

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.

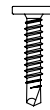
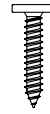
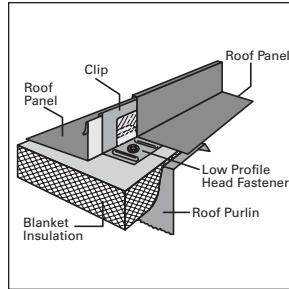
- Engineered profile features preventing panel damage from fastener head contact.
- Engineered installation torque drive control for uniform installation performance.

Application

**#10 Type A: Pancake Head
2/2 Quadrex 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 Quadrex 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

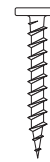
#10 Type A, Pull-out (lbs ult.):

SPF wood:
1" penetration: 821

#10 Self Drill, Pull-out (lbs ult.):

12 ga (.105): 1782
14 ga (.075): 1072
16 ga (.060): 782

**#12–8 XG Sharp Point: Pancake Head
2/2 Quadrex Drive
Carbon Steel, Zinc Plated
Metal to wood**



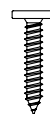
Head Height: .080 – .068
Head Dia: .447 – .423
Thread Major Dia: .215 – .209
Thread Minor Dia: .133 – .127

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

Performance (lbs ult.): Pull-out

SPF 1-1/2" Penetration	874
SPF 1" Penetration	571
1x4" Pine	590
3/4" Plywood	587
5/8" Plywood	446
1/2" Plywood	384
23/32" OSB	524
19/32" OSB	456

**#12 Type A: Pancake Head
2/2 Quadrex 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

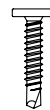
Strength (lbs ult.):
Tensile: 1940
Torsional: 90 in-lbs
Shear: 1805

Pull-out (lbs ult.):

SPF wood:
1" penetration: 724

**#12 Self-Drill: Pancake Head
2/2 Quadrex Drive
Carbon Steel, Zinc Plated
Metal to metal**

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

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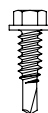
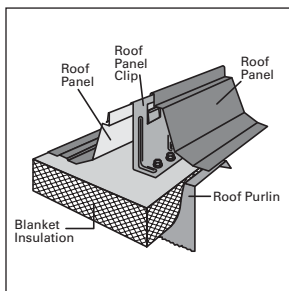
Application

1/4 -14 #2 Point

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 #5 Point: Pancake Head

2/2 Quadrex 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.

Selection

Length	#10 Type A Pancake Carbon Steel	#10 Type A Pancake Stainless Steel	#10 Self-Drill Pancake	#12-8 XG Pancake	#12 Type A Pancake	#12 Self-Drill Pancake	12-24 #5 Point Pancake	1/4-14 #2 Point 5/16 AF HWH	1/4-14 #2 Point 3/8 AF HWH
1"	A1191F	E0235F	S3431F	A1900F	A1710F	S4552F	—	—	S5171F
1-1/4"	—	—	—	—	—	—	—	S5191F	—
1-1/2"	A1351F	—	S4221F	A1940F	—	—	S4750F	S5286F	S5271F
2"	A1391F	E0271F	S4421F	A1950F	—	—	—	—	—

Installation

Tools: 2000 – 2500 rpm #10 self drill, 0 – 2000 rpm on 1/4-14 self drill screwdriver equipped with depth sensing nosepiece.