

Clip Fasteners

Clip attachment fasteners
For metal to metal, metal to wood

- Designed with unique head styles, drill point configurations and material types to meet performance requirements to attach standing seam roof clips.

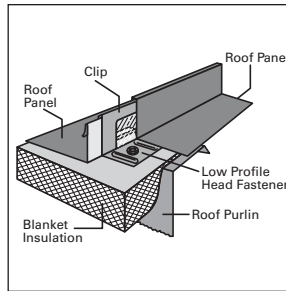
- Engineered profile features preventing panel damage from fastener head contact.
- Engineered installation torque drive control for uniform installation performance.

Application

**#10 Type A: Pancake Head
2/2 Phillips Square Drive
Carbon Steel, Zinc Plated
Metal to wood**

**#10 Type A: Pancake Head
Phillips Drive
300 Series Stainless Steel
Metal to wood**

**#10 Self-Drill: Pancake Head
2/2 Phillips Square Drive
Carbon Steel, Zinc Plated
Metal to metal**
Min projection: 3/8" of threads
below substrate



Head Height: .080 – .068
Head Dia: .447 – .423
Thread Major Dia: .194 – .188
Thread Minor Dia: .133 – .126

Strength (lbs ult.):	Carbon	Stainless
Tensile:	1825	1653
Torsional:	48 in-lbs	50 in-lbs
Shear:	1535	1587

#10 Type A, Pull-out (lbs ult.):
SPF wood:
1" penetration: 544
1-1/2" penetration: 995

#10 Self Drill, Pull-out (lbs ult.):
12 ga (.105): 1782
14 ga (.075): 1072
16 ga (.060): 782

**#12-8 XG Low Profile Head
2/2 Phillips Square Drive
Carbon Steel, Zinc Plated
Metal to wood**

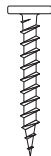


Head Height: .040 – .030
Head Dia: .447 – .423
Thread Major Dia: .215 – .209
Thread Minor Dia: .133 – .127

Strength (lbs ult.):
Tensile: 2183
Torsional: 60 in-lbs
Shear: 1946

Performance (lbs ult.):	Pull-out
SPF 1" Penetration	583
SPF 1-1/2" Penetration	1029
1x4" Pine	590
3/4" Plywood	583
5/8" Plywood	368
1/2" Plywood	357
23/32" OSB	412
19/32" OSB	336
15/32" OSB	225

**#12-8 XG Pancake Head
2/2 Phillips Square Drive
Carbon Steel, Zinc Plated
Metal to wood**



Head Height: .080 – .068
Head Dia: .447 – .423
Thread Major Dia: .215 – .209
Thread Minor Dia: .133 – .127

Strength (lbs ult.):
Tensile: 2183
Torsional: 60 in-lbs
Shear: 1946

Performance (lbs ult.):	Pull-out
SPF 1" Penetration	583
SPF 1-1/2" Penetration	1029
1x4" Pine	590
3/4" Plywood	583
5/8" Plywood	368
1/2" Plywood	357
23/32" OSB	412
19/32" OSB	336
15/32" OSB	225

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Application

#12 Type A: Pancake Head
2/2 Phillips Square Drive
 Carbon Steel , Zinc Plated
 Metal to wood



Head Height: .080 – .068
 Head Dia: .447 – .423
 Thread Major Dia: .221 – .215
 Thread Minor Dia: .162 – .155

Strength (lbs ult.):
 Tensile: 1940
 Torsional: 90 in-lbs
 Shear: 1805

Pull-out (lbs ult.):
 SPF wood:
 1" penetration: 622

#12 Self-Drill: Pancake Head SD2
2/2 Phillips Square Drive
 Carbon Steel , Zinc Plated
 Metal to metal

Drilling capacity: .035-.210

Min projection: 3/8" of threads below substrate.



