

Approval body for construction products  
and types of construction

Bautechnisches Prüfamt

An institution established by the Federal and  
Laender Governments



## European Technical Assessment

**ETA-08/0262**  
**of 17 October 2017**

English translation prepared by DIBt - Original version in German language

### General Part

Technical Assessment Body issuing the  
European Technical Assessment:

Deutsches Institut für Bautechnik

Trade name of the construction product

SFS intec Flat Roof Fasteners

Product family  
to which the construction product belongs

Fasteners for flexible roof waterproofing systems

Manufacturer

SFS intec AG  
FasteningSystems  
Rosenbergsastraße 10  
9435 HEERBRUGG  
SCHWEIZ

Manufacturing plant

Factory 1 to factory 15, factory 18 to factory 23

This European Technical Assessment  
contains

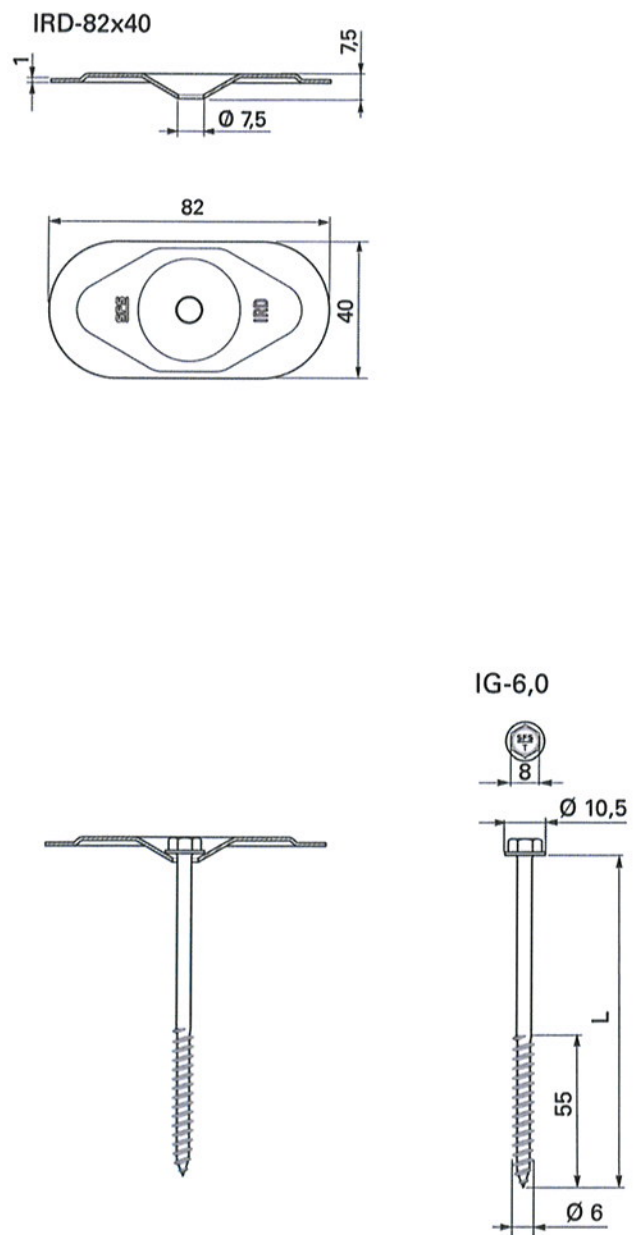
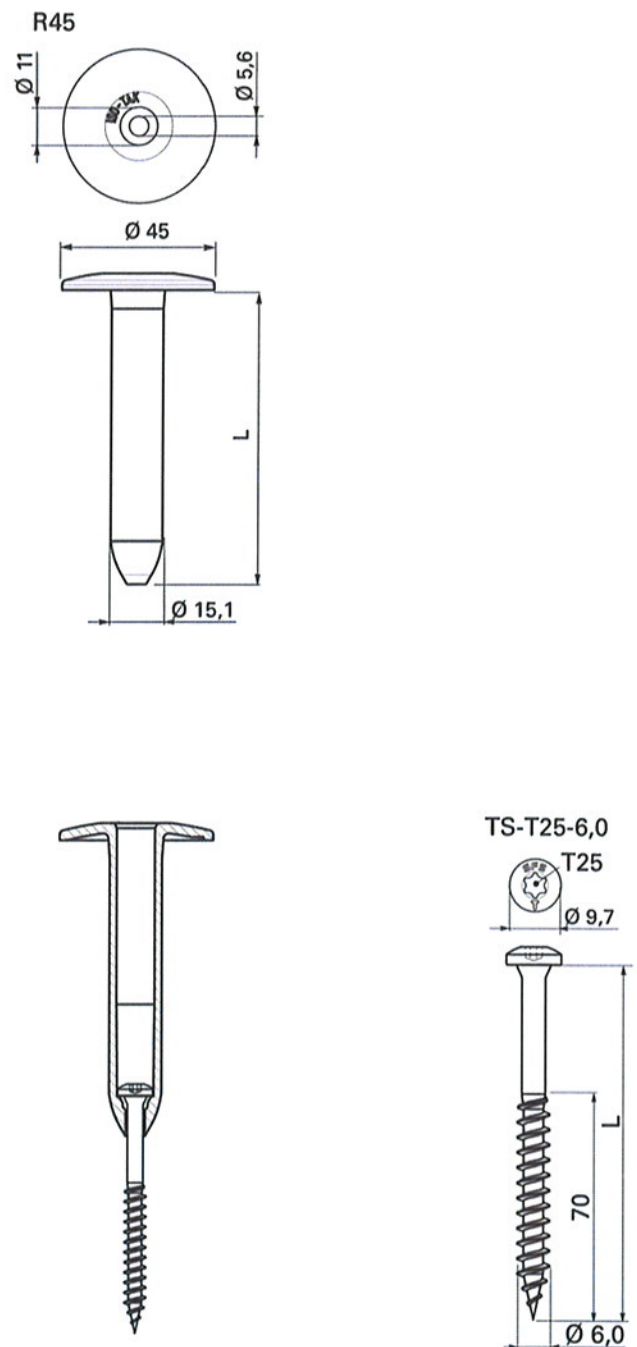
114 pages including 109 annexes which form an integral  
part of this assessment

