We use a buttress thread that provides exceptional clamping loads and is specified in many metal roofing systems to attached SSR clips over rigid insulation into metal deck.

CONCEALOR® with Buttress Thread **Ordinary Thread Form**



"Flat" thread keeps the joint tight



A "Tapered" thread tends to cause the joint to loosen

#2 Square Recess Drive



- Attach to metal, wood, and concrete -

CARBON STEEL

- TRI-SEAL® coated provides over 10-times more corrosion resistance than black epoxy coated screws
- Drill and tap up to *16ga steel
- Can be used in concrete applications.

* The hardness of the steel can affect the drill and tap performance and may require predrilling. For concrete, predrill using a 3/16" masonry bit.

304 STAINLESS STEEL

- 304 Stainless Steel Bi-Metal provides superior corrosion resistance
- Drill and tap up to *18ga steel
- TRI-SEAL® coated provides lubricity that minimizes thread roll-over

SIZES

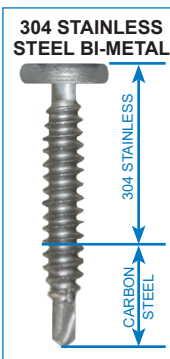
* Denotes 4-1/2" Thread Length

Description	Load Bearing Length	Part Number	Carton Quantity	Wt Per Carton	PRICE
#14-13 x 3/4" DP1	.125"	14075SPC1CSTS	3,000 pcs	21 lbs	
#14-13 x 1-1/2" DP1	.750"	CS: 14150SPC1CSTS 304SS: 14150SPC1BM	2,500 pcs	34 lbs	
#14-13 x 2" DP1	1.250"	CS: 14200SPC1CSTS 304SS: 14200SPC1BM	1,000 pcs	18 lbs	
#14-13 x 3" DP1	.125" - 2.250"	CS: 14300SPC1CSTS 304SS: 14300SPC1BM	1,000 pcs	24 lbs	
#14-13 x 4" DP1	.125" - 3.250"	14400SPC1CSTS	500 pcs	16 lbs	
#14-13 x 4-1/2" DP1	.625" - 3.375"	14450SPC1CSTS	500 pcs	17 lbs	
#14-13 x 5" DP1*	1.250" - 4.250"	14500SPC1CSTS	500 pcs	19 lbs	
#14-13 x 6" DP1*	2.125" - 5.250"	14600SPC1CSTS	500 pcs	23 lbs	
#14-13 x 7" DP1*	3.875" - 6.250"	CS: 14700SPC1CSTS 304SS: 14700SPC1BM	500 pcs	28 lbs	
#14-13 x 8" DP1*	4.875" - 7.250"	14800SPC1CSTS	250 pcs	17 lbs	
#14-13 x 9" DP1*	5.875" - 8.250"	14900SPC1CSTS	250 pcs	19 lbs	

Installation: DO NOT USE IMPACT DRIVERS!

Use 2,500 RPM max variable speed screw drivers with torque control or depth sensing nosepiece.

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MEETS FLORIDA BUILDING
CODE 1506.6 & R904.5.2
(TRI-SEAL® & SS ONLY)

Technical Info
Refer to page MD28 for
complete technical data.

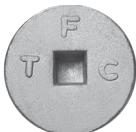


1/4-14 DP3 - DRILL AND TAP UP TO 1/4" THICK STEEL

#14 DP3 CONCEALOR® pancake head screws are designed for heavy gauge applications and can drill and tap up to 1/4" steel. The 1/4-14 thread produces greater strength and resists bending compared to smaller diameter screws. Originally designed for IMP!

These screws are coated with TRI-SEAL™ long-life coating that exceeds ASTM B633 specifications providing 1,000-hours salt spray performance, and FM4470 per ASTM G87 Sulfur Dioxide Test.

SPECIAL HEAD DESIGN



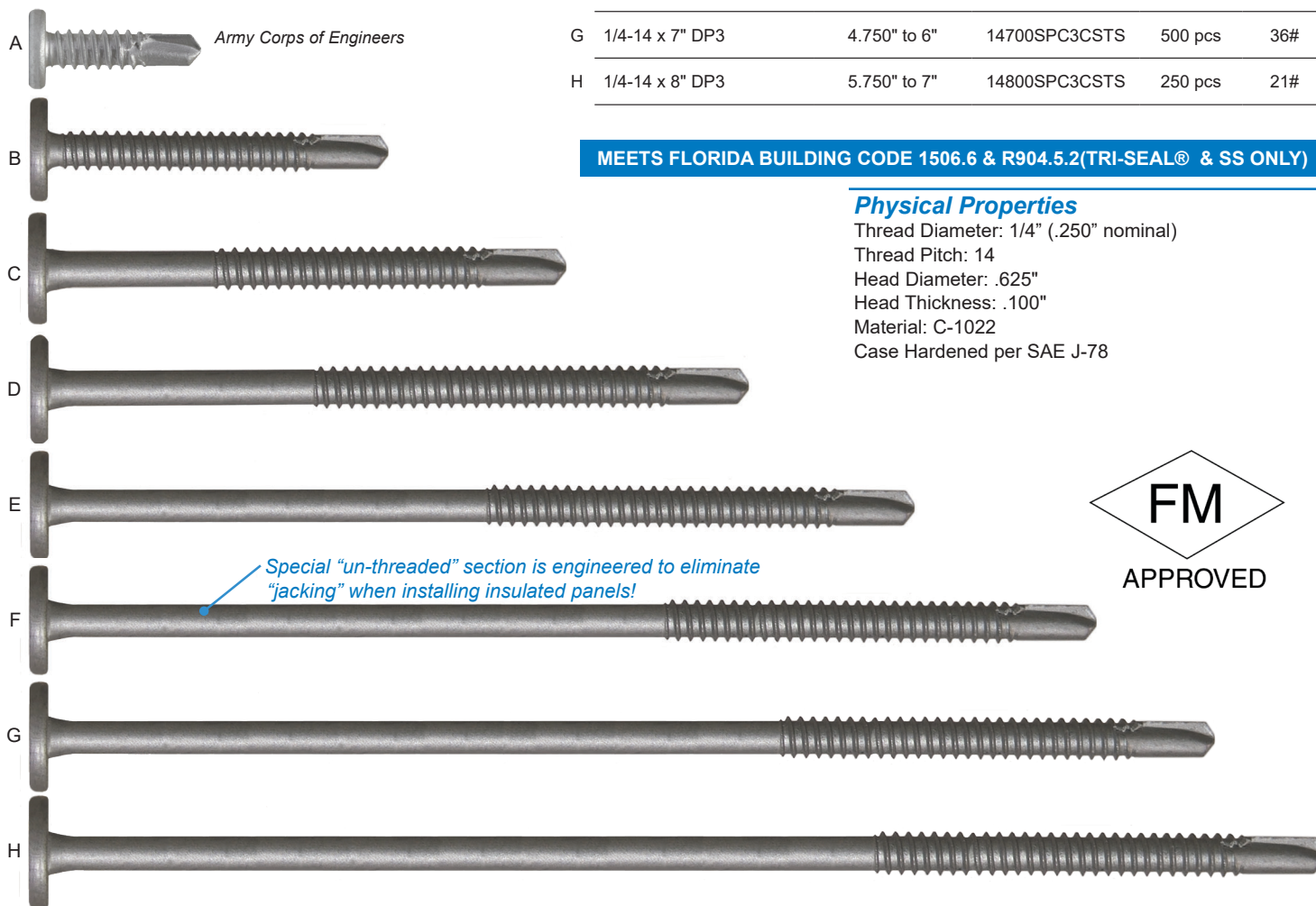
- 5/8" diameter head increases pullover strength and minimizes dimpling.
- #3 square recess drive provides stability during installation.

	Description	Load Bearing Length (MAX)	Part Number	Carton Quantity	Wt Per Carton
A	1/4-14 X 1" DP3	.325"	14100SPC3CS	2,500 pcs	27#
B	1/4-14 x 2" DP3	1.000"	14200SPC3CSTS	1,000 pcs	23#
C	1/4-14 x 3" DP3	1.375" to 2"	14300SPC3CSTS	1,000 pcs	33#
D	1/4-14 x 4" DP3	1.625" to 3"	14400SPC3CSTS	500 pcs	21#
E	1/4-14 x 5" DP3	2.750" to 4"	14500SPC3CSTS	500 pcs	25#
F	1/4-14 x 6" DP3	3.750" to 5"	14600SPC3CSTS	500 pcs	30#
G	1/4-14 x 7" DP3	4.750" to 6"	14700SPC3CSTS	500 pcs	36#
H	1/4-14 x 8" DP3	5.750" to 7"	14800SPC3CSTS	250 pcs	21#

MEETS FLORIDA BUILDING CODE 1506.6 & R904.5.2(TRI-SEAL® & SS ONLY)

Physical Properties

Thread Diameter: 1/4" (.250" nominal)
 Thread Pitch: 14
 Head Diameter: .625"
 Head Thickness: .100"
 Material: C-1022
 Case Hardened per SAE J-78



SPECIAL APPLICATIONS

Use to attach a variety of material to steel up to 1/4" thick!

ARCHITECTURAL
INSULATED PANELS



STRUCTURAL
INSULATED PANELS



NAIL
BASE



METAL ROOF
CLIPS



TOOLING: Install using a 2,000 RPM screw-gun with torque control. (DeWalt DW267)
 Do not use impact tools.

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Pullout In Steel - Average Ultimate (lbs) (Carbon and Stainless Steel Screws)

Fastener Information (Drill Points)		PULLOUT ULTIMATE LOAD IN POUNDS Calculated Values In Accordance to AISI S100 Section E4													
Screw Size	Nom Dia. (in.)	Grade 50 per ASTM A1011 60Ksi Min. Steel					Grade 50 per ASTM A792/A653/A572/A529 65Ksi Min. Steel								
		26 Ga. (.018")	25 Ga. (.021")	24 Ga. (.024")	22 Ga. (.030")	20 Ga. (.036")	18 Ga. (.048")	16 Ga. (.060")	14 Ga. (.075")	12 Ga. (.105")	1/8" (.125")	10 ga (.135")	1/4" (.250")	3/8" (.375")	1/2" (.500")
#10-16	.190"	174	203	233	291	349	504	630	787	1102	1312				
#10-24	.190"								787	1102	1312				
#12-14	.216"	198	231	264	330	397	573	716	895	1253	1492	1611			
#12-24	.216"									1492	1611	2984	*4475	*5967	
#14-13	.235"	216	252	288	360	431	623	779							
1/4-14	.250"							829	1036	1450	1727	1865	3453	*5180	*6906

Tested values are available upon request.
Revised: 0220AR

NOTE: * exceeds tensile strength of the screw.

Pullout In Wood - Average Ultimate (lbs)

Screw Size and Point type	PLYWOOD - CDX			OSB			SYP
	15/32" (1/2" Nom)	19/32" (5/8" Nom)	23/32" (3/4" Nom)	7/16"	19/32"	23/32"	
#10-9 GP	383	395	574	136	256	514	813
#10-12 BB *		450	706	258	381		648*
#10-13 GP	375	505	654	166	357	442	737
#12-11 GP	418	455	624	*164	379	573	918
#14-13 DP1	434	475	626	153	327	457	991

Farabaugh Engineering Test: Project No. T279-10 & * T282-15 REV JS042220

Pullout In Concrete - Average Ultimate (lbs)

Fastener Dia. & Point	3,000 psi Concrete
	1" Embedment
#14-13 DP1	740 lbs.

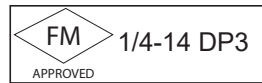
Drill Bit Size: 3/16" Masonry Bit. Depth of hole > 2".
(Screw should not exceed 1" embedment.)

TF Test: 10.15.09
REV JS1218



Decking fasteners tested with full thread embedment. 2 x 4 SYP with 1" embedment in side

* Test Report # T279-17 & T299-17 | Farabaugh Engineering.
NOTE: * 1" embedment into face of 2x. Deeper embedment will increase pullout.



PERFORMANCE SPECIFICATIONS

Fastener Diameter & Material	Minimum Ultimate			
	Thread Diameter	Tensile (lbs.)	Shear (lbs.)	Torsional (lbs-in)
#10-9 / Carbon	0.200"	1,520	1,150	60
#10-9 / 410SS	0.200"	2,500	1,625	85
#10-13 / Carbon	0.195"	1,725	1,125	60
#10-13 / 302SS	0.195"	1,040	701	45
#10-16 / Carbon	0.186"	2,100	1,400	61
#10-16 / 410SS	0.186"	3,200	2,130	92
#12-11 / Carbon	0.220"	2,500	2,000	95
#12-14 / Carbon	0.212"	2,778	2,000	100
#12-14 / 304SS	0.212"	2,630	1,978	85
#12-24 / Carbon	0.213"	3,450	2,420	110
1/4-14 / Carbon	0.243"	3,850	2,600	150
#14-13 / Carbon	0.235"	2,600	1,500	95
#14-13 / 304SS	0.235"	2,000	1,200	77

FASTENER PROPERTIES

REV JS0120

Thread Type and Point	Thread Major Dia.	Material	Head Dia.	Head Thickness	Drive	Finish
#10-16 DP2	.180"	C1022	.450"	.095"	#2 Sq	.0003" Zinc & Yellow
#10-24 DP3	.185"	C1022	.450"	.095"	#2 Sq	.0003" Zinc & Yellow
#10-12 BB	.185"	C1022	.450"	.095"	#2 Sq	TRI-SEAL® Coated
#10-13 GP	.190"	C1022 302 SS	.450"	.095"	#2 Sq	CS: TRI-SEAL® Coated SS: Passivated
#10-16 DP3	.180"	C1022 410 SS	.450"	.095"	#2 Sq	CS: TRI-SEAL® Coated SS: .0002" Zinc & Clear for lubricity
#10-9 GP (ULP)	.200"	C1022 410 SS	.450"	.040"	#2 Sq	TRI-SEAL® Coated Passivated
#12-11 GP	.220"	C1022 302 SS	.450"	.095"	#2 Sq	CS: TRI-SEAL® Coated SS: Passivated
#12-14 DP3 (SD300)	.210"	C1022 304 SS	.500"	.080"	#2 Sq	.0003" Zinc & Yellow TRI-SEAL Coated
#12-24 DP5	.210"	C1022	.450"	.095"	#3 Sq	.0003" Zinc & Yellow TRI-SEAL® Coated
#14-13 DP1	.235"	C1022 304SS	.500"	.095"	#2 Sq	CS: TRI-SEAL® Coated SS: Passivated & Coated for lubricity
1/4-14 DP3	.245"	C1022	.500" (1") .625" (>2")	.095"	#2 Sq #3 Sq	TRI-SEAL® Coated

SALT SPRAY

The chart below provides general corrosion information about various plating and coatings. Contact TFC for detailed information.

SALT SPRAY Per ASTM F1941 & B117 (0% red rust) Rev. 120313

Coating	Salt Spray
.0002" min. (6um) zinc plating with clear chromate	24hrs
.0002" Zinc Plating / Coated	60hrs
.0005" min. (12 um) zinc plating with clear chromate	72hrs
.0003" min. (8 um) zinc plating with yellow dichromate	120hrs
.0002" Zinc Plated 410 Stainless Steel	450hrs
Passivated Coated 410 Stainless Steel	500hrs
TRI-SEAL™ Long-life coating	1,000hrs
Passivated 302 & 304 SS	>2,000hrs

NOTE: 304SS and 410SS screws are zinc plated or TRI-SEAL® coated to provide lubricity and improve tapping performance.

TOOLING | Do not use impact tools!

Screw-gun RPM

Carbon Steel & 410SS Screws: 2,500 RPM Max.
DP5, 1/4" & 5/16" DP3: 2,000 RPM Max.
302 & 304 Stainless Steel Tapping Screws: 1,000 RPM Max.
For optimal performance, use screw-guns with torque control feature.

DO NOT OVER-TORQUE FASTENERS.

Fastening Tips

- A minimum of 3 factors of safety should be used for most self-drilling or self-tapping fasteners in metal | 5-6 for wood. Consult a design professional for appropriate values.
- Install fastener perpendicular to the work surface and tighten to no more than approximately 70% of the torsional strength.
- Allow at least three full threads to extend beyond the material. For wood applications, allow 1" minimum embedment or full thread embedment in plywood and OSB for optimal pullout resistance.

FASTENER MATERIAL SELECTION BASED ON THE GALVANIC SERIES OF METALS

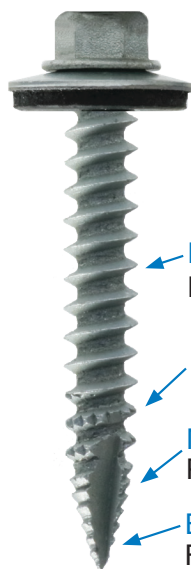
BASE METAL		FASTENER MATERIAL			
		STEEL Zinc Plated	STAINLESS STEEL Type 410	STAINLESS STEEL Type 302, 304, 316	ALUMINUM
	Zinc Galvanized ZN/Al Coated Steel	A	C	C	B
	Aluminum	A	Not Recommended	B	A
	Steel / Cast Iron	A,D	C	B	A
	Brass, Copper, Bronze	A,D,E	A	B	A,E
	Stainless Steel 300 Series	A,D,E	A	A	A,E

Key

- The corrosion of the base metal is not increased by the fastener.
- The corrosion of the base metal is slightly increased by the fastener.
- The corrosion of the base metal may be considerably increased by the fastener material.
- The plating on the fastener is rapidly consumed.
- The corrosion of the fastener is increased by the base metal.

*NOTE: Marine environments can cause galvanic corrosion. Consult panel manufacture for compatible fasteners to minimize galvanic corrosion.

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Engineered to reduce burrs and provide more resistance to back-out!

LOW ANGLE THREAD
Resists Loosening

SAW TOOTH THREAD
Lower Tapping Torque

MILLED SLOT
Penetrates Fast

BURR BUSTER® POINT
Reduces Burrs and Chips
Penetrates up to 20ga Steel



See how it performs compared to other types of screws.
- Scan QR or Click Here -

REDUCES BURRS



Patented Anti-burr Thread and Point Technology!*

Problem

Ordinary self-piercing screws produce burrs during installation that can damage the washer and corrode the panel!

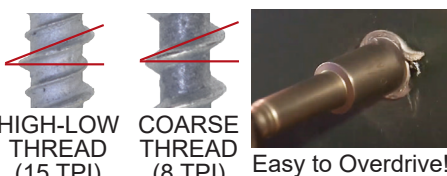
Solution

The BURR-BUSTER® point is designed to extrude the metal as it penetrates, minimizing burrs.

RESISTS BACK-OUT

Problem

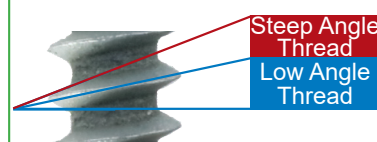
Ordinary metal-to-wood screws have steep angled threads that are easily overdriven causing back-out.



Easy to Overdrive!

Solution

PANEL-TITE's low-angle thread helps keep the screw from loosening



MEETS FLORIDA BUILDING CODE 1506.6 & R904.5.2 (TRI-SEAL® & SS ONLY)

All screws are plated with TRI-SEAL® M1 1,000-hrs salt spray coating for superior corrosion protection

SIZES | BURR BUSTER® WITH TYPE 17 MILLED POINT

Can be painted with our Kalida-Kote paint finish to your exact color match.

Bagged 250pcs

#10-12 | CARBON STEEL | 1/4" HWH

Washer: .500" Dia. BondSealer 26ga G90 to EPDM



#12-12 | CARBON STEEL | 1/4" HWH

Washer: .562" Dia. BondSealer 26ga G90 to EPDM



#14-12 | CARBON STEEL | 5/16" HWH

Washer: .590" Dia. BondSealer 26ga G90 to EPDM



Size	Part #	Box Qty
#10-12 x 1" Burr-Buster CS / TS	10100HWBB17CSTSBW	4,000
#10-12 x 1-1/2" Burr-Buster CS / TS	10150HWBB17CSTSBW	2,500
#10-12 x 2" Burr-Buster CS / TS	10200HWBB17CSTSBW	2,000
#10-12 x 2-1/2" Burr-Buster CS / TS	10250HWBB17CSTSBW	1,500
#10-12 x 3" Burr-Buster CS / TS	10300HWBB17CSTSBW	1,000
#12-12 x 3/4" Burr-Buster CS / TS	12075HWBB17CSTSBW	4,000
#12-12 x 1" Burr-Buster CS / TS	12100HWBB17CSTSBW	4,000
#12-12 x 1-1/2" Burr-Buster CS / TS	12150HWBB17CSTSBW	2,500
#12-12 x 2" Burr-Buster CS / TS	12200HWBB17CSTSBW	2,000
#14-12 x 1" Burr-Buster CS / TS	14100HWBB17CSTSBW	2,500
#14-12 x 1-1/2" Burr-Buster CS / TS	14150HWBB17CSTSBW	2,000
#14-12 x 2" Burr-Buster CS / TS	14200HWBB17CSTSBW	1,500
#14-12 x 2-1/2" Burr-Buster CS / TS	14250HWBB17CSTSBW	1,000
#14-12 x 3" Burr-Buster CS / TS	14300HWBB17CSTSBW	1,000

TRI-SEAL® M1 1,000-hrs Salt Spray - No Red Rust

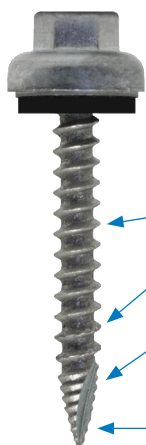
INSTALLATION

Use a 2,500 RPM screw-gun with torque control or depth sensing feature. Impact tools are not recommended.

*Pat. No.: 11,105,362

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FOR WARRANTED SYSTEMS & LONG-LIFE PERFORMANCE



PANEL-TITE® BURR BUSTER ZAC
Zinc Die Cast Head

- Use on 20yr warranty roof systems.
- Carbon steel shank with TRI-SEAL® M1 plating
- Provides outstanding corrosion protection.

LOW ANGLE THREAD
Resists Loosening

SAW TOOTH THREAD
Lower Tapping Torque

MILLED SLOT
Penetrates Fast

BURR BUSTER® POINT
Reduces Burrs and Chips

Penetrates up to 20ga Steel

Also Available
Stainless Cap Head
with Flange Sealer



PANEL-TITE® BURR BUSTER SS
304 Stainless Steel

- 304 SS BOND-SEALER washer
- Used in aluminum applications.
- Preferred screw for treated lumber.

Penetrates Steel up to 20 ga.

Patented Anti-burr Thread and Point Technology!*

Bagged 250pcs

#10-12 ZAC ZINC CAP HEAD | 5/16" HWH

Washer: .565" Dia. / Aluminum to EPDM



ZAC Zn/AL alloy head provides the best protection against galvanic corrosion. Preferred screw for used on Galvalume and Zincalume coated panels.



ZAC® ZINC CAP HEAD | TRI-SEAL® M1 COATED SHANK

Size	Part #	Box Qty	List Price
#10-12 x 1" Burr Buster	10100HWBB17CSTSZH	4,000	
#10-12 x 1-1/2" Burr-Buster	10150HWBB17CSTSZH	2,500	
#10-12 x 2" Burr Buster	10200HWBB17CSTSZH	2,000	
#10-12 x 2-1/2" Burr Buster	10250HWBB17CSTSZH	1,500	
#10-12 x 3" Burr Buster	10300HWBB17CSTSZH	1,000	

#10-12 SSC STAINLESS CAP HEAD | 1/4" HWH

Washer: .500" Dia. Undercut / EPDM Washer



#12-14 HIGH LOW TYPE 17 STAINLESS CAP HEAD | 5/16" HWH

Washer: .570" Dia. Undercut / EPDM Washer



#14-10 STAINLESS CAP HEAD | 5/16" HWH

Washer: .570" Dia. Undercut / EPDM Washer



Attach metal panels with a 1-1/2" - 2" high rib height. Great for replacing screws that are stripped!

STAINLESS STEEL CAP HEAD | TRI-SEAL® M1 COATED SHANK

Size	Part #	Box Qty	List Price
#10-12 x 1" Burr Buster	10100HWBB17CSTSSC	4,000	
#10-12 x 1-1/2" Burr-Buster	10150HWBB17CSTSSC	2,500	
#10-12 x 2" Burr Buster	10200HWBB17CSTSSC	2,000	
#10-12 x 2-1/2" Burr Buster	10250HWBB17CSTSSC	1,000	
#10-12 x 3" Burr Buster	10300HWBB17CSTSSC	1,000	
#12-14 x 1-1/2" Type 17	12150HW17CSTSSC	1,500	
#14-10 x 3-1/2" Type 17	14350HW17CSTSSC	1,000	

All ZAC and SSC screws are plated with TRI-SEAL® M1 1,000-hrs salt spray coating for superior corrosion protection

(Note: #14-10 x 3-1/2" Type 17 is coated with standard TRI-SEAL®)

304 STAINLESS STEEL | PASSIVATED & TRI-SEAL® COATED

Size	Part #	Box Qty	List Price
#10-12 x 1" Burr Buster	10100HWBB17S34BW	3,000	
#10-12 x 1-1/2" Burr Buster	10150HWBB17S34BW	2,500	
#10-12 x 2" Burr Buster	10200HWBB17S34BW	2,000	
#10-12 x 2-1/2" Burr Buster	10250HWBB17S34BW	1,500	
#10-12 x 3" Burr Buster	10300HWBB17S34BW	1,000	

#10-12 304 STAINLESS STEEL

Washer: Stainless Steel



Diameter & Point: #10-12
Material: 304 Stainless Steel
Plating: Passivated & TRI-SEAL®
Head Style: 1/4" HWH
Thread: #10-12 Single Lead

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*Pat. No.: 11,105,362

SIZES AND TYPES

#10-12



#12-12



(Lap)

#12-12



#14-12



WARRANTED ROOFS,
WALLS & TRIM

Superior
performance
in OSB

KALIDA-KOTE
paint finish is
available for all
screws



CARBON STEEL - TRI-SEAL® M1™ COATED

For standard roof, walls, & trim

SS CAP
HEAD

#10-12



#12-14



ZAC ZINC
CAP HEAD

#10-12



304 SS

#10-12



CARBON STEEL - LONG-LIFE HEADS | ALL STAINLESS |

For attaching zinc/aluminum coated steel,
ZAC zinc heads are recommended.

GENERAL SPECIFICATIONS

Strengths (Carbon Steel = CS and Stainless Steel = SS)

Size	Thread Major Dia.	Tensile (lbs. min)	Shear (avg. lbs. ult.)	Torsional (min. in. lbs.)
#10-12 304 SS BB	.190	1,950	1270	60
#10-12 CS BB	.190	1,850	1,216	65
#12-14 CS HL	.216	2,183	1,946	80
#12-12 CS BB	.216	2,183	1,946	80
#14-12 CS BB	.235	3,150	2,150	125

Hex Sizes

#10, #12 = 1/4" HWH

#14 = 5/16" HWH

Washer Diameters

#10 = 12.8mm OD

#12 = 14mm OD

#14 = 15mm OD

Patented Anti-burr Thread and Point Technology!*

*Pat. No.: 11,105,362

ZAC Zinc Heads: Zamac 5

SS Heads : 304 SS

MATERIAL SPECIFICATIONS

Material: Carbon Steel

Finish: TRI-SEAL® M1™ Long-life Plating
(ACQ Compatible for use in treated lumber)

Material: 304 Stainless Steel

Finish: Passivated & TRI-SEAL®
(Preferred for use in treated lumber)

Paint: Kalida-Kote Polyurethane with UV
stabilizer.

Washer Types

Stainless Steel Screws

304SS vulcanized to non-conductive EPDM.

Carbon Steel Screws

G90 20ga Galvanized Steel vulcanized
to non-conductive EPDM.

PERFORMANCE SPECIFICATIONS

Pullout Values in Wood (Carbon Steel or Stainless Steel)

Ultimate Average Load in Pounds Force



MEETS FLORIDA BUILDING CODE 1506.6 & R904.5.2

(TRI-SEAL® & SS ONLY).

