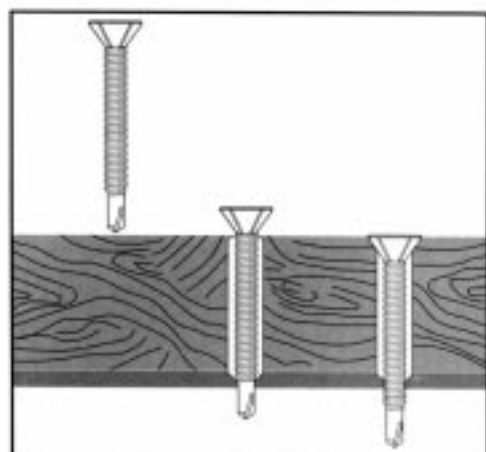


GENERAL CONSTRUCTION



TIMBER-FIX®

For timber to steel applications

Teks® self-drilling screws to fasten timber, plywood, chipboard and similar materials to steel.

PRODUCT INFORMATION

Timber-fix Wing Tek screws fasten timber, plywood, chipboard and similar materials to metal. The 'Wings' ream a clearance hole in the wood to prevent thread engagement and jacking. The Tek's point drills the steel then, on contact with the steel, the wings break off enabling the threads to engage and the fastener to clamp the wood firmly to the steel.

APPLICATIONS

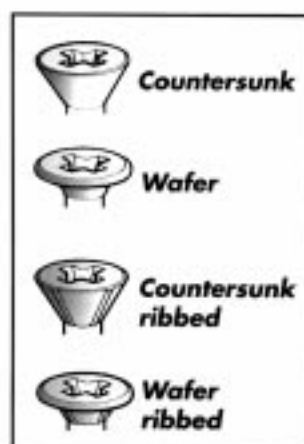
- Timber battens to steel
- Plywood fascia to steel
- Mezzanine flooring to steel
- Timber to steel general construction applications
- 50 x 100mm timber headers to steel
- Timber furrings to steel
- Plywood roof and floor sheet to steel

PRODUCT FEATURES

- Special winged version of Timber-fix screws ream a clearance hole in timber, preventing thread engagement and jacking.
- Tek's self-drilling point for consistent high speed drilling performance in construction grade hot or cold rolled steel.
- Wings break off on contact with steel, Timber-fix screw self taps into steel and countersinks into timber, generating a high clamping action.
- Available in lengths 25 - 120mm and in a range of diameters 4.2 to 5.5mm with Phillips P2 or P3 drive to suit timber to steel general construction applications.

FEATURES AND BENEFITS

- **Teks self-drilling point and wings combination** - eliminates the need to pre-drill a clearance hole in the timber or a tapping hole in the steel and eliminates hole alignment problems saving time and producing a low in-place cost.
- **Countersunk and wafer head styles** - to suit wood or plywood applications combining the need for a flush finish with firm clamping action and high mechanical performance.
- **High quality medium carbon cold forming steel, heat treated** - to give optimum qualities of drilling efficiency and mechanical strength.
- **Range of lengths** - to fasten up to 100mm thickness timber to steel.
- **Range of applications** - self-drills from 0.5 up to 12.5mm steel thickness
- **Plated finish** - provides high corrosion resistance



TIMBER-FIX® - TIMBER TO STEEL APPLICATIONS
SELECTOR GUIDE
TIMBER-FIX® TEKS SCREWS

To fasten to steel 1.5 - 3mm thickness.

Code No	Timber Thickness	Size & Description	Head Style
TFC25	6 - 10	4.2 x 25 Tek 3	P2 C/sunk ribbed
TFC36	6 - 20	4.8 x 36 Tek 3	P2 Wafer
TFC38	6 - 22	4.2 x 38 Tek 3	P2 C/sunk ribbed
TFC45	10 - 27	4.8 x 45 Tek 3	P2 C/sunk ribbed
TFC50	13 - 30	5.5 x 50 Tek 3	P3 C/sunk ribbed
TFC61	13 - 40	5.5 x 61 Tek 3	P3 C/sunk ribbed
TFC80	25 - 60	5.5 x 80 Tek 3	P3 Wafer ribbed
TFC100	45 - 80	5.5 x 100 Tek 3	P3 Wafer ribbed
TFC120	40 - 100	5.5 x 120 Tek 3	P3 Wafer ribbed

To fasten to steel 2.0 - 6.0mm thickness.