This European Technical Assessment is  
issued in accordance with Regulation (EU)  
No 305/2011, on the basis of

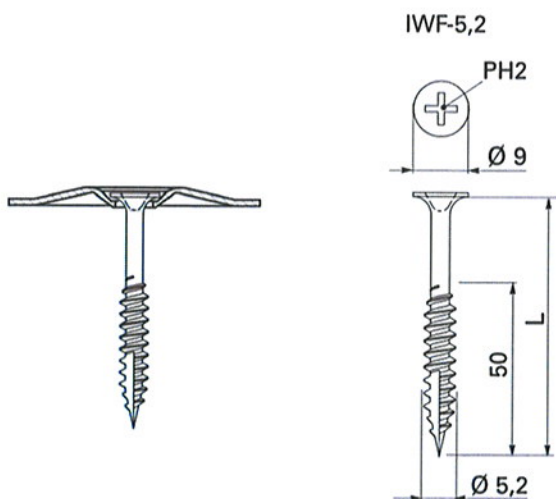
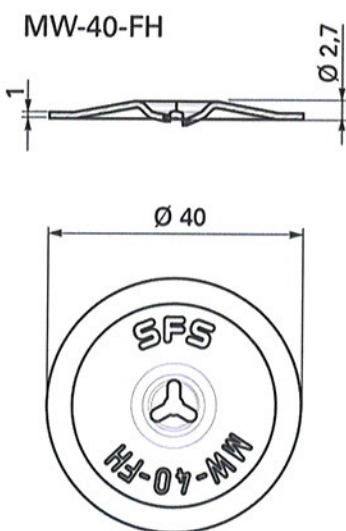
ETAG 006,  
used as EAD according to Article 66 Paragraph 3 of  
Regulation (EU) No 305/2011.