Miami Dade Approved for < 1,000 hrs

Fastener Dia. & Point	Wood Type							
	PLYWOOD-CDX				OSB			SYP
	11/32" 3/8" NOM	15/32" 1/2" NOM	19/32" 5/8" NOM	23/32" 3/4" NOM	7/16"	19/32"	23/32"	2 x 4
#10-12 BURR BUSTER		349	450	706	258	381	484	1059 1445*
#12-12 BURR BUSTER 1	249	418	1467	608	218	383	573	1241 1491*
#12-8 Type 17 High Low		296	445	552	139	445	538	748
#14-12 BURR BUSTER 1	337		1539	676	258	404		1169*

Report #T279-10 | Farabaugh Engineering and Testing | 9.30.2010

1Report #T213-20 | Farabaugh Engineering and Testing | 05.01.2020

#10-12 and #12-12 BB SYP tested in TFC Tech Center | 04.12.22

REV: JK0422

PULLOUT TEST SETUP - EMBEDMENT

2 x 4 = 1" embedment. * Denotes 1-1/2" penetration (Full Threads.)

All other tests full thread embedment.

Note: The specific gravity and variations in grain should be considered
and affects the pullout. A minimum safety factor of 4 should be used.

Corrosion Test Results

TRI-SEAL® M1 COATING

Testing Method	*Results
SO ₂ Test Per ASTM G87	20 Cycles (2 liters)
Salt Spray Per ASTM B117	1,000 hours

*0% Red Rust

Exceeds ASTM B633 Salt Spray requirements.

Pullover Strength in Pounds

Grade 50 per ASTM A1011 60Ksi Min. Steel

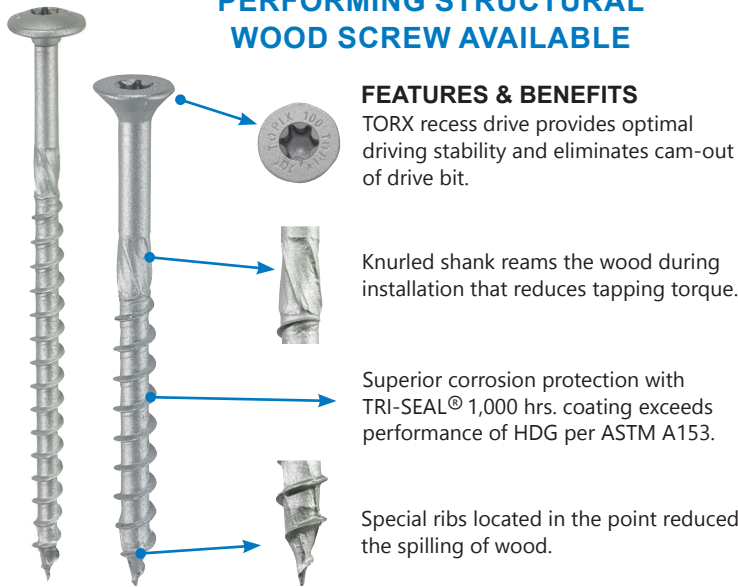
Washer Size	26ga (.019")	24ga (.023")	22ga (.031")	20ga (.035")	18ga (.049")
1/2" O.D.	810	1080	1350	1620	2160
9/16" O.D.	912	1216	1520	1824	2432
15mm O.D.	955	1274	1593	1912	2548

Calculated per AISI S100

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ConnexTite™

ENGINEERED TO BE THE BEST
PERFORMING STRUCTURAL
WOOD SCREW AVAILABLE



REPLACES LAG SCREWS | NO PRE-DRILLING REQUIRED!

TECHNICAL INFORMATION

Dimensions and strength details

HEAD STYLE	Nominal Fastener Diameter	Head Size		Shank Diameter ¹	Thread Dia.	Nominal Bending Yield (F _y , psi)			Allowable Fastener Strength ³	
		Diameter (in.)	Height (in.)			Major	Transition Zone	Shank	Tensile (lbs)	Shear (lbs)
Flange	1/4"	0.552	0.094	0.173	0.244	201,611	237,010	970	485	
	5/16"	0.709	0.148	0.228	0.315	167,894	178,866	1810	905	
Countersunk	5/16"	0.583	—	0.228	0.315	167,894	178,866	1810	905	

Withdrawal design values | Face grain applications

Allowable Withdrawal Design Values by Species (Specific Gravity) (lbs.)

Nominal Fastener Diameter	Face Grain Applications		
	SPF (.42)	DF (.50)	SP (.55)
1/4"	95	135	220
5/16"	120	180	255

- Values stated in lbf for each 1-inch of thread engagement.
- Fastener embedment of 1-inch in the main member includes the tip.
- Values shall be adjusted by all applicable adjustment factors per NDS Section 10.3 for wood screws.

Head pull-through design values

Min. Side Member Thickness (in.)	Nominal Fastener Diameter (in.)	Flange Head Diameter (in.)	Countersunk Head Diameter (in.)	SPF (.42)		DF (.50)		SP (.55)	
				Flange	CSNK	Flange	CSNK	Flange	CSNK
3/4"	1/4"	0.552	0.457	155	130	220	185	265	225
	5/16"	0.705	0.583	195	165	275	235	335	280
1-1/2"	1/4"	0.552	0.457	310	265	440	370	535	450
	5/16"	0.705	0.583	390	330	550	465	670	565

Lateral design values using dimensional lumber

Fastener Head Type	Nominal Fastener Diameter	Fastener Length	Side Member Thickness	Min. Penetration into Main Member (in.)	Lateral Design Values (lbs.) by Species (Specific Gravity) & Load Orientation					
					SPF (.42)		DF (.50)		SP (.55)	
					Z Para	Z Perp	Z Para	Z Perp	Z Para	Z Perp
Flange	1/4"	2-3/8"	1-1/2"	7/8"	115	90	140	110	160	125
		2-3/4"		1-1/4"	130	105	165	135	190	155
		3-1/8"		1-1/2"	145	115	175	140	190	155
		4"		2-1/2"	145	115	175	140	190	155
		> 4-3/4"		3-1/4"	145	115	175	140	190	155
		2-3/4"		1-1/4"	155	125	215	170	525	550
	5/16"	3-1/8"		1-5/8"	175	140	245	195	525	550
		4"		2-1/2"	195	155	245	195	525	550
		4-3/4"		3-1/4"	195	155	245	195	525	550
		> 5-1/2"		4"	195	155	245	195	525	550
		3-1/8"		1-5/8"	175	140	245	195	285	225
		3-1/2"		2"	195	155	245	195	285	225
Countersunk	5/16"	>4"		2-1/2"	195	155	245	195	285	225

- Reference lateral design values apply to two-member single shear connections where both members are of the same specific gravity, and the fastener is oriented perpendicular to grain. Where the members are of different specific gravities, use the lower of the two.
- Values shall be adjusted by all applicable adjustment factors per NDS Section 10.3 for withdrawal of wood screws.

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FASTENING SYSTEMS AND SOLUTIONS FOR CONSTRUCTION

SIZES

FLANGE HEAD

Diameter	Length	Drive	Thread	Quantity	P.N.
1/4"	1-1/2"	T25	Full	2000	1616376
1/4"	2-3/4"			800	1616377
5/16"	2-3/4"	T40	Part	500	1616378
5/16"	3-1/8"		Full	500	1616379
5/16"	4"		Part	400	1616380
5/16"	5-1/2"		Part	300	1616381

COUNTERSUNK HEAD

Diameter	Length	Drive	Thread	Quantity	P.N.
5/16"	2-3/4"	T40	Part	500	1618649
5/16"	4"			400	1618650

Attach brackets to wood or splice wood-to-wood



- Trusses
- Joists
- Stair stringers
- Headers
- Support frames
- SIPS
- Columns
- Purlins
- Engineered lumber
- Deck framing

Evaluation Report: TER 1609-08

TER 1609-08 is a code compliance report that was written, published, and can be PE stamped by DrJ Engineering.

Contact TFC for more information.



SPECIALTY STAINLESS STEEL SCREWS FOR MULTI-PURPOSE USE



Self-Drilling Screw GYPSTERS Bugle Head

- Fasten wood, plywood and OSB panels to steel studs.
- #2 square drive bugle heads drive flush with work surface.
- Tapping screw threads, #3 drill points.
- Drilling thickness capacities: up to .083" (68 mils, 14 ga.) for #6, up to .142" (118 mils, 10 ga) for #8 and up to .177" for #10.



Hand Drive Screws Fiber Cement Screws - Wood Stud

- #2 square drive, Coarse thread full length.
- Type-17 point for fast starts.
- Self-countersinking nibs under head insure seating of screw heads flush with work surface.
- Threaded to within 5/16" of head
- Use 1-1/4" screws to attach fiber cement siding to stress skin panels
- Use 1-5/8" screws to blind-fasten fiber cement lap siding to wood



Self-Drilling Screws K-Lath Modified Truss Head

- For attaching metal lath to 14- to 20-gauge steel studs.
- Tapping screw threads, #3 drill point.
- #2 Phillips drive.

410 Stainless Steel

Size	Length	Carton Count	Item No.
#6	1-1/4"	100	F06T125BDC
#6	1-1/4"	1,000	F06T125BDM
#6	1-1/4"	5,000	F06T125BDB
#8	1-5/8"	100	F08T162BDC
#8	1-5/8"	1,000	F08T162BDM
#8	1-5/8"	3,000	F08T162BDB
#8	2"	100	F08T200BDC
#8	2"	1,000	F08T200BDM
#8	2"	2,500	F08T200BDB
#10	2-1/2"	100	F10T250BDC
#10	2-1/2"	1,000	F10T250BDM
#10	2-1/2"	2,000	F10T250BDB
#10	3"	100	F10T300BDC
#10	3"	1,500	F10T300BDB
#10	3-1/2"	100	F10T350BDC
#10	3-1/2"	1,000	F10T350BDB

316 Stainless Steel

Size	Length	Carton Count	Item No.
#8	1-1/4"	100	T08C125WQC
#8	1-1/4"	1,000	T08C125WQM
#8	1-5/8"	100	T08C162WQC
#8	1-5/8"	1,000	T08C162WQM
#8	2-1/4"	1,000	T08C225WQM
#8	2-1/4"	2,000	T08C225WQC

410 Stainless Steel

Size	Length	Carton Count	Item No.
#8	9-1/16"	100	F08T056KDC
#8	9-1/16"	1,000	F08T056KDM
#8	9-1/16"	8,000	F08T056KDB
#8	3/4"	100	F08T075KDC
#8	3/4"	1,000	F08T075KDM
#8	3/4"	6,000	F08T075KDB
#8	1-1/4"	100	F08T125KDC
#8	1-1/4"	1,000	F08T125KDM
#8	1-1/4"	4,000	F08T125KDB
#8	1-5/8"	100	F08T162KDC
#8	1-5/8"	1,000	F08T162KDM
#8	1-5/8"	3,000	F08T162KDB
#8	2"	100	F08T200KDC
#8	2"	1,000	F08T200KDM
#8	2"	2,500	F08T200KDB

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WOOD DECK ATTACHMENT SCREWS & MISCELLANEOUS WOOD CONNECTIONS

Full line of high performance wood deck fasteners



DEK-IT WOOD SCREWS | TYPE 17 MILLED POINT TRI-SEAL COATED | SQ/PHIL COMBO DRIVE

- Exterior wood screw for outdoor applications including decks, treated wood, patios and fencing.
- TRI-SEAL coated formulated for ACQ treated lumber!

SIZES

Carbon Steel

Size	Carton Quantity	Drive Style	Carton Weight (lbs.)
6 x 1"	10M	+	32
6 x 1-1/4"	8M	+/- □	30
6 x 1-5/8"	5M	+/- □	24
6 x 2"	3.5M	+/- □	21
8 x 2-1/2"	2.5M	+/- □	24
8 x 3"	2M	+/- □	24
10 x 3-1/2"	1.5M	+/- □	28
10 x 4"	1M	+/- □	24
10 x 5"	1M	+	27
10 x 6"	1M	+	30



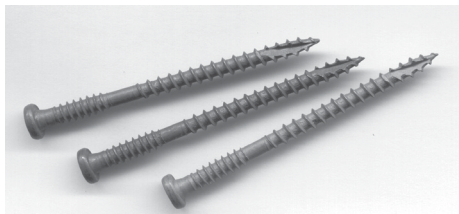
305 Stainless Steel

- 305 stainless steel coarse thread deck screw, #2 square drive, type 17 point.
- Exterior wood screw for outdoor applications including decks, treated wood, patios and fencing applications that require a high degree of corrosion resistance.
- For best possible corrosion resistance in ACQ Treated Lumber!
- Type 17 point provides superior penetration through the hardest of woods.
- 305 stainless steel provides maximum strength with superior corrosion protection.

SIZES

305 Stainless Steel

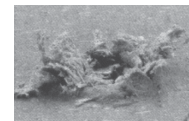
Size	Carton Quantity	Carton Weight (lbs.)
8 x 1-1/4"	5M	28
8 x 1-5/8"	4M	29
8 x 2"	3M	25
10 x 2-1/2"	2M	25
10 x 3"	1.5M	23
10 x 3-1/2"	1M	18



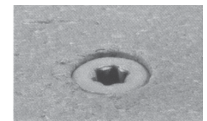
Composite Deck Screws - COATED

- For flush mounting of the fasteners without mushrooming!
- SIZE: #10 x 2-3/4"

Ordinary Bugle Head



Seats Flush



Performance Data

Corrosion Resistance

Kesternich Results (DIN 50018, 2.0L)

- 25 Cycles - 10% or less red rust

Salt Spray Results (ASTM B117)

- 1000 hours - No red rust

Pullout Values (average pounds ultimate)
Embedment 2" x 4" Stud Grade S.Y. Pine

SCREW DIA.	EMBEDMENT DEPTH			
	1/2"	3/4"	1"	1-1/4"
#6	182	329	422	620
#8	186	290	502	645
#10	241	386	522	721

Note: The values listed are ultimate averages achieved under laboratory conditions. An appropriate safety factor should be applied in these values to achieve a design value.

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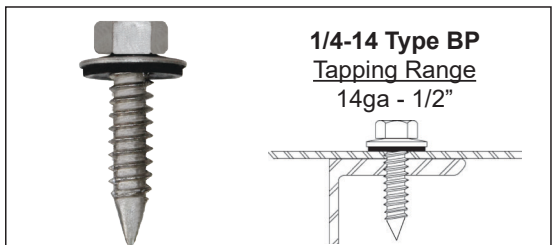
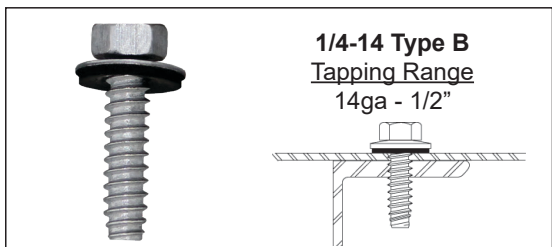
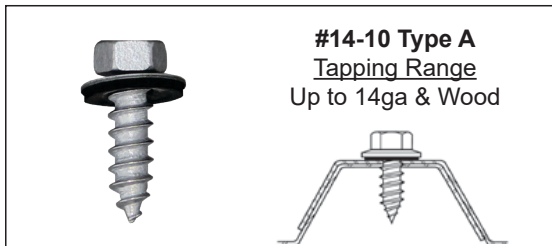


CARBON STEEL & 304 STAINLESS STEEL TYPE A, AB, B, BP SELF-TAPPING SCREWS

You want 'em... we got 'em!

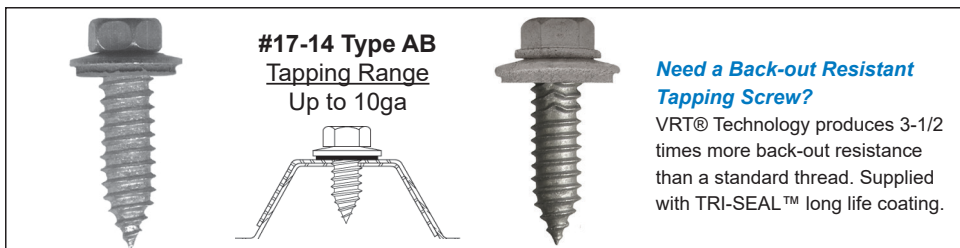
We stock the largest selection of carbon steel self-tapping "sheeting" screws in the USA!

- Select from carbon steel, 304 stainless steel, zinc cap head or stainless steel cap head.
- Available with and without BOND-SEAL sealing washers.
- Available with TRI-SEAL® long life coating providing over 1,000 hours salt spray resistance (ASTM B117).
- Lengths up to 8" long!
- Can be painted with our KALIDA-KOTE™ paint process to match your specific color.



Used for alignment into structure.

Upsize or special sealing washers available!



Need a Back-out Resistant Tapping Screw?

VRT® Technology produces 3-1/2 times more back-out resistance than a standard thread. Supplied with TRI-SEAL™ long life coating.

Sizes (X = Available)

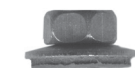
Description	Point Type	Carbon Steel	304 SS	Stainless Cap Head	Zinc Cap Head	Box Qty.	Wgt. Per M
#14-10 x 3/4"	Type A	X	X			2,500	10.8
#14-10 x 1"		X	X		X	2,500	14.2
#14-10 x 1-1/2"		X	X		X	1,500	19.1
#14-10 x 2"		X	X			1,000	23.4
#14-10 x 2-1/2"		X	X			1,000	28.1
#14-10 x 3"		X	X			500	34.1
#14-10 x 4"		X	X			500	45.5
#14-10 x 5"		X	X			300	52.8
#14-10 x 6"	Type AB	X				250	60.1
1/4-14 x 3/4"		X	X	X	X	2,500	12.5
1/4-14 x 1"		X	X	X	X	2,500	14.9
1/4-14 x 1-1/2"		X	X			1,500	19.7
1/4-14 x 1-3/4"	Type B		X			2,000	23.4
1/4-14 x 2-1/2"			X			1,000	28.7
1/4-14 x 1"		X	X			2,500	14.1
1/4-14 x 1-1/2"		X	X			1,500	19.5
1/4-14 x 2"		X	X			1,000	23.1
1/4-14 x 2-1/2"		X	X			1,000	29.0
1/4-14 x 3"		X	X			500	33.3
1/4-14 x 4"		X	X			500	43.4
1/4-14 x 5"	Type BP	X	X			300	53.5
1/4-14 x 6"			X			250	62.2
1/4-14 x 8"						200	81.0
1/4-14 x 1"						2,000	17.0
1/4-14 x 1-3/4"	Type AB		X			2,000	23.4
*#17-14 x 1"		X	X	X	X	2,000	18.9
*#17-14 x 1-1/2"	Type AB	X			X	1,500	28.4

*Available with VRT® technology.

Refer to the back for technical information and drill bit size.

Screwgun Speed: 1,000 rpm maximum

Available Head Styles



3/8" Hex Head (Standard)



3/8" Hex Washer Head (#17-14 VRT® Only)



3/8" Zinc Cap Head



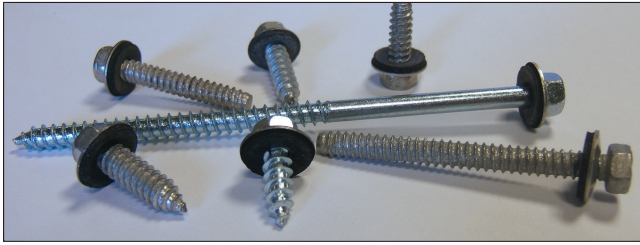
5/16" Stainless Cap Head

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CARBON STEEL & STAINLESS STEEL SELF-TAPPING SCREWS

Fastener Data and Submittal Sheet



Material Information

Product: TFC Tapping Screws
General Specification: ANSI B18.6.4, AC 118)

Material: C 1018 / C 1022
410 Stainless Steel
Heat Treat: Case Hardened
Finish: .0003" Zinc Plated - 24 hrs salt spray /
No red rust
Optional: TRI-SEAL Coated – 1,000 hrs
salt spray / No red rust

Material: Type 304 Stainless Steel (18-8)
Heat Treat: None
Finish: Type B & BP: .0003" Min. Cad Plating (For lubricity)
Type A & AB: .0003" Min. Zinc Plating (For lubricity)
Salt Spray: >2,000 hrs / No red rust

Pressure Treated or Fire Treated Wood Connections

Screw made of 410 or 300 series stainless steel are recommended. Carbon steel screws must be hot dipped galvanized or TRI-SEAL® coated. Do not use standard, zinc plated, carbon steel screws.

Sealing Washer Information

Carbon Steel Screws: 15MM O.D. Galvanized Steel / EPDM.
Stainless Steel Screws: 15MM O.D. Stainless Steel / EPDM.
#17 with VRT® Screws: 3/4" O.D. Galvanized Steel / EPDM.
Zinc Cap Head and Stainless Cap Head: 5/8" O.D. Head / EPDM.

Application and Description

Carbon Steel Screws

These general purpose screws are designed for normal atmospheric conditions. They should not be used in heavy industrial applications or close proximity to the ocean where corrosion can occur. They are case hardened and can tap up to 1/2" thick steel using the appropriate hole size listed on this sheet.

410 Stainless Steel Screws

These screws can be used in mild atmospheres, steam, and many mild chemical environments. They provide superior strength and are plated or coated to provide lubricity during tapping. 410 screws may show signs of red rust but will not rust as quickly as carbon steel screws. Not recommended for use in aluminum connection. Expansion of the aluminum may stress the screw to failure due to the screw's hardness.

304 Stainless Steel Screws

These screws are used in applications that require superior corrosion resistance or ductility. The chromium in the material reacts with oxygen forming a thin, invisible, non-reactive chromium oxide film. It is resistant to ordinary rusting in wastewater treatment, food-processing environments, and a wide variety of chemicals. 304 stainless steel screws are slightly magnetic caused during head and thread forming. They are not heat treated and are plated to provide lubricity that helps minimize thread roll-over caused during tapping.

Mechanical Properties

Screw Type	Major Dia.	Torsional Lb-in.	Material	Tensile Lbs	Shear Lbs.
#14-10 Type A	.235"	125	Carbon Steel	3,150	2,150
	.246"		304 SS	2,925	1,925
1/4-14 Type AB & B	.237"	150	Carbon Steel	3,850	2,575
	.246"		304 SS	3,700	2,800
#17-14 Type AB	.280"	170	Carbon Steel	5,890	3,285
	.290"		304 SS	5,200	3,125

Hole Size and Pullout Values - Tapping Screws

Rev 1221JS

Pullout Loads | Ultimate in Pounds Force

Carbon Steel, 304SS, & 410SS Tapping Screws

The tensile strength of the substrate that is used in this chart below is typical for metal building and roofing applications.

Contact TFC if other substrate tensile strengths are required.

For allowable loads, please apply an appropriate Factor of Safety as required by local and national code requirements.

AISI S100 Section E4 recommends a Factor of Safety of 3 for allowable loads

Use 135° split point drill bits for optimal performance.



Fastener Information		PULLOUT ULTIMATE LOAD IN POUNDS Calculated Values In Accordance to AISI S100 Section E4													
Screw Size	Nom Dia. (in.)	Grade 50 per ASTM A1011 60Ksi Min. Steel					Grade 50 per ASTM A792/A653/A572/A529 65Ksi Min. Steel								
		26 Ga. (.018")	25 Ga. (.021")	24 Ga. (.024")	22 Ga. (.030")	20 Ga. (.036")	18 Ga. (.048")	16 Ga. (.060")	14 Ga. (.075")	12 Ga. (.105")	1/8" (.125")	10 ga (.135")	1/4" (.250")	3/8" (.375")	1/2" (.500")
#14-10 1/4-14	.250"	230	268	306	383	459	633	829	1,036	1,450	1,727	1,865	*3,453	*5,180	*5,967
Drill Bit size		1/8" (.125")		5/32" (.156")			3/16"		#7 (.201")		#2 (.221")		#1 (.228")		
Point Type		A, AB		A , AB			A, AB, BP		AB , B, BP		AB , B, BP		B, BP		
*Denotes exceeds tensile strength of screw															
Point Type		AB													
Drill Bit Size		3/16" (.187")					1/4" (.250")					Not Recommended			
#17-14	.285"	262	305	348	432	523	756	945	1,181	1,653	1,968	2,126			
Screw Size	Nom Dia. (in.)	26 Ga. (.018")	25 Ga. (.021")	24 Ga. (.024")	22 Ga. (.030")	20 Ga. (.036")	18 Ga. (.048")	16 Ga. (.060")	14 Ga. (.075")	12 Ga. (.105")	1/8" (.125")	10 ga (.135")	1/4" (.250")	3/8" (.375")	1/2" (.500")

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Specifically Formulated for Fasteners, Rivets, & Metal Closures

Triangle Fastener offers Kalida-Kote painting process, producing perfect color matched fasteners, rivets, and metal closure. We start by using a special formula polyurethane enamel with UV protection that is expertly color matched.

After spraying, we cure the finish by baking to produce a tough chip resistant finish assuring long-life. Kalida-Kote is compatible with Kynar paint finishes.

Specifications

Finish: Gloss Enamel 85 units minimum at 60 degrees
Exterior Catalyst

Thickness: 1.6 - 2.0 mils

Adhesion: ASTM D 3359 - Excellent
No peeling or removal

Impact Resistance: ASTM D 2794 Good: > 10 in.lbs.

Abrasion Resistance: ASTM D 4060 Good

Corrosion Resistance: Salt Spray - 1,000 hrs
(< 5% red rust) Kesternich - 30 cycles

Abrasion & ME Abuse	Excellent	Acids	Excellent
Alkalies	Excellent	Color & Glass Retention	Excellent
Humidity	Excellent	Salts	Excellent
Solvents	Very Good	Weather	Excellent

KALIDA-KOTE™ is compatible with Kynar® paint finishes.



- Polyurethane enamel can be matched to any color and is UV resistant!
- Baked on finish provides a tough, chip resistant finish.
- Customized painting of metal closure and gutter straps.
- Special colors in 3 days or less!!

Our 4-step process assures a perfect color match and durable finish!

STEP 1

Color Matching

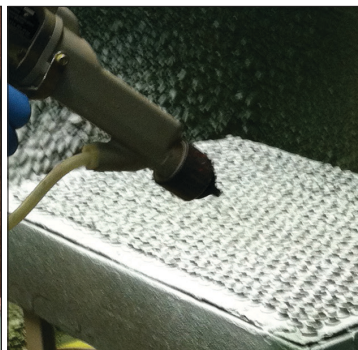
We color match using a spectrophotometer that provides consistent color matching.



STEP 2

Priming

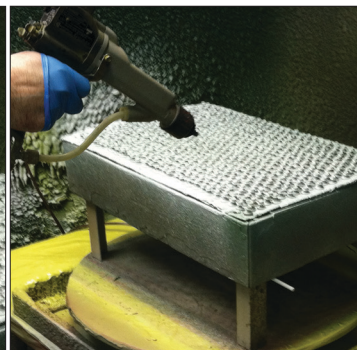
Special etching primer provides a superior base for the application of the paint.



STEP 3

Spraying

Polyurethane enamel is applied uniformly to provide superior coverage.



STEP 4

CURING

We cure the paint to produce a tough chip resistant finish.



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FIND YOUR COLOR...AND ALL THE MATCHING TFC PRODUCTS!

