

# SDWC — Truss Screw

**Material:** Carbon Steel

**Finish:** E-Coat™  
SDWC15600 (with Orange Topcoat)



**Size:** See illustration on the right.

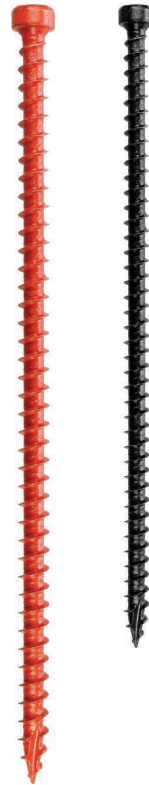
**Features & Benefits**

- Cap Head countersinks fully into the double top plate to avoid interference with plasterboard or finish trades
- Orange colour for easy inspection of 152 mm screws
- Fully-threaded shank engages the entire length of the fastener, providing a secure connection between the roof and wall framing members
- Type-17 Point for faster starts and easier driving
- Wide tolerance on installation angle makes it easy to install the SDWC correctly — Installation guide included to help ensure proper installation angle
- Can be installed from inside the structure, eliminating exterior work on the upper stories and enhancing job safety
- Fastening can be performed before or after exterior sheathing is applied for added flexibility

**Application**

- Truss/Rafter-to-Top Plate connection
- Stud-to-Top and Bottom Plate connection

**Construction Details**



**6-lobe, T-30 drive** reduces cam out, enabling easier driving



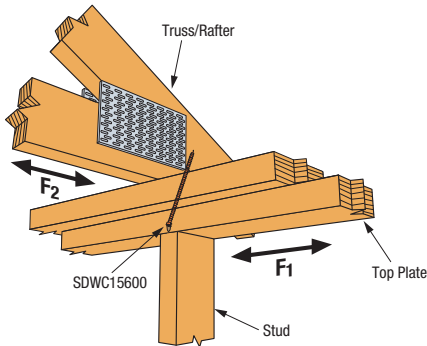
**Cap Head** countersinks fully into the double top plate to avoid interference with plasterboard



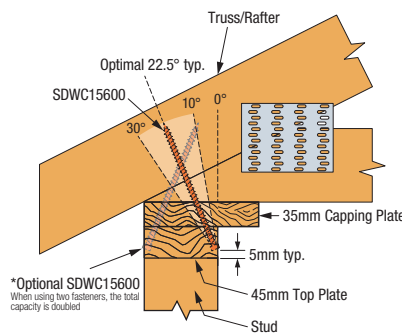
**Type-17 Point** for faster starts and easier driving



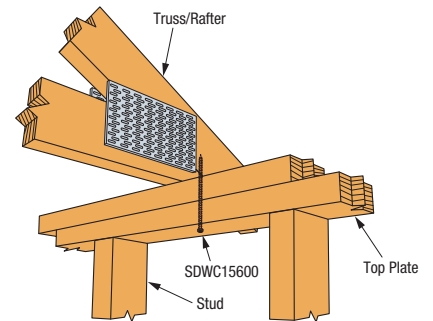
**Installation Guide** (included) to help ensure proper installation angle



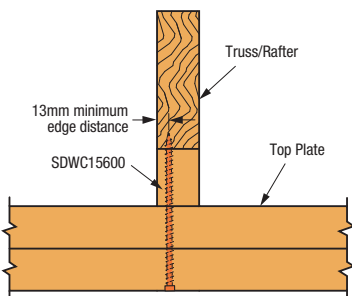
**SDWC Truss/Rafter-to-Top Plate Installation (Truss aligned with stud)**



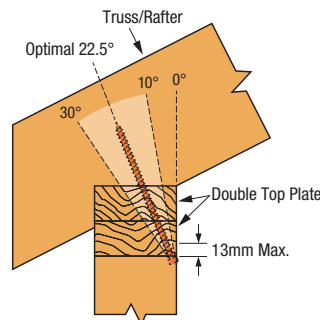
**SDWC Truss/Rafter-to-Top Plate Installation - Cross Section**



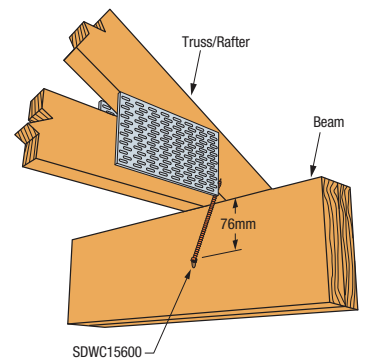
**SDWC Truss/Rafter-to-Top Plate Installation (Truss offset from stud)**