This version replaces

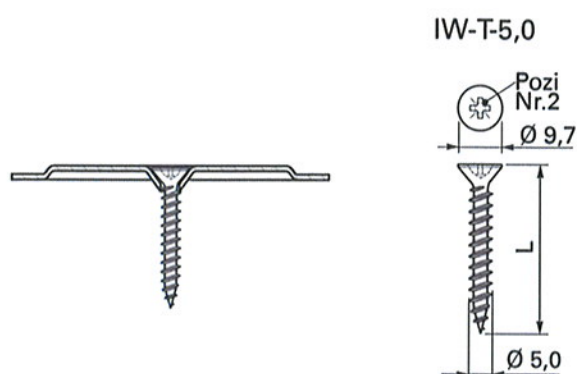
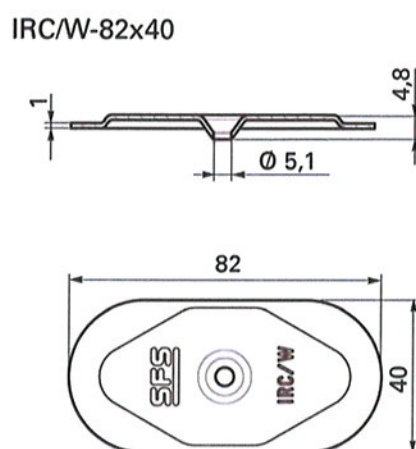
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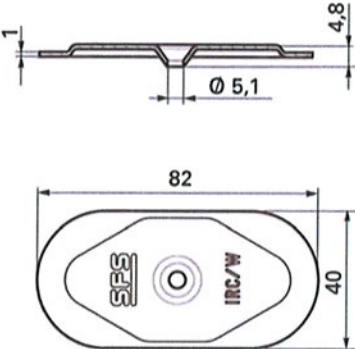
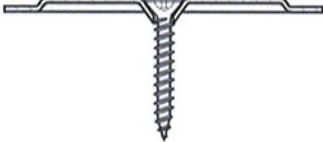
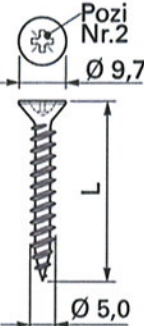
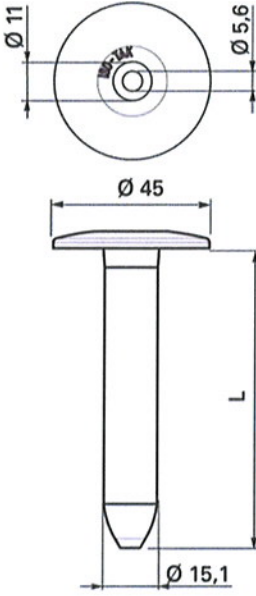
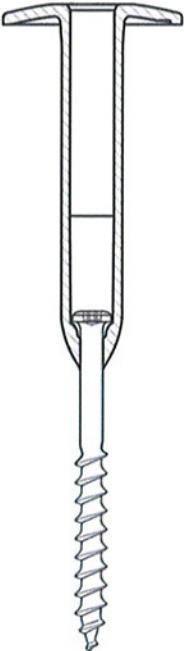
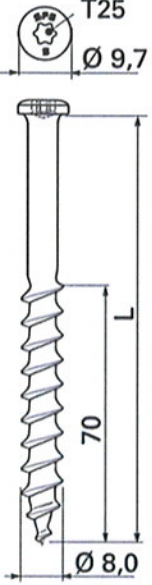
Combination 14A IG-6,0 / IRD-82x40	Combination 14B TS-T25-6,0 / R45
 <p>IRD-82x40</p> <p>IG-6,0</p>	 <p>R45</p> <p>TS-T25-6,0</p>
SFS intec flat roof fasteners	
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Combination 15A  
IWF-5,2 / MW-40-FH

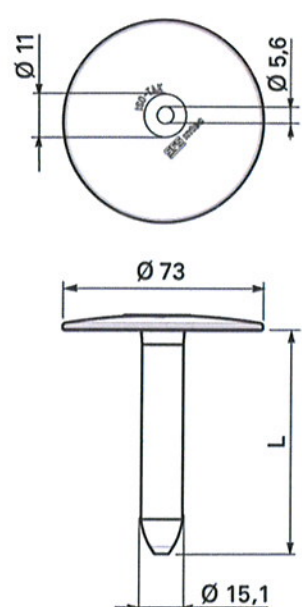
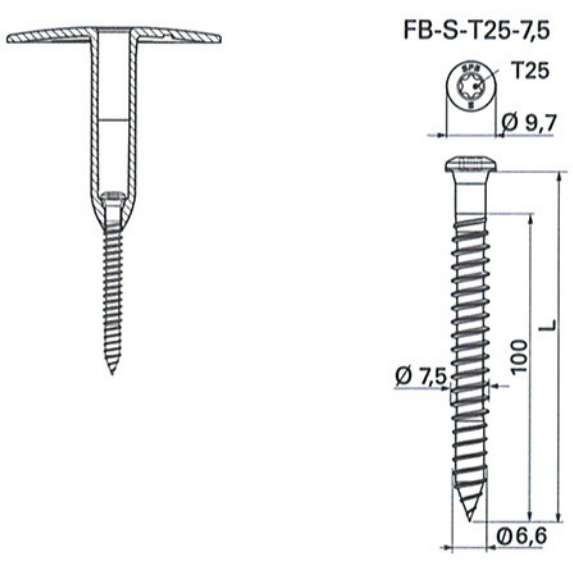
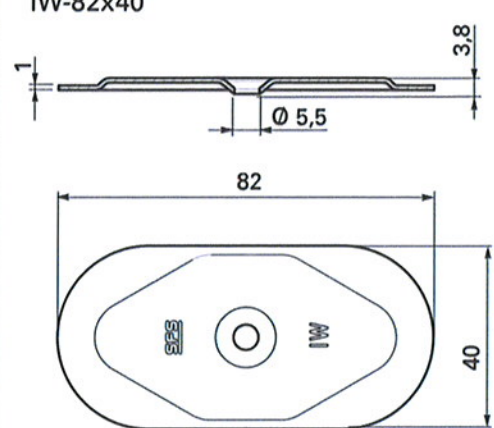
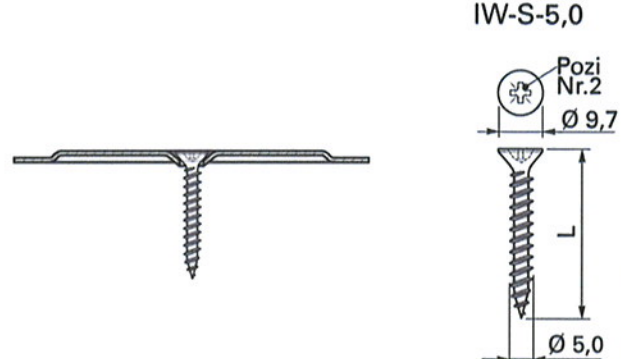