MFG COLOR	MFG	TFC RIVET COLOR	TFC SEALANT COLOR	BLAZER® COLOR	PANEL-TITE® COLOR	TFC RIVET SIZE / P.N.
ALMOND	MBCI	ALMOND S0330				FBF43AL FBF44AL
ASCOT WHITE	ATAS	STONE WHITE S0348				FBF44SWH
ASH GRAY	MBCI	ASH GRAY S0850	ALUMINUM GRAY	ASH GRAY	ASH GRAY	FBF43AGY
BONE WHITE	MBCI	BONE WHITE	ANTIQUE WHITE			FBF43BNWH FBF44BWH
BRITE RED	MBCI	CRIMSON RED S1232	REGAL RED		CRIMSON RED	FBF43CRD
BROWNSTONE	MBCI	BROWNSTONE S0360	SIERRA TAN			FBF43BST
BURNISHED SLATE	MBCI	BURNISHED SLATE S0742	MEDIUM BRONZE (APS) DARK BRONZE (ULTRA)	BURNISHED SLATE	BURNISHED SLATE	FBF43BSL
CHAMPAGNE	DMI	CHAMPAGNE S1160				FBF43CPGE
CHARCOAL	METAL SALES	CHARCOAL GRAY S1151		CHARCOAL GRAY	CHARCOAL GRAY	FBF43CGY FBF44CHGY
CITYSCAPE	PAC CLAD	CITYSCAPE S0302	GRAY (APS) GUTTER GRAY (ULTRA)		OLD TOWN GRAY	FBF43CS
CLASSIC GREEN	MBCI	CLASSIC GREEN S0925		EMERALD GREEN	EMERALD GREEN	FBF43CGR FBF44CGR
COAL BLACK	MBCI	COAL BLACK S0423			BLACK	FBF43CLBLK
COBALT BLUE	MBCI	GALLERY BLUE S0545			GALLERY BLUE	FBF43GBL
COLONIAL RED	MBCI	COLONIAL RED S0847	COLONIAL RED (APS) RED (ULTRA)			FBF43CLRD FBF44CRD
COLONY GREEN	MBCI	COLONY GREEN S1047	PATINA GREEN	COLONY GREEN	PATINA GREEN	FBF43COGR
DARK BRONZE/ MIDNIGHT BRONZE	METAL SALES/ MBCI	DARK BRONZE S0324			MIDNIGHT BRONZE	FBF43DBZ FBF44DBZ
EVERGREEN	DMI	EVERGREEN S0487				FBF43EVGR
FERN GREEN	MBCI	FERN GREEN, HARTFORD GREEN S0798			FERN GREEN	FBF43FGR FBF44HGR
HARBOR BLUE	MBCI	HARBOR BLUE, ROYAL BLUE S0843	REGAL BLUE			FBF43HRBL FBF44RBL
HAWAIIAN BLUE	MBCI	HAWAIIAN BLUE S0112		HAWAIIAN BLUE	HAWAIIAN BLUE	FBF43HBL
KOKO BROWN	MBCI	KOKO BROWN, MANSARD BROWN S0110	REDWOOD		BROWN	FBF43KBRN FBF44MBRN
LIGHT STONE	MBCI	LIGHT STONE S0248	TAN	LIGHT STONE	LIGHT STONE	FBF43LST
MATTE BLACK	METAL SALES	MATTE BLACK S0507				FBF44MBLK
MEDIUM BRONZE	MBCI	MEDIUM BRONZE S0526				FBF43MBZ FBF44MBZ
SILVER METALLIC	MBCI	METALLIC SILVER S1161				FBF43MSL FBF44MS
POLAR WHITE	MBCI	POLAR WHITE S0001		POLAR WHITE	POLAR WHITE	FBF43PWH
RUSTIC RED	MBCI	RUSTIC RED S0890	TERRA COTTA		BARN RED	FBF43RRD
SADDLE TAN	MBCI	SAHARA /SADDLE S0320		SAHARA TAN		FBF43STN
SANDSTONE	DMI/ METAL SALES	SANDSTONE S0330	ALMOND			FBF43SDST FBF44SST
SIERRA TAN	PACCLAD/ METAL SALES	SIERRA TAN S0629			SAHARA TAN	FBF43SITN FBF44STN
SLATE GRAY	MBCI	SLATE GRAY S0275	SLATE GRAY			FBF43S6Y FBF44SGY
SNOW WHITE	MBCI	SNOW WHITE, SNOW DRIFT WHITE S0348				FBF43SWH FBF44SDWH
STONE/ DESERT SAND	DMI/ MBCI	DESERT SAND S0109	STONE	DESERT SAND	DESERT SAND	FBF43DS
TERRA COTTA	DMI	TERRA COTTA S1389			TERRA COTTA	FBF44TC
TUNDRA	MBCI	DOVE GRAY S0302				FBF44DGY
WEATHERED ZINC	PAC CLAD	WEATHERED ZINC S1483				FBF43WZ
WHITE	DMI	WHITE S0214	WHITE			FBF44WH



Largest Selection of Painted Rivets...**IN STOCK!**

- #43 and #44 Stainless Steel
- Over 50 colors in-stock for same day ship!
- Chip resistant paint is formulated to resist fading caused by UV rays.
- 250 pieces per bag for easy handling.

WE'LL SHIP ONE BAG!

Popular Sizes and Technical Information

Body Dia.	Rivet #	Grip Range	Rivet Length	Head Dia.	Head Height	Drill Hole
1/8"	43	.126 - .187	.337	.250	.040	#30 (.129" - .133")
	44	.188 - .250	.400			
3/16"	63	.126 - .187	.337	.375	.060	#11 (.192 - .196")
	64	.188 - .250	.400			

BLIND RIVETS | DOMED HEAD

TFC standard rivets are all stainless, all aluminum or all steel

Use the correct hole size to assure the rivet performs properly. Refer to size chart for hole size.

Drill Bit Type

High Speed / 135° Split Point

Pullout in Steel

1/8" BLIND RIVET (#42, #43, #44) STAINLESS STEEL					
	Steel Thickness and Tensile				
	0.021"	0.032"	0.047"	0.074"	
	49 ksi	44 ksi	112 ksi	63 ksi	66 ksi
PULLOUT (lbs)	106 ¹	175 ¹	571 ¹	647 ²	631 ²

Farabaugh Report: T311-16

Pullover in Steel

1/8" BLIND RIVET (#42, #43, #44) STAINLESS STEEL			
	Steel Thickness and Tensile		
	0.021"	0.032"	0.074"
	49 ksi	44 ksi	66 ksi
PULLOVER (lbs)	306 ¹	425 ¹	644 ²

Farabaugh Report: T175-21

Rivet Strengths

RIVET	Tensile	Shear
1/8" SS	600	520
1/8" AL	180	150
3/16" SS	1300	1150
3/16" AL	700	440

Country of Origin: USA

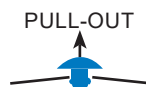
Pullout in Aluminum

1/8" BLIND RIVET (#42, #43, #44)		
ALUMINIUM THICKNESS (6063 T5)	0.040"	0.125"
STAINLESS RIVET PULLOUT (lbs)	102 ¹	561 ¹
ALUMINUM RIVET PULLOUT (LBS)	103 ¹	194 ²

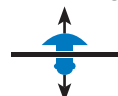
3/16" BLIND RIVET (#62, #63, #64)		
ALUMINIUM THICKNESS (6063 T5)	.040"	0.125"
STAINLESS RIVET PULLOUT (lbs)	124 ¹	1,082 ¹
ALUMINUM RIVET PULLOUT (lbs)	128 ¹	512 ²

Farabaugh Report: T220-16 & T305-20

All tests conducted at Farabaugh Engineering and Testing

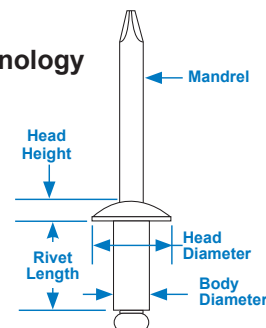


RIVET FAILURE



FAILURE MODES
1. Pullover or Pullout
2. Rivet

Rivet Terminology



Packaging

Carton: 10,000 pcs
Bagged: 250 pcs

Tools

Milwaukee® M12™ Tool 12 Volt Cordless



Delivers fast, easy riveting while maintaining performance, durability, and consistency.

Model: M12 - 2550-22 Tool Kit

Capability | One full Charge
3/16" stainless steel rivets (250 rivets)
1/8" steel rivets (450 rivets)



Tool Kit includes battery, charger, bag.

Manual

The Rivet King model RK-65 hand rivet tool can set blind rivets up to 3/16" in diameter.



DISCLAIMER: All information is non-binding and without guarantee. Before using the products, all specifications and calculations must be checked by a suitably qualified person and local regulations must be observed. This document is subject to revision. We reserve the right to make technical changes. (0321-1)

FIND YOUR COLOR...SELECT THE RIVET!

COLOR	MFG	SIZE / P.N.	TFC COLOR	SWATCH	COLOR	MFG	SIZE / P.N.	TFC COLOR	SWATCH
ALMOND	MBCI	FBF43AL FBF44AL	ALMOND S0330		HARBOR BLUE	MBCI	FBF43HRBL FBF44RBL	HARBOR BLUE ROYAL BLUE S0843	
ASCOT WHITE	ATAS	FBF44SWH	STONE WHITE S0348		HAWAIIAN BLUE	MBCI	FBF43HBL	HAWAIIAN BLUE S0112	
ASH GRAY	MBCI	FBF43AGY	ASH GRAY S0850		KOKO BROWN	MBCI	FBF43KBRN FBF44MBRN	KOKO BROWN MANSARD BROWN S0110	
BONE WHITE	MBCI	FBF43BNWH FBF44BWH	BONE WHITE		LIGHT STONE	MBCI	FBF43LST	LIGHT STONE S0248	
BRITE RED	MBCI	FBF43CRD	CRIMSON RED S1232		MATTE BLACK	METAL SALES	FBF44MBLK	MATTE BLACS0507	
BROWNSTONE	MBCI	FBF43BST	BROWNSTONE S0360		MEDIUM BRONZE	MBCI	FBF43MBZ FBF44MBZ	MEDIUM BRONZE S0526	
BURNISHED SLATE	MBCI	FBF43BSL	BURNISHED SLATE S0742		SILVER METALLIC	MBCI	FBF43MSL FBF44MS	METALLIC SILVER S1161	
CHAMPAGNE	DMI	FBF43CPGE	CHAMPAGNE S1160		POLAR WHITE	MBCI	FBF43PWH	POLAR WHITE S0001	
CHARCOAL	METAL SALES	FBF43CGY FBF44CHGY	CHARCOAL GRAY S1151		RUSTIC RED	MBCI	FBF43RRD	RUSTIC RED S0890	
CITYSCAPE	PAC CLAD	FBF43CS	CITYSCAPE S0302		SADDLE TAN	MBCI	FBF43STN	SAHARA /SADDLE S0320	
CLASSIC GREEN	MBCI	FBF43CGR FBF44CGR	CLASSIC GREEN S0925		SANDSTONE	DMI METAL SALES	FBF43SDST FBF44SST	SANDSTONE S0330	
COAL BLACK	MBCI	FBF43CLBLK	COAL BLACK S0423		SIERRA TAN	PACCLAD METAL SALES	FBF43SITN FBF44STN	SIERRA TAN S0629	
COBALT BLUE	MBCI	FBF43GBL	GALLERY BLUE S0545		SLATE GRAY	MBCI	FBF43S6Y FBF44SGY	SLATE GRAY S0275	
COLONIAL RED	MBCI	FBF43CLRD FBF44CRD	COLONIAL RED S0847		SNOW WHITE	MBCI	FBF43SWH FBF44SDWH	SNOW WHITE SNOW DRIFT WHITE S0348	
COLONY GREEN	MBCI	FBF43COGR	COLONY GREEN S1047		TERRA COTTA	DMI	FBF44TC	TERRA COTTA S1389	
DARK BRONZE/ MIDNIGHT BRONZE	METAL SALES/ MBCI	FBF43DBZ FBF44DBZ	DARK BRONZE S0324		TUNDRA	MBCI	FBF44DGY	DOVE GRAY S0302	
DESERT SAND/ STONE	MBCI/ DMI	FBF43DS	DESERT SAND S0109		WEATHERED ZINC	PAC CLAD	FBF43WZ	WEATHERED ZINC S1483	
EVERGREEN	DMI	FBF43EVGR	EVERGREEN S0487		WHITE	DMI	FBF44WH	WHITE S0214	
FERN GREEN	MBCI	FBF43FGR FBF44HGR	FERN GREEN HARTFORD GREEN S0798						

Can't find your color? Contact us! We may have what you need...or we can paint it in-house!

NOTE: Colors swatches do not match the actual rivet due to printing variation. Contact TFC for samples.



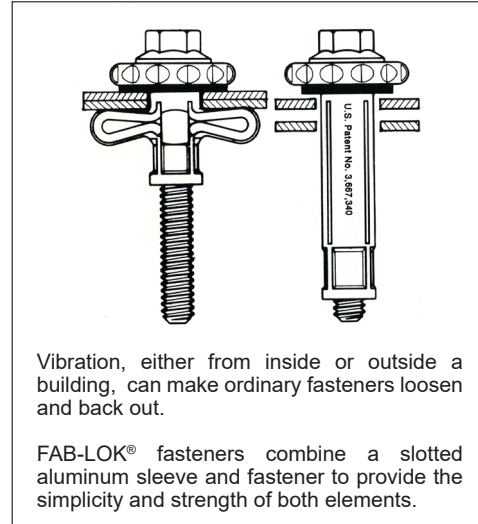
We Stock a Full-Line for Immediate Shipping!

FAB-LOK® fasteners were designed to maintain panel integrity in high-stress environments such as: high wind areas, expansion and contraction, severe vibration, racking and the repair of oversized holes.

Sizes

Material	Size	Penetrating Length	Grip Range	Wt. / M
Carbon Steel	FAS 10-4	1.373"	.062"-.250"	23
	FAS 10-8	1.612"	.250"-.500"	24
	FAS10-12	1.807"	.500"-.750"	28
H-3 (300 series) Stainless Steel	FAC10-4	1.373"	.062"-.250"	23
	FAC 10-8	1.612"	.250"-.500"	24
	FAC 10-12	1.807"	.500"-.750"	28

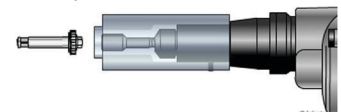
WEATH-R-SEAL Washers	
Part	Description
Aluminum Bonded Weath-R-Seal Washers	.729" O.D. - .040 Aluminum
	1" O.D. - .040" Aluminum
304 Stainless Steel Bonded Weath-R-Seal Washers	.729" O.D. 20 gauge 304 S/S
	1" O.D. 20 gauge 304 S/S



Installation

1. Predrill with a 5/16" diameter drill bit
2. Insert FABLOK into hole. Use the FABLOK holding sleeve with a DEWALT screw-gun (DW268 or DW267)

Holding Sleeve
p.n. : EZL900



Technical Information

Pull-out tests were performed on a Model L Dillon Dynamometer. FAB-LOK® fasteners were installed in single sheet and two sheets of metal and pulled over the tines of the FAB-LOK® to determined holding values.

Clamping Force

FAB-LOK® Type
Maximum 900 lbs.
Residual 860 lbs.

Comparison: FAB-LOK® & Sheet Metal SC

Sheet Material	FAB-LOK® FAS-10-4	#14 Sheet Metal Screw
Strip test in .032" Aluminum	75 inch-lbs.*	65 inch-lbs.*
Strip test in 26 ga. Steel	75 inch-lbs.*	45 inch-lbs.*
Strip test in 24 ga. Steel	75 inch-lbs.*	55 inch-lbs.*

Single Shear Strength

FAB-LOK® Type	FAC	FAS
Avg. shear	1885 lbs.	2400 lbs.

Hydrostatic Test

FAB-LOK® Type	H2O Pressure	Length of test	Result
FAC - 10-4	100 psi	5 days	No leaks

Type Fac - Single Sheet

Sheet Material	Sheet Thickness	Failure lbs.*	Type of Failure
Steel	24 ga.	833	Sheet Split
	20 ga.	858	Sheet Split
	18 ga.	1050	Sheet Split
	16 ga.	1293	Sheet Split
	14 ga.	1400	Fastener Broke

Fatigue Tests

Two thicknesses of 26 gauge metal fastened with FAB-LOK® and tested on 5000 lb. capacity machine at 1500 cycles per minute, sustained 1,775,500 cycles when failure of sheets occurred. Fastener did not fail.

FAB-LOK® fastening 1/8" aluminum plate to 3/16" steel of a railroad freight car, held without failure when the car was subjected to jarring vibration by a Hewitt-Robins Car Shaker at 900 cycles for ten minutes.

INFORMATION PROVIDED HERE IS BASED UPON TESTS BELIEVED TO BE RELIABLE. IN AS MUCH AS ELCO FASTENING SYSTEMS HAS NO CONTROL OVER THE EXACT MANNER IN WHICH OTHERS MAY USE THIS INFORMATION, IT DOES NOT GUARANTEE THE RESULTS TO BE OBTAINED NOR DOES THE COMPANY MAKE ANY EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY, OR FITNESS FOR A PARTICULAR PURPOSE CONCERNING THE EFFECTS OR RESULTS OF SUCH USE.



Grommet Seal Fasteners are compression fasteners used in side-lap applications which utilize fiberglass, plastic or composite sheeting.

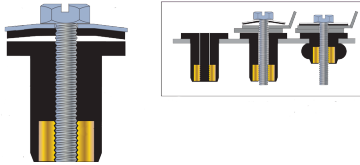
Sizes and Specifications

Grommet Size	1/4" x 1"	3/8" x 1"
Body Length	.948	.812
Nut Insert	6-32	10-32
Durometer (sleeve)	70	60
Ultimate Tensile	50 lbs.	80 lbs.

*Also available in 316 stainless steel.

Installation

The grommet is installed by placing it into a pre-drilled 1/4" or 3/8" hole and tightened using a screw gun with a standard 1/4" or 5/16" socket. The machine screw engages the nut insert, forcing the sleeve to expand against the inner wall of the materials. Grommets become an excellent sealant against air, moisture and vibration.



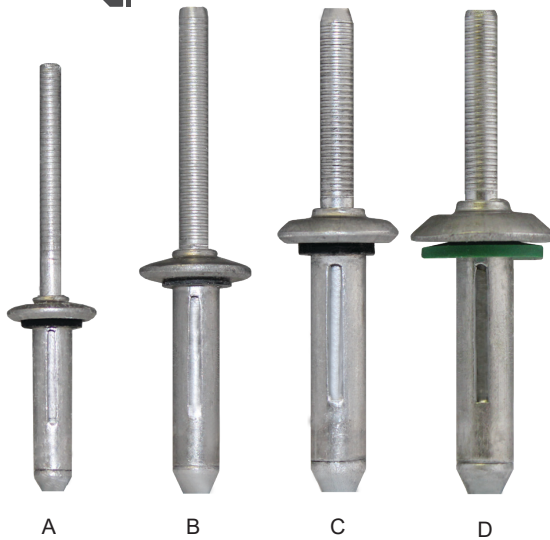
Machine Screw Size	6-32" x 1"	10-32" x 1"
Hex Size	1/4"	5/16"
Material	302 HQ	302 HQ
Bonded Washer	304 SS/EPDM	304 SS/EPDM
Sleeve	EPDM	EPDM
Nut Insert	Brass	Brass
Recommended		
Hole Size	.250	.375
Grip Range	.375-.607	.312-.450



More than forty years ago, the first Bulb-Tite® was developed to solve application requirements in the pre-engineered metal building, roofing and siding industry.

The Bulb-Tite® rivet body folds into three separate legs forming a large blind-side head. This large bearing head evenly distributes the Bulb-Tite® high clamp force in soft, thin or brittle materials while providing high pull through resistance. The Bulb-Tite® wide grip range enables a single Bulb-Tite® to work in a greater variation of thickness. Some versions of the Bulb-Tite® feature a special flush break mandrel that effectively seals the rivet bore and adds greater shear strength.

The standard Bulb-Tite® rivets are made of aluminum alloy, providing a durable non-rusting fastener that can withstand weather-related corrosion.



Bulb-Tite® Rivets handle your attaching problems with ease providing greater pull-through.



Sizes

With Sealing washer

	DIAMETER	TFC Part Number	GRIP	HOLE SIZE	SHEAR	TENSILE
A	3/16"	RV6604-6-4W	.062" - .250"	.209" - .221" (#4)	675	450
B	1/4"	RV6604-8-6W	.062" - .250"	.250" - .263" (1/4")	1,100	675
C	9/32"	RV6603-9-6W	.032" - .375"	.308" - .327" (5/16")	1,500	1,100
D	9/32"	RV6605-9-6W	.042" - .375"	.308" - .327" (5/16")	1,500	1,100

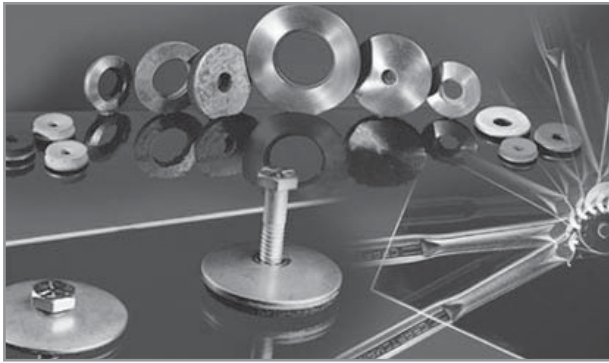
TOOLS

Tools designed to install Bulb-Tite® Rivets in metal clad building application.



Contact TFC for availability!

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MASTER SEAL™ Washers

Provide An Air, Vapor Or Liquid-Tight Seal

AZTEC MasterSeal washers are a practical and simple, yet sturdy and reliable. They are engineered to prevent delamination of metal and sealant.

Features and Benefits

- Vulcanized for optimal strength.
- Aluminum, stainless steel or galvanized steel backing standard; Monel backing also available.
- EPDM sealer standard; neoprene and silicone also available.
- Deflectable, tapered lip on inside diameter assures inner seal around fastener.
- Sealant evenly compresses to create a uniform seal.
- Resists shearing and tearing during application.
- Retains positive seal regardless of position on flat surfaces and many curved surfaces.
- Allows visual confirmation of proper seating.

SIZES

Sealant: EPDM

20 Gage Galvanized Steel Backing

Outside Diameter	Screw Size
1/2" (9mm)	#10, #12, 1/4", #14
9/16"	#12
5/8" (15mm)	#10, #12, 1/4", #14, #17, 5/16"
.729"	1/4", #14, 5/16", 3/8
1"	5/16", 1/2"
1-1/8"	1/4", #14
1-13/16"	5/16"
1-1/2"	1/4", #14, 5/16"

20 Gage 304 Stainless Steel Backing

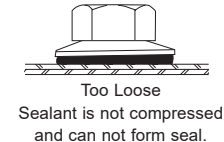
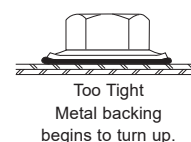
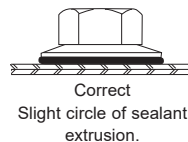
Outside Diameter	Screw Size
1/2" (9mm)	#10, #12, 1/4", #14
9/16"	#12
5/8" (15mm)	#10, #12, 1/4", #14, #17, 5/16"
.729"	1/4", #14, 5/16", 3/8
7/8"	3/8"
1"	5/16", 1/2"

.040 Aluminum 5052 Backing

Outside Diameter	Screw Size
9/16"	#12, 1/4", #14
5/8" (15mm)	#10, #12, 1/4", #14
.729"	5/16", 3/8
1"	5/16"
1-3/16"	5/16"
1-1/2"	5/16"

Installation

Extrusion of sealant at outer edge of properly seated washer provides easy conformation of proper fastener seal.



Typical properties of Bonded EPDM Sealing Washer Material

Property	Value	Test Method
Base Material	Cross-Linked EPDM (Ethylene propylene di ene terpolymer)	N/A
Color	Black	N/A
Test Level	3	Grade
Test Temperature	B 100 degrees C	Type
Volume Swell	A No Requirement	Class
Durometer Hardness	70 +/- 5ASTM	D2240
Tensile Stength	10 MPa (1450 PSI) Minimum	ASTM D412
Ultimate Elongation	250% Minimum	ASTM 412 A/C
Heat Resistance	Heat aging 70 hrs @ 100 degrees C	ASTM D573
	Change / Hardness Maximum + 10 Points	
	Change / Tensile Maximum - 25%	
	Change / Ultimate Elongation Maximum - 25%	
Compression Set	Maximum 25%	ASTM D395B
Ozone Resistance	No observed effect (70 hrs. @ 50 pphm)	ASTM D1171
	100% Quality Retention Facing	
Low Temperature Brittleness	Non-brittle 3 minutes@ -55 degrees C	ASTM D2137
UV Resistance	Excellent	
Resistance To Aging	Excellent	
Non-standing	Pass	

SADDLE WASHERS

We can provide saddle washers for a variety of panel types. Contact TFC for sizes.



Styles for flat and curved ribs



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The first hillside washer that eliminated back-up plates!

The BRACER® with slip resistant knurls was designed to increase the load capacity of your bracing system by over three times more than a standard hillside washer.

Our patented slip resistance knurls minimizes slippage of the rod, keeping the bracing tight. It has been tested by an independent laboratory confirming that BRACER® achieves complete loading of the web and rod, eliminating backup plates and welding! This research provides the only certified load data by any supplier of hillside style washers.

The elliptical Shape of the #1 BRACER® distributes stress into web for better load distribution!



US Patent # 6,217,270
Statement of certification by Dr. Ralph Sinno Ph.D. Professor of Civil Engineering Mississippi State University.

"The #1 BRACER® ductile iron oval hillside washers for 1/2" - 5/8" rods surpass the design capacity of the rods and beam / column sections."

"Procedures and calculations in the literature for the design of x-bracing anchorage can be used with confidence when specifying and selecting ductile iron oval BRACER® hillside washers."

"The oval shape is better than rectangular mainly because of two reasons: The base area is almost the same and the oval shape eliminated stress concentrations at the 90-degree corners and reduces the cantilever distance (from the corner of the base to the center of the rod). In addition, your oval shape is properly stiffened on its back. This latest oval shape is a winner with STRESS-LOK!"

MADE IN USA AVAILABLE

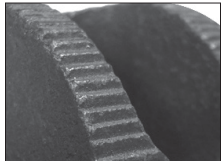
BRACER® Base Dimensions

BRACER®	Rod	Base Dimension	
		Length	Width
#1 (Oval)	1/2" & 5/8"	4.000"	3.000"
#2	3/4" & 7/8"	4.000"	3.000"
#3	1" & 1-1/4"	4.000"	3.000"
#4	1-3/8" & 1-1/2"	4.250"	3.000"

Need a standard hillside?

Call about information on our BRACER LITE!

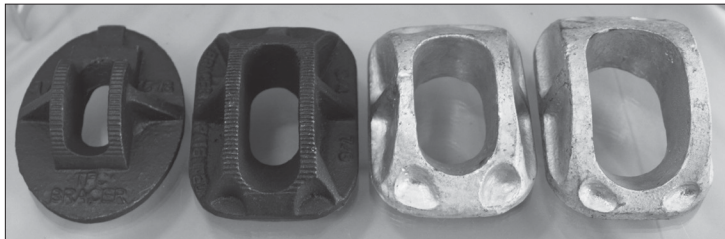
WHY BRACER® ?



Patented design provides optimal load transfer and easy installation.

- Patented knurls on the surface minimizes slippage of the rod.
- Eliminates back-up plates and welding.
- Special nipple is design to engage the web slot deeper, producing higher load capacity and easy installation!
- Made from high strength ductile iron to assure quality performance.
- Certified independent test data confirms load capacities.

SIZES AND ROD CAPABILITY



#1 BRACER® Oval With Knurls (1/2" - 5/8" Rod)
#2 BRACER® With Knurls (3/4" - 7/8" Rod)
#3 BRACER® (1" - 1-1/4" Rod)
#4 BRACER® (1-3/8" - 1-1/2" Rod)

Shown in standard red paint and optional HDG finish.

MATERIAL PROPERTIES

STANDARD MATERIAL (Import & Domestic)

Ductile Iron

ASTM 536-84 Grade 65-45-12

Ultimate Tensile Strength: 65,000 PSI

For load data, please refer to page 208.

FINISH

Red Enamel: BRACER #1,2,3

Gray Enamel: BRACER #4

Type: gloss enamel, 85 units minimum at 60°.

Thickness: 1.6-2.0 mils

Adhesion: ASTM 2794 Excellent. No Peeling or removal

Impact Resistance: ASTM D 2794 Good > 10 in. lbs.

Abrasion Resistance: ASTM D 4060 Good

Corrosion Resistance: Salt Spray: 250 hrs. (<5% red rust)
Kesternich: 5 cycles (<10% red rust)

OPTIONAL FINISH

Hot Dip Galvanized Per ASTM 153 Class A

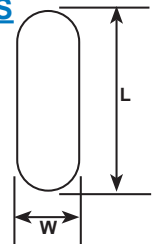
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SLOT SIZES AND ROD ANGLES

SLOT REQUIREMENTS - MINIMUM

Slots in the web must be sized to allow a rod angle of up to 52° and to allow the tab on the bottom of the BRACER® to engage the web.

*Static load tests were conducted using the these dimensions.



ROD AND (BRACER SIZE)	ROD ANGLE (MAX)	FROM MSU TEST		SLOT WIDTH (W) MINIMUM DUCTILE IRON
		*SLOT LENGTH (L)	*SLOT WIDTH (W)	
1/2" Rod (#1 BRACER)	55°	2.125"	1.062"	.750"
5/8" Rod (#1 BRACER)	52°	2.125"	1.062"	.750"
3/4" Rod (#2 BRACER)	55°	2.125"	1.062"	1.000"
7/8" Rod (#2 BRACER)	52°	2.125"	1.062"	1.000"
1" Rod (#3 BRACER)	58°	2.625"	1.312"	1.250"
1-1/4" Rod (#3 BRACER)	56°	2.625"	1.312"	1.312"
1-3/8" Rod (#4 BRACER)	55°	3.500"	1.625"	1.425"
1-1/2" Rod (#4 BRACER)	52°	3.500"	1.625"	1.600"

The following information is provided to help you specify and install tapping screws correctly. Care should be used when selecting and installing screws to assure optimal performance.

