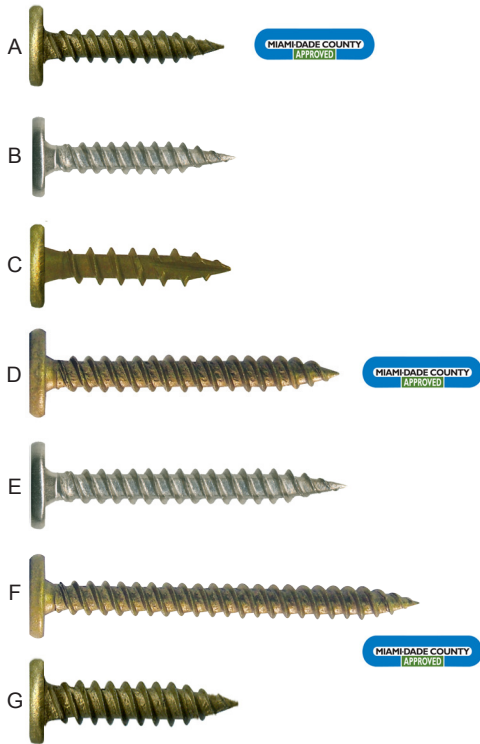


## #10, #12, & 1/4" GIMLET POINTS AND DRILL POINTS

### WOOD OR THIN METAL

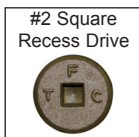
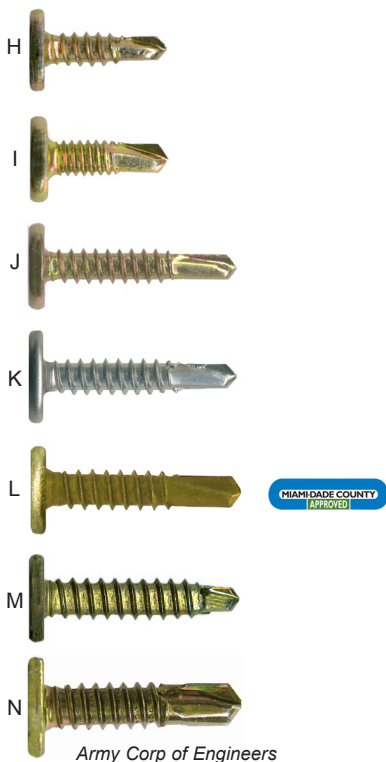


CONCEALOR® low profile head fasteners are engineered to perform in a variety of applications. They are specified in many metal roofing systems to attached SSR clips to metal or wood. They are easy to install and provides optimal strength.

### Sizes

	Description	Drilling Thickness	Part Number	Carton Quantity	WT Per M Pcs
A	#10-13 X 1" GP Long-life TRI-SEAL™ coated	<= 20 ga.	101000CGC	5,000 pcs	7.9#
B	#10-13 X 1" GP 302 Stainless Steel	Aluminum	101000CESS	5,000 pcs	7.9#
C	#10-9 X 1" TYPE 17 Long-life TRI-SEAL™ coated	<= 20 ga.	101000CGC17	5,000 pcs	7.9#
D	#10-13 X 1-1/2" GP Long-life TRI-SEAL™ coated	<= 20 ga.	101500CGC	2,500 pcs	10.5#
E	#10-13 X 1-1/2" GP 302 Stainless Steel	Aluminum	101500CESS	2,500 pcs	10.5#
F	#10-13 X 2" GP Long-life TRI-SEAL™ coated	<= 20 ga.	102000CGC	2,500 pcs	14.0#
G	#12-11 X 1" GP Long-life TRI-SEAL™ coated	<= 20 ga.	121000CGC	5,000 pcs	10.0#
H	#10-16 X 5/8" DP3 .0003" Zinc and Yellow	.175" Max	100625C2	5,000 pcs	7.3#
I	#10-24 X 5/8" DP3 .0003" Zinc and Yellow	.210" Max	100625PBLZ	5,000 pcs	7.3#
J	#10-16 X 1" DP3 .0003" Zinc and Yellow	.175" Max	101000C3	5,000 pcs	7.9#
K	#10-16 X 1" DP3 410 Stainless Steel	.175" Max	101000C34S	5,000 pcs	7.9#
L	#12-14 X 1" DP3 Long-Life TRI-SEAL™ coated	.210" Max	121000C3C	5,000 pcs	10.0#
M	#12-18 X 1" MP .0003" Zinc and Yellow	14 ga. Max	121000CMP	5,000 pcs	9.8#
N	1/4-14 X 1" DP3 .0003" Zinc and Yellow	1/4" Max	141000C3YZ	2,500 pcs	14.0#

