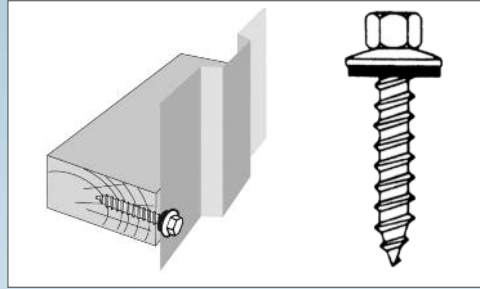


Metal to Wood

1/4" Hex Washer Head Screw

Drilling capacity: 24 ga. (0.024")

Self drills through the metal panel and taps into wood substrate. Minimum penetration into substrate should be no less than 1".



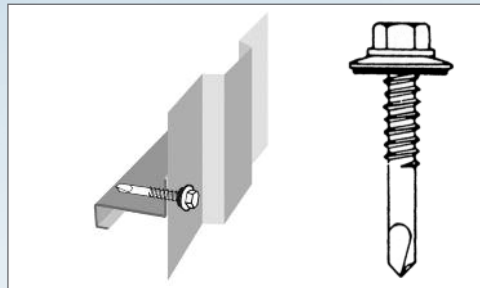
Metal to Metal - self-drilling

5/16" AF Hex Washer Head Screw

Drilling capacity: 0.035" - 0.210"

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

Minimum projection: 3/16" of threads below substrate.



Metal to Metal - self-tapping

3/8" AF Hex Head Screw

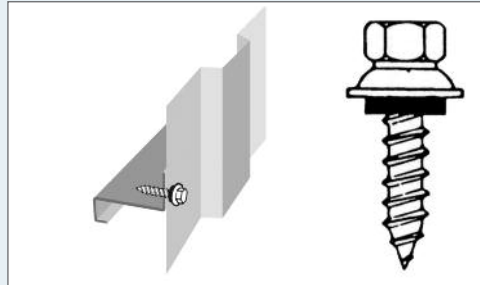
Attachment thickness: 0.044" - 0.075"

| Metal thickness | Drill size |
|-----------------|---------------|
| 0.021 - 0.026 | 1/8" (0.125) |
| 0.027 - 0.050 | 3/16" (0.187) |
| 0.051 - 0.075 | #8 (0.199) |

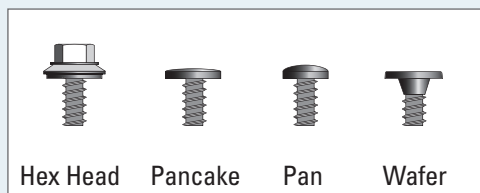
The hole size determines installation strength and pullout strength.

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

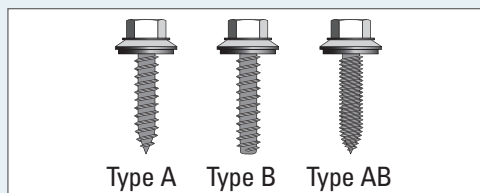
Minimum projection: 3/8" of threads below substrate.



Head Types







Screw Types



Fasteners

Selection Guide

Various Tapping and Self-drilling Fasteners w/recommended drill bit size where applicable.**