TERMINOLOGY

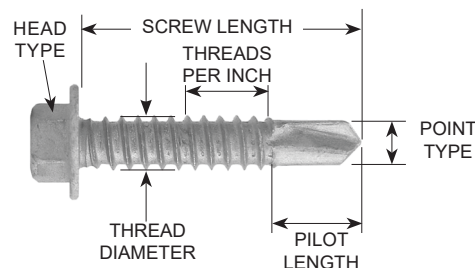
To eliminate confusion and assure the proper screw is used, specifications for tapping screws should be written to include;

1. Thread diameter
2. Threads per inch
3. Point type
4. Description of screw
5. Drive size
6. Head Style
7. Material
8. Finish / plating

Example

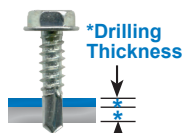
1/4-14 x 1" BLAZER-3 Drill Screw, 3/8" HWH.
Carbon Steel. TRI-SEAL® 1,000 hour Salt Spray coating.

Thread Diameter	Threads Per Inch	Screw Length	Point Type	Head Size & Type
1/4	- 14	x 1"	BLAZER-3	3/8" HWH



DETERMINE DRILL POINT TYPE

- Add up the total thickness that will be drilled by the screw.
- Select the desired drill point (DP) type and screw size located on the size chart below.



Drilling and Tapping Thickness											
Gauge	24	20	18	16	14	12	10				
Inch	.024	.036	.048	.060	.075	.100	.105	.135	.175	.210	.250
1/4-14 DP1											
#8-18 DP2											
#10-16 DP3											
#10-24 DP3											
#12-14 DP3											
1/4-14 DP3											
5/16-12 DP3											
#12-24 DP4											
#12-24 DP5											
1/4-20 DP5											

INSTALLATION TECHNIQUES



Recommended Screw-Gun Speed

Using the proper tooling is important for producing consistent installation. It also minimizes potential screw or application failure caused by over-driven and under-driven fasteners.

Screw Size	Max RPM
#6, #8, #10	2,500
All wood screws	2,500
#12, 1/4", 5/16"	2,000
All DP5	2,000
304 Stainless Screws	1,200

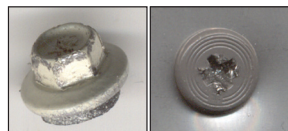
WARNING! DO NOT USE IMPACT TOOLS FOR INSTALLATION!

Using impact tools to install pancake head screws can cause the head to separate from the body due to the high torque and impulse generate by the tool. HWH screws can also be easily overtighten which can lead to connection failure.

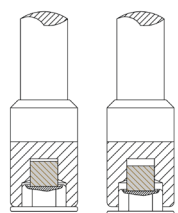
TFC is not responsible for failures caused by the use of improper tooling or improper installation.

ACCESSORY TIPS

Look familiar?



Worn out drive bits and sockets produces poor drilling, can strip the recess, and damage painted fasteners.

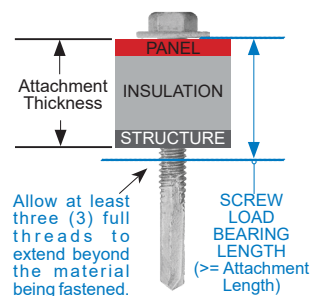


SET THE MAGNET!
Be sure screw head engages into the socket completely. This will eliminate screw wobble, improve the drilling performance, and reduce damage to painted screw heads.

DETERMINE FASTENER LENGTH

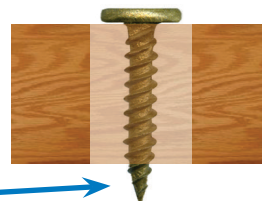
METAL

- Measure from the top surface of the material being fastened to the underside of the metal that will be drilled and tapped. Be sure to allow for any void or insulation. This is called the attachment thickness.
- Select a screw length where the attachment thickness is less than or equal to the *Load Bearing Length* listed on screw size charts



WOOD

Allow full penetration into wood decks so the screw point extends beyond the bottom side. Allow at least 1" screw embedment in 2 x structures to maintain designed pull out resistance. Greater penetration can achieve higher pull out values.



Allow screw tip to extend beyond decking.



DO

- Install fastener perpendicular to the work surface.
- Let the drill point do the work.
- Use a tool with torque control or depth sensing nose piece to prevent over-torqued and under-torqued screws.
- Allow all material to be drilled before tapping into the steel.

DO NOT

- Exert excessive pressure!
- Over drive the screw!
- **Use impact tools! (They can torque the screw to failure!)**

SEALING WASHERS

To assure a proper seal, tighten the screw until the EPDM sealant extrudes just to the outer edge of the backing material. This also is a great way to visually inspect the screw to assure it is properly sealed.



Correct



Too Tight!



Too Loose!

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FASTENER SELECTION GUIDE FOR EXPOSED METAL BUILDING AND ROOFING APPLICATIONS

Environments



Select a fastener based on the environment and the panel type.

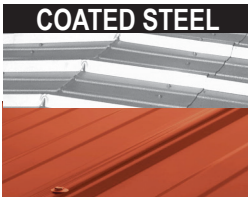
To minimize galvanic corrosion, it is important that the fastener material is compatible with the roofing material. The following list of fasteners were selected based on specifications from various panel producers throughout the world. **Harsh environments can corrode metals quickly.** Contact the panel manufacturer for their specific recommendations.

NOTE: Electroplated zinc plated screws are not for use in exterior applications and will corrode quickly.

Use With Warranted Roof Systems

PANEL MATERIAL

Fasteners



COATED STEEL

- Galvanized
- Zinc/Aluminum
- Painted Metal



Note: 300 series stainless may corrode the base metal in severe marine environments. Consult the panel manufacturer for specific conditions

PANEL MATERIAL

Fasteners



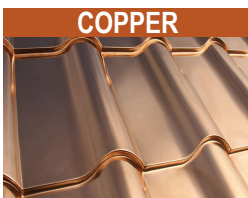
ALUMINUM



Note: 300 series stainless may corrode the base metal in severe marine environments. Consult the panel manufacturer for specific conditions

PANEL MATERIAL

Fasteners



COPPER



PANEL MATERIAL

Fasteners



STAINLESS STEEL



For detailed product information, please view our product page located on our website or our PRODUCT QUICK FACTS sheet.



- TRI-SEAL® Coated | Carbon Steel
- Stainless Cap or Zinc Head
- 410 Stainless Steel



- TRI-SEAL® Coated | Carbon Steel
- Stainless Steel Cap Head Screws
- 304 Stainless Steel



- TRI-SEAL® Coated | Carbon Steel
- Stainless Steel Cap Head
- 304 Stainless Steel



- 304 Stainless Steel Bi-Metal Drill Screws

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TFC VALUE PROPOSITION

LARGE SELECTION • BEST QUALITY • TECHNICAL SUPPORT • INVENTORY PROGRAMS

Product Support

Our knowledgeable sales team is available to assist you with all of your fastening systems requirements.



- Fastener recommendations
- Job-site assistance
- Product training
- Delivery programs
- Technical assistance

We offer fasteners compatible with a variety of roof systems!

- Carlisle
- Firestone
- GAF
- Genflex
- Johns-Manville
- Sarnafil
- Soprema
- Tamko
- Versico



On-site support to assist with determining the proper fastener.

Need-It-Now!™ "Trade Specific" Product Program

Use our NEED-IT-NOW!™ trade specific program to help you located those hard to find fasteners for difficult applications.



BENEFITS OF THE PROGRAM

- Provides a fast and easy way to locate trade specific products.
- Using our website makes it easy to locate detailed product and technical information.
- Provides a list of trade specific products to assist in developing an inventory program to support specific needs.
- Reminds you of all the items TFC has available for your specific trade.
- Provides pricing details on all items to reduce lead times.

Contact us to learn more about the Need-It-Now!™ Program!

DISCLAIMER: All information is non-binding and without guarantee. Before using the products, all specifications and calculations must be checked by a suitably qualified person and local regulations must be observed. This document is subject to revision. We reserve the right to make technical changes. 03.21-1



#12 DRILL POINT CARBON STEEL

DEKFAST® roofing screws are use for a variety of connections providing superior performance and easy installation. They are compatible for most roof systems to attach rigid insulation to steel or wood deck.

Contact your TFC product professional for approval details.

APPLICATIONS

Attach to wood or steel
Up to 16ga max (.060" | 1.52mm)

SIZES

Screw Length	Thread Length	Pieces/Box	Weight/Box	PRICE
1-5/8"	FULL	1000	13#	
2-1/4"	FULL	1000	17#	
3"	FULL	1000	20#	
4"	FULL	1000	30#	
5"	4"	1000	34#	
6"	4"	1000	41#	
7"	4"	500	24#	
8"	4"	500	48#	

DIMENSIONAL AND PHYSICAL PROPERTIES



Thread Dimensions
Major Dia.: .222"
Minor Dia.: .130"



Truss Head
Drive: #3 Cross Recess
Head Height: .112"
Head Diameter: .437"

MATERIAL: Carbon Steel

FINISH: Epoxy coating (black)

INSTALLATION TIPS

Screwgun: Use 2,000 RPM max screw gun with torque control
Metal Deck: Fastener must penetrate the deck by a minimum of 3/4".
Concrete and Wood: Fastener embedment of at least 1" or a minimum of 1" penetration through wood decking.

PERFORMANCE SPECIFICATIONS

Pullout for #12 Carbon Steel DEKFAST®

WOOD	Plywood Fire Rated	2x Dimensional Lumber
Thickness	3/4"	1" Embedment
Pullout (lb.)	462	575

WOOD: Pullout values in wood are average ultimate in pounds. A minimum safety factor of four (4) should be used for design.

STRENGTHS	ULTIMATE LOAD
Tensile	3,100 lb min.
Shear	1,800 lb min.
Torsional	60 lb-in min.

STEEL: Pullout values in steel are calculated per S100 specification and are the minimum value. A minimum safety factor of three (3) should be used for design.

STEEL	ASTM A653 Grade 33				ASTM A563 Grade 40				ASTM A653/A1008 Grade 50				ASTM A653/A1008 Grade 80			
Grade	ASTM A653 Grade 33				ASTM A563 Grade 40				ASTM A653/A1008 Grade 50				ASTM A653/A1008 Grade 80			
Tensile Strength	45 ksi				55 ksi				65 ksi				82 ksi			
Thickness	22 ga.	20 ga.	18 ga.	16 ga.	22 ga.	20 ga.	18 ga.	16 ga.	22 ga.	20 ga.	18 ga.	16 ga.	22 ga.	20 ga.	18 ga.	16 ga.
Pull-out (lb.)	255	306	408	509	311	374	498	623	368	442	589	736	464	557	743	928

CORROSION PROTECTION

Meets or exceeds FM4470 corrosion standards per Kesternich DIN 50018 SFW 2.0 test. of 15 cycles.





#14 DRILL POINT CARBON STEEL

DEKFAST® roofing screws are use for a variety of connections providing superior performance and easy installation. They are compatible for most roof systems to attach rigid insulation to steel or wood deck.

APPLICATIONS

Carbon Steel: Attach to wood, concrete, or steel <=16ga (.060" | 1.52mm)

#14 DRILL POINT 410 STAINLESS STEEL

This all purpose fastener is engineered to provide superior corrosion resistance in the most severe environments. The self-drilling point penetrates steel quickly and can also be used in treated wood.

APPLICATIONS

410 SS: Attach to wood or steel <=18ga (.048" | 1.22mm)

DIMENSIONAL & PHYSICAL PROPERTIES

Thread Dimensions
Major Dia.: .242"
Minor Dia.: .151"

Truss Head
Drive: #3 Cross Recess
Head Height: .116"
Head Diameter: .437"

MATERIAL AND FINISH

Carbon Steel..... Epoxy Coated

410 Stainless Steel..... Passivated

CORROSION PROTECTION

Meets or exceeds FM4470 corrosion standards per Kesternich DIN 50018 SFW 2.0 test. of 15 cycles

SIZES | CARBON STEEL

Screw Length	Thread Length	Pieces/ Box	Weight/ Box	PRICE
1-1/4"	FULL	1000	14#	
2"	FULL	1000	18#	
3"	FULL	1000	26#	
4"	3-7/8"	1000	31#	
5"	3-7/8"	1000	42#	
6"	3-7/8"	1000	47#	
7"	3-7/8"	500	27#	
8"	3-7/8"	500	30#	
9"	3-7/8"	500	34#	
10"	3-7/8"	500	38#	
11"	3-7/8"	500	43#	
12"	3-7/8"	500	45#	

SIZES | 410 STAINLESS STEEL

Screw Length	Thread Length	Pieces/ Box	Weight/ Box	PRICE
1-1/2"	FULL	1000	14#	
2"	FULL	1000	18#	
3"	FULL	1000	26#	
4"	3-7/8"	1000	31#	
5"	3-7/8"	1000	42#	
6"	3-7/8"	1000	47#	
7"	3-7/8"	500	27#	
8"	3-7/8"	500	30#	
9"	3-7/8"	500	34#	
10"	3-7/8"	500	38#	
11"	3-7/8"	500	43#	
12"	3-7/8"	500	45#	

INSTALLATION TIPS

Screwgun: Use 2,000 RPM max screw gun with torque control
Metal Deck: Fastener must penetrate the deck by a minimum of 3/4".
Concrete and Wood: Fastener embedment of at least 1" or a minimum of 3/4" penetration beyond the wood decking.

PERFORMANCE SPECIFICATIONS

Pullout for #14 Carbon Steel and Stainless Steel DEKFAST®

WOOD	Plywood Fire Rated	2x Dimensional Lumber
Thickness	3/4"	1" Embedment
Pullout (lb.)	590	605

WOOD: Pullout values in wood are average ultimate in pounds. A minimum safety factor of four (4) should be used for design.

CONCRETE	4000 PSI Concrete
Embedment	1"
*Pullout (lb.)	850

CONCRETE: Pullout values are ultimate. A minimum safety factor of four (4) should be used for design.

*Carbon Steel Only

STEEL: Pullout values in steel are calculated per S100 specification and are the minimum value. A minimum safety factor of three (3) should be used for design.

STEEL																
Grade	ASTM A653 Grade 33				ASTM A563 Grade 40				ASTM A653/A1008 Grade 50				ASTM A653/A1008 Grade 80			
Tensile Strength	45 ksi				55 ksi				65 ksi				82 ksi			
Thickness	22 ga.	20 ga.	18 ga.	16 ga.	22 ga.	20 ga.	18 ga.	16 ga.	22 ga.	20 ga.	18 ga.	16 ga.	22 ga.	20 ga.	18 ga.	16 ga.
Pull-out (lb.)	278	333	444	555	339	407	543	679	401	481	642	802	506	607	810	1012

STRENGTHS	ULTIMATE LOAD
Tensile	3,300 lb min.
Shear	2,100 lb min.
Torsional	110 lb-in min.

Drill Bit Size - Concrete

3/16" Carbide Tip

NOTE: Drill hole at least 1/2" deeper than screen embedment



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#15-13 DP1 DRILL POINT TRUSS HEAD CARBON STEEL

Uses: Wood, concrete or steel (16 ga. - 22 ga.).
Material: Carbon Steel

Corrosion Protection: Epoxy coating (black) meets or exceeds FM4470 corrosion standards and withstands 15 cycles of the Kesternich DIN 50018 SFW 2.0 test.

Head Height: .095" - .105"
Head Diameter: .425" - .440"

CORROSION PROTECTION

Meets or exceeds FM4470 corrosion standards per Kesternich DIN 50018 SFW 2.0 test. of 15 cycles

Great for retrofit base attachment. Tap up to 1/2" thick steel. Use 1/4" drill bit.



INSTALLATION TIPS

Screwgun: Use 2,000 RPM max screw gun with torque control

Metal Deck: Fastener must penetrate the deck by a minimum of 3/4".

Concrete and Wood: Fastener embedment of at least 1" or a minimum of 3/4" penetration beyond wood decking.

SIZES

Screw Length	Thread Length	Pieces/Box	Weight/Box	PRICE
1 1/4	FULL	1000	14#	
2	FULL	1000	21#	
3	2 7/8	1000	31#	
4	3 7/8	1000	40#	
5	3 7/8	1000	49#	
6	3 7/8	500	29#	
7	3 7/8	500	34#	
8	3 7/8	500	38#	
9	3 7/8	500	43#	
10	3 7/8	500	48#	
11	3 7/8	500	52#	
12	3 7/8	500	57#	
14	3 7/8	250/Bx	33#	
16	3 7/8	250/Bx	38#	

Pullout for #15 DP1 Carbon Steel DEKFAST® (Loads are average ultimate)

WOOD: Pullout values in wood are average ultimate in pounds. A minimum safety factor of four (4) should be used for design.

	APA Rated OSB				APA Rated Plywood			SPF #2
Thickness	7/16"	15/32"	19/32"	23/32"	15/32"	19/32"	23/32"	
Pullout (lb.)	295	300	310	515	400	525	685	1165*

STRENGTHS	ULTIMATE LOAD
Tensile	4,500 lb min.
Shear	2,400 lb min.
Torsional	160 lb-in min.

Drill Bit Size - Concrete

7/32" Carbide Tip

Drill Bit Size - Steel

1/4" 135° Split Point

STEEL: Pullout values in steel are calculated per S100 specification and are the minimum value. A minimum safety factor of three (3) should be used for design.

*Pre-drilling required for steel thicker than 14 Ga.

Grade	ASTM A653 Grade 33				ASTM A563 Grade 40				ASTM A653/A1008 Grade 50				ASTM A653/A1008 Grade 80			
Tensile Strength	45 ksi				55 ksi				65 ksi				82 ksi			
Thickness	22 ga.	20 ga.	18 ga.	16 ga.	22 ga.	20 ga.	18 ga.	16 ga.	22 ga.	20 ga.	18 ga.	16 ga.	22 ga.	20 ga.	18 ga.	16 ga.
Pull-out (lb.)	298	358	477	597	365	438	583	729	431	517	690	862	544	652	870	1087

3" METAL STRESS PLATE



Testing: Meets or exceeds Factory Mutual I-60 or I-90 wind up lift specifications when properly installed on most insulation boards.

Feature: Plate is formed from 26 gauge Galvalume® steel.

Use with Phillips Truss Head fastener.

Uses: They are used with virtually all types of insulation board used for roofing systems.

Galvalume is a trademark of BIEC International, Inc.



Square, Hex, Round, Steel or Plastic...We have it!

3" x 3" Square Recessed Galvalume Metal
3" x 3" Square Flat Bottom Galvalume Metal
3" Across Flats Hex Galvalume Metal
3" Across Flats Hex Plastic
2" Round Galvalume Metal (Standard)
3" Round Galvalume Metal (Standard)
3" Round Plastic



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isoweld® Stress Plates for induction welding attachment



Application

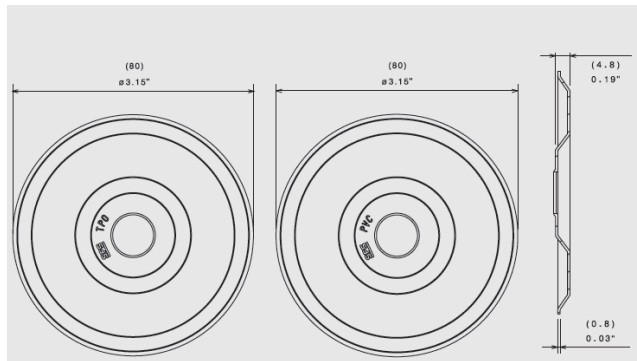
TPO and PVC/KEE/TPA membrane attachment using isoweld® induction welding tools

Features and Benefits

- Proprietary adhesive for secure weld
- Stacked for ease of use
- 22 ga. G90 Galvanized steel

Product Selection

Material No.	Item	Description	Carton Wt. (lbs.)	Carton Qty.
1555270	isoweld® PVC plate	FI-P-6,8-PVC-PC	34	500
1555269	isoweld® TPO plate	FI-P-6,8-TPO-PC	34	500



Specifications

OD: 3.15" (80 mm) Round
Material: G90 Steel with proprietary adhesive coating
Back of plate: Gray polyester coating
Color (front of plate): TPO – Yellow
PVC/KEE/TPA – Purple

Approvals



State of Florida: FL20311

16-0712.08

isofast® System Insulation Attachment Tool



Application

Productivity tool system for insulation attachment using #12 Dekfast

Features and Benefits

- Each tool cycle installs a fastener and plate simultaneously
- 3 times faster installation
- Stand-up operation reduces back strain and fatigue
- #12 Dekfast fasteners collated on durable polypropylene belting
- 75 fasteners per belt
- Insulation plates stacked on spindles to easily load into feeder

Product Selection

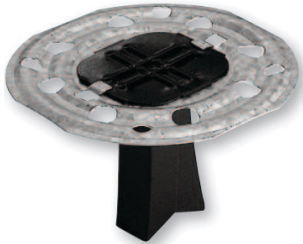
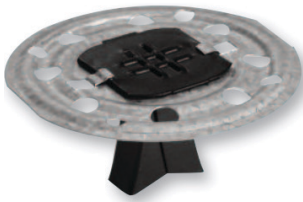
Tools

Material No.	Tool	Fastener Length	Description	Weight
1349029	isofast® IF160 Tool	2-1/4" to 6"	TOOL-IF160-I-Loan	40
1349071	isofast® IF240 Tool	2-1/4" to 8"	TOOL-IF240-I-Loan	40

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DEKFAST™ FM90 and FM75



FM-75

SFS intec

Part#

Description

Standard
Carton Qty

N3005FPA

Dekfast/FM-75; 1.2" Assembled/Painted

1,000

FM-90

SFS intec

Part#

Description

Standard
Carton Qty

N3025FPA

Dekfast/FM-90; 1.7" Assembled/Painted

1,000

APPLICATION

FM-90: Base Sheet to lightweight insulating concrete and various gypsum roof decks.

FM-75: Base Sheet to higher density lightweight insulating concrete, NVS concrete and various gypsum roof decks.

COMPOSITION

Fastener: Precision formed from polymer coated steel to prevent corrosion. Rectangular dual gripping legs; 1.7" long on FM-90, 1.2" long on FM-75.

Disk: Precision formed coated steel to prevent corrosion. Integrally locked to fastener. Rib reinforced cap, 2.7" diameter.

TECHNICAL DATA

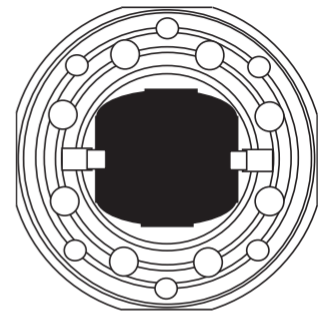
Approvals: Fasteners maintain Factory Mutual, Underwriters Lab Approvals, and Miami-Dade County Approvals.



Length

FM-90: 1.7 inches

FM-75: 1.2 inches



Diameter

FM-90: 2.7 inches

FM-75: 2.7 inches



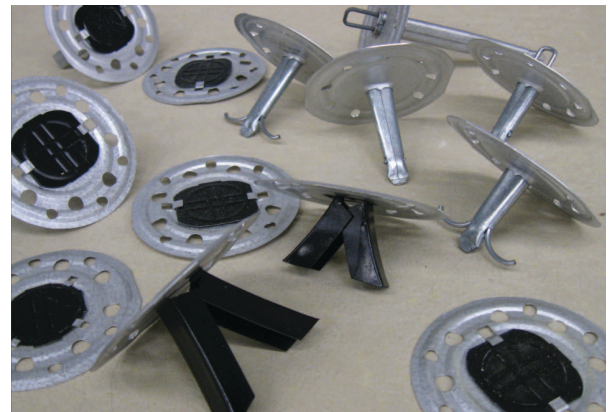
INSTALLATION

Equipment: Always use the DEKFAST Magnetic Driver to assure proper fastener installation.

Method: Drive fastener as an ordinary nail. DO NOT TOE. Seat cap flush with roofing surface (see illustration).

Operation: As fastener is driven, dual legs diverge and cut a plug of deck material that wedge and anchor the fastener in its own hole. No pre-drilling is required.

Packaging: 1,000 fasteners per carton.
FM-90 gross weight 40 lbs.
FM-75 gross weight 36 lbs.



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FM-90 SPECIFICATIONS

COMPOSITION

Fastener: Precision formed from polymer coated steel to prevent corrosion. Rectangular dual gripping legs, 1.7" long.

Disk: Precision formed from coated steel to prevent corrosion. Integrally locked to fastener. Rib reinforced cap, 2.7" diameter.

TECHNICAL DATA

Approvals: FM-90 fasteners maintain Factory Mutual, Underwriters Lab Approvals, and Miami-Dade County Approvals.

Fastening Pattern: Consult Factory Mutual, Underwriters Lab, or Miami-Dade requirements for recommended pattern in normal, exposed, and hurricane areas.

Field Testing: On-site withdrawal testing should always be performed to evaluate the ability of the roofing substrate to satisfactorily accept and retain fasteners. Such testing may alter fastener selection and modify applicable fastening patterns.

INSTALLATION

Equipment: Always use the ES magnetic driver to assure proper fastener installation.

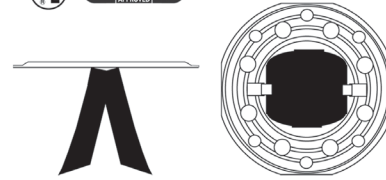
Method: Drive like an ordinary nail. DO NOT TOE. Seat cap flush with roof membrane.

Operation: As FM-90 is driven, dual legs diverge and cut a plug of deck material that wedge and anchor in it's own hole. No pre-drilling required.

Packaging: 1,000 per carton. Gross wt 40 lbs.

PROUDLY MADE IN THE U.S.A.

BASE SHEET TO LIGHTWEIGHT INSULATING CONCRETE AND VARIOUS GYPSUM ROOFDECKS

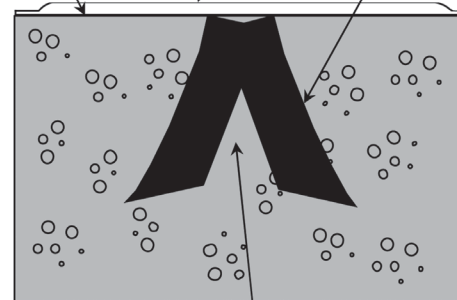


Length: 1.7 inches Diameter: 2.7 inches

Disk is integrally attached to fastener. Meets FM-4470.

Use only approved base sheet materials

Elastomeric polymer coating protects exposed surfaces of fastener from corrosion. Meets FM-4470.



Fastener anchors itself in its own hole by cutting an inverted wedge of concrete. No pre-drilling required.

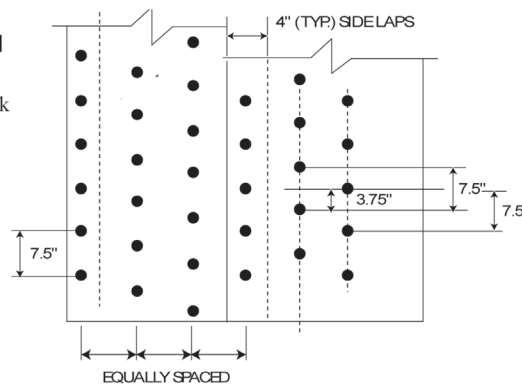
FASTENING GUIDE

CLASS 1-90 WINDSTORM CLASSIFICATION

An FMRC-approved base sheet is secured to an FMRC-approved lightweight insulating concrete roofdeck as outlined in the current edition of the FMRC Approval Guide and/or RoofNav.

The base sheet is secured in the field of the roof with FM-90 fasteners installed 7.5" on center in 4" wide side laps and 7.5" on center in two staggered rows, equally spaced, between the side laps.

When fastening meter-wide material with this pattern, expect to use approximately 165 fasteners per square (100 ft²).