### METAL APPLICATIONS



**Bagged 250 pcs. per bag for your convenience!**

### SPECIAL APPLICATIONS

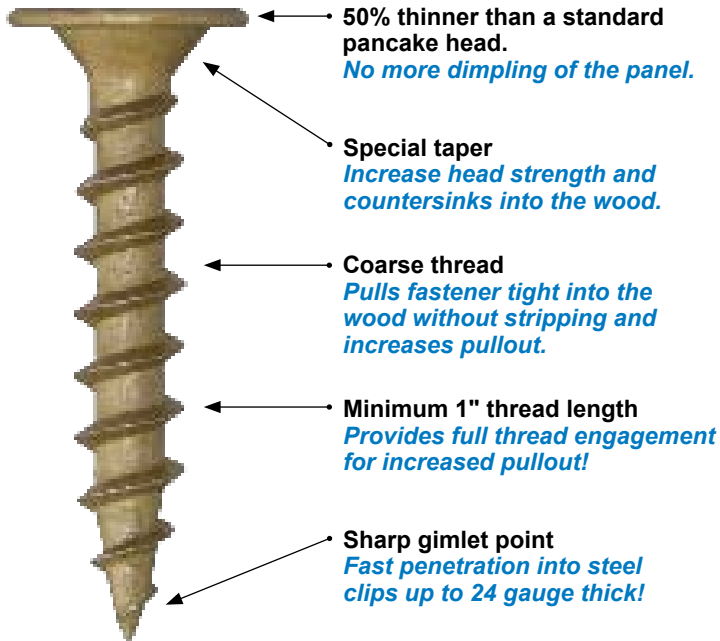


We can assemble CONCEALOR® with a bonded sealing washer that locks out weather and looks appealing!



Painting CONCEALOR® is not a problem with our Kalida-Kote™ custom paint process. We can color match to your exact requirements in 3 days or less!

## Need it Ultra Low?



50% thinner than a standard pancake head.  
*No more dimpling of the panel.*

Special taper  
*Increase head strength and countersinks into the wood.*

Coarse thread  
*Pulls fastener tight into the wood without stripping and increases pullout.*

Minimum 1" thread length  
*Provides full thread engagement for increased pullout!*

Sharp gimlet point  
*Fast penetration into steel clips up to 24 gauge thick!*

*Now available in lengths up to 2-1/8"!*

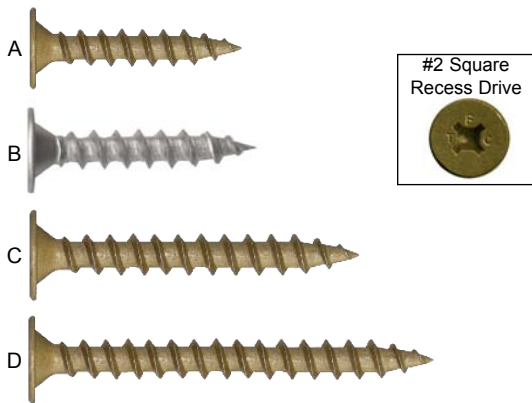
Use the original ultra low profile fastener...  
**CONCEALOR<sup>®</sup> ULP**

The CONCEALOR<sup>®</sup> ULP is an ultra low profile screw engineered to attach standing seam roof clips to wood. They are the preferred screw for attaching clip-less metal roof panels, and are easy to install providing optimal strength. ULP's are supplied with TRI-SEAL<sup>™</sup> 1,000-hours salt spray coating which can be used in ACQ and fire treated lumber.