| | Nom. Dia. & Alloy | STEEL PANEL or STRUCTURAL THICKNESS | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--------------------|-------------------------------------|----------|-------|-------|--------|---------|--------|------|-------|-----------|------|------|------|-------|------|------|-------|------|------|------|------|------|------|------|---------------------|--|
| | | .010 | .020 | .030 | .040 | .050 | .060 | .070 | .080 | .090 | .100 | .110 | .120 | .130 | .140 | .150 | .160 | .170 | .180 | .190 | .200 | .210 | .220 | .230 | .240 | .250 | |
|  A | #10 Plt. Steel | | | | 7/64" | | 9/64" | | | | | | | | | | | | | | | | | | | | |
| | #12 Plt. Steel | | | | 9/64" | | 11/64" | | | | | | | | | | | | | | | | | | | | |
| | #14 Plt. Steel | | | 1/8" | 3/16" | | #8" | | | | | | | | | | | | | | | | | | | | |
| | #14 300 S.S. | * | | 3/16" | | #8 | | | | | | | | | | | | | | | | | | | | | |
|  AB | #12 Plt. Steel | | | 1/8" | | 11/64" | | 3/16" | | | | | | | | | | | | | | | | | | | |
| | 1/4" Plt. Steel | | 1/8" | 3/16" | | #8 | | #7 | | #1 | | | | | | | | | | | | | | | | | |
| | #17 Plt. Steel | | 3/16"*** | | | | 1/4"*** | | | | 17/64"*** | | | | | | | | | | | | | | | | |
| | 1/4" 300 S.S. | * | 1/8" | 3/16" | | #8 | | #7 | | #1 | | | | | | | | | | | | | | | | | |
| | #17 300 S.S. | * | 3/16"*** | | | | 1/4"*** | | | | 17/64"*** | | | | | | | | | | | | | | | | |
|  B | #12 Plt. Steel | | | | | | | 11/64" | | 3/16" | | | | | | | | | | | | | | | | | |
| | 1/4" Plt. Steel | | | | | | | #8 | | #7 | | | | | | | | | | | | | | | | * | |
| | 1/4" 300 S.S. | * | | | | | | #8 | | #7 | | | | | | | | | | | | | | | | * | |
|  SELF DRILL | #8 Plt. Steel | | | | | **** | | | | | | | | | | | | | | | | | | | | | |
| | #10 Plt. Steel | | | | | | **** | | | | | | | | | | | | | | | | | | | | |
| | #12 Plt. Steel | | | | | | | **** | | | | | | | | | | | | | | | | | | | |
| | 1/4" LAP S.D. | | | | | | | | **** | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1/4" Plt. Steel | | | | | | | | | | | | | | | | | | | | | | | | | **** | |
| | #14 M/P Plt. Steel | | | | | | | | | | | | | | | | | | | | | | | | | PRE-DRILL NOT REQ'D | |
| GAUGE REF. | | | 26 | 24 | 20 | 18 | 16 | 14 | 13 | 12 | 11 | 10 | | 8 | 3/16" | 6 | | 7/32" | 4 | | 1/4" | | | | | | |

(*) Use #1 drill bit for 3/16" to 3/8" thick steel. For heavier steel, use 0.231" drill.

(**) Drill bit sizes shown are for new construction applications. #17 AB Fasteners are most often used as a repair screw for stripped 1/4" dia. fasteners in sidelap or structural attachments up to 11 ga. steel.

(***) Material thickness in excess of 7/32" requires self-drilling fasteners with long flutes and a shank slot to relieve driving torque. (Maximum thickness: 1/2" for C-DRIL 590 and 5/16" for C-DRIL 314). Manufactured under licence of British Screw Co. Ltd., division of GKN.

(****) Material thickness ranges indicated for self-drill fasteners is substrate (structural) steel only. An unthreaded pilot section allowing for the panel thickness has been considered in the fastener design. When drilling through more than one thickness of structural steel (nested purlins), proper installation techniques must be used to assure adequate performance of the fastener.

* 300 Series Stainless Steel fasteners require a screw driver with 600 - 800 RPM maximum.

** Drill size recommendations assume 50-55000 PSI Yield Strength steel. Higher tensile strength steel may require adjustments in drill size to permit proper installation.



