

HOW TO READ THE LABEL

Fastener head type

- Washer head
- CSK head
- Cylindrical head
- HEX head

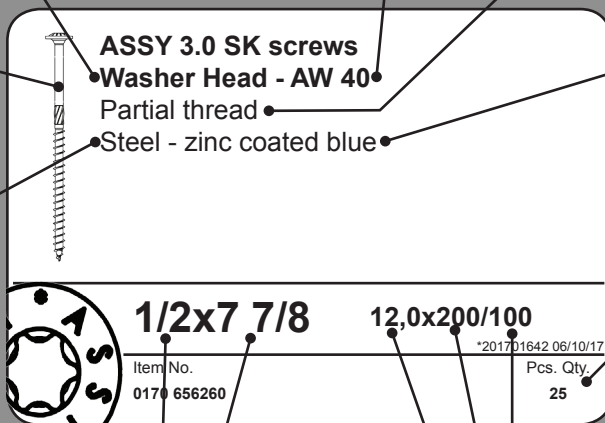
AW drive bit size

- AW 30
- AW 40
- AW 50

Fastener type

- Partial thread
- Full thread

Fastener rendering



Fastener coating

- Zinc coated yellow
- Zinc coated blue
- A2 (stainless steel)

Steel type

- Steel
- Stainless steel

Fastener quantity in the box

25

Imperial Unit (in.)

Nominal diameter: 1/2

Fastener length: 7 7/8

Metric Unit (mm)

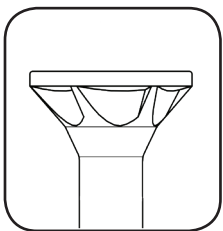
Thread length: 12,0

Fastener length: 200/100

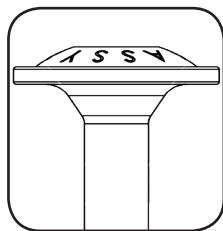
Nominal diameter: 12,0

Conversion between metric and imperial units: 25.4 mm = 1 inch

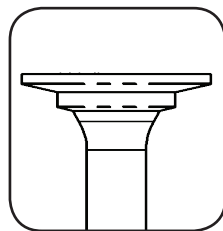
ASSY® HEAD SHAPES



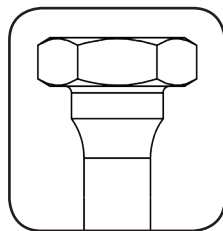
Countersunk
[CSK]



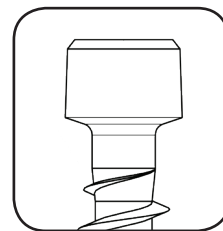
Washer
[SK]



Flat washer
[FWH]



HEX
[Kombi]



Cylindrical
[CYL]



Reverse head
[RH]

INSTALLATION INSTRUCTIONS

- 1 Pilot hole (if required) must be aligned with fastener path**
When a pilot hole is required, it must be drilled along the desired path of the fastener to ensure precise installation.
- 2 Do not use a hammer to engage the fastener with the wood.**
Hitting the fastener with a hammer may result in damage to the fastener steel and the anti-corrosion surface coating.
- 3 The drill axis must be aligned with the screw axis**
To avoid stripping the housing of the bit and to ensure proper torque transmission, the AW[®] drive bit must be parallel to the fastener axis during installation.
- 4 Use appropriate AW[®] bits for installation of all fasteners**
To avoid stripping the housing of the bit and to ensure proper torque transmission, the appropriate AW[®] drive bit must be used to install self-tapping screws.
- 5 Do not apply excessive pressure on the drill**
Avoid applying too much pressure on the drill once the fastener is engaged with the wood, as long slender fasteners may buckle slightly, causing deviation from the intended path of installation.
- 6 Fastener must be installed in a one step process**
Do not stop the drill during the installation of a fastener. self-tapping screws must be installed in one continuous run (applicable to full thread screws).
- 7 It is not suggested to use impact drills for screw installation**
Avoid the use of impact drills as these can weaken the fasteners. Low rpm. and high torque drills are recommended for installation.
- 8 Slow down rotation speed of drill prior to complete installation**
In order to avoid over-torque or sudden torque increase, slow down the rotation speed of the drill once the fastener is about 1 inch [25mm] away from its final intended location.



! WARNING !

Using a stainless steel screw where a carbon steel fastener is intended can lead to reduced connection capacities! Stainless steel is weaker than regular structural steel, therefore they must not be interchanged freely without permission of a qualified design professional.

APPLICATION INSTRUCTIONS

- 1 Carbon steel structural wood screws shall only be used in dry service conditions**
Special care should be given to avoid water contact with the connection. In addition, the use of fully threaded fasteners in green wood shall be avoided.
- 2 For installation close to the edge, a pilot hole may be used**
In order to avoid splitting and to ensure precise fastener path, a pilot hole is recommended when installing a fastener close to the edge of a wood member.
- 3 For installation close to the edge, the fastener may be angled slightly inward**
In order to prevent the fastener from penetrating out of the side of a beam due to deviation during installation, the fastener may be angled inward.
- 4 If wood splitting is observed, stop the installation**
If splitting is observed during installation or prior to installation of the fastener a design professional must be contacted immediately and appropriate measures must be taken. In case of fastener breakage or any kind of damage occurring to a fastener the designer must be notified.