24ga maximum

**Bagged 250 pcs. per bag for your convenience!**



### Sizes

	Description	Drilling Thickness	Part Number	Carton Quantity	WT Per M Pcs
A	#10-9 X 1-1/8" ULP (CS) Long-life TRI-SEAL <sup>™</sup> coated	<= 24 ga.	101125CGWC	5,000 pcs	8.2#
B	#10-9 X 1-1/8" ULP (410 SS) Passivated	<= 24 ga.	101125CGWSS	5,000 pcs	8.2#
C	#10-9 X 1-5/8" ULP (CS) Long-life TRI-SEAL <sup>™</sup> coated	<= 24 ga.	10162CGWC	5,000 pcs	11.7#
D	#10-9 X 2-1/8" ULP (CS) Long-life TRI-SEAL <sup>™</sup> coated	<= 24 ga.	10212CGWC	5,000 pcs	15.3#

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  
Material: C1018 carbon steel  
410 Stainless steel  
(Copper Roofing Compatible)  
Heat Treat: Case hardened to ANSI/ASME B18.6.4 specification  
Finish  
Carbon Steel: TRI-SEAL<sup>™</sup> long-life coating (1,000hrs. salt spray)  
Stainless Steel: Passivated (1,000hrs. salt spray)

#### Thread Detail

Major Diameter: .195"  
Minor Diameter: .125"  
Stress Area: .01267 in<sup>2</sup>

### 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 in.- lbs.
Tensile	1,520 lbs. min.
Shear	1,150 lbs. min.

**CONCEALOR<sup>®</sup> ULP is Miami-Dade Approved!**





# STANDING SEAM ROOF CLIP AND SCREWS - LOAD TESTED



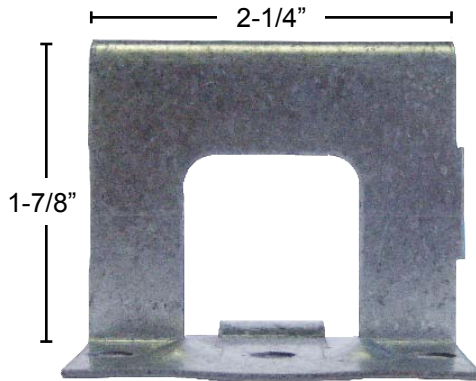
**Are you tired of having to calculate the uplift loads of SSR clips used in your metal roof assembly?**

**We have a solution...the SSR CLIP KIT!**

We provide a 1-7/8" tall fixed clip that is UL classified and has been independently tested to certify its ultimate uplift load capacity.

Clips are supplied with approved fasteners that meet your specific application requirement.

## CLIP DETAILS



Our SSR fixed clips are engineered to high standards. They are produced to tight tolerances so they install easily and perform with many different panel brands. Specifically designed for a Snap-Lock style SSR panel.

- Clip is high strength 18ga. galvanized steel for superior performance.
- 1-7/8" tall providing additional clearance between the panel and the decking for better air flow and energy efficiency.
- UL classified.
- Compatible for PAK-CLAD, Snap-Clad, and Fabral thin seam panels.

## FASTENER DETAILS



Our CONCEALOR® low profile head screws are engineered to perform in a variety of applications. They are easy to install and provide exceptional pullout.

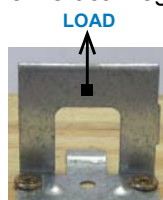
- High performance CONCEALOR® Low Profile Clip Screws for a variety of substrates.
- Carbon steel with TRI-SEAL™ long-life coating or stainless steel.
- Square recess drive for optimal installation stability.
- #10, #12, #14 diameters in lengths up to 9" long!
- **MIAMI-DADE approved!**

## TECHNICAL DATA

These loads are from tests conducted at an independent laboratory. They are values for the clip assembly; where the clip is attached to the substrate using two (2) screws.

A load was applied to the vertical leg of the clip until failure occurred.

Loads are ultimate for each clip and screw assembly.



### Upload Test Results - Clip and Screw Assembly - Average Ultimate

Screw Type	PLYWOOD			OSB			2X PINE	METAL (50KSI minimum)					
	1/2"	5/8"	3/4"	7/16"	9/32"	23/32"	1" EMBD	22 ga	20 ga	18 ga	16 ga	14 ga	10 ga
#10 GP	x	x	x	x	x	x	x						
#12 GP	x	x	x	x	x	x	x						
#10 DP3										x	x	x	x
#12 DP3										x	x	x	x
#14 DP1	x	x	x	x	x	x	x	x	x	x	x		
1/4 DP3										x	x	x	x

**NOTE:** To produce values listed in this chart, clip must be installed using CONCEALOR® pancake head screws only.

Load values are a result of tests conducted at Farabaugh Engineering Services, McKeesport PA. Report # XXXXX. Certified test report available.