Stock Fasteners - Metal to Wood

| Wood Grip & Master Grip | #9 x 1" St. St. | #9 x 1" Steel Head | #10 x 1.5" Steel Head | #9 x 2" Steel Head | #10 x 2" Steel Head | #9 x 2.5" Steel Head | #10 x 2.5" Steel Head | #9 x 3" Steel Head | #10 x 1" n/w Nylon Head | #10 x 1" Nylon Head | #10 x 1.5" Nylon Head | #10 x 2" Nylon Head | #10 x 2.5" Nylon Head | #14 x 3/4" n/w Nylon Head |
|-------------------------|-----------------|--------------------|-----------------------|--------------------|---------------------|----------------------|-----------------------|--------------------|-------------------------|---------------------|-----------------------|---------------------|-----------------------|---------------------------|
| Plain Galvanized | | • | • | • | • | • | • | • | | | | | | |
| Antique Linen | | • | • | • | • | • | • | • | | | | | | |
| Beige | • | • | • | • | • | • | • | • | | | | | | |
| Black | • | • | • | • | • | • | • | • | • | • | • | • | • | |
| Bone White | • | • | • | • | • | • | • | • | • | • | • | • | • | • |
| Bright Red | | • | • | • | • | • | • | • | | | | | | |
| Bright White | | • | • | • | • | • | • | • | | | | | | |
| Burgundy | | • | • | • | • | • | • | • | | | | | | |
| Cambridge White | | • | • | • | • | • | • | • | | | | | | |
| Charcoal | • | • | • | • | • | • | • | • | | | | | | |
| Coffee | • | • | • | • | • | • | • | • | | | | | | |
| Dark Brown | | • | • | • | • | • | • | • | | | | | | |
| Dark Red | • | • | • | • | • | • | • | • | | | | | | |
| Gold | | • | • | • | • | • | • | • | | | | | | |
| Graphite Grey 60035 | | • | • | • | • | • | • | • | | | | | | |
| Green | | • | • | • | • | • | • | • | | | | | | |
| Heron Blue | | • | • | • | • | • | • | • | | | | | | |
| Melcher's Green | • | • | • | • | • | • | • | • | | | | | | |
| Metro Brown | | • | • | • | • | • | • | • | | | | | | |
| Orange | | • | • | • | • | • | • | • | | | | | | |
| Pacific Turquoise | | • | • | • | • | • | • | • | | | | | | |
| Pebble Khaki | | • | • | • | • | • | • | • | | | | | | |
| Regent Grey | • | • | • | • | • | • | • | • | | | | | | |
| Royal Blue | | • | • | • | • | • | • | • | | | | | | |
| Sepia Brown 60041 | | • | • | • | • | • | • | • | | | | | | |
| Slate Blue | • | • | • | • | • | • | • | • | | | | | | |
| Stone Grey | • | • | • | • | • | • | • | • | | | | | | |
| Tan | • | • | • | • | • | • | • | • | | | | | | |
| Tile Red | • | • | • | • | • | • | • | • | | | | | | |
| White White | • | • | • | • | • | • | • | • | | | | | | |
| Plain Stainless | • | | | | | | | | | | | | | |
| Silver 7500 | | • | • | • | • | • | • | • | | | | | | |

NOTE: All non-stock colours are available on request; allow extra delivery time + added cost of courier service.
Fasteners are With Washer, unless noted n/w (no washer)

Minimum Order Quantity: Stainless Steel (St. St.) screws are 100 pcs/bag
All other Wood Grips are 500 pcs/bag



ACQ FACT SHEET

IMPORTANT NOTICE

- SFS Intec, a major manufacturer of construction fasteners, has issued a fact sheet (reproduced below) on the use of carbon steel fasteners in conjunction with the “new” pressure treated lumber commonly referred to as “ACQ”. The new treatments, while effective in preserving the wood, are extremely corrosive to carbon steel fasteners because of the increased levels of copper being used.
- Agway distributes zinc-plated screws with all D.T. Horse Stall Components, in addition to supplying a great many fasteners to the general construction industry. Therefore, based on the attached findings, Agway recommends that only 300 Series austenitic stainless steel fasteners be used in ACQ applications. If there is no alternative but to use ACQ lumber in your application, Agway can “special order” stainless steel fasteners for your use. If you have any questions regarding this notice, please do not hesitate to contact your sales representative.

-
- ACQ® is actually a trade name for a ‘next generation’ wood preservative that was developed in compliance with the EPA’s 2004 requirement that arsenic be removed from these pressure treatment solutions. In order to achieve the excellent wood preservation characteristics that users have become accustomed to, manufacturers increased levels of copper in the new treatments. While effective in preserving wood, this additional copper is extremely corrosive to carbon steel fasteners - even when plated.
 - Copper and carbon steel react electro-chemically. These dissimilar materials create a galvanic reaction when in contact with each other in the presence of moisture. Pressure treated lumber very commonly exhibits a high moisture content for a relatively long period of time after production.
 - Some fastener manufacturers recommend hot dipped galvanized coatings for use with ACQ. While this will certainly extend the life of a fastener, zinc (the material used in galvanizing) also reacts with copper. Hot dipping with zinc may add life, but will NOT prevent the corrosion that will ultimately destroy a fastener.
 - While nothing will completely prevent the galvanic reaction from occurring between copper and steel in adjacent application, 300 Series (austenitic) stainless steel will maintain its integrity better than any other affordable steel option. SFS Intec recommends that ONLY austenitic stainless steels be used in these ACQ applications.
 - Due to the high risk of galvanic reaction between the copper-impregnated wood and any dissimilar metals, fasteners and flashings should be of stainless steel. Any steel panels that come into direct contact with the ACQ material should be either stainless steel or have an adequate barrier applied between the two materials.
 - If standard carbon steel fasteners are applied, corrosion will become visible, initially, in the form of rust stains, and eventually threads will be lost and fasteners will fail.
 - Martensitic (400 Series, such as 410) stainless steel fasteners are available from some manufacturers but are not recommended for any load-bearing application. These martensitic steels resist corrosion for a period of time but are, however, highly prone to stress cracking when installed. Even under the relatively small load of a metal panel, 410 steel fasteners are highly likely to become fatigued, causing stress cracks and head separation over a period of time.

