TUF-S installation instruction

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➡ The use of the Nvelope TUF-S hanger is recommended

  ■ hole diameter in hanger ➔ 6,5mm – 7mm

  ■ use of the two outer holes for the setting in fiber cement panels ➔ distance 30mm
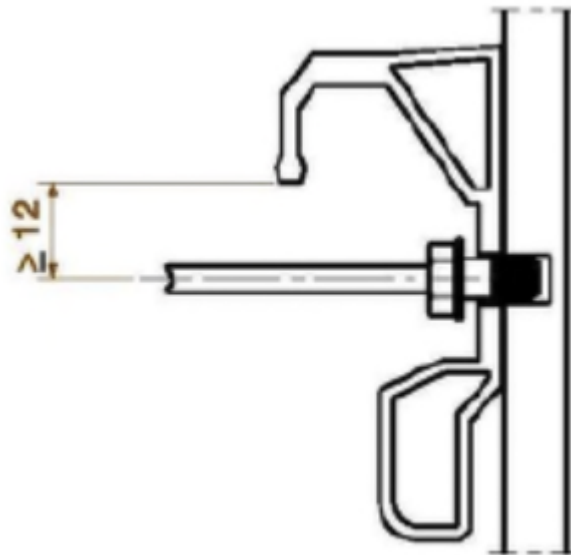
  ■ center hole for HPL

NVELOPE
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TUF-S Fastening System

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➡ If another hanger is used, distance from hanger edge to hanger hole needs to be at least 12mm (necessary space for the Geispa setting tool)

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➡ The use of a flat end drill bit is requested

  ▪ SFS offers such flat end drill bits

  ▪ Drill bit can be used for manual or CNC setting process

Drill hole geometry

ø6 -0,1 / 0

h_{nom} (8/10/12)

h_1 +0.5 / 0

(dimensions in mm, without scale)
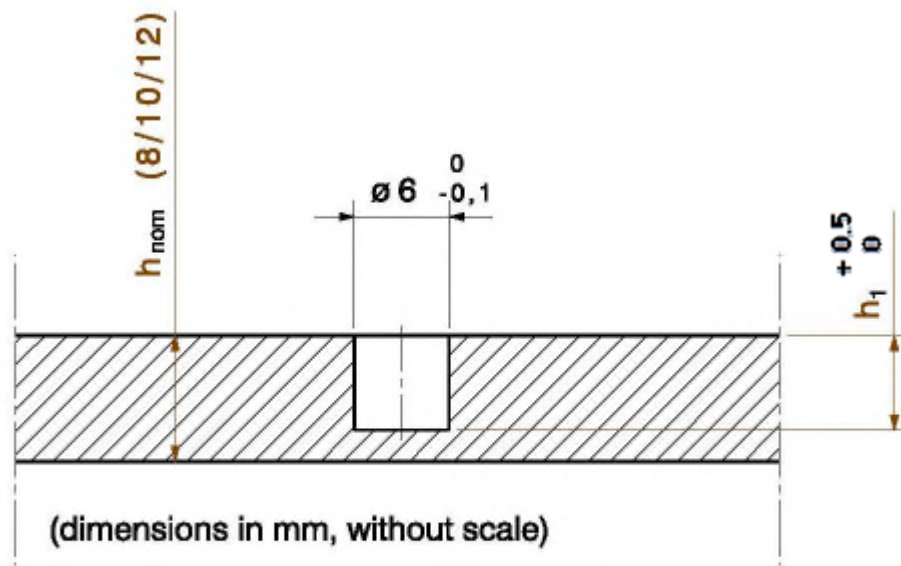
h_{nom}	8 / 10 / 12			10 / 12			
h_1	5	5.5	6	6.5	7	7.5	8
h_s	5	5.5	6	6.5	7	7.5	8

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Depth locator

Drill bit

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Drill bit overview

→ Depth locator and drill bit for manual setting process

→ VHM can be used with CNC machines

Drills and depth locator for TU product range

SAP description	Materialnummer	SAP base text	Drill depth
Depth locator for drill bit universal	1478567		
HSS-6,0X40	1481609	to use with 1478567 to create a hole for TU-S / TUF-S	5mm
HSS-6,0X40,5	1514312	to use with 1478567 to create a hole for TU-S / TUF-S	5,5mm
HSS-6,0X41	1481601	to use with 1478567 to create a hole for TU-S / TUF-S	6mm
HSS-6,0X41,5	1514314	to use with 1478567 to create a hole for TU-S / TUF-S	6,5mm
HSS-6,0X42	1481588	to use with 1478567 to create a hole for TU-S / TUF-S	7mm
HSS-6,0X42,5	1514315	to use with 1478567 to create a hole for TU-S / TUF-S	7,5mm
HSS-6,0X43	1478593	to use with 1478567 to create a hole for TU-S / TUF-S	8mm
HSS-6,0X43,5	1514316	to use with 1478567 to create a hole for TU-S / TUF-S	8,5mm
VHM-6,0X45	1479984	to use with 1478567 to create a hole for TUF-S	10mm