Code No	Steel Thickness	Timber Thickness	Size & Description	Head Style
TFM48	2.0 - 6.0	13 - 28	5.5 x 48 Tek 4	P3 Wafer
TFM63	2.0 - 6.0	20 - 42	5.5 x 63 Tek 4	P3 C/sunk

To fasten to steel 4.0 - 12.5mm thickness.

Code No	Timber Thickness	Size & Description	Head Style
TFL42	10 - 13	5.5 x 42 Tek 5	P3 C/sunk
TFL65	10 - 28	5.5 x 65 Tek 5	P3 C/sunk
TFL80	10 - 42	5.5 x 80 Tek 5	P3 C/sunk
TFL90	35 - 55	5.5 x 90 Tek 5	P3 Wafer
TFL100	45 - 65	5.5 x 100 Tek 5	P3 Wafer
TFL118	50 - 80	5.5 x 118 Tek 5	P3 Wafer

To fasten timber battens to structural steel tray - up to 2 x 0.75mm thickness steel sheets. 'GX' Tek mini point and special thread form combination. No 'wings'.

Code No	Timber Thickness	Size & Description	Head Style
TFT47	19 - 27	5.0 x 47 Gx Tek	P3 C/sunk ribbed
TFT70	25 - 50	5.0 x 70 Gx Tek	P3 C/sunk ribbed

To fasten timber battens to steel decking 0.5 - 1.2mm thickness. No 'wings'.

Code No	Timber Thickness	Size & Description	Head Style
BF40	19 - 25	5.3 x 40 S Point	P2 C/sunk ribbed
RG57	13 - 42	5.5 x 57 'x' Point	P3 Oval
RG75	26 - 60	5.5 x 75 'x' Point	P3 Oval



TFC36



TFL65



TFT47

TIMBER-FIX® - TIMBER TO STEEL APPLICATIONS

PERFORMANCE DATA

Ultimate performance of Timber-fix screws

Screw Size		Shear Strength	Tensile Strength
No	mm	kN	kN
8	4.2	4.60	7.00
10	4.8	6.58	9.34
12 spaced thread	5.5	8.94	12.45
12 line thread	5.5	9.34	14.45

Timber-Fix screws may not be suitable for certain extra hard or resinous timbers. If in doubt contact BUILDEx customer service.

Pullout of batten fasteners (BF) from steel sheet

Screw type Steel thickness (mm)	PULLOUT kN			
No. 11 (5.3mm) "S" Point Hilo	0.5	0.7	0.9	1.2
No. 12 (5.5mm) "X" Point	1.02	1.46	1.64	2.53
No. 12 (5.5mm) "X" Point	1.10	1.57	1.98	2.90

Pullout - Thread pulling out of steel purlin or rail (Minimum figures of test programme) No. 12 (5.5mm) Screw Diameters

Screw Type	Teks/3				Teks/5	
Steel Purlin or steel thickness (mm)	1.6	2.0	2.5	3.0	5.0	6.0
Pullout kN	3.55	4.45	5.74	7.12	11.43	14.45

Pullover - The limiting factor of any Timber-fix connection is the pullover of the timber. Ultimate loading for No 12 (5.5mm) Screw Diameter

Head Style	Timber - construction grade BS5268 Strength class SC3 Hem - Fir. (Canada) GS used	
	Initial Movement	Ultimate failure
Water	2.7kN	5.6kN
C/Sunk Ribbed	2.6kN	4.5kN

● Material

High quality medium carbon cold forming steel, heat treated to give optimum qualities of drilling efficiency and mechanical strength.

● Mechanical Performance

With Timber-fix self-drilling screws a strong, positive mechanical fastening is assured every time. Test results show that the strength of Timber-fix screws far exceeds the requirements of most applications. Values shown are test results and should be taken as a guide for design purposes, applying usual safety factors.

Note: In the table 'Pullout - Thread pulling out of steel purlin or rail', where steel is thicker than 6mm, the limiting factor for fastener pullout is the tensile strength of the fastener used.