**CONTACT TFC FOR SPECIFIC LENGTH**

Report #JS031711  
Concealor is a registered trademark of Triangle Fastener Corporation. Copyright 2011

DISCLAIMER: ALL DATA AND SPECIFICATIONS ARE BASED ON 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. BECAUSE APPLICATION CONDITIONS VARY, WE ASSUME NO LIABILITY FOR THE USE OF THIS INFORMATION.



## #14-13 DP1 - METAL OR WOOD

**Fasten into metal up to 16ga or Wood**



**#14 DP1 CONCEALOR®** is engineered to perform in a variety of applications. Special buttress thread form provides exceptional clamping loads and resists loosening compared to ordinary thread forms. Specified in many metal roofing systems to attached SSR clips over rigid insulation into metal deck.

**FM approved for preliminary attachment of nail base insulation without the use of stress plates.**

*Here is why we use a special thread...*

CONCEALOR® with Buttress Thread	Ordinary Thread Form
<p>"Flat" thread keeps the joint tight</p>	<p>"Tapered" thread tends to cause the joint to loosen</p>

Description	Attachment Thickness	Part Number	Carton Quantity	Wt Per M Pcs
#14-13 x 1-1/2" DP1	<=1.000"	141500C1	2,500 pcs	14.0#
#14-13 x 2" DP1	<=1.500"	142000C1	1,000 pcs	18.0#
#14-13 x 3" DP1	.125" - 2.500"	143000C1	1,000 pcs	26.0#
#14-13 x 4" DP1	.125" - 3.500"	144000C1	1,000 pcs	29.5#
#14-13 x 4-1/2" DP1	.625" - 4.000"	144500C1	1,000 pcs	36.5#
#14-13 x 5" DP1*	1.125" - 4.500"	145000C1	1,000 pcs	40.0#
#14-13 x 6" DP1*	2.125" - 5.500"	146000C1	1,000 pcs	47.0#
#14-13 x 7" DP1*	3.875" - 6.500"	147000C1	500 pcs	54.0#
#14-13 x 8" DP1*	4.875" - 7.500"	148000C1	500 pcs	57.0#
#14-13 x 9" DP1*	5.875" - 8.500"	149000C1	500 pcs	61.0#

\*Longer thread length available.  
Epoxy Coated 15 cycles Kesternich. Exceeds FM 4470  
Not to be used in exposed environments.  
Rev. 042111



**Now available in lengths up to 9"!**



Rev. DC10212

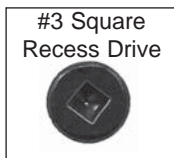
## #12-24 DP4 - THICK METAL

**Fasten into metal from 14 gauge up to 1/4"**

*(For optimal strength, consider using our 1/4-14 DP3 listed on page 22.)*



**#12 DP4 CONCEALOR®** Heavy Duty fasteners can drill and tap up to 1/4" steel! Great for heavy gauge applications requiring a low profile head. Coated with an epoxy finish that exceeds FM4470 specification assuring long-life corrosion resistance.



Description	Attachment Thickness	Part Number	Carton Quantity	Wt Per M Pcs
#12-24 x 1-3/8" DP4	<=.375"	121375C35E	2,500 pcs	16#
#12-24 x 2-3/4" DP4	<=1.500"	122750C35E	1,000 pcs	26#
#12-24 x 3-3/4" DP4	.375" - 2.500"	123750C35E	1,000 pcs	34#
#12-24 x 4-3/4" DP4	1.375" - 3.500"	124750C35E	1,000 pcs	40#
#12-24 x 5-3/4" DP4	2.375" - 4.500"	125750C35E	1,000 pcs	48#
#12-24 x 6-3/4" DP4	3.375" - 5.500"	126750C35E	1,000 pcs	54#
#12-24 x 7-3/4" DP4	4.375" - 6.500"	127750C35E	1,000 pcs	62#

Epoxy Coated 15 cycles Kesternich.  
Exceeds FM 4470

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

**Fasten into metal from 20 gauge up to 1/4"**



**#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.

These screws are coated with TRI-SEAL™ long-life coating that exceeds FM4470 specification and provide 1,000-hours salt spray performance.