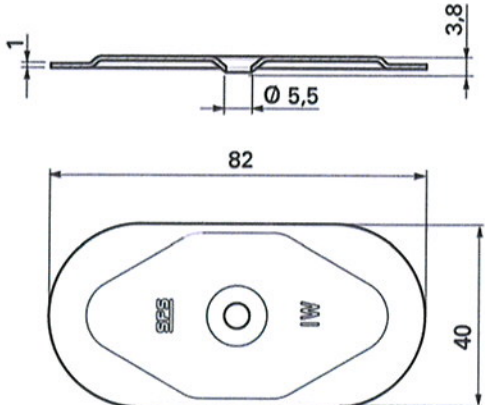

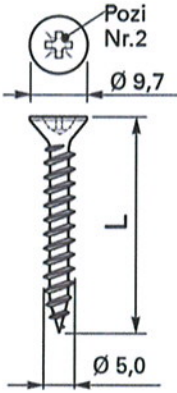
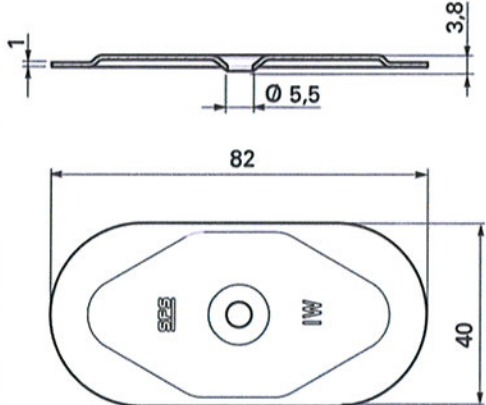
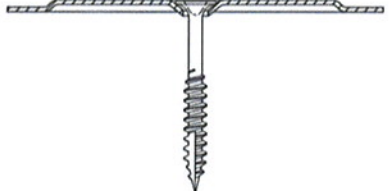
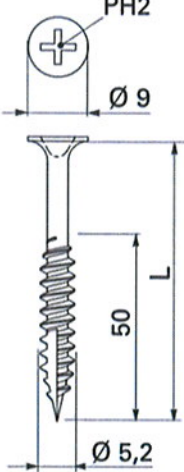
Combination 15B  
IW-T-5,0 / IRC/W-82x40