**SDWC Truss/Rafter-to-Top Plate Installation - Cross Section**

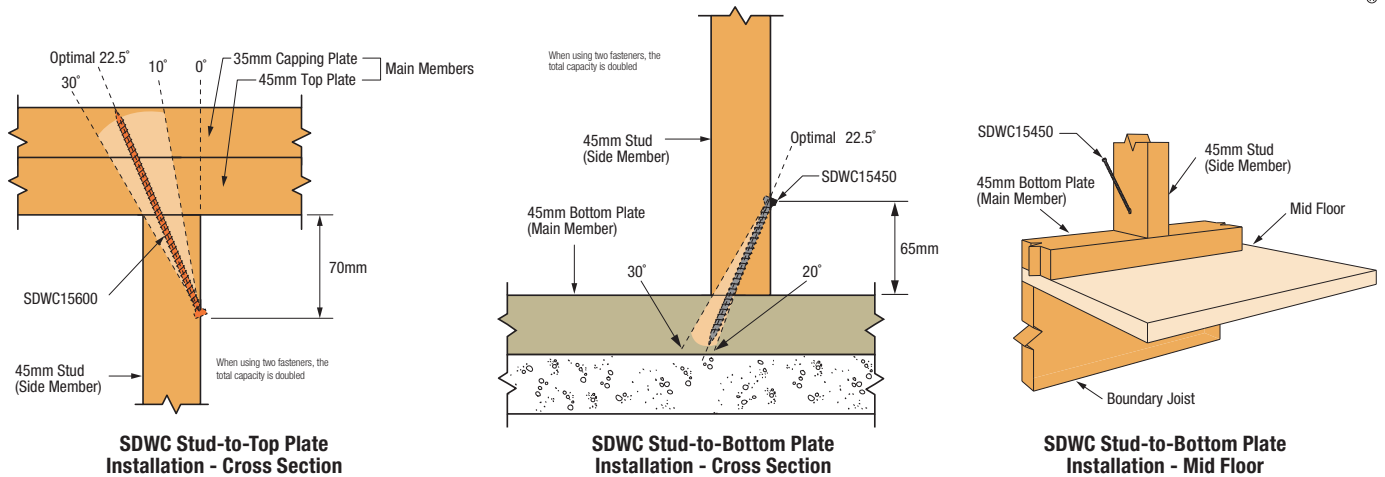


**SDWC Truss/Rafter-to-Top Plate (Double) Installation - Cross Section**



**SDWC Beam-to-Truss/Rafter Installation**

# SDWC – Truss Screw



## Strong-Drive SDWC TRUSS Screw Specifications

Model No.	Fastener Length (mm)	Thread Length (mm)	Diameter (mm)			Fastener Strength		
			Head	Major	Minor	Bending Yield Strength (MPa)	Tension (kN)	Shear (kN)
SDWC15450	114	108	8.31	5.97	3.86	1345	15.5	10.9
SDWC15600	152	146						

- For the purposes of measuring overall length, fasteners shall be measured from the top of the head to the end of the point. Length of thread includes the point.
- Bending yield strength is the 5%-offset value based on the minor diameter as determined following ASTM F1575.
- Tension and shear properties are average ultimate values. Shear strength is shear through the threads.

## Characteristic Single-Shear Lateral Design Values for the Strong-Drive SDWC Truss Screws

Model No.	Fastener Length (mm)	Thread Length (mm)	Side Member		Main Member		Lateral Characteristic Design Value, $Q_{kl}$ (N)			
			Min. Thickness (mm)	Grain	Min. Thickness (mm)	Grain	$Q_{kl}$ para		$Q_{kl}$ perp	
							JD4	JD5	JD4	JD5
SDWC15450	114	108	35	Face	35	End	—	—	2220	2220
			2 / 35	Face	35	Edge	4200	3500	5300	5100
SDWC15600	152	146	35	Face	35	End	—	—	2950	2650
			2 / 35	Face	35	End	—	—	4650	4150

- The Main Member is the part where the fastener tip is embedded; the Side Member is part adjacent to the head.
- Minimum penetration into the main member shall be 25mm.
- The main and side members shall be sawn timber or structural composite timber with the design density or equivalent design density typical of JD4 and JD5 grades.
- Screws shall be installed into the side grain of the wood side member with the screw axis at a 90-degree angle to the surface of the member.
- Para: Parallel-to-grain loading in the side member and perpendicular-to-grain loading in the main member.
- Perp: Perpendicular-to-grain loading in the side member and perpendicular-to-grain loading in the main member, except where the main member is loaded parallel-to-grain.

## Characteristic Withdrawal and Pull-Through for the Strong-Drive SDWC Truss Screws

Model No.	Thread Length (mm)	Thread Length (mm)	Main Member		Withdrawal Characteristic Design Value, $Q_{kw}$ (N/mm)		Pull-Through Characteristic Design Value, $Q_{kp}$ (N/mm)	
			Min. Thickness (mm)	Grain	JD4	JD5	JD4	JD5
SDWC15450	114	108	35	Edge	133	84	—	—
			35	End	78	50	96	82
SDWC15600	152	146	35	Face	110	75	108	97
			2 / 35	Face	118	102	131	105

- Withdrawal and pull-through characteristic values are in N/mm of thread penetration into the main member and side member, respectively.
- Face and edge installations are at 90 degrees to the grain and end installation is along the grain.
- Withdrawal and Pull-through loads shall be checked against tension strength in design.

## Connection Geometry for Strong-Drive SDWC Truss Screws

Condition	Minimum Distance or Spacing (mm)	
	SDWC15450/SDWC15600	
Edge Distance	Load in any direction	13
	Load along grain toward end	50
End Distance	Load along grain way from end	50
	Loading across grain (including withdrawal loads)	25
Spacing Between Fasteners in a Row	Loaded parallel grain	90
	Loaded perpendicular to the grain	60

- Edge distances, end distances, and spacing of screws shall be sufficient to prevent splitting of the timber or as required in this table, or when applicable, as recommended by the engineered timber manufacturer, whichever is more restrictive.
- Edge and end distances based on Evaluation Report 262.