Types of ‘Next Generation’ Pressure Treatments:

- **Ammoniacal Copper Quat (ACQ-A, B, C).** The preservative effects of copper are combined with a low toxicity co-biocide to achieve durability levels equivalent to copper/arsenic preservatives, with no impact on the mechanical properties of the wood. A preservative containing ACQ-A is marketed under the name ACQ Preserve by Chemical Specialties, Inc. (CSI).
- **Amine Copper Quat (ACQ-D).** This product contains active ingredients similar to ACQ-A, B, C, but uses less ethanolamine instead of ammonia as the solution carrier. Lumber treated with this preservative is marketed as NatureWood by Osmose, Inc.
- **Copper Azole-Type A.** This new generation preservative contains copper and boron and is marketed as Wolmanized Natural Select by Arch Wood Protection (formerly Hickson).
- **Borate Oxide (SBX).** Boron compounds are well known, non-toxic preservatives, but are water soluble. Wood products treated with SBX are not recommended for direct ground contact, but can effectively preserve wood for other applications such as deck surfaces or furniture. Brand name products include Advance Guard Lumber by Osmose, Inc., and SmartGuard products from Louisiana Pacific.



Stock Fasteners - Metal to Metal, self-drilling

| Drillers | #12 x 1" n/w Steel SD | #12 x 1 1/4" Steel SD | #12 x 1 1/2" Steel SD | #12 x 1 1/4" n/w #5 Point | #12 x 1 1/2" n/w #5 Point | #14 x 3/4" n/w Steel Head SD | #14 x 3/4" Steel Head SD | #14 x 1" n/w Steel Head SD | #14 x 1" Steel Head SD | #14 x 1 1/2" Steel Head SD | #14 x 1 1/2" n/w Galv. only | #14 x 2" Steel Head SD |
|-------------------|-----------------------|-----------------------|-----------------------|---------------------------|---------------------------|------------------------------|--------------------------|----------------------------|------------------------|----------------------------|-----------------------------|------------------------|
| Plain Galvanized | • | | • | • | | • | | • | | | • | |
| Antique Linen | | | | | | | | | • | | | |
| Beige | • | | | | | | | | | | | |
| Black | • | | | | | • | | | | • | | |
| Bone White | • | | • | | | • | | | | | | • |
| Bright Red | • | | | | | | | | | | | |
| Bright White | • | | | | | | | | | | | |
| Burgundy | • | | | | | | | | | | | |
| Cambridge White | • | | | | | | | | | | | • |
| Charcoal | • | | | | | | | | | | | • |
| Coffee | • | | | | | | | | | | | |
| Dark Brown | • | | | | | | | | | | | • |
| Dark Red | • | | | | | | | | | | | |
| Gold | • | | | | | | | | | | | |
| Green | • | | | | | | | | | | | |
| Heron Blue | • | | | | | | | | | | | |
| Melcher's Green | • | | | | | | | | | | | |
| Metro Brown | | | | | | | | | • | | | |
| Orange | | | | | | | | | | | | |
| Pacific Turquoise | • | | | | | | | | | | | |
| Pebble Khaki | • | | | | | | | | | | | |
| Regent Grey | • | | | | | | | | | | | |
| Royal Blue | • | | | | | | | | | | | |
| Slate Blue | • | | | | | | | | | | | |
| Stone Grey | • | | | | | | | | | | | • |
| Tan | • | | | | | | | | | | | • |
| Tile Red | • | | | | | | | | | | | |
| White White | • | | | | | | | | | | | • |
| Silver 7500 | • | | | | | | | | | | | • |

Minimum Order Quantity: 500 pcs/bag
 NOTE: All non-stock colours are available on request; allow extra delivery time + added cost of courier service.
 Fasteners are With Washer unless noted n/w (no washer)