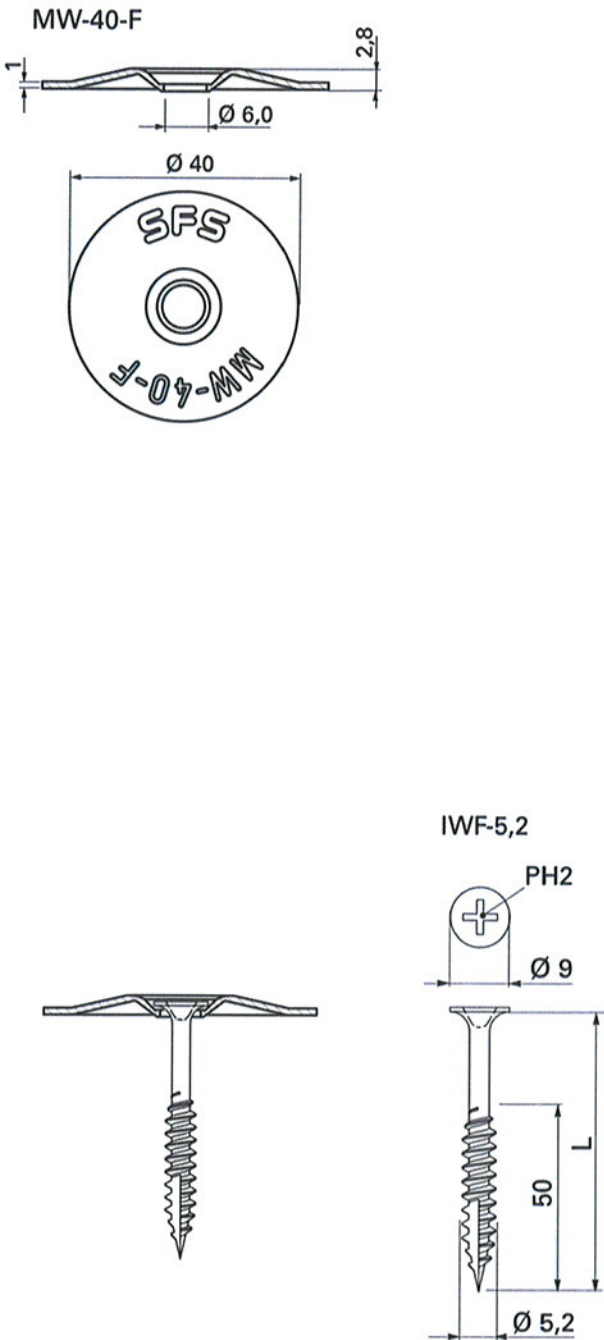
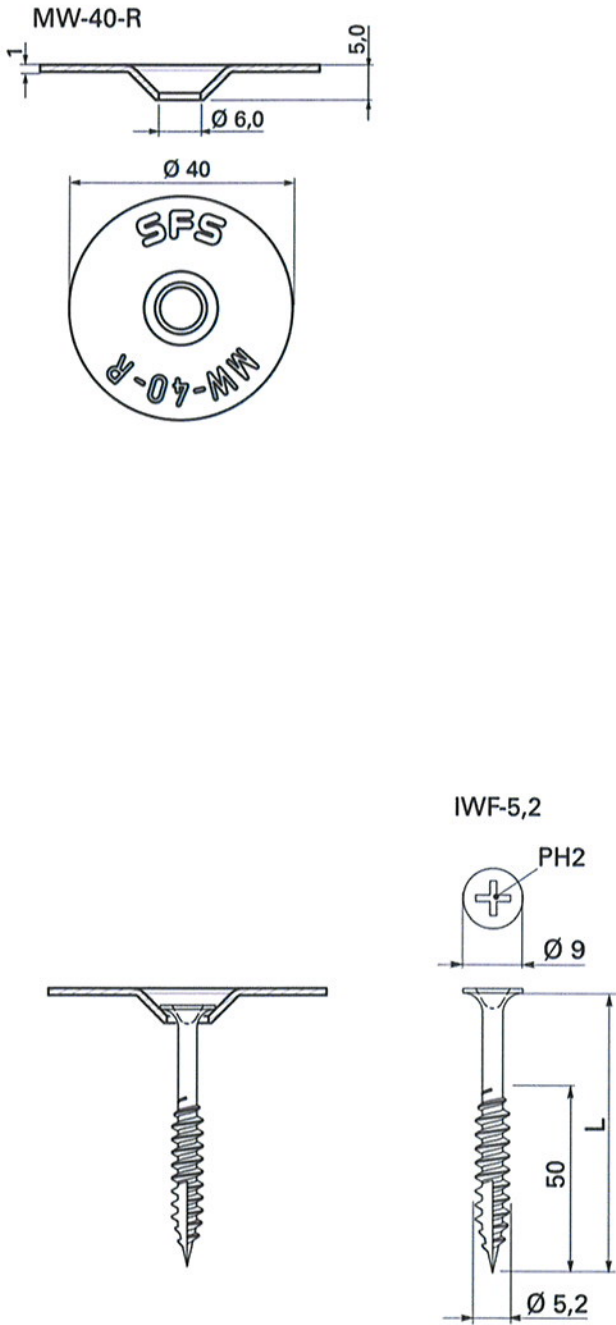


Combination 16A IW-S-5,0 / IRC/W-82x40	Combination 16B LBS-S-T25-8,0 / R45
<p data-bbox="124 450 272 479">IRC/W-82x40</p>  <p data-bbox="608 1223 727 1252">IW-S-5,0</p>  	<p data-bbox="863 443 911 472">R45</p>   <p data-bbox="1297 1379 1473 1408">LBS-S-T25-8,0</p> 
SFS intec flat roof fasteners	Annex 16



Combination 37A FB-S-T25-7,5 / R75	Combination 37B IW-S-5,0 / IW-82x40
<p><b>R75</b></p>  	<p><b>IW-82x40</b></p>  <p><b>IW-S-5,0</b></p> 
SFS intec flat roof fasteners	
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Combination 38A IW-T-5,0 / IW-82x40	Combination 38B IWF-5,2 / IW-82x40
<p data-bbox="143 515 263 548">IW-82x40</p>  <p data-bbox="598 1332 702 1366">IW-T-5,0</p>   <p data-bbox="638 1400 758 1456">Pozi Nr.2 Ø 9,7</p> <p data-bbox="702 1601 726 1635">L</p> <p data-bbox="694 1747 758 1780">Ø 5,0</p>	<p data-bbox="837 515 957 548">IW-82x40</p>  <p data-bbox="1300 1310 1404 1344">IWF-5,2</p>   <p data-bbox="1388 1366 1444 1400">PH2</p> <p data-bbox="1396 1456 1444 1489">Ø 9</p> <p data-bbox="1404 1668 1428 1702">50</p> <p data-bbox="1396 1814 1460 1848">Ø 5,2</p>
SFS intec flat roof fasteners	Annex 38