Steel Grades

Figures quoted for steel up to and including 3.0mm thickness are from steel yield tested at 374N/mm² and specified as grade Z35. Figures quoted for steel of 5.0mm and 6.0mm thickness are from steel specified as grade 43A. Variations to the figures quoted could occur with steel of different grades.

INSTALLATION GUIDELINES

- A standard screwgun with depth sensitive nosepiece should be used to install Timber-fix. For optimum performance a minimum of 430 watts with an RPM range of 0 - 2,000 is required (see overleaf).
- Adjust nose piece to properly seat the fastener head flush with the timber surface.
- Worn or damaged Phillips drive bits should be replaced.
- Overdriving may result in torsional failure or stripout in steel.
- Timber-fix screws must penetrate through the steel to expose at least 2 full threads.
- Timber-fix with wings must be driven into a minimum of 1.5mm steel thickness to allow wings to break consistently.

ADVISORY NOTES

- Timber-fix screws may not be suitable for certain hard or resinous timbers as this type of material may cause premature breaking of the wings and failure either due to jacking or drill flutes clogging. Also avoid fixing through "knots" in all timber types.
- Timber-fix screws are not recommended for use with timber having being treated with preservatives containing copper, mercury or other incompatible materials that may affect the performance.
- Timber-fix screws may not be suitable for some external applications where the product is exposed to repeated or excessive wetting, or where the application is subjected to repeated or extreme shock or vibratory loads. For fixing metal components to steel, see our 'General Components To Steel' section, in the current ITW Buildex Selector/Price Guide.

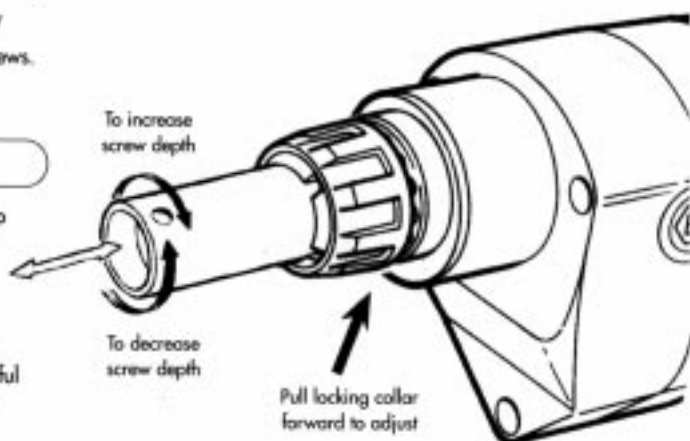
TIMBER-FIX® - TIMBER TO STEEL APPLICATIONS

BUILDEX SCREWDRIVER

The BUILDEX Screwdriver is purpose built for ITW Buildex for efficient driving of Teks self-drilling screws.

DRIVING TECHNIQUE

The screwdriver should be placed perpendicular to the timber. Apply pressure to engage clutch and maintain this pressure throughout the drilling and tapping operation. The drive will automatically disengage when the depth sensing nosepiece makes contact with the timber. The useful reverse switch allows for easy removal of screws.

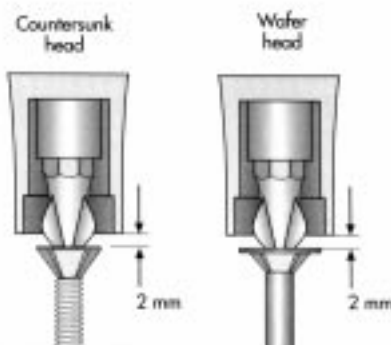


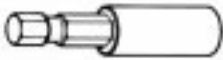



NOTE

With undervoltage and long cable, power output can be drastically reduced. For maximum efficiency use 25 amp extension cable.

SETTING INSTRUCTIONS

It is very important to initially set the clutch by adjusting the nosepiece as shown. Then trial drive a screw, preferably in a spare piece of material, to check your setting. Make final adjustment to ensure correct head depth into timber.



Code No	Description	
MBH50	Magnetic Bit Holder	
P2	Phillips No 2 Bit	
P3	Phillips No 3 Bit	
NP50P	Standard Nose piece	

WARNING

Use good site practice when installing Teks self-drilling screws. Wear safety goggles.



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All measurements are in millimetres unless otherwise stated