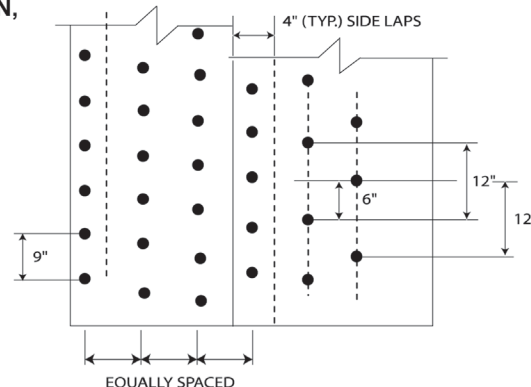
FASTENING GUIDE

CLASS 1-120 WINDSTORM CLASSIFICATION, CELCORE NEW CONSTRUCTION ONLY

An FMRC-approved base sheet is secured to an FMRC-approved lightweight insulating concrete roofdeck as outlined in the current edition of the FMRC Approval Guide and/or RoofNav.

The base sheet is secured in the field of the roof with FM-90 fasteners installed 9" on center in 4" wide side laps and 12" on center in two staggered rows, equally spaced, between the side laps.

When fastening meter-wide material with this pattern, expect to use approximately 113 fasteners per square (100 ft²).



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Nylon Reinforced Fiberglass Auger Deklite™ DL-SQ1/4



Features & Benefits

- Deklite tapered root progressively compacts the material
- making the deck denser around the root, increasing pull out values
- Auger locks to plate upon installation
- Tapered design also yields 70% more surface area leading to a greater holding power
- 1/4" square drive
- Non-penetrating

Application

Insulation and membrane attachment when used with Deklite™ stress plates. For lightweight roofdecks: lightweight concrete, Tectum and gypsum.

Approvals



16-0712.08

Performance Data

Base Material	Pre-Drill	Embed Depth	Tension Load
Tectum Deck	–	1-1/2" (38 mm)	280 lbf / 1246 N
Tectum Deck	–	2" (51 mm)	440 lbf / 1957 N
Tectum Deck	–	2-1/2" (64 mm)	595 lbf / 2647 N
3" (76 mm) Insulrock	5/16" (8 mm)	2-1/2" (64 mm)	365 lbf / 1624 N
Poured gypsum	3/8" (10 mm)	2" (51 mm)	540 lbf / 2402 N

*Load capacities are based on testing conducted according to ASTM Standard E 488. Test data above represents average ultimate loads sustained in the materials indicated and should be used as guidelines only. Job site tests are recommended. Tectum is a registered trademark of Tectum, Inc.



PHYSICAL DATA	LENGTH	PACKAGING	WEIGHT
The data below is constant for each Olympic NTB-1HWO	2 1/2"	500	13 lb.
	3"	500	15 lb.
	3 1/2"	500	17 lb.
Head Size: 1" Diameter	4"	500	19 lb.
	4 1/2"	500	21 lb.
	5"	500	24 lb.
Head Style: Double Internal Hex Drive	5 1/2"	500	26 lb.
	6"	500	28 lb.
	6 1/2"	500	29 lb.
Major Thread Diameter: .750	7"	500	30 lb.
	7 1/2"	500	32 lb.
	8"	250	16 lb.
Thread: 3.5 T.P.I. Buttress	8 1/2"	250	17 lb.
	9"	250	18 lb.
	9 1/2"	250	19 lb.
Material: Glass-Filled Nylon	10"	250	20 lb.

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ZAC® Anchor Termination Fastener ZA-#14



Features and Benefits

- Term bar fastener that can be backed out
- ZAC® cap is zinc aluminum composition and will never red rust
- Can be removed and re-engaged for roof repairs without damage to the roof system
- Cathodic epoxy e-coat on thread

Application

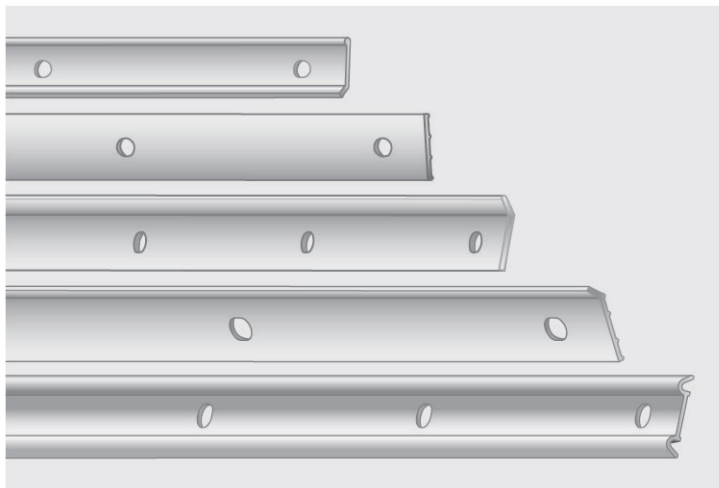
- Fastens termination bar at wall terminations
- Threads into wood, masonry, concrete and steel

Product Selection

Material No.	Fastener Length	Thread Length*	Description	Carton Wt. (lbs.)	Carton Qty.
792897	1-3/8"	1-1/8	ZA-#14x1-3/8-CHW3/8-N-E0999-C	25	1,000

*Note – Thread length measured from tip of the drill point to end of the threads.

Termination Bars TB, TB-AP, TB-SL, TB-RSL, TB-R, TB-LB



Application

Wall termination application

Features and Benefits

- Manufactured from specialty extruded aluminum without sharp edges
- Reinforced strengthening ribs allow for use in high wind applications

Product Selection

Material No.	Product Type	Hole Spacing	Description	Carton Wt. (lbs.)	Carton Qty.
791391	0.050" All Purpose	6"	TB-AP-0.05x1x120-6o.c.-TUBE	45	500 feet (50-10 ft pcs)
791394	0.075" Single Lip	6"	TB-SL-0.075x1x120-6o.c.-TUBE	51	500 feet (50-10 ft pcs)
791395	0.075" Ribbed Single Lip	6"	TB-RSL-0.075x1x120-6o.c.-TUBE	51	500 feet (50-10 ft pcs)
791404	0.100" Ribbed Flat	6"	TB-R-0.1x1x120-6o.c.-TUBE	78	500 feet (50-10 ft pcs)
791411	0.090" Lip and Ball	6"	TB-LB-0.09-TUBE	86	500 feet (50-10 ft pcs)

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By
DUPONT

23 pound tank

Insta-Stik™ Roof Insulation Adhesive

Insta Stik™ Quik Set is a single-component, moisture-cured polyurethane adhesive that is free from conventional solvents and dispensed from a portable, disposable pre-pressurized container requiring no external power source. The available flexible dispensing hose and wand assembly includes an on/off ball valve at the end of the dispensing hose, allowing operational control for single-hand application. Pair Insta Stik™ Quik Set with the Multi-Bead Applicator to complete jobs on large, open roof areas more quickly and easily.

Performance

Method	Unit	Value
Application Temperature ¹	°F (°C)	33 to 110 (1 to 43)
Storage Temperature	°F (°C)	50 to 75 (10 to 24)
Tack Free Time ²	Minutes	2 to 8
Cure Time ²	Minutes	10 to 20
Shelf Life ³	months	15
Estimated Yield ⁴	ft ² (m ²)	400 to 800 (37 to 74)

¹ Applying INSTA STIK™ Quik Set in temperatures when surface and ambient temperatures are below 33°F (1° C) will result in poor adhesion and will void the adhesion warranty.

² Tack free and cure time depends on humidity

³ Expiration date is 15 months from the date of manufacture and is stamped on each unit.

⁴ Estimated yield varies with application rate.



OMG OLYBOND500® Roof Insulation Adhesive

OlyBond500 Insulation Adhesive is a fast-acting, two-component, low-rise polyurethane foam adhesive designed to secure insulation to roof decks. Available in several packaging configurations to accommodate diverse market needs including pressurized Canister Sets, SpotShot Cartridges, 10-gallon Bag-in-Box sets as well as in 15-gallon drums. OlyBond Classic is available in 15- and 50-gallon drums. OlyBond is FM approved and is also available in regular and cold weather formulations.

We supply installation tools
and replacement parts.
Call us for your needs!



MILLENNIUM One Step™ Roof Insulation Adhesive

One Step Foamable Adhesive® is the trusted choice for any commercial roofing project. One Step™ Technology sounds easy to use because it is! We've already done the important chemistry at H.B. Fuller – before the product is packaged - so you don't have to do difficult chemistry on the rooftop. Creating products that are more reliable, more durable, and easier to use is what our team of Adhesive & Sealants Experts has done for over 100 years.

We supply installation tools
and replacement parts.
Call us for your needs!



- One Step Foamable Adhesive® produces consistent, flexible foam in all temperature conditions
- One Step Foamable Adhesives® can be used below freezing unlike other adhesives with 400F limitations

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FROTH-PAK 200 Spray Polyurethane Foam

FROTH-PAK™ 200 spray foam sealant kits are complete portable two part polyurethane spray foam systems. It is a quick cure, closed cell foam that fills cavities, cracks and expansion joints for air sealing and improved insulation.

Specifications

Application Multipurpose
Indoor/Outdoor
Number of Components 2
Size 41 lb
Container Type Two Cylinders
Color Cream
Insulation Value R-6.1
Expansion Ratio 3-5:1
Coverage 200 sq ft @ 1 in Thickness

Full Cure 1 min
Application Temp. Range 40 Degrees to 100 Degrees F
Substrates
Glass, Masonry, Metal, Most Plastics, Wood

Includes
Hoses, Insta-Flo(TM) Dispensing Spray Gun,
Iso Tank, Nozzles, Polyol Tank



HANDI FOAM Spray Polyurethane Foam System

Handi-Foam's polyurethane foam sealants are moisture cured sealants, designed to completely fill and seal small gaps, cracks and voids up to about 3 inches. It has excellent adhesion and expansion characteristics ensuring a complete and permanent air tight seal. This product is dispensed through a hose and wand for control and ease of use. Cylinder foams are great for applying extensive linear feet of bead sealant without the stops, starts and change-overs required with gun foam sealants.

Specifications

Application Multipurpose
Indoor/Outdoor
Number of Components 2
Size 115.7 lb
Container Type Two Cylinders
Color Yellow/White
Insulation Value R-6
Expansion Ratio 4:1
Coverage 50 cu ft, 605 Board ft,
9236 Linear ft @ 1 in Bead,
2309 Linear ft @ 2 in Bead

Begins to Harden 30 to 60 sec
Full Cure 1 hr
Application Temp. Range 40 Degrees to 120 Degrees F
Performance Temp. Range -200 Degrees to 200 Degrees F
Flash Point 240 Degrees F
Standards ASTM E-84 Class 2
Substrates
All Except Polyethylene, Polypropylene, Silicone, Oils,
Greases, Mold Release Agents And Similar Materials

Includes
15 ft Hose and Initial 8-pk of Nozzles

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Hercules® RetroDrain

PRODUCT DATA SPECIFICATIONS

PRODUCT DESCRIPTION

One-piece spun aluminum body and heavy duty cast aluminum strainer dome and clamping ring provide strength and durability. The drain flange has a depressed sump area to facilitate water drainage from the roof surface. The Hercules RetroDrain incorporates U-Flow® Seal technology for a mechanical watertight connection to PVC or cast iron pipes to prevent water from backup damage. Available in 3-in., 4-in., 5-in. and 6-in. sizes.

FEATURES & BENEFITS

- One piece seamless body provides strength and durability without separation of the flange from the stem.
- Extra large flange allows positive attachment of roof flashing membrane while the sump area facilitates drainage.
- Simple and easy to install from rooftop in 15 to 30 minutes.
- Cast aluminum strainer dome and clamping ring.
- 12-in. long drain stem accommodates most existing field conditions with longer lengths available.
- Incorporates U-Flow Seal technology for a secure, watertight connection.

- Also available with a plastic dome or the cast-aluminum SuperDome.
- Saves time and money by allowing easy installation from the rooftop without disturbing occupants.

APPLICATION

OlyFlow® RetroDrains are designed to replace existing drains in reroofing applications. Installed from the roof surface, OlyFlow RetroDrains are engineered to be installed without removing the existing plumbing or fixture while providing a watertight connection to the roof system and the existing plumbing.

APPROVALS & STANDARDS



ANSI/SPRI RD-1 is a national performance standard for retrofit roof drains. While most retrofit drains are not tested to this standard, OlyFlow Insert Drains – including the Hercules RetroDrain with U-Flow Seal – exceed the standard, which requires that the seal hold a 10-ft. column of water for 24 hours without leaking.



PHYSICAL DATA

The data below is constant for each Hercules RetroDrain.

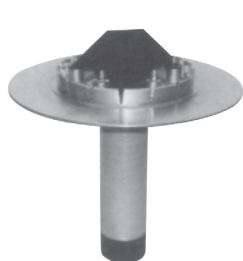
DRAIN BODY		SEAL	
11 gauge (.125") spun aluminum		Watertight U-Flow mechanical seal requires U-Flow screwdriver	
FLANGE		STRAINER DOME	
17½" diameter with sump area		Cast aluminum, plastic or aluminum SuperDome	
STEM		CLAMP RING	
12" length		Cast aluminum	

ORDERING INFORMATION

CAT. NO.	SIZE	DOMES TYPE	PKG	DIMENSIONAL WEIGHT
HDAL3A	3"	Aluminum	Each	32 lbs.
HDAL4A	4"	Aluminum	Each	32 lbs.
HDAL5A	5"	Aluminum	Each	32 lbs.
HDAL6A	6"	Aluminum	Each	32 lbs.

RP11065G Rev. 0911

***CALL FOR OTHER STYLES**



**QUICK
FLOW**



OVER FLOW



U-FLOW SEAL



**FLOW
CONTROL**

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TFC PRODUCT QUICK FACTS

THREADED SCREWS

Most popular for a variety of applications.

Carbon Steel or Stainless Steel.

Diameters: 3/16", 1/4", 3/8", 1/2", 5/8", 3/4"

Lengths: Up to 6"

HAMMER-IN ANCHORS

ZAMAC or SPIKES

Zinc Alloy, Carbon Steel or Stainless Steel.

Diameters

ZAMAC: 1/4"

SPIKES: 1/4", 3/8", 1/2"

Lengths: Up to 14"

EXPANSION ANCHORS

Sleeve, Wedge, or Drop-in
Carbon Steel or Stainless Steel.

Diameters: 1/4", 3/8", 1/2", 5/8", 3/4", 7/8", 1", 1-1/4"

Lengths: Up to 12"

CHEMICAL ANCHORS

RED HEAD EPCON Brand

Use in a variety of applications.

PINS, LOADS, TOOLS

RAMSET® Brand pins and loads.

Variety of powder actuated and gas charged pins, loads and tools.



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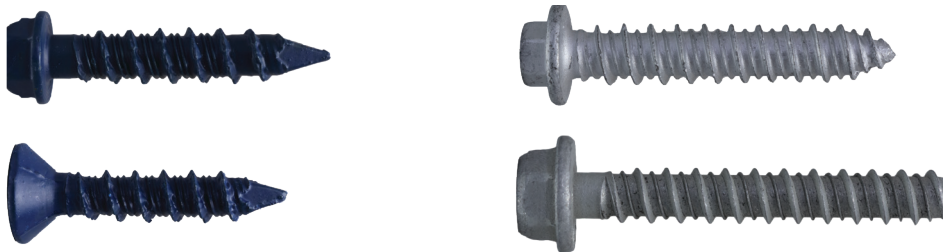
www.trianglefastener.com

800.486.1832

CONCRETE ANCHORS

ATTACH TO CONCRETE, BRICK, OR BLOCK

THREADED CONCRETE SCREWS



HAMMER-IN ANCHORS



EXPANSION ANCHORS



CHEMICAL / EPOXY ANCHORS



POWDER AND GAS CHARGED CONCRETE PINS AND TOOLS



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THE ORIGINAL
Tapcon®



Blue Climaseal™



410 Stainless Steel

DESCRIPTION/SUGGESTED SPECIFICATIONS

Tapcon Anchors—

SPECIFIED FOR ANCHORAGE INTO CONCRETE, BRICK OR BLOCK



The “original masonry” anchor that cuts its own threads into concrete, brick, or block. Maximum performance is achieved because the Tapcon Anchor, the Condrive Installation Tool, and the carbide-tipped Tapcon Drill Bits are designed to work as a system. It is essential to use the Condrive tool and the correct drill bit to assure consistent anchor performance.

Tapcon Anchors



Blue Climaseal™ provides extended corrosion protection

Also available in 410 Stainless Steel

Hex Head style on Tapcon Anchors is available for majority of fixture anchoring needs

Phillips Flat Head style is available when flush seating is necessary in countersink applications

Advanced Threadform cuts into concrete and masonry for reduced installation torque and increased pullout performance

Lengths of Tapcon Anchors range from 1-1/4” to 4” in 3/16” and up to 6” in 1/4” diameters.

Nail-Type Point guides the anchor into the pre-drilled hole. Excellent for wood to concrete applications

Approved for use in
ACQ Treated Lumber

Select a length that meets your application needs.

SELECTION CHART

Tapcon® Anchors with Blue Climaseal™

Diameter.....3/16” and 1/4”
Point Type.....Nail

Thread Form.....Advanced Threadform Technology™
Finish.....Blue Climaseal™

All boxes of ITW Tapcon come packaged with matching carbide-tipped bit. Tapcon is packaged 100 pieces per box and 500 pieces per master carton except HW4-600 and PF4-600 (400 in master carton).

FIXTURE THICKNESS INCHES	RECOMMENDED TAPCON LENGTH In. (mm)	PART NO. 3/16” HEX HEAD	PART NO. 1/4” HEX HEAD	PART NO. 3/16” FLAT HEAD	PART NO. 1/4” FLAT HEAD	BIT LENGTH In. (mm)	STRAIGHT SHANK BITS FOR 3/16” TAPCON PART NO.	STRAIGHT SHANK BITS FOR 1/4” TAPCON PART NO.
0” - 1/4”	1-1/4 (31.8)	HW3-114	HW4-114	PF3-114	PF4-114	3-1/2 (88.9)	7900814	7901014
1/4” - 3/4”	1-3/4 (44.5)	HW3-134	HW4-134	PF3-134	PF4-134	3-1/2 (88.9)	7900814	7901014
3/4” - 1-1/4”	2-1/4 (57.2)	HW3-214	HW4-214	PF3-214	PF4-214	4-1/2 (114.3)	7900818	7901018
1-1/4” - 1-3/4”	2-3/4 (69.9)	HW3-234	HW4-234	PF3-234	PF4-234	4-1/2 (114.3)	7900818	7901018
1-3/4” - 2-1/4”	3-1/4 (82.6)	HW3-314	HW4-314	PF3-314	PF4-314	5-1/2 (139.7)	7900822	7901022
2-1/4” - 2-3/4”	3-3/4 (95.3)	HW3-334	HW4-334	PF3-334	PF4-334	5-1/2 (139.7)	7900822	7901022
2-3/4” - 3”	4 (101.6)	HW3-400	HW4-400	PF3-400	PF4-400	5-1/2 (139.7)	7900822	7901022
3-1/2” - 4”	5 (127.0)	---	HW4-500	---	PF4-500	6-1/2 (165.1)	---	7901026
4-1/2” - 5”	6 (152.4)	---	HW4-600	---	PF4-600	7-1/2 (190.5)	---	7901030

Tapcon® 410 SS Anchor

Diameter.....3/16” and 1/4”
Point Type.....Nail

Thread Form.....Original Notched Hi-Lo™

Finish.....410 Stainless Steel with Silver Climaseal™

All boxes of ITW Tapcon come packaged with matching carbide-tipped bit. Tapcon is packaged 100 pieces per box and 500 pieces per master carton except SHW4-600 (400 in master carton).

FIXTURE THICKNESS INCHES	RECOMMENDED TAPCON LENGTH In. (mm)	PART NO. 1/4” HEX HEAD	PART NO. 3/16” FLAT HEAD	PART NO. 1/4” FLAT HEAD	BIT LENGTH In. (mm)	STRAIGHT SHANK BITS FOR 3/16” TAPCON PART NO.	STRAIGHT SHANK BITS FOR 1/4” TAPCON PART NO.
0” - 1/4”	1-1/4 (31.8)	SHW4-114	3434907	SPF4-114	3-1/2 (88.9)	7900814	7901014
1/4” - 3/4”	1-3/4 (44.5)	SHW4-134	3418907	SPF4-134	3-1/2 (88.9)	7900814	7901014
3/4” - 1-1/4”	2-1/4 (57.2)	SHW4-214	3419907	SPF4-214	4-1/2 (114.3)	7900818	7901018
1-1/4” - 1-3/4”	2-3/4 (69.9)	SHW4-234	3420907	SPF4-234	4-1/2 (114.3)	7900818	7901018
1-3/4” - 2-1/4”	3-1/4 (82.6)	SHW4-314	3421907	SPF4-314	5-1/2 (139.7)	7900822	7901022
2-1/4” - 2-3/4”	3-3/4 (95.3)	SHW4-334	3422907	SPF4-334	5-1/2 (139.7)	7900822	7901022
2-3/4” - 3”	4 (101.6)	3459907	---	---	5-1/2 (139.7)	---	3100910
3-1/2” - 4”	5 (127.0)	3460907	---	---	6-1/2 (165.1)	---	3102910
4-1/2” - 5”	6 (152.4)	3461907	---	---	7-1/2 (190.5)	---	3461907

Tapcon® SDS Bits

PART NUMBER	DESCRIPTION
790059	7” (SDS) Rotohammer Bits for use with 3/16” Tapcon
7901060	5” (SDS) Rotohammer Bits for use with 1/4” Tapcon
7901059	7” (SDS) Rotohammer Bits for use with 1/4” Tapcon

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LARGE DIAMETER TAPCON (LDT)



ADVANTAGES

SAVE TIME

EASILY INSTALLED

- Installs in less than half the time of wedge anchors or adhesive anchors
- Simply drill a pilot hole and drive the LDT anchor by hand or impact

EASILY REMOVED

- No torching or grinding required to remove anchors

SAVE MONEY

LOWER DRILL BIT COSTS

- Use standard ANSI bits instead of proprietary bits
- Single piece design, no nut and washer to assemble

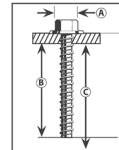
USE STANDARD ANSI BITS

- No special proprietary bits to purchase or lose
- Reduce chances for anchor failure due to incorrect bit usage

Selection Chart

LDT Size	ANSI Standard Drill Bit Diameter	Anchor Head (Socket Size) Diameter	Washer Diameter	Minimum Embedment	Hole Depth	USE IN		
						Concrete	Hollow CMU	Grout-filled
LDT 3/8"	5/16"	9/16"	13/16"	1-1/2"	2-1/2"	YES	YES	YES
LDT 1/2"	7/16"	3/4"	1"	2-1/2"	3-1/2"	YES	NO	YES
LDT 5/8"	1/2"	13/16"	1-3/16"	2-3/4"	3-3/4"	YES	NO	YES
LDT 3/4"	5/8"	15/16"	1-5/16"	3-1/4"	4-1/4"	YES	NO	YES

© See catalog for effective lengths and length indication code.



APPROVALS/LISTINGS

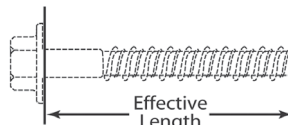
LDT
(3/8" & 1/2") (5/8" & 3/4")
Sawtooth™

Miami-Dade County – #04-1025.08
Florida Building Code

SELECTION CHART								
LDT Carbon and Stainless Steel			Carbon Steel with Zinc Plating: Meets ASTM B695 & B633 specifications for zinc plating of 5um = .0002" thickness. This coating is well suited for non-corrosive interior environments. Carbon Steel with EnvireX Coating: Provides additional corrosion protection for outdoor applications.					
PART NUMBER	PART NUMBER FOR CARBON STEEL ENVIREX COATING	PART NUMBER FOR 410 STAINLESS STEEL	ANCHOR DIA. In. (mm)	DRILL BIT DIA. In. (mm)	EFFECTIVE LENGTH In. (mm) (See detail on left)	MAX. THICKNESS OF MATERIALS TO BE FASTENED In. (mm)	QTY/WT PER BOX lbs.	QTY/WT PER MASTER CARTON lbs.
LDT-3816	—	SLDT-3816	3/8 (9.5)	5/16 (7.9)	1-3/4 (44.5)	1/4 (6.4)	50 / 3.0	400 / 24.0
LDT-3824	—	SLDT-3824	3/8 (9.5)	5/16 (7.9)	2-1/2 (63.5)	1 (25.4)	50 / 4.5	400 / 34.0
LDT-3830	LDT-3830X	SLDT-3830	3/8 (9.5)	5/16 (7.9)	3 (76.2)	1-1/2 (38.1)	50 / 5.0	400 / 40.0
LDT-3840	LDT-3840X	SLDT-3840	3/8 (9.5)	5/16 (7.9)	4 (101.6)	2-1/2 (63.5)	50 / 6.5	400 / 52.0
LDT-3850	LDT-3850X	SLDT-3850	3/8 (9.5)	5/16 (7.9)	5 (127.0)	3-1/2 (89.0)	40 / 7.5	320 / 60.0
LDT-1230	LDT-1230X	SLDT-1230	1/2 (12.7)	7/16 (11.1)	3 (76.2)	1 (25.4)	25 / 4.5	150 / 27.0
LDT-1240	LDT-1240X	SLDT-1240	1/2 (12.7)	7/16 (11.1)	4 (101.6)	2 (50.8)	25 / 6.0	150 / 36.6
LDT-1250	LDT-1250X	SLDT-1250	1/2 (12.7)	7/16 (11.1)	5 (127.0)	3 (76.2)	25 / 7.6	150 / 45.6
LDT-1260	—	—	1/2 (12.7)	7/16 (11.1)	6 (152.4)	4 (101.6)	20 / 9.0	120 / 54.0
LDT-5830	—	—	5/8 (15.9)	1/2 (12.7)	3 (76.2)	1/4 (6.4)	10 / 3.5	100 / 35.0
LDT-5840	—	—	5/8 (15.9)	1/2 (12.7)	4 (101.6)	1-1/4 (31.8)	10 / 4.0	100 / 40.0
LDT-5850	—	—	5/8 (15.9)	1/2 (12.7)	5 (127.0)	2-1/4 (57.1)	10 / 4.7	100 / 47.0
LDT-5860	—	—	5/8 (15.9)	1/2 (12.7)	6 (152.4)	3-1/4 (82.6)	10 / 5.4	50 / 27.0
LDT-3444	—	—	3/4 (19.1)	5/8 (15.9)	4-1/2 (114.3)	1-1/4 (31.8)	10 / 7.4	50 / 37.0
LDT-3454	—	—	3/4 (19.1)	5/8 (15.9)	5-1/2 (139.7)	2-1/4 (57.1)	10 / 8.1	50 / 40.5
LDT-3462	—	—	3/4 (19.1)	5/8 (15.9)	6-1/4 (158.8)	3 (76.2)	10 / 9.1	30 / 27.3

* The stainless steel LDT's will be gold in color in order to differentiate them from the carbon steel anchors which are silver.

DESIGN GUIDE	
For proper selection of anchor diameters based upon pre-drilled holes through base plates and fixtures to be fastened.	
HOLE DIAMETER THROUGH FIXTURE In. (mm)	SUGGESTED LDT DIAMETER In. (mm)
7/16 (11.1)	3/8 (9.5)
1/2 (12.7)	3/8 (9.5)
9/16 (14.3)	1/2 (12.7)
5/8 (15.9)	1/2 (12.7)
3/4 (19.1)	5/8 (15.9)
7/8 (22.2)	3/4 (19.1)



LENGTH INDICATION CODE*	
CODE	LENGTH OF ANCHOR In. (mm)
A	1-1/2 < 2 (38.1 < 50.8)
B	2 < 2-1/2 (50.8 < 63.5)
C	2-1/2 < 3 (63.5 < 76.2)
D	3 < 3-1/2 (76.2 < 88.9)
E	3-1/2 < 4 (88.9 < 101.6)
F	4 < 4-1/2 (101.6 < 114.3)
G	4-1/2 < 5 (114.3 < 127.0)
H	5 < 5-1/2 (127.0 < 139.7)
I	5-1/2 < 6 (139.7 < 152.4)
J	6 < 6-1/2 (152.4 < 165.1)

* Located on top of anchor for easy inspection.