Combination 69A IWF-5,2 / MW-40-F	Combination 69B IWF-5,2 / MW-40-R
 <p>The drawing shows the MW-40-F fastener head with a cross-section and a top view. The cross-section shows a width of 28 mm and a central hole of Ø 6,0 mm. The top view shows a circular head with a diameter of Ø 40 mm, featuring the SFS logo and the text 'MW-40-F'. Below this, the IWF-5,2 fastener is shown in cross-section and side view. The side view indicates a head diameter of Ø 9 mm, a threaded length of 50 mm, and a total length L. The fastener has a PH2 drive and a diameter of Ø 5,2 mm at the base.</p>	 <p>The drawing shows the MW-40-R fastener head with a cross-section and a top view. The cross-section shows a width of 50 mm and a central hole of Ø 6,0 mm. The top view shows a circular head with a diameter of Ø 40 mm, featuring the SFS logo and the text 'MW-40-R'. Below this, the IWF-5,2 fastener is shown in cross-section and side view. The side view indicates a head diameter of Ø 9 mm, a threaded length of 50 mm, and a total length L. The fastener has a PH2 drive and a diameter of Ø 5,2 mm at the base.</p>
SFS intec flat roof fasteners	Annex 69



Combination	SFS intec flat roof fastener		Characteristic axial loading resistance $N_{R,k}$ [kN] for non-metallic substructures												
			Timber			Concrete EN 206-1				Aerated Concrete DIN 4223-1			Pumice Panel EN 1520		
			OSB3 EN 300 $t \geq 18 \text{ mm}^{1)}$	Structural Timber EN 338 / C24 $t \geq 22 \text{ mm}^{2)}$	Plywood EN 636 $t \geq 18 \text{ mm}^{3)}$	C12/15	C25/30	setting depth $\geq$ [mm]	pre-drill diameter [mm]	P 3.3	P 4.4	setting depth $\geq$ [mm]	LAC 6, D 1,0	setting depth $\geq$ [mm]	pre-drill diameter [mm]
	Fastener	Stress Plate / Sleeve / Bar													
1A	IR2-4,8	IR-82x40	1,45	1,32	2,18	-	-	-	-	-	-	-	-	-	-
1B	IR2-4,8	IF-70x70	1,45	1,32	2,18	-	-	-	-	-	-	-	-	-	-
2A	IR2-S-4,8	IR-82x40	1,28	1,74	1,94	-	-	-	-	-	-	-	-	-	-
3A	IR2-C-4,8	IRC/W-82x40	1,45	1,32	2,18	-	-	-	-	-	-	-	-	-	-
3B	BS-4,8	RP45	1,23	1,23	1,23	-	-	-	-	-	-	-	-	-	-
4A	BS-4,8	R45	1,38	1,32	1,38	-	-	-	-	-	-	-	-	-	-
4B	BS-4,8	R75	1,38	1,32	1,38	-	-	-	-	-	-	-	-	-	-
5A	BS-4,8	RP75	1,23	1,23	1,23	-	-	-	-	-	-	-	-	-	-
5B	BS-4,8	TPS	1,38	1,32	1,38	-	-	-	-	-	-	-	-	-	-
6A	BS-4,8	TPP	1,45	1,32	2,18	-	-	-	-	-	-	-	-	-	-
6B	BS-4,8	R48-3N	1,38	1,32	1,38	-	-	-	-	-	-	-	-	-	-
7A	BS-4,8	RP48-3N	1,16	1,16	1,16	-	-	-	-	-	-	-	-	-	-
7B	BS-4,8	SH-18/65 / Protan steelbar	1,03	1,03	1,03	-	-	-	-	-	-	-	-	-	-
8A	BS-S-4,8	RP45	1,23	1,23	1,23	-	-	-	-	-	-	-	-	-	-
8B	BS-S-4,8	TPP	1,28	1,74	1,96	-	-	-	-	-	-	-	-	-	-
9B	BS-6,1	R45	1,32	1,42	1,42	0,72	1,42	32	5,0	0,35	0,58	75			
14A	IG-6,0	IRD-82x40	1,31	1,43	2,49	-	-	-	-	-	-	-	-	-	-
14B	TS-T25-6,0	R45	1,31	1,42	1,42	0,44	0,89	32	5,0	1,07	1,42	75	-	-	-
						1,42	1,42	50							
15A	IWF-5,2	MW-40-FH	1,35	1,74	1,74	-	-	-	-	-	-	-	-	-	-
<sup>1)</sup> effective setting depth (penetration length of threaded part) $\geq 18 \text{ mm}$ <sup>2)</sup> effective setting depth (penetration length of threaded part) $\geq 22 \text{ mm}$ <sup>3)</sup> effective setting depth (penetration length of threaded part) $\geq 18 \text{ mm}$ ; minimum density = $400 \text{ kg/m}^3$															