TOOL AND DRILLING RECOMMENDATIONS

- 1 Drill size**
Self-tapping fasteners require drills with low RPM and high torque capacities.
- 2 Drill type**
To avoid injuries related to sudden torque increase, a drill with a torque clutch is suggested. The use of an impact drill must be avoided. For larger diameter fasteners the use of a D-handle drill is suggested.
- 3 Max install torque**
Drill torque must be limited according to the fastener diameter.

Diameter		Drill size
in.	[mm]	in.
1/4	[6]	1/2
5/16	[8]	
3/8	[10]	3/4
1/2	[12]	

Diameter		Torque	
in.	[mm]	lbs-ft	[N·m]
1/4	[6]	5.9	[8.0]
5/16	[8]	13.6	[18.4]
3/8	[10]	26.6	[36.0]
1/2	[12]	PT	38.4 [52.0]
		FT	44.2 [60.0]

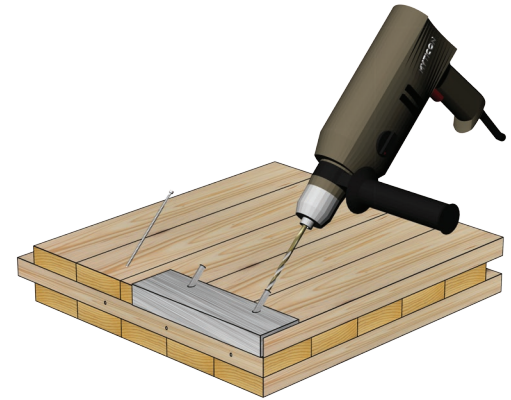
- Notes:
1. Not applicable for stainless steel screw
 2. PT stands for partially threaded screw
 3. FT stands for fully threaded screw

PRE-DRILLING INSTRUCTIONS

If pre-drilling is required, the hole diameter must not exceed the appropriate size specified in Table G3. Pre-drilling may be required in unusually dry wood or for aged timbers, as well as applications where the fastener is driven close to the edge of the member.

Table G3, Pre-drilling hole diameter

Screw Diameter (D)	Softwood	Hardwood	Steel Plate
in. [mm]	in. [mm]	in. [mm]	in. [mm]
1/4 [6]	5/32 [4]	5/32 [4]	9/32 [7]
5/16 [8]	3/16 [5]	15/64 [6]	23/64 [9]
3/8 [10]	15/64 [6]	17/64 [7]	7/16 [11]
1/2 [12]	17/64 [7]	5/16 [8]	33/64 [13]



Notes:

1. Consult a structural engineer before pre-drilling.
2. Pre-drilling with oversized holes may reduce the capacity of screws.
3. Pre-drilling recommendations only applicable to SWG ASSY fasteners.
4. "D" is the nominal diameter of the fastener

PILOT HOLE INSTRUCTIONS

A pilot hole may be required to facilitate the installation of long, self-tapping screws as well as screws installed at an angle to the wood surface. A pilot hole may also be required when screws are installed near the edge of wood members, and for end grain applications. Some minimum recommended pilot hole lengths are specified in table G4.

Table G4, Pilot Hole Length Recommendation

Pilot Hole Length Recommendation

% of the fastener length

Wood Fiber Type	Fastener Type	Fastener Nominal Diameter							
		1/4" [6 mm]	5/16" [8 mm]			3/8" [10 mm]			1/2" [12 mm]
		N/A	Fastener Length		Fastener Length			Fastener Length	
		≥ 13-3/8" [≥ 340 mm]	≥ 19" [≥ 480 mm]	≥ 20-1/2" [≥ 520 mm]	≥ 13-3/8" [≥ 340 mm]	≥ 19" [≥ 480 mm]	≥ 20-1/2" [≥ 520 mm]	≥ 15" [≥ 380 mm]	
Low density species	Partially Threaded	-	-	-	-	-	-	-	-
	Fully Threaded	-	-	-	-	-	-	-	-
High density species	Partially Threaded	-	-	-	-	-	-	-	-
	Fully Threaded	-	-	15%	15%	-	15%	15%	25%
Old growth and aged wood	Partially Threaded	-	-	-	-	-	-	-	20%
	Fully Threaded	-	20%	25%	25%	20%	25%	25%	30%
Engineered wood product	Partially Threaded	-	-	-	50%	-	-	50%	50%
	Fully Threaded	-	25%	25%	50%	30%	30%	50%	50%

Notes:

1. Consult a qualified design professional before pre-drilling or drilling a pilot hole.
2. Other pilot hole requirements may apply depending on site conditions.
3. An oversized pilot hole may reduce the capacity of the fasteners.