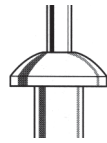
DISCLAIMER: All information is non-binding and without guarantee. Before using the products, all specifications and calculations must be checked by a suitably qualified person and local regulations must be observed. This document is subject to revision. We reserve the right to make technical changes. 03.21-1

ZAMAC™ Drive Pin Anchor

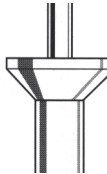
The TFC ZAMAC™ is a nail-in drive anchor which has a body formed from zinc alloy. Nails are available in carbon or stainless steel.

The anchor can be used in concrete, block, brick or stone.

Great for attacking termination bars attachment!



Mushroom Head Zamac Nailin®
Carbon Steel Nail or 304SS Nail



Flat Head Zamac Nailin®
Carbon Steel Nail

Diameter	Length	Pieces/ Box	Pieces/ Carton.	Price/ 100
3/16	7/8"	100	500	
1/4	1"	100	500	
1/4	1-1/4"	100	500	
1/4	1-1/2"	100	500	
1/4	2"	100	500	

Performance Data

DIA.	E M B E D . DEPTH	2,000 PSI Concrete		4,000 PSI Concrete		6,000 PSI Concrete		C-90 Hollow Block		Red Solid Block	
		TENSION	SHEAR	TENSION	SHEAR	TENSION	SHEAR	TENSION	SHEAR	TENSION	SHEAR
1/4"	5/8"	480	1230	600	1500	640	1500	360	1040	570	1250
	3/4"	580	1230	720	1500	760	1500	480	1160	790	1400
	7/8"	770	1350	820	1500	890	1500				
	1"							590	1320	820	1400
	1 1/8"	890	1400	960	1500	1060	1500				
	1 3/8"	980	1400	1150	1500	1230	1500	800	1320	950	1400
	1 7/8"	1150	1400	1300	1500	1365	1500				

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Trubolt® Wedge Anchors

Dependable, Heavy-Duty, Inspectable, Wedge Type Expansion Anchor

Description/suggested specifications

Wedge Type Anchors

Specified for anchorage into concrete.

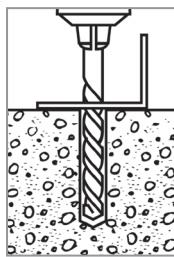
Wedge anchors feature a type 18-8 stainless steel split expansion ring and a threaded stud bolt body and integral cone expander, nut and washer. Anchor bodies are made of plated carbon steel, hot-dipped galvanized carbon steel, type 304 stainless steel or type 316 stainless steel as identified in the drawings or other notations.

The exposed end of the anchor is stamped to identify anchor length. Stampings should be preserved during installation for any subsequent embedment verification.

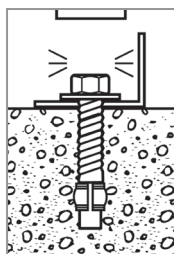
Use carbide tipped hammer drill bits made in accordance to ANSI B212.15-1994 to install anchors.

Anchors are tested to ASTM E488 criteria and listed by ICBO and SBCCI. Anchors are listed by the following agencies as required by the local building code: UL, FM, City of Los Angeles, California State Fire Marshal and Cal Trans.

Installation Steps



Using a bit whose diameter equals the anchor diameter, drill hole to any depth exceeding the minimum embedment. Clean hole.



Assemble anchor with nut and washer so that the top of the nut is flush with the top of the anchor. Drive anchor through material to be fastened so that nut and washer are flush with surface of material.



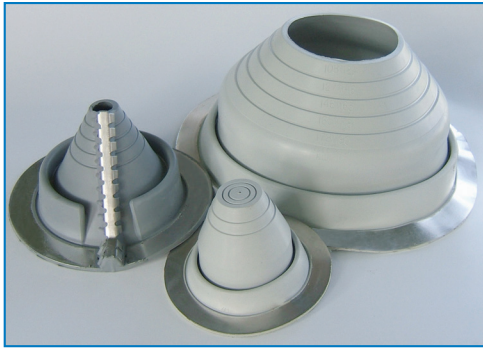
Expand anchor by tightening nut 3 to 5 turns, or to the specific torque requirement (see selection chart).

Sizes

TruBolt Removable Anchors Selection Chart									
Thread Length In. (mm)	Anchor Dia. & Drill Bit Size (threads) per inch	Overall Length In. (mm)	Max. Thickness of material to be fastened In. (mm)	Qty/Wt per box lbs.	Qty/wt per master carton lbs.	Zinc Plating	Hot-Dipped Galvanized	304 Stainless Steel	316 Stainless Steel
3/4 (19.1)	1/4" - 20	1-3/4 (44.5)	3/8 (9.5)	100/ 3.1	1000/ 32	☑	☑	☑	☑
1-1/4 (31.8)		2-1/4 (57.2)	7/8 (22.2)	100/ 3.6	1000/ 37	☑	☑	☑	☑
2-1/4 (57.2)		3-1/4 (82.6)	1-7/8 (47.6)	100/ 4.7	800/ 39	☑	☑	☑	☑
1-1/8 (28.6)	3/8" - 16	2-1/4 (57.2)	3/8 (9.5)	50/ 4.1	500/ 41	☑	☑	☑	☑
1-5/8 (41.3)		2-3/4 (69.9)	7/8 (22.2)	50/ 4.7	400/ 39	☑	☑	☑	☑
1-7/8 (47.6)		3 (76.2)	1-1/8 (28.6)	50/ 5.0	400/ 41	☑	☑	☑	☑
2-5/8 (66.7)		3-3/4 (95.3)	1-7/8 (47.6)	50/ 5.9	300/ 36	☑	☑	☑	☑
2-3/4 (69.9)		5 (127.0)	3-1/8 (79.4)	50/ 7.4	250/ 38	☑	☑	☑	☑
2-1/4 (57.2)		7 (177.8)	5-1/8 (130.2)	50/10.4	250/ 53	☑	☑	☑	☑
1-1/4 (31.8)	1/2" - 13	2-3/4 (69.9)	1/8 (3.2)	25/ 4.6	200/ 38	☑	☑	☑	☑
2-1/4 (57.2)		3-3/4 (95.3)	1 (25.4)	25/ 5.7	150/ 35	☑	☑	☑	☑
2-3/4 (69.9)		4-1/4 (108.0)	1-1/2 (38.1)	25/ 6.2	150/ 38	☑	☑	☑	☑
3 (76.2)		4-1/2 (114.3)	1-3/4 (44.5)	25/ 6.5	150/ 39	☑	☑	☑	☑
3 (76.2)		5-1/2 (139.7)	2-3/4 (69.9)	25/ 7.7	150/ 47	☑	☑	☑	☑
4-1/2 (114.3)		7 (177.8)	4-1/4 (108.0)	25/ 9.3	150/ 57	☑	☑	☑	☑
1-3/4 (44.5)	5/8" - 11	3-1/2 (88.9)	1/8 (3.2)	10/ 3.6	100/ 37	☑	☑	☑	☑
2-1/2 (63.5)		4-1/4 (108.0)	7/8 (22.2)	10/ 4.1	100/ 42	☑	☑	☑	☑
3-1/4 (82.6)		5 (127.0)	1-5/8 (41.3)	10/ 4.7	100/ 48	☑	☑	☑	☑
3-1/2 (88.9)		6 (152.4)	2-5/8 (66.7)	10/ 5.4	50/ 28	☑	☑	☑	☑
4-1/2 (114.3)		7 (177.8)	3-5/8 (92.1)	10/ 6.2	30/ 19	☑	☑	☑	☑
3-1/2 (88.9)		8-1/2 (215.9)	5-1/8 (130.2)	10/ 8.0	30/ 25	☑	☑	☑	☑
1-3/4 (44.5)	3/4" - 10	10 (254.0)	6-5/8 (168.3)	10/ 9.4	30/ 29	☑	☑	☑	☑
1-3/4 (44.5)		4-1/4 (108.0)	1/4 (31.8)	10/ 6.8	60/ 42	☑	☑	☑	☑
2-1/4 (57.2)		4-3/4 (120.7)	3/4 (19.1)	10/ 7.4	60/ 45	☑	☑	☑	☑
3 (76.2)		5-1/2 (139.7)	1-1/2 (38.1)	10/ 8.1	50/ 41	☑	☑	☑	☑
3-3/4 (95.3)		6-1/4 (158.8)	2-1/4 (57.2)	10/ 9.1	30/ 28	☑	☑	☑	☑
4-1/2 (114.3)		7 (177.8)	3 (76.2)	10/ 9.7	30/ 30	☑	☑	☑	☑
3-1/2 (88.9)	7/8" - 9	8-1/2 (215.9)	4-1/2 (114.3)	10/12.3	30/ 38	☑	☑	☑	☑
1-3/4 (44.5)		10 (254.0)	6 (152.4)	10/14.0	30/ 43	☑	☑	☑	☑
1-3/4 (44.5)		12 (304.8)	8 (203.2)	10/16.6	30/ 51	☑	☑	☑	☑
2-1/2 (63.5)		6 (152.4)	1-3/8 (34.9)	5/ 6.3	25/ 32	☑	☑	☑	☑
2-1/2 (63.5)		8 (203.2)	3-3/8 (85.7)	5/ 8.1	15/ 25	☑	☑	☑	☑
2-1/2 (63.5)		10 (254.0)	5-3/8 (136.5)	5/ 9.8	15/ 30	☑	☑	☑	☑
2-1/2 (63.5)	1" - 8	6 (152.4)	1/2 (12.7)	5/ 8.3	25/ 43	☑	☑	☑	☑
2-1/2 (63.5)		9 (228.6)	3-1/2 (88.9)	5/11.6	15/ 36	☑	☑	☑	☑
2-1/2 (63.5)		12 (304.8)	6-1/2 (165.1)	5/15.0	15/ 46	☑	☑	☑	☑
3-1/2 (88.9)	1-1/4" - 7	9 (228.6)	5-1/4 (133.4)	5/18.0	15/ 55	☑	☑	☑	☑
Tie Wire									
N/A	1/4" - 20	2-3/16 (55.6)	9/32 (7.1)	100/ 3.6	1000/ 36	☑	☑	☑	☑

Meets ASTM B633 SC1, Type III specifications for electroplating of 5um = .0002" thickness. This material is well suited for non-corrosive environments.

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- Flexible, weather resistant EPDM rubber or silicone.
- Aluminum base is flexible to conform to any panel profile
- Grey EPDM is ozone and ultraviolet resistant

Fastening Recommendation



Corrosion resistant fasteners should be used around the base one every 1-1/2 inches as per the United Plumbing Code (UPC) recommendations. Refer to size chart for the quantity to use.

1/4-14 x 1-1/8" DP1 BLAZER Stainless Cap Head with VRT Technology

Sealant Recommendation



Ultra 1000® or APS 500 sealant should be used under the base to assure a proper seal. If you prefer, additional sealant can be applied around base after installation.

Material Specifications

	EPDM	Silicone
Advanced Ozone Resistance	70 hours @ 500 pphm	70 hours @ 500 pphm
High Temp Resistance		
Intermittent	+135° C (275° F)	+260° C (+500° F)
Continuous	+100° C (212° F)	+225° C (+437° F)
Low Temp Resistance	-55° C (65° F)	-74° C (-100° F)
Tensile Strength (min)	10 MPa (1450 psi)	5 MOPa (700 psi)
Compression Set (max)	25%	50%

Size	#mini	#1	#2	#3	#4	#5	#6	#7	#8	#9	#maxi
Box Qty (pcs)	30	15	15	15	10	10	10	10	5	5	5

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PIPE-MASTER PIPE FLASHING

Standard Applications

Pipe Size Outside Diameter	Flash Number	Flashing Details	TFC Part Number	Number of Fasteners
1/4" - 2 1/2" EPDM	#1	Top Opening Diameter: Closed Overall Height: 2.77" Base Diameter: 4.75"	001DEKR	10
1 3/4" - 3" EPDM	#2	Top Opening Diameter: 1.44" Overall Height: 3.53" Base Diameter: 6.21"	002DEKR	13
1/4" - 5" EPDM *Silicone	#3	Top Opening Diameter: Closed Overall Height: 3.64" Base Diameter: 7.74"	003DEKR 003DEKS	16 16
3" - 6 1/4" EPDM	#4	Top Opening Diameter: 2.38" Overall Height: 5.05" Base Diameter: 9.26"	004DEKR	19
4 1/4" - 7 3/4" EPDM *Silicone	#5	Top Opening Diameter: 3.50" Overall Height: 4.43" Base Diameter: 10.75"	005DEKR 005DEKS	22 22
5" - 9" EPDM	#6	Top Opening Diameter: 4.25" Overall Height: 5.60" Base Diameter: 12.50"	006DEKR	26
6" - 11" EPDM	#7	Top Opening Diameter: 4.90" Overall Height: 5.84" Base Diameter: 14.60"	007DEKR	30
7" - 13" EPDM *Silicone	#8	Top Opening Diameter: 5.80" Overall Height: 7.53" Base Diameter: 16.5"	008DEKR 008DEKS	35 35
9" - 19" EPDM *Silicone	#9	Top Opening Diameter: 7.45" Overall Height: 8.09" Base Diameter: 25.25"	009DEKR 009DEKS	54 54
15" - 24" EPDM	#10	Pipe Size: 15"-24" Diameter (Square Base only)	010DEKRSQ	148

Note: #1 and #3 are closed top. When flashing a steep pitch roof greater than 20° or a profile with a rib height of 1-1/2" or more, use the next larger flashing for increased flexibility.



RETROFIT FLASHING

PIPE SIZE	US PART NUM	FLASHING DETAILS
#1 3/4" - 2-3/4"	Black RF 101 BS Gray RF 101 GS Silicone RF 102 RD	Opening diameter 3/4" Pipe size 3/4" - 2-3/4" Base dimensions 6 - 3/10"
#2 2" - 7-1/4"	Black RF 201 BS Gray RF 201 GS Silicone RF 202 RD	Opening diameter 2" Pipe size 2" - 7 -1/4" Base dimensions 10 -3/4"
#3 3-1/4" -10"	Black RF 301 BS Gray RF 301 GS Silicone RF 302 RD	Opening diameter 3 -1/4" Pipe size 3 -1/4" - 10" Base dimensions 14 -1/2"



Available in 11 colors to match your roof!
 #3 - Pipe diameter 1/4" to 4"
 #5 - Pipe diameter 4 1/4" to 7 3/4"
 Material: EPDM



RETRO-FIT Two Flashings In One!

One Design • Multiple Functions Made of EPDM or High Temp Silicone

these flashings are compounded specifically for maximum resistance to weathering due to ozone and ultraviolet light.

Easy On-Site Customization

Fast, one piece construction allows for easy on-site installation.

Base Flexibility

The base is designed to form a seal on most panel configurations and roof pitches regardless of pipe location.



Name	Part #	Compound	Pipe Range	Base
#2	MF201BA-G	Black EPDM	Standard 5/8" - 4" (15 - 101mm)	6" (152mm)
	MF202GX-G	Gray Silicone	Retrofit 1-1/8" - 3-7/8" (28 - 98mm)	
#3	MF301BA-G	Black EPDM	Standard Closed – 5-3/4" (0-146mm)	8" (203mm)
	MF302GX-G	Gray Silicone	Retrofit 2" - 5" (50 - 127mm)	
#4	MF401BA-G	Black EPDM	Standard 2-3/4" - 7" (69 - 177mm)	10" (254mm)
	MF402GX-G	Gray Silicone	Retrofit 3" - 6-1/2" (76 - 165mm)	
#5	MF501BA-G	Black EPDM	Standard 4" - 8-1/4" (101 - 203mm)	11" (279mm)
	MF502GX-G	Gray Silicone	Retrofit 3-3/4" - 7" (95 - 177mm)	
#6	MF601BA-G	Black EPDM	Standard 4-3/4" - 10" (121 - 254mm)	12" (304mm)
	MF602GX-G	Gray Silicone	Retrofit 4-1/2" - 8-1/2" (114 - 215mm)	
#7	MF701BA-G	Black EPDM	Standard 6" - 11" (152 - 279mm)	14" (355mm)
	MF702GX-G	Gray Silicone	Retrofit 5-1/4" - 10" (133 - 254mm)	
#8	MF801BA-G	Black EPDM	Standard 6-3/4" - 12" (171 - 304mm)	17" (431mm)
	MF802GX-G	Gray Silicone	Retrofit 6-1/2" - 12-3/4" (165 - 323mm)	
#9	MF901BA-G	Black EPDM	Standard 9-1/2" - 20-1/2" (241 - 520mm)	25" (635mm)
	MF902GX-G	Gray Silicone	Retrofit 9-1/4" - 20-1/2" (234 - 520mm)	
Maxi	MF951BA-G	Black EPDM	Standard 12" - 28-1/2" (304 - 723mm)	34" (863mm)
	MF952GX-G	Gray Silicone	Retrofit 11" - 28" (279 - 711mm)	

The only ICC listed flashing for the Metal Building Industry with a **35 Year Warranty**

ISO Quality, Price & Availability / Compound / 11 sizes

Advanced Ozone Resistance Tested to...	EPDM 70 Hour @ 500 pphm
High Temperature Resistance Tested to...	Intermittent + 135° C (+275° F)
	Continuous + 100° C (+212° F)
Low Temperature Resistance Tested to...	- 55° C (- 67° F)
Compression Set Minimum...	25%

*Complete specification data and testing methods are available upon request.



✓ **Made of EPDM**, this flashing is designed for maximum resistance to all weather conditions.

✓ **Modification Made Simple**
Pipe diameters can be seen clearly for proper pipe fitting.

✓ Designed for 1/8" to 28-1/2" (1.6 to 724mm) diameter pipes.

✓ **Adaptable Base**
The base is designed to fit virtually all panel configurations and roof pitches regardless of pipe location. Flexibility absorbs vibration and pipe movement.



*A Registered Trademark of Aztech Washer Company

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Designed for Sidewall or Low Profile Applications

Applications



Seals on a variety of substrates

- Wall and Roof Penetrations
- Drywall
- Stucco Wall
- Corrugated Metal Siding

Sizes

SIZE PIPE RANGE	COMPOUND	PART#		FLASHING DETAILS	
Low Profile Fits up to 4" Pipes	Black EPDM	LP101BA		A- Top opening diameter	Closed 0" - 4"
	LT Grey EPDM	LP101GA		B- Overall Height	3/8"
	DRK Grey EPDM	LP101NG		C- Base dimensions	6-1/4"
	FDA White Silicone	LP102WT			

Standard Materials



Colors Available

- Black
- Bright Red
- Brown
- Copper
- Dark Blue
- Dark Green
- Dark Grey
- Light Blue
- Light Green
- Light Grey
- Tan
- Terra Cotta
- White

***Call TFC for your specific needs.**

Material Properties | EPDM and Silicone

ADVANCED OZONE RESISTANCE tested to...		EPDM 70 hour @ 500 pphm	FDA WHITE SILICONE 70 hour @ 500 pphm
HIGH TEMPERATURE RESISTANCE			
Tested to	Intermittent	+138°C (+275°F)	+260°C (+500°F)
	Continuous	+100°C (+212°F)	+225°C (+437°F)
LOW TEMPERATURE RESISTANCE tested to...		-55°C (-67°F)	-74°C (-101°F)
COMPRESSION SET Maximum...		25%	50%

EPDM and Silicone provide exceptional weathering protection even in harsh environments.

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ULTRA1000®

CLASS 35 | SILICONE SEALANT

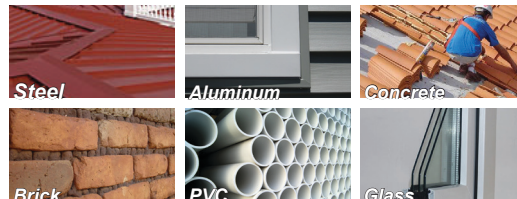
Concerned about sealant failure caused by joint movement? Specify ULTRA1000™ Class 35 Silicone Sealant. It is formulated to withstand more joint movement than ordinary Class 25 sealants.

Formulated for Superior Performance



- Silicone sealant provides exceptional weatherability
- Class 35 for superior movement capability
- Adheres to Kynar® and Galvalume® coated metals
- VOC compliant
- Mildew resistant
- "Guns" down to 0°F
- Service temperature -40°F to 350°F
- Tack free in 10 minutes
- 100% Silicone

Bonds To



Applications

- Flashing
- Trim
- Metal Sheetting
- Downspouts
- Gutters
- Roof Tile
- Flashings
- Adheres to Copper

APPROXIMATE* LINEAR FEET/COVERAGE
PER 10.1 FL. OZ. CARTRIDGE (298 ML)

DEPTH	WIDTH						
	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"	7/8"
1/8"	99	49	33	24	20	16	14
1/4"		24	20	12	10	8	7
3/8"			11	8	6	5	4
1/2"				6	5	4	3

Packaging

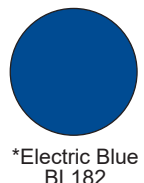
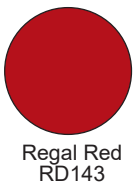
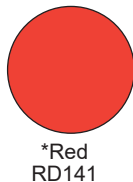
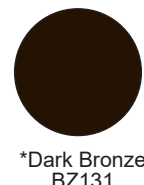
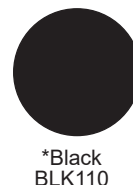
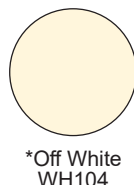
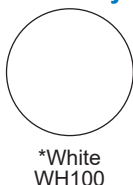
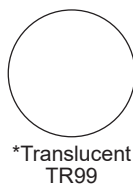


Never misplace another nozzle!
Tubes are now packaged with nozzle.

We've redesigned the packaging so that the plastic screw-on nozzles come pre-assembled on the tubes.



20 Colors! Call for availability. *Denotes in stock colors



NOTE: Colors listed do not represent actual colors. Contact your local distributor for the ULTRA1000® color selector swatches for accurate color match.

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APS 500®

ADVANCED POLYMER SEALANT

APS 500® is formulated to provide superior adhesion, excellent resistance to weathering and is compatible for use with a variety of substrates. Supplied in plastic tubes with screw-on nozzles. Available in smooth or textured finish.

Over 24 Colors Available!

*Denotes standard colors.



Adheres to Kynar®, Galvanize, Galvalume®, Copper, Stainless Steel, Zinc

NOTE: Colors listed do not represent actual colors. Contact your local distributor for the APS500® color selector swatches for accurate color match.

Product Specifications

Physical Property	Test Method	Typical Value
Tensile Strength	ASTM D412	205 psi
Elongation	ASTM D412	300%
Shore Hardness	ASTM C661	30 +/- 5
Service Temperature		-40°F to 200°F
Joint Sealant Designation	ASTM C920	Type S, Grade NS, Class 50, use T, NT, G, M
Adhesion and Cohesion	ASTM C719	Pass on glass, Aluminum and concrete for ± 50% movement
Adhesion-in-Peel, 2 inches/minute @ 25°, N (lbf)	ASTM C794	Aluminum 37 pli
		Glass 35 pli
		Concrete 34 pli
Staining	ASTM D2203	None
Density	Industrial Method	1678 g/L
VOC	EPA Method 24	14 g/L
HAP	EPA Method 311	0.08 g/L (0.005% by weight)
Low Temp. Flexibility	ASTM C 711	Pass -10° F. 1/4 inch mandrel
High Temp. Flexibility	Industrial Method	Up to 200° F
Cure Rate	Industrial Method	48 hours
Skin Time Cure Time	Industrial Method	40° F at 40% humidity 40 minute 2-3 days
		75° F at 50% humidity 10 minute < 24 hours
		95° F at 95% humidity 5 minute

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Applications

- Window Trim
- Doors & Skylights
- Siding
- Metal Architecture
- Curtain Walls & Joints
- Coated Metal Roofs

Performance

- Paintable
- VOC Compliant
- Fast Curing
- Installs at -40 - 200°F
- Non-Yellowing
- UV Resistant

Need a custom color?
We can color match!

		APPROXIMATE® LINEAR FEET/COVERAGE PER 10.1 FL. OZ. CARTRIDGE (298 ML)							
		WIDTH							
DEPTH		1/8"	1/4"	3/8"	1/2"	5/8"	3/4"	7/8"	1"
	1/8"	99	49	33	24	20	16	14	12
	1/4"		24	20	12	10	8	7	6
	3/8"			11	8	6	5	5	4
	1/2"				6	5	4	3	3

Bonds To



Limited Warranty: Satisfaction guaranteed when handled and applied according to label.

TFC BUTYL

NON-SKINNING TUBE SEALANT

Developed for the metal roofing industry
and provides long-life performance!

TFC BUTYL™ is a single component, non-skinning butyl-based solvent release sealant. It is designed to deliver excellent adhesion to metal panels while remaining permanently pliable.

The product is the ideal choice in applications where the combination of moisture and cold temperatures would cause the break-down of other sealants.

PERFORMANCE

- Non-Skinning
- Non-Staining
- Permanently Pliable
- Moisture Resistant
- Non-Paintable

APPLICATIONS

- Metal Roofing
- Insulated Metal Panels
- Use on Painted Metal, Kynar®, Galvalume® & Galvanized Steel, Aluminum

SPECIFICATIONS: Meets or exceeds AAMA 809.2

COLORS: Gray (Item Number TFCNSBGY)

White (Item Number TFCNSBWH)

SURFACE PREPARATIONS: For best results, the substrate should be clean, dry, frost free, sound and free of any oils, greases or incompatible sealers, paints or coatings that may interfere with adhesion. Do not apply if surface is contaminated. It is recommended to test all substrates prior to applications.

INSTALLATION: Cut nozzle to desired bead size. Apply with caulking gun, forcing sealant onto the substrate, then tool if needed. Clean excess material with mineral spirits or similar solvent.

STORAGE: Material is to be stored under controlled dry environment (below 75° F). Use within 12 months from date of manufacture.

PACKAGING: 10.3 fl. oz. per tube | 24 tubes per carton

APPROXIMATE* LINEAR FEET/COVERAGE PER 10.1 FL. OZ. CARTRIDGE (298 ML)									
DEPTH	WIDTH								
	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"	7/8"	1"	
1/8"	99	49	33	24	20	16	14	12	
1/4"		24	20	12	10	8	7	6	
3/8"			11	8	6	5	5	4	
1/2"				6	5	4	3	3	

PROPERTIES

Total Solids (ASTM C 681)85%
Volume Shrinkage (ASTM D 2453) ...<20%
Wt/U.S. Gallon (ASTM D 1475) ...10.5 +/- 0.40lbs
Staining (ASTM D 2202)None
Blistering or BleedingNone
UV ResistanceExcellent
Sag0.15" Max Full Button
Service Temperature-40deg F to 250deg F
Application Temp Range40deg F to 95deg F
Extrudability (ASTM D 2452)40 seconds max
Flexibility (ASTM C 711)No loss of adhesion at -60deg F
Fungus/MildewResistant to growth
Heat Aging ...No loss of surface tack or adhesion
Weatherability (ASTM G 154) ...No cracking, bleeding, or loss of rubbery characteristics

Chemical ResistanceExcellent to water, ozone, water vapor, alcohols. Fair to weak for acids and bases. Poor to organic solvents.

Static Water Pressure Head Test ...Passes 6" of static water pressure head, no water leakage

Air Leakage (ASTM E 1680)Infiltration @1.57psf 0.0510 cfm/sq ft and 0.0680 cfm/ft & Infiltration @ 6.24 psf 0.1024 cfm/sq ft and 0.1365 cfm/ft

Water Penetration (ASTM E 1646) ...Passed, no leakage

Wet Flammability (ASTM D 56) ...110deg F flash point

Vehicle Bleedout (ASTM C 772) ...No visible exudation of vehicle from sealant after three weeks at 158deg F on painted or unpainted metal surface.

Aged Tack (ASTM D 2377)Permanently Tacky

Hardness (Shore OO Durometer) ...30 - 40

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BUTYL TAPE-SEAL™ was designed specifically for the metal building industry to provide optimal sealing in the harshest environments.

It adheres to most clean, dry metal surfaces and does not harden, bleed or stain. With pressure, it fills minor irregularities in the surface and seals the joints providing an effective barrier against water, moisture, dust, and dirt.

BUTYL TAPE-SEAL™ is an excellent choice for use around windows, doors, roof vents, stacks, access doors, and other penetration points.

