

SFS

Concealed fixing solution **TUF-S**



Secure and easy attachment
of HPL or fibre cement panels

Concealed solution and quick to install **TUF-S**



50% less installation time

The TUF-S blind fastener from SFS is superior to previous approaches to the attachment of HPL or fibre cement cladding panels with regards to installation and long-term security.

Installation is performed quickly and securely by one person, without the use of special tools. Installation time is also reduced by up to 50% when compared to conventional blind attachments. The TUF-S blind fastener can be removed once if required.

Easy

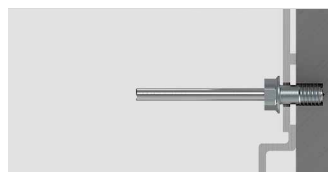
- No complex undercut hole required – simple standard hole sufficient
- No special tools to install required
- Holes can even be drilled on site
- Quick and easy installation with the battery riveting tool from GESIPA® (e.g. PowerBird® Pro)

Secure

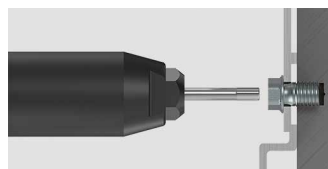
- No overtorquing of the TUF-S
- High pullout values with the installed thread
- No unwinding
- Removable possible via hex head
- Approved fastening system with the existing ETA assessment ETA-15/0476



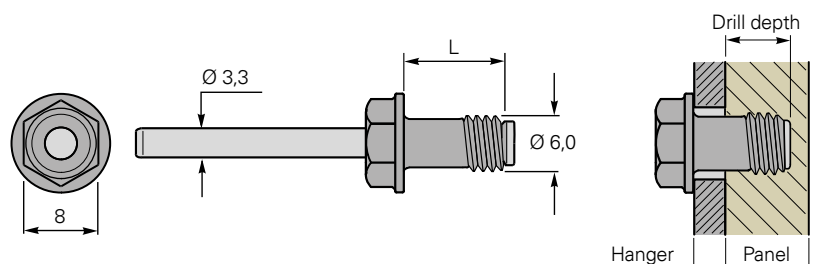
1. Pre-drill using a Ø 6 mm blind-hole drill with depth-stop – in HPL with HSS or in fibre cement panel with VHM



2. Position the pre-drilled hanger over the hole in the panel and push through the TUF-S blind fastener



3. Remove the mandrel using a GESIPA® battery riveting tool combined with nose piece 17/36 or 17/40



Scan and watch video!

Designed for use with HPL or fibre cement panels



Optimum security

In addition to an easy and timesaving installation, the TUF-S is a secure solution. The fastener cannot be overdriven during installation. Due to its radial expansion when the mandrel is removed, the partially cut thread becomes wedged in the panel material, generating very high pullout values.

Spontaneous slackening due to expansion or vibration is not possible. The sleeve is made of austenitic stainless steel (material DIN 1.4401, grade A4).

Calculation:

TUF-S Drill depth + Hanger = TUF-S Length

Example:

5.5 Drill depth + 3.5 Hanger = **9.0 mm** = TUF-S-6x**9**-A4
 6.0 Drill depth + 2.2 Hanger = **8.2 mm*** = TUF-S-6x**8**-A4
 6.0 Drill depth + 2.4 Hanger = **8.4 mm*** = TUF-S-6x**8**-A4
 6.0 Drill depth + 2.5 Hanger = **8.5 mm** = TUF-S-6x**8,5**-A4

* round down the TUF-S length to the nearest length available

	Panel thickness [mm]	Hanger [mm]	Drill depth [mm]	Drill bit
TUF-S-6x7-A4	8.0-12.0	2.0	5.0	VHM-6,0x40
TUF-S-6x7,5-A4	8.0-12.0	2.0	5.5	VHM-6,0x40,5
		2.5	5.0	VHM-6,0x40
TUF-S-6x8-A4	8.0-12.0	2.0	6.0	VHM-6,0x41
		2.5	5.5	VHM-6,0x40,5
		3.0	5.0	VHM-6,0x40
TUF-S-6x8,5-A4	10.0-12.0	2.0	6.5	VHM-6,0x40,5
	8.0-12.0	2.5	6.0	VHM-6,0x41
		3.0	5.5	VHM-6,0x40,5
		3.5	5.0	VHM-6,0x40
TUF-S-6x9-A4	10.0-12.0	2.0	7.0	VHM-6,0x42
		2.5	6.5	VHM-6,0x41,5
	8.0-12.0	3.0	6.0	VHM-6,0x41
		3.5	5.5	VHM-6,0x40,5
TUF-S-6x10-A4	10.0-12.0	2.0	8.0	VHM-6,0x43
		2.5	7.5	VHM-6,0x42,5
		3.0	7.0	VHM-6,0x42
		3.5	6.5	VHM-6,0x41,5
	8.0-12.0	5.0	5.0	VHM-6,0x40
TUF-S-6x11-A4	12.0	2.5	8.5	VHM-6,0x43,5
	10.0-12.0	3.0	8.0	VHM-6,0x43
		3.5	7.5	VHM-6,0x42,5
	8.0-12.0	5.0	6.0	VHM-6,0x41
TUF-S-6x12-A4	12	3.5	8.5	VHM-6,0x43,5
	10.0-12.0	5.0	7.0	VHM-6,0x42
TUF-S-6x13-A4	10.0-12.0	5.0	8.0	VHM-6,0x43



Depth locator universal with Ø 6mm VHM drill bit



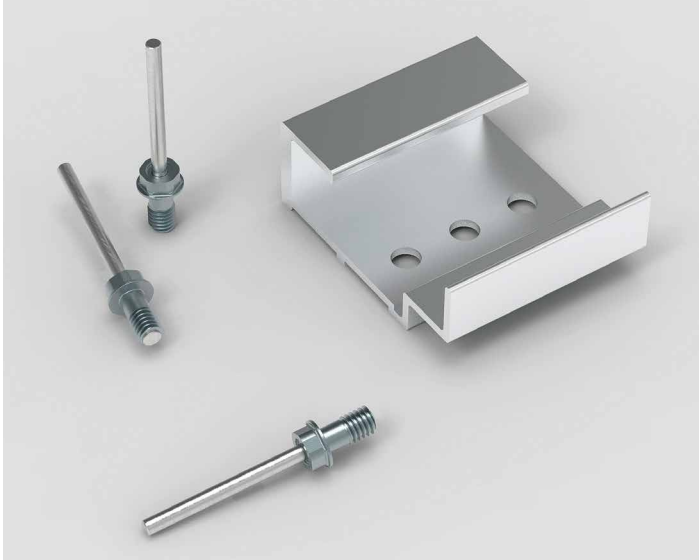
Screw gun



GESIPA® battery riveting tool

Use the drill bits with the SFS depth locator universal

Adjusted NV3 hanger for TUF-S



Complementary concealed fixing solutions for rainscreen panels



TU-S for **HPL** panels



TUC-S for fibre **concrete** panels