SFS intec flat roof fasteners

Annex 100



SFS intec flat roof fasteners

Annex 101

Combination	SFS intec flat roof fastener		Characteristic axial loading resistance N <sub>Rk</sub> [kN] for non-metallic substructures												
			Timber			Concrete EN 206-1				Aerated Concrete DIN 4223-1			Pumice Panel EN 1520		
			OSB3 EN 300 t ≥ 18 mm <sup>1)</sup>	Structural Timber EN 338 / C24 t ≥ 22 mm <sup>2)</sup>	Plywood EN 636 t ≥ 18 mm <sup>3)</sup>	C12/15	C25/30	setting depth ≥ [mm]	pre-drill diameter [mm]	P 3.3	P 4.4	setting depth ≥ [mm]	LAC 6, D 1,0	setting depth ≥ [mm]	pre-drill diameter [mm]
	Fastener	Stress Plate / Sleeve / Bar													
15B	IW-T-5,0	IRC/W-82x40	1,08	1,12	2,12	-	-	-	-	-	-	-	-	-	-
16A	IW-S-5,0	IRC/W-82x40	1,08	1,12	2,04	-	-	-	-	-	-	-	-	-	-
16B	LBS-S-T25-8,0	R45	-	-	-	-	-	-	-	0,93	1,43	60	-	-	-
17A	LBS-T25-8,0	MW-40-LBS	-	-	-	-	-	-	-	0,93	1,44	60	-	-	-
17B	LBS-T25-8,0	R45	-	-	-	-	-	-	-	0,93	1,43	60	-	-	-
18A	LB45	-	-	-	-	-	-	-	-	1,44	1,44	65 <sup>4)</sup>	-	-	-
18B	FB-S-T25-7,5	R45	-	-	-	-	-	-	-	-	-	-	0,59	50	4,8
19A	DT-4,8	IRD-82x40	-	-	-	2,40	2,56	25	4,8	-	-	-	-	-	-
19B	DT-4,8	IF/IG-C-82x40	-	-	-	2,40	2,68	25	4,8	-	-	-	-	-	-
20A	DT-4,8	IW-82x40	-	-	-	2,40	3,34	25	4,8	-	-	-	-	-	-
20B	DT-4,8	R45	-	-	-	1,39	1,39	25	4,8	-	-	-	-	-	-
21A	DT-S-4,8	IRD-82x40	-	-	-	2,56	2,56	25	4,8	-	-	-	-	-	-
21B	DT-S-4,8	IF/IG-C-82x40	-	-	-	2,65	2,68	25	4,8	-	-	-	-	-	-
22A	DT-S-4,8	R45	-	-	-	1,39	1,39	25	4,8	-	-	-	-	-	-
22B	DT-6,3	IRD-82x40	-	-	-	2,93	3,68	32	6,3	-	-	-	-	-	-
23A	DT-6,3	IF/IG-C-82x40	-	-	-	2,93	4,07	32	6,3	-	-	-	-	-	-
23B	DT-S-6,3	IRD-82x40	-	-	-	2,23	3,10	32	6,3	-	-	-	-	-	-
24A	DT-S-6,3	IF/IG-C-82x40	-	-	-	2,23	3,10	32	6,3	-	-	-	-	-	-
24B	TI-6,3	IRD-82x40	-	-	-	1,83	1,83	20	5,0	-	-	-	-	-	-
						2,56	2,56	30							

<sup>1)</sup> effective setting depth (penetration length of threaded part) ≥ 18 mm  
<sup>2)</sup> effective setting depth (penetration length of threaded part) ≥ 22 mm  
<sup>3)</sup> effective setting depth (penetration length of threaded part) ≥ 18 mm; minimum density = 400 kg/m³  
<sup>4)</sup> pre-drill diameter = 15 mm