Fasteners

Stock Fasteners - Metal to Metal, self-tapping

| Others | #8 x 3/4" n/w Pancake Trim Screw | #8 x 3/4" m/d/n/w Pancake Screw | #12 x 3/4" n/w Truss Socket | #10 x 1" n/w Pancake A | #14 x 3/4" n/w Type AB | #14 x 1" Type A | #14 x 1 1/2" Type A | #14 x 1 1/2" Type AB | #14 x 2" Type A | #14 x 4" Type A-St. St | #8 x 3/4" n/w Type A-St. St | #8 x 1 1/2" n/w Type A-St. St |
|-------------------|-------------------------------------|------------------------------------|--------------------------------|---------------------------|---------------------------|-----------------|---------------------|----------------------|-----------------|------------------------|--------------------------------|----------------------------------|
| Plain Galvanized | • | • | • | • | • | • | • | • | • | | | |
| Antique Linen | | | | | | | | | | | | |
| Beige | • | | | | | | | | | | | |
| Black | • | | • | | | | | | | | | |
| Bone White | • | | • | • | | | | | • | • | | |
| Bright Red | • | | | | | | | | | | | |
| Bright White | • | | | | | | | | | | | |
| Burgundy | • | | | | | | | | | | | |
| Cambridge White | • | | | | • | | | | | | | |
| Charcoal | • | | | | | | | | | | | |
| Coffee | • | | • | | | | | | | | | |
| Dark Brown | • | | | • | | | | | | | | |
| Dark Red | • | | | | | | | | | | | |
| Gold | • | | | | | | | | | | | |
| Green | • | | | | | | | | | | | |
| Heron Blue | • | | | | • | | | | | | | |
| Melcher's Green | • | | | | | | | | | | | |
| Metro Brown | | | • | | • | | | | | | | |
| Orange | | | | | | | | | | | | |
| Pacific Turquoise | | | | | | | | | | | | |
| Pebble Khaki | • | | | | | | | | | | | |
| Regent Grey | • | | | | | | | | | | | |
| Royal Blue | • | | | | | | | | | | | |
| Slate Blue | • | | | | | | | | | | | |
| Stone Grey | • | | | | | | | | | | | |
| Tan | • | | | | | | | | | | | |
| Tile Red | • | | | | | | | | | | | |
| White White | • | | • | | • | | | | | | • | • |
| Plain Stainless | | | | | | | | | | | | |
| White Stainless | | | | | | | | | | | | |

Minimum Order Quantity: 500 pcs/bag NOTE: All non-stock colours are available on request; allow extra delivery time + added cost of courier service.
Fasteners are With Washer unless noted n/w (no washer)



Stock Fasteners - Metal to Metal, self-drilling (cont'd)

| Drillers | #14 x 1" Nylon SD | #14 x 1" n/w Nylon SD | #14 x 1 3/8" Nylon SD | #14 x 2" n/w Nylon SD | #14 x 7/8" Steel Lap | #14 x 7/8" n/w Steel Lap | #14 x 7/8" Nylon Lap | #10 x 1" n/w Pancake SD | #10 x 1 1/2" Pancake SD | #12 x 1" n/w Pancake SD |
|-------------------|-------------------|-----------------------|-----------------------|-----------------------|----------------------|--------------------------|----------------------|-------------------------|-------------------------|-------------------------|
| Plain Galvanized | | | | | | | | | | |
| Antique Linen | | | | | | | | | | |
| Beige | | | | | | | | | | |
| Black | • | • | | | | | • | | | |
| Bone White | • | • | | • | | | • | | | |
| Bright Red | | | | | | | | | | |
| Bright White | | | | | | | | | | |
| Burgundy | | | | | | | | | | |
| Cambridge White | | | | | | | | | | |
| Charcoal | • | • | | | | | • | | | |
| Coffee | • | | | | | | • | | | |
| Dark Brown | • | • | | | | | • | | | |
| Dark Red | | | | | | | | | | |
| Gold | | | | | | | | | | |
| Green | | | | | | | | | | |
| Heron Blue | | | | | | | | | | |
| Melcher's Green | • | | | | | | • | | | |
| Metro Brown | | | | | | | | | | |
| Orange | | | | | | | | | | |
| Pacific Turquoise | | | | | | | | | | |
| Pebble Khaki | | | | | | | | | | |
| Regent Grey | • | | | | | | • | | | |
| Royal Blue | | | | | | | | | | |
| Slate Blue | • | | | | | | | | | |
| Stone Grey | • | • | | | | | • | | | |
| Tan | • | • | | | | | • | | | |
| Tile Red | | | | | | | | | | |
| White White | • | • | | | | | • | | | |
| Silver 7500 | | | | | | | | | | |

Minimum Order Quantity: 500 pcs/bag
 NOTE: All non-stock colours are available on request; allow extra delivery time + added cost of courier service.
 Fasteners are With Washer unless noted n/w (no washer)