Head Height: .090 – .078
 Head Dia: .447 – .423
 Thread Major Dia: .215 – .209
 Thread Minor Dia: .164 – .157

Strength (lbs ult.):
 Tensile: 2900
 Torsional: 92 in-lbs
 Shear: 2050

Pull-out (lbs ult.):
 12 ga (.105): 1539
 14 ga (.075): 1010
 16 ga (.060): 724

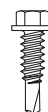
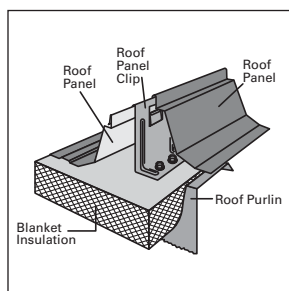
1/4 -14 SD2 HWH

Drilling capacity (#2 point): .050 – .150

Attachment thickness:

Thickness is based on normal,
 single thickness purlin/girt or
 multiple material thickness
 combined for total.

Min projection: 3/8" of threads
 below substrate



5/16" AF Hex Washer Head
 3/8" AF Hex Washer Head
 Thread Major Dia: .246 – .240
 Thread Minor Dia: .192 – .185

Strength (lbs ult.):
 Tensile: 3800
 Torsional: 150 in-lbs
 Shear: 2850

#2 Point, Pull-out (lbs ult.):
 12 ga (.105): 2088
 14 ga (.075): 1312
 16 ga (.060): 903

12-24 SD5: Pancake Head
2/2 Phillips Square Drive
 Carbon Steel, Zinc Plated
 Metal to metal

Drilling capacity: .075 – .500

Attachment thickness:

Thickness is based on normal,
 single thickness purlin/girt or
 multiple material thickness
 combined for total.

Min projection: 3/8" of threads
 below substrate



Head Height: .090 – .078
 Head Dia: .447 – .423
 Thread Major Dia: .216 – .210
 Thread Minor Dia: .186 – .181

Strength (lbs ult.):
 Tensile: 3450
 Torsional: 100 in-lbs
 Shear: 2420

Pull-out (lbs ult.):
 12 ga (.105): 1378
 3/16" (.187): Exceeds tensile value
 1/4" (.250): Exceeds tensile value

Notes

Dimensions are nominal inches unless noted. Pull-out values (pounds ultimate) are based on 50,000 psi hot rolled steel sheet material. Ultimate values listed are the result of laboratory testing. The specific job conditions should be considered and appropriate safety factors applied when specifying the proper fasteners.

Fasteners installed in less than 1" of solid wood may have an increased potential for a connection failure over time. This may be due to the fasteners being stripped out during installation and/or due to the lack of adequate wood fiber material to hold the fastener in place when forces are exerted upon the connection.

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Selection

Description	Available Lengths (L)	Example Code					
		CSTA-	S3-	#10x	1"	PC-	PH2
		Type	Material	Diameter	Length	Head Style	Drive
#10 Type A Pancake, Carbon Steel	1", 1-1/2", 2"	CSTA-	–	#10x	L-	PC-	PSQ
#10 Type A Pancake, 304 Stainless Steel	1", 2"	CSTA-	S3-	#10x	L-	PC-	PH2
#10-16 SD2 Pancake	1", 1-1/2", 2"	CSSD2-	–	#10x	L-	PC-	PSQ
#12-8 XG Low Profile	1", 1-1/2", 2"	CSXG-	–	#12x	L-	WF-	PSQ
#12-8 XG Pancake	1", 1-1/2", 2"	CSXG-	–	#12x	L-	PC-	PSQ
#12 Type A Pancake	1"	CSTA-	–	#12x	L-	PC-	PSQ
#12 SD2 Pancake	1"	CSSD2-	–	#12x	L-	PC-	PSQ
#12-24 SD5 Pancake	1-1/2"	CSSD5-	–	#12x	L-	PC-	PSQ
1/4-14 SD2, 5/16 AF HWH	1-1/2", 1-1/2"	SD2-	–	#14x	L-	HW5/16	–
1/4-14 SD2, 3/8 AF HWH	1"	SD2-	–	#14x	L-	HW3/8	–

Installation

Tools: Wood application: 0-2500 rpm screw gun equipped with depth sensing nose piece.

Metal application: 0-2000 rpm screw gun equipped with depth sensing nose piece.

Use of impact guns or hammer drills is not recommended.

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