Drill bit

Depth locator

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Setup of drill operation

➡ Panel must lie on a hard material to prevent break trough thinner panel materials
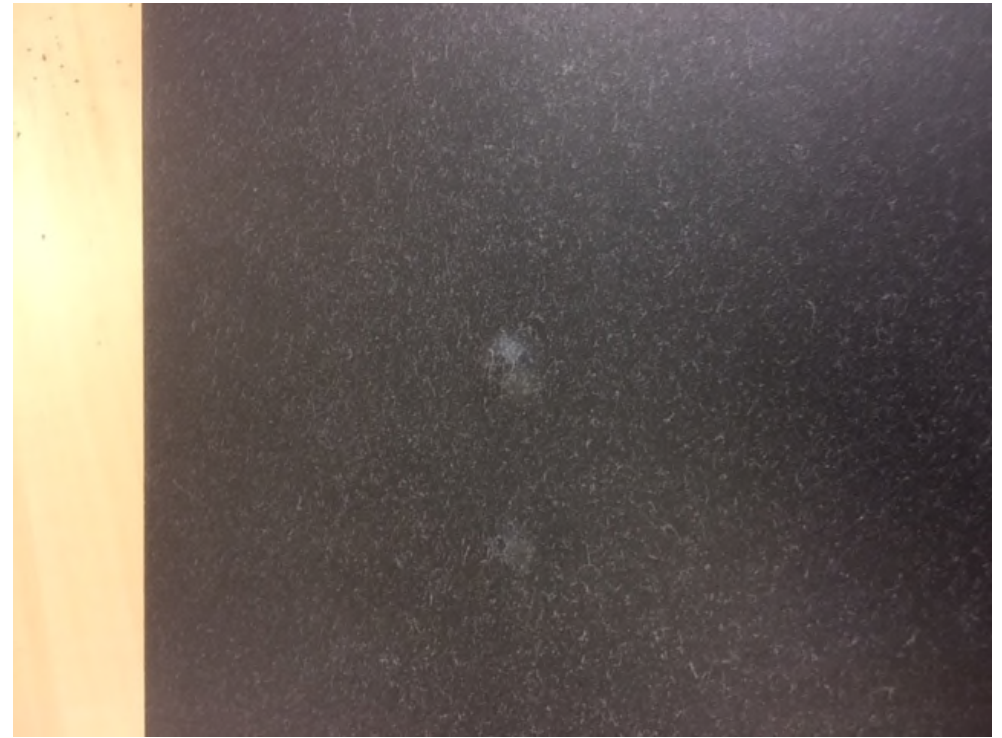
➡ Maximum drill depth into 8mm fiber cement panels = 5,5mm

➡ Creation of hole depth via CNC machines always in the middle of the tolerance (0/+0,5) → for instance 5,75mm for a nominal 5,5mm hole

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Hanger thickness + panel hole = TUF length

Concealed fixing solution matrix

Fixing product	Panel material and thickness	Bracket thickness	Hole depth in panel
TUF-S-6X7-A4	8mm HPL	2mm	5mm
	8mm Fiber cement	2,5mm	4,5mm
TUF-S-6X7,5-A4	8mm HPL 8mm Fiber cement	2mm	5,5mm
TUF-S-6X8-A4	8mm HPL	2mm	6mm
	8mm Fiber cement	3mm	5mm
TUF-S-6X8,5-A4	8mm HPL 8mm Fiber cement	3mm	5,5mm
TUF-S-6X9-A4	8mm HPL 8mm Fiber cement	2,5mm	6,5mm
		3mm	6mm
		3,5mm	5,5mm
		4mm	5mm
	10mm	2mm	7mm
		2,5mm	6,5mm
TUF-S-6X10-A4	10mm / 12mm	2mm	8mm
		2,5mm	7,5mm
		3mm	7mm
		3,5mm	6,5mm
		4mm	6mm
TUF-S-6X11-A4	10mm	3mm	8mm
		4mm	7mm
	12mm	2mm	9mm
		2,5mm	8,5mm
		3mm	8mm
		4mm	7mm
TUF-S-6X12-A4	10mm	4mm	8mm
	12mm	2mm	10mm
		3mm	9mm
		4mm	8mm
TUF-S-6X13-A4	10mm	5mm	8mm
	12mm	3mm	10mm
		4mm	9mm

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Best installation with the PowerBird Pro Edition

For standard blind rivets 4,8 - 6,4mm all materials
(AP, ASO-D11, ASO-D14, SSO-D15, **TUF-S → use nose piece 17/36 or 17/40**)

- Weight: 2,0kg
- Battery: 18 Volt, Li-Ion 2,1Ah
- Stroke: **25mm**

Charging: 60min

Pulling strength: 15'000 N

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Slight pressure to set TUF

→ To install the hanger push the Gesipa PowerBird slightly towards the façade panel

→ With that step the TUF is as deep in the panel hole as possible

→ Panel must lie on a hard material during TUF installation to prevent break trough thinner panel materials

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