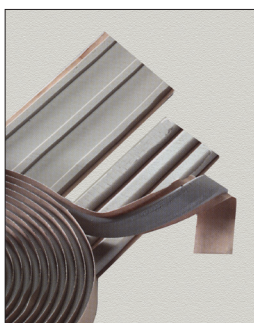
SIZES

Stocked sizes - Others available upon request

Size (T x W x L)	TFC P.N.	Rolls/ Ctns	Ctns/ Pallet
3/32" x 3/8" x 45'	0937BCT	48	30
3/32" x 1/2" x 50'	0950BCT	22	50
3/32" x 1" x 45'	0910BCT	24	30
1/8" x 1/2" x 50'	1250BCT50	13	48
1/8" x 1" x 50'	1210BCT50	8	48
3/16" x 1/4" x 40'	1825BCT	20	48
3/16" x 7/8" x 40' *DB	1887BCT	10	48
3/16" x 7/8" x 25' *TB	1887BCT25TRI	8	64
3/16" x 2-1/2" x 20' *TB	TC826W	6	60

*DB denotes double bead

*TB denotes triple bead



Adheres To

- Painted Metal
- Galvalume®
- Kynar®
- Aluminized Metal

Easy to install!



PACKAGING

BUTYL TAPE-SEAL™ is extruded butyl material with a silicone backed release paper that is rolled and cut to specific lengths.

Our master cartons are constructed of 200 pound test material and the rolls are separated by silicone divider pads and protected by upright stacking cores.



APPLICATION

For optimum sealing the surfaces should be free of oil, dust, dirt and moisture. Light films of lubricant on unpainted metals should not adversely affect performance. It can be applied in cold temperatures however, at temperatures below 40°F, any condensation or frost present should first be removed. Position product in desired location and press in place through the release paper. When using to seal applications involving fasteners, position on the entry side to prevent penetration of weather elements through fastener holes. Remove release paper prior to assembly / fastening of adjoining surface.

CLEAN UP

Mineral spirits will readily facilitate the cleaning of tools and equipment.

Property	Value
Color	Off-White / Gray
Specific Gravity	(ASTM D792)- 1.6 ± 5
Percent Solids	(ASTM C771)- 100%
Cone Penetration	(ASTM D217)- 80 - 95
Tensile Adhesive Strength	(ASTM C907)- 15 – 18 psi
Application Temperature Range	-5°F to 120°F -20°C to 49°C
Service Temperature Range	-40°F to 200°F -40°C to 93°C
Sag	(AAMA 800)- None
Elongation	(ASTM C908) > 1000%
Low Temperature Flexibility	(ASTM C734 -40°F/-40°C)- No cracking or loss of adhesion
Peel Adhesion	(ASTM D3330) > 8 psi
Staining	(ASTM D925)- Will not stain painted/ unpainted surfaces
Water Penetration / Static Water Pressure	(ASTM E2140) - Pass/No leakage
Shelf Life	18 Months

TFC122012

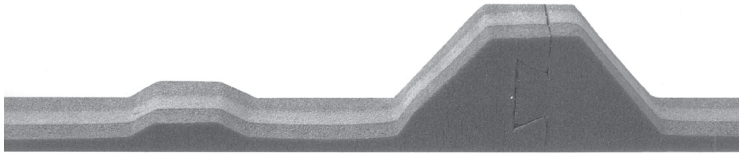
BUTYL TAPE-SEAL™ meets or exceeds the following specifications:

MIL-C-1969B, Type II, Class B
TT-C-1796A, Type II, Class B (supersedes MIL-C-18909B) AAMA 804.3-92 and 807.3-92 USDA Acceptable Freight Classification: Caulking Compound, NOIBN, NFMC #149610, Class 55

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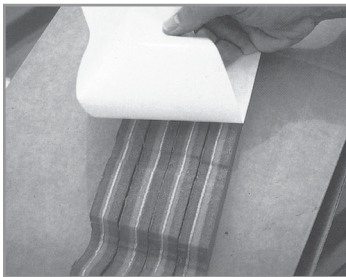
CLOSE-TITE™ CLOSURE FOR METAL ROOF SYSTEMS



Specially formulated closed-cell polyethylene foam. The unique fusing process results in a plywood-like lamination that offers exceptional strength and uniform compressibility. Many of the closure shapes shown here are available with a dovetail interlocking joint that speeds up the installation and eliminates gapping often found with flat end-to-end joints.

Beveled Closure

With today's emphasis on the architectural aesthetics of metal roofing, unusual cut back angles and valleys result in challenging closure applications. Standard 90 degree closure will not provide an acceptable fit and seal. We can custom produce closure in bevel configurations which take into account the cut back angles and roof slope of each individual application. These parts are custom cut to your panel and specific order needs.



Adhesive

Adhesive is a bead of glue that can be applied to either side of your closure configuration. It allows for secured placement of the closure strip prior to installation of the panel.

Typical Outside Closure



Typical Inside Closure



CLOSURE PROFILES

Panel Profile Description	Pitch Of Corr.	Hgt. Of Corr.	Length Of Strip	Pcs. Per Ctn.	Ft. Per Ctn.
2.67" Corrugated	2.67"	1/2"	24"	100	200
Wheeling Channel Drain					
Inner	6"	1/2"	36"	100	300
Outer	6"	1/2"	36"	100	300
2.5" Corrugated	2.5"	9/16"	38-3/4"	100	323
Granite City Strong Panel II					
Inner	9"	5/8"	36"	100	300
Outer	9"	5/8"	36"	100	300
Metal Sales Pro Panel II					
Inner	9"	5/8"	36"	100	300
Outer	9"	5/8"	36"	100	300
3/4" Hi Rib*					
Inner	9"	3/4"	36"	100	300
Outer	9"	3/4"	36"	100	300
Delta Rib					
Inner	8"	3/4"	24"	100	200
Outer	8"	3/4"	24"	100	200
M/U Panel					
Inner	6"	3/4"	36"	100	300
Outer	6"	3/4"	36"	100	300
A-Panel					
Inner	12"	1-1/8"	36"	100	300
Outer	12"	1-1/8"	36"	100	300
Metal Sales Span Line 36 RW					
Inner	12"	1-1/8"	36"	100	300
Outer	12"	1-1/8"	36"	100	300
R-Panel					
Inner	12"	1-1/4"	36"	100	300
Outer	12"	1-1/4"	36"	100	300
McElroy Multi-Rib					
Inner	12"	1-1/4"	36"	100	300
Outer	12"	1-1/4"	36"	100	300

* Matches: Grand Rib III, Max Rib, Imperial Rib, Classic Rib and Century Drain

CHEMICAL RESISTANCE

Reagent	Concentration	Dimensional Change* (% Volume)
Sulfuric Acid	30%	+0.4
Nitric Acid	10%	-0.7
Hydrochloric Acid	10%	+5.4
Carbolic Acid	5%	+5.0
Acetic Acid	5%	-0.6
Oleic Acid	--	-0.7
Citric Acid	10%	+6.5
Ethyl Alcohol	95%	+0.4
Carbon Tetrachloride	--	+18.0
Heptane	--	18.5
Ethylene Disulfide	--	+3.0
Toluene	--	+15.0
Distilled Water	--	0
Hydrogen Peroxide	3%	+1.7
Caustic Soda	10%	+0.9
Ammonia	10%	-5.8
Sodium Carbonate	2%	+7.4
Saline	10%	+4.0

* Immersion for 7 days at 68° F.

PERFORMANCE

	Units	Properties*
Bulk Density	pcf	2
Average Cell Size	mils.	10
Tensile Strength (ASTM D-1564)	psi	M 45-55 C 36-44
Elongation, 20° C (ASTM D-624)	% to break	M 124-152 C 100-122
Tear Resistance, 20° C (ASTM D-1564)	lb./in.	M 10-12 C 7-6
Compression Set, 22 hrs. 50% Compression, 24 hr. recovery (ASTM D-1056)	% of original thickness	16 Max.
Service Temperature	°F	-100 to +180
Thermal Conductivity	BTU-in./hr.-Ft. ² -°F	0.25
Water Absorption (ASTM D-1667)	lbs./sq. ft. cut surface	Max. 0.04
Buoyancy	lbs./cu. ft.	55.0 Min.
Compression Strength	25% psi 50% 75%	4.9-6.1 12.7-15.5 38.8-47.4
Shore Hardness (ASTM D-2240)	AA Scale 00 Scale	7 51

* M= Machine Direction

* C= Cros-Machine Direction

* Ozone & UV Test Results Available On Request.

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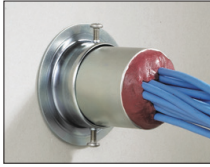


We have a full line of firestop products to meet your needs. Contact us to help you specify the best product for the application.



SSS Intumescent Firestop Sealant

Premium grade, water-based firestop sealant featuring STI's patented two-stage intumescent technology. The perfect choice for the broadest array of combustible and noncombustible penetrants requiring a permanent, durable seal.



Ready@Sleeve

A complete code compliant firestop sleeve assembly for new cable installations. Includes all mounting hardware and internal and external firestop sealing materials. Available in 1" (33 mm OD), 2" (60 mm OD), and 4" (114 mm OD) sizes with standard or large escutcheon plates..



LCI Intumescent Firestop Sealant

Premium grade, water-based firestop sealant featuring STI's patented two-stage intumescent technology. The perfect choice for the broadest array of combustible and noncombustible penetrants requiring a permanent, durable seal.



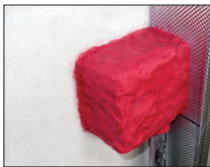
Ready@ Split Sleeve

Ready@ Sleeve convenience for existing cable installations. Split sleeve and two-piece wall plates allow sleeve to be assembled around cables and locked into the wall or floor. Available in 1" (33 mm OD), 2" (60 mm OD), and 4" (114 mm OD) sizes.



Composite Sheet

Lightweight, easily fabricated panels surface mount to walls and floors to provide a neat, clean firestop seal for medium to large openings with a variety of penetrants in fire-rated floors and walls.



SSP Putty Pads

Non-hardening, intumescent putty is easily installed and removed making it the perfect choice for cable penetrations requiring occasional retrofitting. Can be externally applied to switch and receptacle boxes.



SSP Firestop Putty

Non-hardening, intumescent putty is easily installed and removed making it the perfect choice for cable penetrations requiring occasional retrofitting. Can be externally applied to switch and receptacle boxes.



Electrical Box Insert

When used within metallic switch and receptacle boxes, inserts are UL Tested and Classified to permit larger boxes and reduced spacing.



SSB Intumescent Firestop Pillows

Compressible cushions can be easily installed and removed. The perfect firestop solution for medium to large openings including cable bundles, cable trays, bus ducts and multiple conduits.



Closet Flange Firestop Gasket

A one-piece, molded rubber, intumescent pad that installs beneath a 3" or 4" (76 mm or 102 mm) closet flange to effectively firestop the opening. No caulk to clean. Installs from the top, saving labor.



ES Elastomeric Firestop Sealant

A premium grade latex joint sealant for high movement applications



EZ-FIRESTOP™ Grommet

Designed for temporary or permanent sealing of conduit sleeves or suitably sized openings both with and without cables, through walls and floors.



Smoke'N'Sound Acoustical Sealant

A high quality acrylic latex sealant designed for sealing through-penetrations (such as pipes, conduits, cabling, busways and openings) and membrane penetrations (such as p-traps and outlet boxes) in smoke resistant walls.

Accessories



DELTA DECK PLUGS



DELTA® SAFING BOARD



**CAULK GUNS
BULK/SAUSAGE, 10 OZ and 20 OZ**

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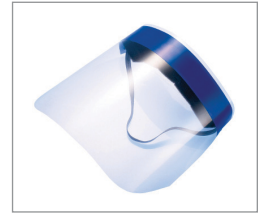


We have a full line of safety products to meet your needs!

Hard Hats



Safety Glasses and Shields



Ear Protection



First Aid Kits



Gloves



Respirators



Job-site Coolers



Fall Protection / Safety Gear



Tarps | Contractor Garbage Bags | Job Site Rags



Job-Site Storage



Call TFC for all of your miscellaneous contractor supplies!

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Elk River Roofer's Kits

Roofer's Kits are available in several combinations with each kit containing specific items. The combinations listed below are our most popular kits.



- CP + 48103 one 0-ring harness
- 5/8" x 30' CP + Lifeline with attached rope grab 6 attached
- 2' ZORBER® web lanyard with Snaphook
- Reusable roof anchor with nails
- Carry-all Bucket



- CP + 48103 one 0-ring harness
- 5/8" x 50' CP + Lifeline with Snaphook / thimble
- 5/8" x 3' trailing rope grab with attached 3' ZORBER® Snaphook
- Reusable roof anchor with nails
- Carry-all Bucket

Guardian Fall Protection



Bucket of Safety | Roofer Kit

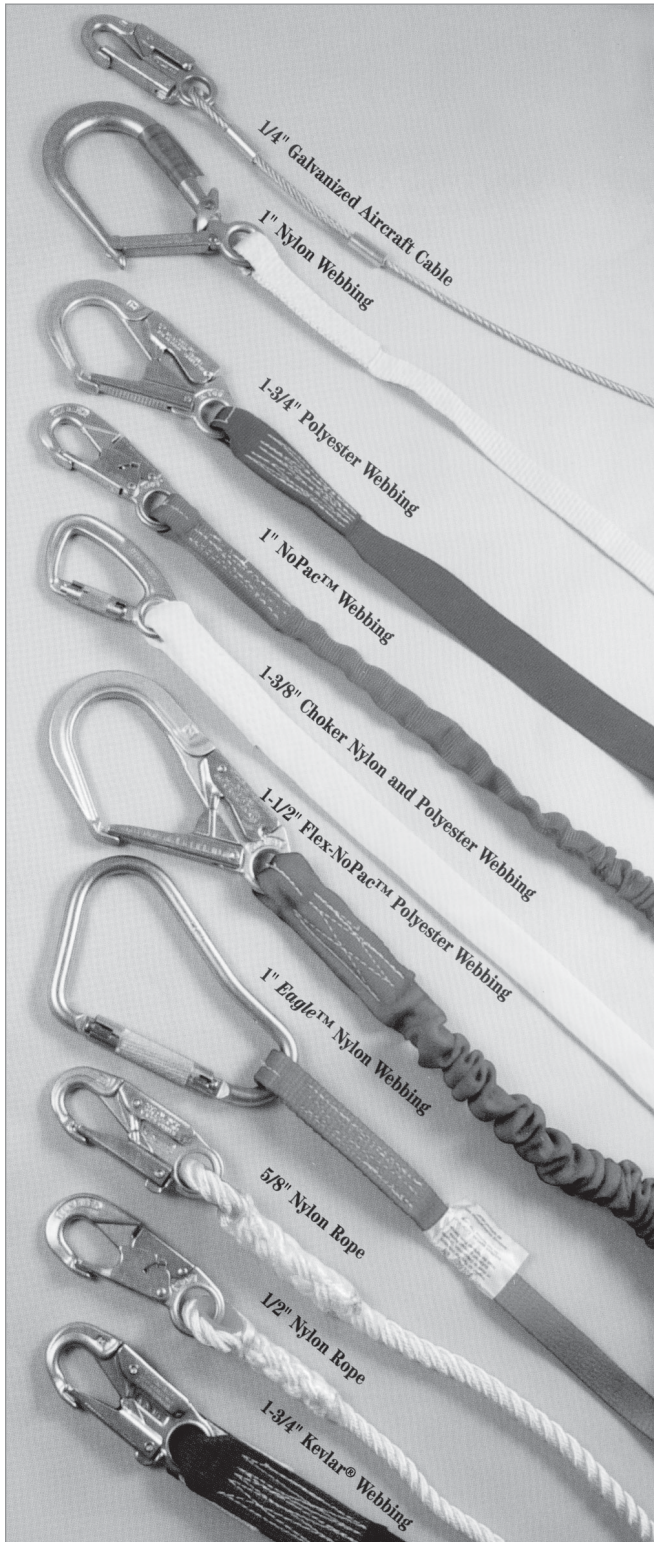
Part #	Product Description		Weight
00800	HUV (01700)	5 Snappy Anchors (00710) & VLA-25' (01310)	13.20
00803	HUV (01700)	1 SP-Anchor (00460) & VLA-25' (01310)	13.50
00805	HUV (01700)	1 Temper Reusable (00455) & VLA-25' (01310)	12.60
00810	HUV (01700)	5 Snappy Anchors (00710) & VLA-50' (01320)	15.30
00813	HUV (01700)	1 SP-Anchor (00460) & VLA-50' (01320)	15.15
00815	HUV (01700)	1 Temper Reusable (00455) & VLA-50' (01320)	17.30
00830	HUV (01700)	2 Stainless Steel Reusable (00470) & VLA-25' (01310)	10.70
00840	HUV (01700)	2 Stainless Steel Reusable (00470) & VLA-50' (01320)	12.95

Available in an easy to carry back-pack bag!



Contact TFC to choose from a wide selection of safety equipment to meet your needs!

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Elk River Lanyard

Lanyards serve as the connection between the harness and the anchorage. When using a lanyard, the anchorage should be at least shoulder height. If no compatible anchorage is available, an anchorage connector, such as an EZE-MAN tie-off Sling or D-ring Anchorage Connector, may be used to create a suitable anchorage. It is the wearer's responsibility to make sure that only compatible connectors are used throughout the entire Fall Arrest (PA) system.

Our lanyards are made of either a web material, rope, or metal cable. All lanyards come with connecting hardware on the ends. The lanyard materials are described in more detail on the next page.

Elk River offers lanyards in two main categories: Shock absorbing and Non-shock absorbing types.

Nonshock-Absorbing Lanyards

The Nonshock-Absorbing lanyards are made from either nylon webbing, polyester webbing, or a combination of these two materials, galvanized aircraft cable, nylon rope, or Kevlar® webbing

- 1/4" Galvanized Aircraft Cable
- 1" Nylon Webbing
- 1-3/4" Polyester Webbing
- 1" Eagle™ Nylon Webbing
- 5/8" Nylon Rope
- 1/2" Nylon Rope
- 3/4" Nylon Rope
- 1-3/4" Kevlar® Webbing

Shock-Absorbing Lanyards

The Shock-Absorbing lanyards are made from the same materials as the nonshock-Absorbing lanyards and have either a ZORBER Shock-Absorbing pouch or an integral shock-absorbing material made into the length of the lanyard.

- 1/4" Galvanized Aircraft Cable with ZORBER
- 1" Nylon Webbing with ZORBER
- 1-3/4" Polyester Webbing with ZORBER
- 1" NoPac™ Webbing
- 1-3/8" 2-element Nylon & Polyester Webbing
- 1-1/2" Flex-NoPac™ Polyester Webbing
- 1" Eagle™ Nylon Webbing with ZORBER
- 5/8" Nylon Rope with ZORBER
- 1/2" Nylon Rope with ZORBER
- 1-3/4" Kevlar® Webbing

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1" Bit Tips



	Phillips Bit Tip #1
	Phillips Bit Tip #2
	Phillips Bit Tip #3
	Slotted Bit Tip #8
	Slotted Bit Tip #10
	Slotted Bit Tip #12
	Square Recess Bit Tip #1
	Square Recess Bit Tip #2
	Square Recess Bit Tip #3
	Pozi-drive Bit Tip #1
	Pozi-drive Bit Tip #2
	Pozi-drive Bit Tip #3
	Torx Bit Tip T10
	Torx Bit Tip T15
	Torx Bit Tip T20
	Torx Bit Tip T25
	Torx Bit Tip T27
	Torx Bit Tip T30
	Torx Bit Tip T40



Double Ended Bits

	Phillips #2 / Slotted #8
	Phillips #2 / Phillips #2
	Phillips #2 / Square Recess #2

Bit Holders



Magnetic Holder



Quick Change Magnetic

Description	Size	Length
Magnetic Bit Holder	1/4" Drive	1-5/8" 2-1/4" 2-3/4" 3"

Power Bits



	2" Phillips Power Bit #1
	2" Phillips Power Bit #2
	2" Phillips Power Bit #3
	2" Square Recess Power Bit #1
	2" Square Recess Power Bit #2
	2" Square Recess Power Bit #3
	3-1/2" Phillips Power Bit #1
	3-1/2" Phillips Power Bit #2
	3-1/2" Phillips Power Bit #3
	3-1/2" Slotted Power Bit #6
	3-1/2" Slotted Power Bit #8
	3-1/2" Slotted Power Bit #10
	3-1/2" Slotted Power Bit #12
	3-1/2" Square Recess Power Bit #1
	3-1/2" Square Recess Power Bit #2
	3-1/2" Square Recess Power Bit #3
	6" Phillips Power Bit #1
	6" Phillips Power Bit #2
	6" Phillips Power Bit #3
	6" Slotted Power Bit #6
	6" Slotted Power Bit #8
	6" Slotted Power Bit #10
	2" Square Recess Power Bit #6
	2" Square Recess Power Bit #8
	2" Square Recess Power Bit #10

Magnetic Socket Drivers

Description	Size	Length
Magnetic hex socket	1/4"	1-7/16"
Magnetic hex socket	5/16"	1-7/16"
Magnetic hex socket	3/8"	1-1/2"
Magnetic hex socket	1/4"	2-9/16"
Magnetic hex socket	5/16"	2-9/16"
Magnetic hex socket	3/8"	2-9/16"



Description	Length
Eyelag socket driver	2-9/16"



Depth sensing for drywall installation. Magnetic



Special adjustable sleeve stabilizes the fastener during installation

Length	2 3/8"
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Magnetic Drive Guides



Compact



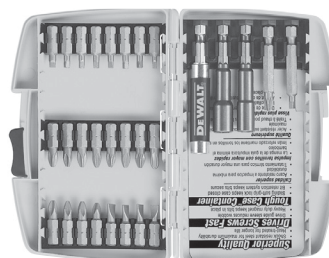
Standard



Clear

Magnetic Drive Guides (2)
1" Phillips Bit Tips: (1) #1, (1) #2
1" Slotted Bit Tips: (1) #8-10
1" Square Recess Bit Tip: (1) #2

Screw-driving Set



29 Piece Set

1" Phillips Bit Tips: (1) #1, (10) #2, (1) #3
1" Slotted Bit Tips: (1) #6, (2) #8, (1) #10
1" Square Recess Bit Tips: (1) #1, (6) #2, (1) #3
2" Phillips Power Bit: (1) #2
2" Square Recess Power Bit: (1) #2
Nutdrivers: (1) 1/4", (1) 5/16"
Compact magnetic drive guide (1)

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We stock a full line of professional brand reciprocating saw blades to handle any application!



WOOD CUTTING

Reinforced tooth for increased durability when cutting through nails and other foreign objects.

+6 degree hook angle for fast, aggressive cuts.

Anti-stick coating minimizes friction and gum-up.

Raker tooth design keeps the blade in the cut thereby minimizing vibration.



METAL CUTTING

Reinforced tooth design provides increased durability.

Matrix II steel with 8% cobalt on the cutting edge provides flexibility to minimize breakage.

Specially formulated anti-stick coating minimizes friction and gumming



DEMOLITION

Demolition blades are thicker than standard blades thereby preventing breakage.

Wider blades add more stability to the cut making it easier to cut a straight line.

Reinforced teeth for increased durability.

Specially formulated anti-stick coating minimizes friction and gum-up for smoother cuts.

Choose from Lennox, Morris, DeWalt, and Freud



BI-METAL RECIPROCATING BLADES



Teeth Per Inch	Length (In.)	Recommended for cutting
5/8	6	Very fast cutting, nail embedded wood, general Rough-in.
6	6	
6	9	
6	12	
6	6	
14	3 5/8	Scroll cutting metal 3/16" thru 1/4".
18	3 5/8	
14	4	Metal 3/16" thru 1/4", conduit, tubing, channels, pipe, rubber, fiber.
14	6	
18	4	Metal 1/8" thru 3/16", conduit, tubing, channels, pipe.
18	6	
24	4	Metal thinner than 1/8", tubing, pipe, trim.
24	6	
10	4	All woods, nail embedded, composition material, plastic and non-ferrous metals.
10	6	
10/14	8	All woods, nail embedded, composition material, plastic, non-ferrous metals and cast iron.
10/14	12	

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ABRASIVE WHEELS - HIGH SPEED CUTTING

TYPE1 HIGH SPEED GAS & ELECTRIC SAW WHEELS FOR CUTTING ONLY



Steel A24/30SB Heavy Duty

A durable, hard working blade for a variety of metal cutting applications on the job site. Excellent for rebar, steel pipe, sheet metal, and structural steel or stainless.

HIGH PERFORMANCE

- Maximum Productivity
- Exceptional Value
- State Of The Art Engineering



Use on
High Speed
Saws



Concrete C30UB Heavy Duty

The contractors' choice for all-around performance when cutting concrete and masonry products, including brick, block and pipe. Also cuts PVC and ductile iron pipe (for best results on ductile, see Specialist AC24SB-Ductile, Cast Iron listed below).



- Job Focused
- Peak Performance



Type 1

Sheet Metal, Decking A24TB-Long Life

Built to withstand the wear of sharp metal edges, this blade stands up to sheet metal, roof decking, and cut dismantling jobs.

RailTrack A30PB-Extra Fast Cut

Designed for rail cropping. Straight, fast cuts on all sizes and weights of rail.

Ductile, Cast Iron AC24SB-Heavy Duty

For sewer and water construction and maintenance. Cuts ductile iron, cast iron and concrete lined pipe.

Asphalt, Green Concrete C16UB-Long Life

Made of extra coarse silicone carbide, C16UB provides aggressive free cutting action, in a wide range of aggregates.

Prestressed Concrete C30SB-Heavy Duty

Designed for extra fast cutting in prestressed concrete.

Dimensions Dia. X Thk X Arbor	Max RPM	Heavy Duty		Box Qty.
		Metal A24/30SB	Concrete C30UB	
12" X 1/8" X 20 mm	6,300	F5078	L5315	10
12" X 1/8" X 7/8"	6,300	F5286	L5316	10
12" X 1/8" X 1"	6,300	F5292	L5317	10
14" X 1/8" X 20 mm	5,460	F5653	L5703	10
14" X 1/8" X 7/8"	5,400	F5650	L5708	10
14" X 1/8" X 1"	5,400	F5687	L5727	10

Dimensions Dia. X Thk X Arbor	Max RPM	Sheet Metal Decking Long Life A24TB	Rail Track Extra Fast Cut A30PB	Ductile Cast Iron Heavy Duty AC24SB	Asphalt Gr. Concrete Long Life C16UB	Prestressed Concrete Heavy Duty C30SB	Box Qty
12" X 1/8" X 20 mm	6,300			L5017		L5310	10
12" X 1/8" X 7/8"	6,300			L5018			10
12" X 1/8" X 1"	6,300		F5098	L5019			10
12" X 5/32" X 20 mm	6,300	F5293			L5330		10
12" X 5/32" X 7/8"	6,300	F5299			L5332		10
12" X 5/32" X 1"	6,300	F5314			L5334		10
14" X 1/8" X 20 mm	5,460			L5617			10
14" X 1/8" X 7/8"	5,400			L5618			10
14" X 1/8" X 1"	5,400		F5681	L5619			10
14" X 5/32" X 20 mm	5,460	F5693			L5710		10
14" X 5/32" X 1"	5,400	F5614			L5712		10
16" X 1/8" X 1"	4,500		F6681				10

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FAST CLEAN CUTS IN METAL

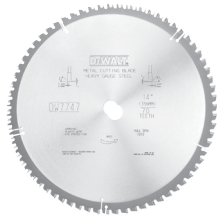
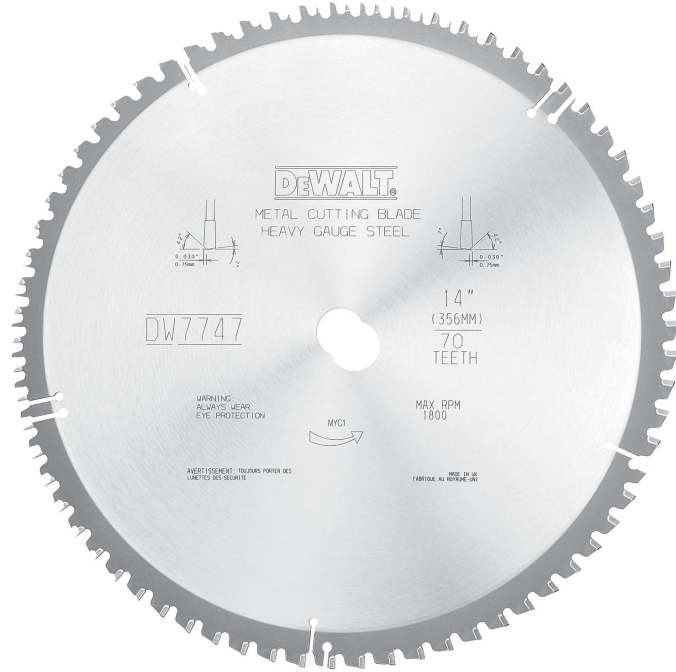
Dewalt Metal Cutting Blades provide clean, fast cuts in a variety of ferrous, non-ferrous and stainless steel materials. Specially designed carbide teeth deliver precise, virtually burr-free cuts and produce cut material that is cool to the touch.