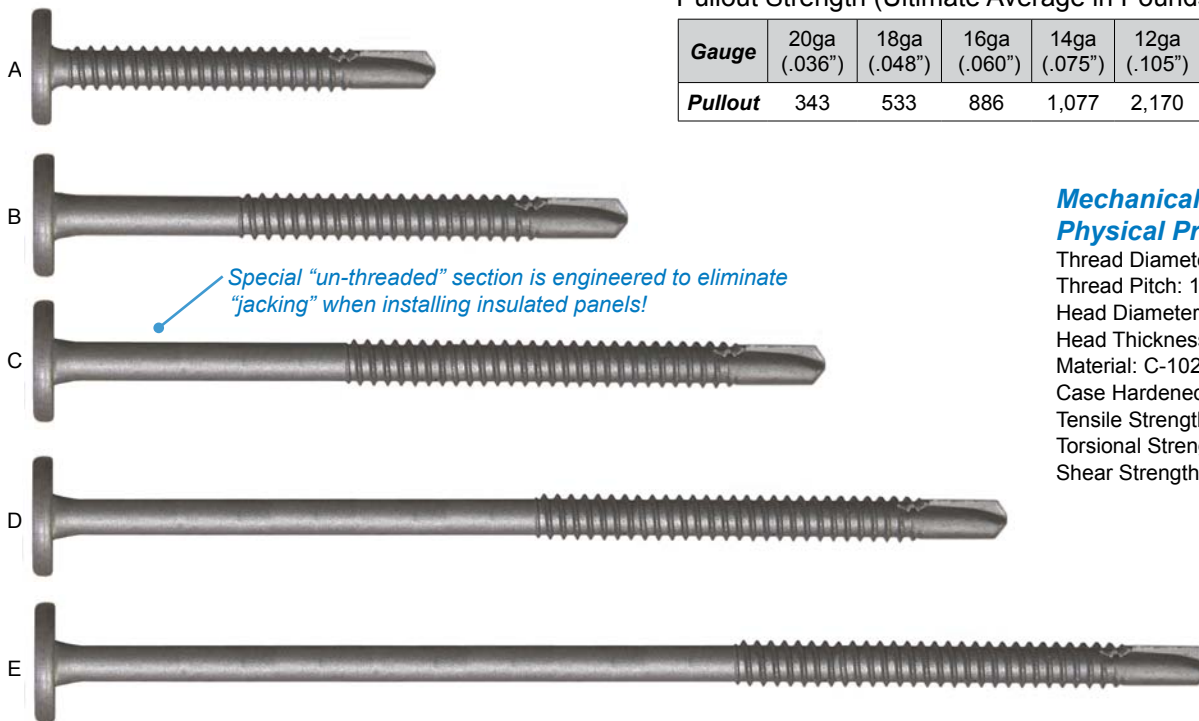
### SPECIAL HEAD DESIGN



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

	Description	Attachment Thickness	Part Number	Carton Quantity	Wt Per M Pcs
A	1/4-14 x 2" DP3	1.000" Max	14200SPC3CSTS	1,000 pcs	19#
B	1/4-14 x 3" DP3	1.375" to 2.125"	14300SPC3CSTS	1,000 pcs	27#
C	1/4-14 x 4" DP3	1.625" to 3.125"	14400SPC3CSTS	500 pcs	34#
D	1/4-14 x 5" DP3	2.750" to 4.125"	14500SPC3CSTS	500 pcs	42#
E	1/4-14 x 6" DP3	3.750" to 5.125"	14600SPC3CSTS	500 pcs	50#

### Choose from a variety of lengths!



Special "un-threaded" section is engineered to eliminate "jacking" when installing insulated panels!

### PERFORMANCE SPECIFICATIONS

Pullout Strength (Ultimate Average in Pounds)

Gauge	20ga (.036")	18ga (.048")	16ga (.060")	14ga (.075")	12ga (.105")	1/8" (.125")	3/16" (.188")	1/4" (.250")
<b>Pullout</b>	343	533	886	1,077	2,170	2,030	3,863	*4,493

\* Exceeds tensile strength

### Mechanical and 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  
 Tensile Strength: 4,275 lbs.  
 Torsional Strength: 150 lbs.-in.  
 Shear Strength: 2,600 lbs.