12% titanium carbide
provides long life in metal cutting

Modified ATB tooth geometry
provides clean, burr free cuts

Tri-fold braze absorbs stress
making the tip stronger

Expansion slots dissipate heat
which extends blade life



Heavy Gauge Metal
DW7747

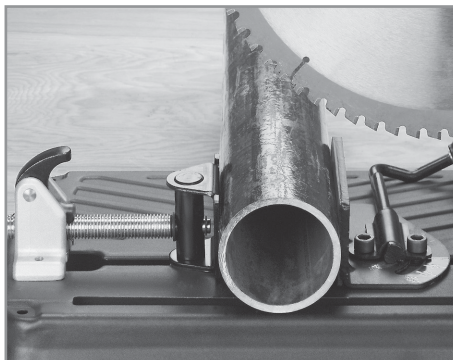


Thin Gauge Metal
DW7745



Stainless Steel
DW7749

Cat #	Diameter (inches)	Arbor (inches)	Teeth	Plate (inches, mm)
DW7747	14"	1"	70	.071, 1.8
DW7745	14"	1"	90	.071, 1.8
DW7749	14"	1"	90	.071, 1.8



Always clamp material securely



**Cut forward of the blade center line
and never cut bundles**

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Economy HSS Fractional Straight Shank Jobbers Length



- Economical high speed steel for general drilling
- Black oxide finish for corrosion resistance
- 118° point

General Purpose HSS Fractional Straight Shank Jobbers Length



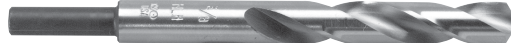
- For general use in metal, wood and plastic
- 118° standard point, bright finish

Economy HSS Fractional 3/8" Reduced Shank Jobbers Length



- Economical high speed steel for general drilling
- Black oxide finish for corrosion resistance
- 118° point
- 3/8" reduced shank to fit all 3/8" drills

General Purpose HSS Fractional 1/4" Reduced Shank Jobbers Length



- For general use in metal, wood and plastic
- 118° standard point, bright finish
- 1/4" reduced shank to fit in all 1/4" drills

SELECT 135° SPLIT POINT FOR THE BEST DRILLING PERFORMANCE USE TO PRE-DRILL MATERIAL FOR INSTALLING SELF-TAPPING SCREWS

HSS Screw Machine Length Fractional



- Also known as "stubbies"
- Shorter length for increased strength and rigidity
- 135° split point*
- Black oxide finish
- Ideal for industrial applications

HSS Wire Gauge Screw Machine Length



- Numbered from 1 through 60 (large to small)
- Used where more precisely sized holes are required
- 135° split point up to and including #42
- Drills exact size hole for tapping
- Shorter length for increased strength and rigidity

Double End HSS Fractional



- Drills twice as many holes as a single end drill bit
- 135° split point
- 2" overall length

Extra Long Length Drill Bits for Retrofit Roofing and Electrical Applications

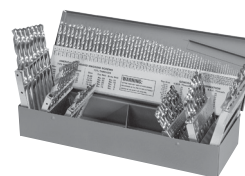
HSS Fractional Straight Shank 6" and 12" Aircraft Extension



- Used for drilling in hard-to-reach areas and to run wires and cable.
- Use for installing base plates in and retro-fit roof application.
- 135° split point* with heavy-duty web

**Choose high quality CHAMPION
or NORSEMAN Brands**

General Purpose HSS 3/8" Reduced Shank Metal Index Sets



Description	Contents
15 pc Set	1/16" through 1/2" by 32nds
29 pc Set	1/16" through 1/2" by 64ths
115 pc Super Set	1/16" through 1/2" by 64ths, A through Z, 1 through 60

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SDS DRILL BITS - CARBIDE TIP



Carbide Tip Drill Bits

Special tungsten carbide tips with 130° tip angles. To take on hardest hitting rotary hammers. To wear down toughest aggregate.



SDS DRIVE



Do you need a straight shank carbide tip drill bit?

We also stock a full line in many diameters and lengths










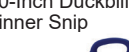









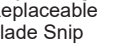









Sizes

Dia.	X	Useable Length	X	Total Length	Part Number
5/32	x	2	x	4 1/4	AD219
5/32	x	4	x	6 1/2	AD220
3/16	x	2	x	4 1/2	AD104
3/16	x	4	x	6 1/4	AD215
3/16	x	7	x	9 1/2	AD221
3/16	x	9	x	11 1/2	AD216
3/16	x	13	x	16	AD260
7/32	x	4	x	6 1/4	AD236
7/32	x	7	x	9 1/2	AD237
7/32	x	9	x	11 1/2	AD238
7/32	x	13	x	16	AD265
1/4	x	2	x	4 1/2	AD105
1/4	x	4	x	6 1/4	AD106
1/4	x	6	x	8 1/2	AD218
1/4	x	9	x	11 1/2	AD183
1/4	x	13	x	16	AD270
5/16	x	4	x	6 1/4	AD107
5/16	x	6	x	8 1/2	AD108
5/16	x	10	x	12 1/2	AD222
3/8	x	4	x	6 1/4	AD109
3/8	x	8	x	10 1/2	AD110
3/8	x	10	x	12 1/2	AD111
3/8	x	15 1/2	x	18	AD112
3/8	x	19 1/2	x	22	AD239
7/16	x	4	x	6 1/4	AD113
7/16	x	10	x	12	AD223
1/2	x	4	x	6 1/2	AD114
1/2	x	8	x	10	AD115
1/2	x	10	x	12	AD116
1/2	x	15 1/2	x	18	AD117
1/2	x	21 1/2	x	24	AD240
9/16	x	4	x	6 1/2	AD118
9/16	x	10	x	12 1/2	AD228
9/16	x	15 1/2	x	18	AD229
5/8	x	4	x	6 1/2	AD119
5/8	x	7	x	9 1/2	AD120
5/8	x	10	x	12	AD121
5/8	x	15 1/2	x	18	AD122
5/8	x	21 1/2	x	24	AD241
11/16	x	7	x	9 1/2	AD123
11/16	x	10	x	12	AD230
3/4	x	7	x	9 1/2	AD124
3/4	x	10	x	12	AD125
3/4	x	15 1/2	x	18	AD126
7/8	x	7	x	9 1/2	AD128
7/8	x	10	x	12	AD129
7/8	x	15 1/2	x	18	AD130
1	x	7	x	10	AD184
1	x	15-1/2	x	18	AD185
1 1/8	x	7 1/2	x	10	AD250
1 1/8	x	15 1/2	x	18	AD255

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HAND SNIPS - MIDWEST SNIPS

Aviation Snips		Description	Part #	Tinner Snips		Description	Part #
	Bulldog Aviation Snip	<ul style="list-style-type: none"> Nominal Length: 9" Cut Length: 7/8" Cutting Capacity (CR/SS): 16/18 Notch cuts Special purpose is thick materials 	MWT-6716B		8-Inch Straight Tinner Snip	<ul style="list-style-type: none"> Straight Blade Pattern Model Cuts straight and wide curves. Hot drop-forged of high carbon steel. 	MWT-87S
	Special Hardness Left Aviation Snip	<ul style="list-style-type: none"> Cuts hardened materials with ease Optimum 40 serrations per inch grips material during cutting High tensile strength handles will not bend under pressure Special purpose is cutting hard metals such as stainless steel 	MWT-SS6716L		10-Inch Straight Tinner Snip	<ul style="list-style-type: none"> Straight Blade Pattern Model Cuts straight and wide curves. Hot drop-forged of high carbon steel. 	MWT-107S
	Special Hardness Left Offset Aviation Snip	<ul style="list-style-type: none"> Makes tight left cuts thru hardened materials Hot drop forged blades remain sharp Special purpose is cutting hard metals such as stainless steel Made in the USA 	MWT-SS6510L		12-Inch Straight Tinner Snip	<ul style="list-style-type: none"> Straight Blade Pattern Model Cuts straight and wide curves. Hot drop-forged of high carbon steel. 	MWT-127S
	Special Hardness Right Aviation Snip	<ul style="list-style-type: none"> Cuts hardened materials with ease Optimum 40 serrations per inch grips material during cutting High tensile strength handles will not bend under pressure Special purpose is cutting hard metals such as stainless steel 	MWT-SS6716R		7-Inch Duckbill Tinner Snip	<ul style="list-style-type: none"> Circular Blade Pattern Model Cuts straight and tight curves. Hot drop-forged of high carbon steel. Cut Length : 1.75" (mm) Nominal Length : 7.0" (0mm) 	MWT-77D
	Special Hardness Right Offset Aviation Snip	<ul style="list-style-type: none"> Makes tight Right cuts thru hardened materials Hot drop forged blades remain sharp Special purpose is cutting hard metals such as stainless steel Made in the USA 	MWT-SS6510R		10-Inch Duckbill Tinner Snip	<ul style="list-style-type: none"> Circular Blade Pattern Model Cuts straight and tight curves. Hot drop-forged of high carbon steel. Cut Length : 2.5" (mm) Nominal Length : 10.0" (0mm) 	MWT-107D
	Left & Right Offset Aviation 2-Piece Set	<ul style="list-style-type: none"> Makes left cuts Cuts 18ga Cold rolled Steel Hot Drop Forged blades remain sharp Made in the USA 	MWT-6510C		12-Inch Duckbill Tinner Snip	<ul style="list-style-type: none"> Circular Blade Pattern Model Cuts straight and tight curves. Hot drop-forged of high carbon steel. Cut Length : 3.0" (mm) Nominal Length : 12.0" (0mm) 	MWT-127D
	Left Offset Aviation Snip	<ul style="list-style-type: none"> Nominal Length: 9-3/4" Cut Length: 1-1/4" Cutting Capacity (CR/SS): 18/22 Cuts tight left curves and straight Kush'n-Power comfort grips 	MWT-6510L		14-Inch Combination Blade Pattern Tinner Snip	<ul style="list-style-type: none"> Combination Blade Pattern Model Hot drop-forged Combination blade pattern Cuts straight and wide curves Use in either hand Cut Length : 3.875" (98.425 mm) 	MWT-147C
	Right Offset Aviation Snip	<ul style="list-style-type: none"> Nominal Length: 9-3/4" Cut Length: 1-1/4" Cutting Capacity (CR/SS): 18/22 Cuts tight right curves and straight Kush'n-Power comfort grips 	MWT-6510R		16-Inch Bulldog Blade Pattern Tinner Snip	<ul style="list-style-type: none"> Bulldog Blade Pattern Model Hot drop-forged Cuts straight and wide curves Use in either hand Cut Length: 2.5" (63.5 mm) 	MWT-167B
	Straight Offset Aviation Snip	<ul style="list-style-type: none"> Makes straight cuts Cuts 18ga cold rolled steel Hot drop forged blades remain sharp Made in the USA 	MWT-6510S		14-Inch Lath Tinner Snip	<ul style="list-style-type: none"> Lath Snip Model Hot drop-forged Cuts straight and wide curves Designed for cutting lath materials Bent handles for increased leverage Cut Length : 3.875" (98.425 mm) Nominal Length : 14.0" (355.6 mm) 	MW-P147CBT
	Left Aviation Snip	<ul style="list-style-type: none"> Nominal Length: 9-3/4" Cut Length: 1-1/4" Cutting Capacity (CR/SS): 18/22 Cuts wide left curves and straight 	MWT-6716L		Vinyl Siding Replaceable Blade Snip	<ul style="list-style-type: none"> Cuts straight and wide curves; Use in either hand; 3-1/2"(89mm) length of cut and replaceable blades. Cuts straight and wide curves. Use in either hand; 3-1/2"(89mm) length of cut Replaceable blades. Ships with Vinyl Siding blades Kush'n-Kote® handles. 	MWT-1200SV
	Right Aviation Snip	<ul style="list-style-type: none"> Nominal Length: 9-3/4" Cut Length: 1-1/4" Cutting Capacity (CR/SS): 18/22 Cuts wide right curves and straight 	MWT-6716R		All Purpose Replaceable Blade Snip	<ul style="list-style-type: none"> Cuts straight and wide curves; Use in either hand; 3-1/2"(89mm) length of cut and replaceable blades. All Purpose blades Cut Length : 3.5" (89mm) Kush'N-Kote handles 	MWT-1200
	Straight Aviation Snip	<ul style="list-style-type: none"> Nominal Length: 9-3/4" Cut Length: 1-3/8" Cutting Capacity (CR/SS): 18/22 Cuts wide left and right curves and straight 	MWT-6716S		Offset Left Replaceable Blade Snip	<ul style="list-style-type: none"> Cuts straight and tight curves; Both models ship with vinyl siding blades. 2-3/4"(70mm) length of cut and replaceable blades; Cuts to the Left Use in the right hand; Vinyl siding blades Cut Length : 2.75" (70mm) 	MWT-2210
	Upright Left Aviation Snip	<ul style="list-style-type: none"> Upright design is ideal for confined spaces or overhead Ergonomic design increases wrist range of motion Hot drop forged blades stay sharp Cuts 24ga cold rolled steel 	MWT-6900L		Offset Right Replaceable Blade Snip	<ul style="list-style-type: none"> Cuts straight and tight curves Both models ship with vinyl siding blades. 2-3/4"(70mm) length of cut and replaceable blades. Cuts to the Right; Use in the left hand Vinyl siding blades Cut Length : 2.75" (70mm) 	MWT-2110
	Upright Right Aviation Snip	<ul style="list-style-type: none"> Upright design is ideal for confined spaces or overhead Ergonomic design increases wrist range of motion Hot drop forged blades stay sharp Cuts 24ga cold rolled steel 	MWT-6900R				

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WE STOCK A FULL LINE OF HAND TOOLS FOR COMMERCIAL ROOFING AND METAL BUILDING APPLICATIONS.

BROOMS

Roofers broom for applying asphalt.



BRUSHES

High quality for applying asphalt in roofing application.



HAMMERS

Select from a wide variety.



SCREW DRIVERS

Phillips / Cross Recess, Slotted, Square, TORX / Six-Lobbed, Nut Drivers



SHOVELS

Great for roofing and miscellaneous job site application.



SOCKETS

Impact for bolted joint connections.
12pt and 6pt.



SPUD WRENCHES AND PRY BARS

Great for aligning holes for bolted joint connections



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We have the latest DEWALT power tools to meet your specific needs.



Cordless Tools

Choose a tool to meet your specific need...

- Drilling
- Driving
- Cutting
- Grinding
- Sawing
- Chopping

Contact our nearest location for more details and ask about our free training programs to assure proper tool use.



Drills



Screwguns



Cut and Shear



Grinders



Hammer Drills



Saws



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MADE IN THE USA
Meets **BUY AMERICA**, **ARRA** and **FTA** requirements!

SELF-DRILLING SCREWS



SELF-TAPPING SCREWS



304SS With Bonded Washer
All Sizes



SCRUBOLTS®

CONCRETE ANCHORS



TAPCON®
All Sizes



Wedge Anchors
All Sizes



EPCON® Epoxy Anchors
Threaded studs in a variety of lengths and diameters.

We can provide many products that meet the **MADE IN THE USA** requirements!

- Fasteners
- Sealants
- Flashings / Closures

BRACER® HILLSIDE WASHERS



BRACER®
#1 BRACER® - 1/2" to 5/8" Rod
#2 BRACER® - 3/4" to 7/8" Rod
#3 BRACER® - 1" to 1-1/4" Rod
#4 BRACER® - 1-3/8" to 1-1/2"

RIVETS



#43 SS Rivet Plain or painted

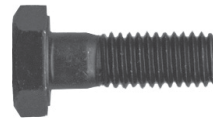


FABLOKS®



BULB-TITE® RIVETS

BOLTS - A307 & A325



Diameters: 1/2, 5/8", 3/4"
Lengths: 1-1/2", 1-3/4", 2"

We can supply

- Certificates of compliance
- Specifications and submittal sheets
- Job site support
- Tooling

Contact TFC for the largest selection of metal, wood, or concrete connections made in the USA!

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Our inventory management programs are designed to reduce lead times and reduce your inventory investment. You can complete your project fast with the best quality products and services

Choose the best inventory program that best fits your needs.

NEED-IT-NOW! Product Program



We will inventory the products you need and ship them fast!

- Use this selection guide to help you use the best products for your application.
- We will develop a stocking program based on your needs to assure we have what you need.
- We can develop your own Product Guide with your specific items that can assist you in bidding a job.

Our local branch will help you to determine the products you need, and we will stock them so you have them...*when you NEED-IT-NOW!*

PAK-ONE Job Pack Program



We will pack and ship products for your specific job.

Purchase only what you need for the job...

- You reduce your inventory investment.
 - Improve your cash flow.
 - Eliminate dead inventory.
 - Reduce "hidden" warehouse and procurement costs.
1. We can develop a list of items that meet your requirements.
 2. You select specific items for a particular job and develop a "cut-list" for your project.
 3. We consolidate and ship the fasteners, sealants, flashings, tools, and accessories needed for the job.

NEED-IT-NOW! CABINET INVENTORY PROGRAM



Stock your critical items in a secured storage cabinet for fast access

- Select from a wide variety of commercial grade products.
- We supply a FREE heavy duty, locking storage cabinet.
- We will organize the items you selected and setup the cabinet in your shop.
- You can return any unused items and replace them with new ones.



SUGGESTED HOLE SIZES FOR TAPPING SCREWS

Thread Rolling and
Thread Cutting Types D, F, G and T

Formula For Hole Diameter

1.015 x basic nominal thread major diameter. Tolerance is +/- 3%.

SCREW SIZE	HOLE DIAMETER			DRILL BIT SIZE	
	Max	Mean	Min	Drill Size	Drill Dia
2- 56	0.078	0.076	0.074	48	0.076
2-64		0.077			
3-48	0.090	0.087	0.084	44	0.086
3-56		0.089			
4- 40	0.100	0.097	0.094	41	0.096
4-48		0.100			
5-40	0.113	0.110	0.107	35	0.110
5-44		0.112			
6-32	0.123	0.119	0.115	31	0.120
6-40		0.124			
8-32	0.150	0.146	0.141	20	0.147
8-36		0.148			
10 - 24	0.170	0.165	0.160	19	0.166
10-32	0.177	0.172	0.167	11/64	0.1719
12-24	0.198	0.192	0.186	11	0.191
12-28		0.196			
1/4 - 20	0.228	0.221	0.214	2	0.221
1/4-28		0.230			
5/16 - 18	0.289	0.281	0.273	K	0.281
5/16-24		0.290			
3/8 - 16	0.349	0.339	0.329	R	0.339
3/8 - 24		0.353			
7/16 - 14	0.409	0.397	0.385	X	0.397
7/16-20		0.411			
1/2 - 13	0.471	0.457	0.443	29/64	0.4531
1/2 - 20		0.475			

Thread Forming Types AB, B, and BP
Thread Cutting Types BF and BT

Formula For Hole Diameter

0.98 x basic nominal thread major diameter. Tolerance is +/- 7%.

SCREW SIZE	HOLE DIAMETER			DRILL BIT SIZE	
	Max	Mean	Min	Drill Size	Drill Dia.
2- 32	.077	.072	.067	49	.073
3-28	.090	.084	.078	45	.082
4-24	.103	.096	.089	41	.096
5-20	.114	.107	.100	36	.1065
6-20	.124	.116	.108	32	.116
7-19	.138	.129	.120	30	.1285
8-18	.148	.138	.128	29	.136
10-16	.170	.159	.148	21	.159
12-14	.194	.182	.169	14	.182
1/4-14	.226	.211	.196	4	.209
5/16-12	.289	.270	.251	I	.272
3/8-12	.356	.333	.310	0	.332
7/16-10	.413	.386	.359	w	.386
1/2 - 10	.480	.449	A18	29/64	A531

Physical Properties

Fastener Diameter	Nominal Screw Diameter	Torsional (Lb.-In.)	Tensile (Pounds)	Shear (Pounds)
#6-20	0.138	24	1,125	750
#8-18	0.164	42	1,575	1,000
#10-16	0.190	61	2,100	1,400
#10-24	0.190	65	3,400	2,275
#12-14	0.216	92	2,778	2,000
#12-24	0.216	100	3,188	2,100
1/4-14	0.250	150	3,850	2,600
1/4-20	0.250	156	4,275	2,700
#18-9	0.306	196	4,550	2,576
5/16-12	0.313	290	5,439	3,264

Note

As a general practice, tapping torque should equal approximately 70% of the fasteners torsional strength.

Adjust hole size to accommodate hardness and thickness of material.

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.



DECIMAL EQUIVALENT (inch) for Fractional, Number, Letter & Metric Bits



DECIMAL	BIT SIZE	DECIMAL	BIT SIZE	DECIMAL	BIT SIZE	DECIMAL	BIT SIZE	DECIMAL	BIT SIZE
.0625-----	1/16	.1299-----	3.3mm	.2165-----	5.5mm	.3281-----	21/64	.5469-----	35/64
.0630-----	1.6mm	.1339-----	3.4mm	.2188-----	7/32	.3307-----	8.4mm	.5512-----	14.0mm
.0635-----	52	.1360-----	29	.2205-----	5.6mm	.3320-----	Q	.5625-----	9/16
.0650-----	1.65mm	.1378-----	3.5mm	.2210-----	2	.3346-----	8.5mm	.5709-----	14.5mm
.0669-----	1.7mm	.1405-----	28	.2244-----	5.7mm	.3386-----	8.6mm	.5781-----	37/64
.0670-----	51	.1406-----	9/64	.2280-----	1	.3390-----	R	.5906-----	15.0mm
.0689-----	1.75mm	.1417-----	3.6mm	.2283-----	5.8mm	.3425-----	8.7mm	.5938-----	19/32
.0700-----	50	.1440-----	27	.2323-----	5.9mm	.3438-----	11/32	.6094-----	39/64
.0709-----	1.8mm	.1457-----	3.7mm	.2340-----	A	.3465-----	8.8mm	.6102-----	15.5mm
.0728-----	1.85mm	.1470-----	26	.2344-----	15/64	.3480-----	S	.6250-----	5/8
.0730-----	49	.1495-----	25	.2362-----	6.0mm	.3504-----	8.9mm	.6299-----	16.0mm
.0748-----	1.9mm	.1496-----	3.8mm	.2380-----	B	.3543-----	9.0mm	.6406-----	41/64
.0760-----	48	.1520-----	24	.2402-----	6.1mm	.3580-----	T	.6496-----	16.5mm
.0768-----	1.95mm	.1535-----	3.9mm	.2420-----	C	.3583-----	9.1mm	.6562-----	21/32
.0781-----	5/64	.1540-----	23	.2441-----	6.2mm	.3594-----	23/64	.6693-----	17.0mm
.0785-----	47	.1562-----	5/32	.2480-----	0	.3622-----	9.2mm	.6719-----	43/64
.0787-----	2.0mm	.1570-----	22	.2480-----	6.3mm	.3661-----	9.3mm	.6875-----	11/16
.0807-----	2.05mm	.1575-----	4.00mm	.2500-----	1/4	.3680-----	U	.6890-----	17.5mm
.0610-----	48	.1590-----	21	.2500-----	E	.3701-----	9.4mm	.7031-----	45/64
.0620-----	45	.1610-----	20	.2520-----	6.4mm	.3740-----	9.5mm	.7087-----	18.0mm
.0827-----	2.1mm	.1614-----	4.1mm	.2559-----	6.5mm	.3750-----	3/8	.7188-----	23/32
.0846-----	2.15mm	.1654-----	4.2mm	.2570-----	F	.3770-----	V	.7283-----	18.5mm
.0660-----	44	.1660-----	19	.2598-----	6.6mm	.3780-----	9.6mm	.7344-----	47/64
.0866-----	2.2mm	.1693-----	4.3mm	.2610-----	G	.3819-----	9.7mm	.7480-----	19.0mm
.0686-----	2.25mm	.1695-----	18	.2638-----	6.7mm	.3858-----	9.8mm	.7500-----	3/4
.0690-----	43	.1719-----	11/64	.2656-----	17/64	.3860-----	w	.7656-----	49/64
.0906-----	2.3mm	.1730-----	17	.2660-----	H	.3898-----	9.9mm	.7677-----	19.5mm
.0925-----	2.35mm	.1732-----	4.4mm	.2677-----	6.8mm	.3906-----	25/64	.7812-----	25/32
.0935-----	42	.1770-----	16	.2717-----	6.9mm	.3937-----	10.0mm	.7874-----	20.0mm
.0938-----	3/32	.1772-----	4.5mm	.2720-----	I	.3970-----	X	.7969-----	51/64
.0945-----	2.4mm	.1600-----	15	.2756-----	7.0mm	.4016-----	10.2mm	.8071-----	20.5mm
.0960-----	41	.1811-----	4.6mm	.2770-----	J	.4040-----	Y	.8125-----	13/16
.0985-----	2.45mm	.1820-----	14	.2795-----	7.1mm	.4055-----	10.3mm	.8268-----	21.0mm
.0960-----	40	.1850-----	13	.2810-----	K	.4062-----	13/32	.8281-----	53/64
.0984-----	2.5mm	.1850-----	4.7mm	.2812-----	9/32	.4130-----	Z	.8438-----	27/32
.0995-----	39	.1875-----	3/16	.2835-----	7.2mm	.4134-----	10.5mm	.8465-----	21.5mm
.1015-----	38	.1890-----	12	.2874-----	7.3mm	.4219-----	27/64	.8594-----	55/64
.1024-----	2.6mm	.1890-----	4.6mm	.2900-----	L	.4252-----	10.8mm	.8661-----	22.0mm
.1040-----	37	.1910-----	11	.2913-----	7.4mm	.4331-----	11.0mm	.8750-----	7/8
.1063-----	2.7mm	.1929-----	4.9mm	.2950-----	M	.4375-----	7/16	.8858-----	22.5mm
.1065-----	36	.1935-----	10	.2053-----	7.5mm	.4409-----	11.2mm	.8906-----	57/64
.1064-----	7/64	.1960-----	9	.2969-----	19/64	.4528-----	11.5mm	.9055-----	23.0mm
.1100-----	35	.1969-----	5.0mm	.2992-----	7.6mm	.4531-----	29/64	.9062-----	29/32
.1102-----	2.8mm	.1990-----	8	.3020-----	N	.4646-----	11.8mm	.9219-----	59/64
.1110-----	34	.2008-----	5.1mm	.3031-----	7.7mm	.4688-----	15/32	.9252-----	23.5mm
.1130-----	33	.2010-----	7	.3071-----	7.8mm	.4724-----	12.0mm	.9375-----	1516
.1142-----	2.9mm	.2031-----	13/64	.3110-----	7.9mm	.4803-----	12.2mm	.9449-----	24.0mm
.1160-----	32	.2040-----	6	.3125-----	5/16	.4844-----	31/64	.9531-----	61/64
.1181-----	3.00mm	.2047-----	5.2mm	.3150-----	8.0mm	.4921-----	12.5mm	.9846-----	24.5mm
.1200-----	31	.2055-----	5	.3160-----	O	.5000-----	1/2	.9688-----	31/32
.1220-----	3.1mm	.2087-----	5.3mm	.3189-----	8.1mm	.5118-----	13.0mm	.9843-----	25.0mm
.1250-----	1/8	.2090-----	4	.3228-----	8.2mm	.5156-----	33/64	.9844-----	63/64
.1260-----	3.2mm	.2126-----	5.4mm	.3230-----	P	.5312-----	17/32	1.0000-----	1
.1285-----	30	.2130-----	3	.3288-----	8.3mm	.5315-----	13.5mm		



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#12 Blazer Drill Screw CS WW	4
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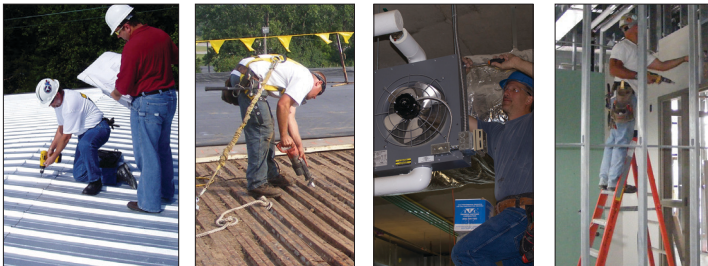
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