### 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



## PULLOUT LOADS

### Pullout In Steel - Average Ultimate in Pounds (35ksi Test Material)



Fastener Dia. & Point	Material Thickness									
	24 ga (.024")	22 ga (.021")	20 ga (.030")	18 ga (.048")	16 ga (.060")	14 ga (.075")	12 ga (.105")	1/8" (.125")	3/16" (.188")	1/4" (.250")
#10-16 DP3	208	267	295	503	710	968				
#12-14 DP3	215	292	343	555	752	1,066				
#12-14 DP1/Lap	261	338	390	649	890	1,259				
#12-24 DP4				375	500	978	1,200	2,000		3,844
#14-13 DP1	338	574	720	961	1,000	1,350				
1/4-14 DP3			343	533	886	1,077	2,170	2,030	3,863	*4,493

\* Exceeds tensile strength

## PULLOVER

Screw	Tee Clip 24 ga. (Ave. Ultimate)	Zee Clip 24 ga. (Ave. Ultimate)
#10 DP3	415 lbs.	510 lbs.
#12 GP	430 lbs.	692 lbs.
#14 DP1	407 lbs.	677 lbs.

\* Berridge Clips

### Pullout In Wood - Average Ultimate in Pounds



Fastener Dia. & Point	Wood Type						
	1/2" Ply	5/8" Ply	3/4" Ply	7/16" OSB	19/32" OSB	23/32" OSB	2 x 4 SYP
#10-13 GP	375	505	654	166	357	442	737
#10-9 GP	383	395	574	136	256	514	813
#12-14 DP1/Lap	376	415	598	251	351	378	550
#12-11 GP	418	455	624	146	379	573	918
#14-13 DP1	434	475	626	153	327	457	991

Farabaugh Engineering Test: Project No. T279-10

Rev 042811

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

## PERFORMANCE SPECIFICATIONS

Fastener Diameter & Material	Thread Diameter	Minimum Ultimate		
		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"	4,275	2,600	150
#14-13 / Carbon	0.235"	3,620	2,500	115

## FASTENER PROPERTIES

Thread Type and Point	Thread Major Dia.	Material	Head Dia.	Head Thickness	Drive	REV 041111 Finish
#10-16 DP2	.180"	C1022	.435"	.080"	#2 Sq	.0003" Zinc & Yellow
#10-24 DP3	.185"	C1022	.435"	.080"	#2 Sq	.0003" Zinc & Yellow
#10-13 GP	.190"	C1022 302 SS	.450"	.080"	#2 Sq	TRI-SEAL™ Coated Passivated
#10-16 DP3	.180"	C1022 410 SS	.450"	.080"	#2 Sq	.0003" Zinc & Yellow .0002" Zinc & Clear
#10-9 GP (ULP)	.200"	C1022 410 SS	.435"	.040"	#2 Sq	TRI-SEAL™ Coated Passivated
#12-11 GP	.220"	C1022 304 SS	.450"	.080"	#2 Sq	TRI-SEAL™ Coated Passivated
#12-14 DP1	.210"	C1022	.450"	.080"	#2 Sq	.0003" Zinc & Yellow
#12-14 DP3 (SD300)	.210"	C1022 304 SS	.450"	.080"	#2 Sq	.0003" Zinc & Yellow
#12-24 DP4	.210"	C1022	.425"	.110"	#3 Sq	.001" Black Epoxy
#14-13 DP1	.238"	C1022	.500"	.090"	#2 Sq	.001" Black Epoxy
1/4-14 DP3 (1") (2", 3", 4", 5", 6")	.245"	C1022	.500"	.080"	#2 Sq	.0003" Zinc & Yellow
			.625"	.100"	#3 Sq	TRI-SEAL™ Coated

## TOOLING

### Screw-gun RPM

Carbon Steel & 410SS Screws: 2,500 RPM maximum  
304 Stainless Steel Screws: 1,000 RPM maximum  
For optimal performance, use screw-guns with torque control feature.  
**DO NOT OVER-TORQUE FASTENERS.**

### Fastening Tips

- A minimum of three (3) factors of safety should be used for most self-drilling or self-tapping fasteners. 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 COMPATIBILITY FOR METAL ROOFING AND WALL CLADDING

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

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

DISCLAIMER: ALL DATA AND SPECIFICATIONS ARE BASED ON 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. BECAUSE APPLICATION CONDITIONS VARY, WE ASSUME NO LIABILITY FOR THE USE OF THIS INFORMATION.