Combination	SFS intec flat roof fastener		Characteristic axial loading resistance N <sub>R,k</sub> [kN] for non-metallic substructures												
			Timber			Concrete EN 206-1				Aerated Concrete DIN 4223-1			Pumice Panel EN 1520		
			OSB3 EN 300 t ≥ 18 mm <sup>1)</sup>	Structural Timber EN 338 / C24 t ≥ 22 mm <sup>2)</sup>	Plywood EN 636 t ≥ 18 mm <sup>3)</sup>	C12/15	C25/30	setting depth ≥ [mm]	pre-drill diameter [mm]	P 3.3	P 4.4	setting depth ≥ [mm]	LAC 6, D 1,0	setting depth ≥ [mm]	pre-drill diameter [mm]
	Fastener	Stress Plate / Sleeve / Bar													
32A	Sarnafast SBF-6,0	Sarnabar Tube SBT-20 / Sarnabar	1,32	2,10	2,10	0,72	1,45	32	5,0	0,35	0,58	75	-	-	-
32B	TI-6,3	Sarnafast DTL-70x70	-	-	-	1,83	1,83	20	5,0	-	-	-	-	-	-
						2,56	2,56	30							
33A	TI-T25-6,3	Sarnafast Tube SFT-50	-	-	-	1,66	1,66	20	5,0	-	-	-	-	-	-
						1,66	1,66	30							
33B	TI-T25-6,3	Sarnabar Tube SBT-20 / Sarnabar	-	-	-	1,83	1,83	20	5,0	-	-	-	-	-	-
						2,10	2,10	30							
34A	TI-S-Z10-6,3	R45	-	-	-	0,53	1,05	32	5,0	-	-	-	-	-	-
34B	TI-S-Z10-6,3	R75	-	-	-	0,53	1,05	32	5,0	-	-	-	-	-	-
35A	IF2-6,1	IRD-82x40	1,07	2,04	2,40	1,56	2,56	32	5,0	1,27	2,11	75	-	-	-
35B	IF2-6,1	ID-70x70	1,07	2,04	2,40	1,56	3,12	32	5,0	1,27	2,11	75	-	-	-
36A	FB-S-T25-7,5	IRD-82x40	-	-	-	-	-	-	-	-	-	-	0,59	50	4,8
36B	FB-S-T25-7,5	IF/IG-C-82x40	-	-	-	-	-	-	-	-	-	-	0,59	50	4,8
37A	FB-S-T25-7,5	R75	-	-	-	-	-	-	-	-	-	-	0,59	50	4,8
37B	IW-S-5,0	IW-82x40	1,08	1,12	2,04	-	-	-	-	-	-	-	-	-	-
38A	IW-T-5,0	IW-82x40	1,08	1,12	2,12	-	-	-	-	-	-	-	-	-	-
38B	IWF-5,2	IW-82x40	1,35	1,94	2,20	-	-	-	-	-	-	-	-	-	-
39A	BS-4,8	FI-P-6,8	1,45	1,32	2,18	-	-	-	-	-	-	-	-	-	-
39B	BS-S-4,8	FI-P-6,8	1,28	1,74	1,96	-	-	-	-	-	-	-	-	-	-
<sup>1)</sup> effective setting depth (penetration length of threaded part) ≥ 18 mm <sup>2)</sup> effective setting depth (penetration length of threaded part) ≥ 22 mm <sup>3)</sup> effective setting depth (penetration length of threaded part) ≥ 18 mm; minimum density = 400 kg/m³															

SFS intec flat roof fasteners

Annex 103



Combination	SFS intec flat roof fastener		Characteristic axial loading resistance $N_{R,k}$ [kN] for non-metallic substructures												
			Timber			Concrete EN 206-1				Aerated Concrete DIN 4223-1			Pumice Panel EN 1520		
			OSB3 EN 300 $t \geq 18 \text{ mm}^{1)}$	Structural Timber EN 338 / C24 $t \geq 22 \text{ mm}^{2)}$	Plywood EN 636 $t \geq 18 \text{ mm}^{3)}$	C12/15	C25/30	setting depth $\geq$ [mm]	pre-drill diameter [mm]	P 3.3	P 4.4	setting depth $\geq$ [mm]	LAC 6, D 1,0	setting depth $\geq$ [mm]	pre-drill diameter [mm]
	Fastener	Stress Plate / Sleeve / Bar													
62A	TIF-N-6,3	RH45	-	-	-	1,54	1,54	20	5,0	-	-	-	-	-	-
62B	TIA-T25-6,3	R75	-	-	-	1,42	1,42	20	5,0	-	-	-	-	-	-
63A	TIA-T25-6,3	ST-25	-	-	-	1,42	1,42	20	5,0	-	-	-	-	-	-
63B	BS-4,8	ST-25	1,38	1,32	1,38	-	-	-	-	-	-	-	-	-	-
64A	TI-T25-6,3	ST-25	-	-	-	1,42	1,42	20	5,0	-	-	-	-	-	-
						1,42	1,42	30		-	-	-	-	-	-
65A	LBS-S-T25-8,0	IF/IG-C-82x40	-	-	-	-	-	-	-	0,93	1,44	60	-	-	-
65B	BS-4,8	NPP	1,45	1,32	1,45	-	-	-	-	-	-	-	-	-	-
66A	BS-S-4,8	NPP	1,28	1,45	1,45	-	-	-	-	-	-	-	-	-	-
66B	BS-4,8	NPS	1,38	1,32	1,38	-	-	-	-	-	-	-	-	-	-
68A	TI-T25-6,3	NPS	-	-	-	1,42	1,42	20	5,0	-	-	-	-	-	-
						1,42	1,42	30		-	-	-	-	-	-
68B	TIA-T25-6,3	Sarnabar Tube SBT-20 / Sarnabar	-	-	-	1,83	1,83	20	5,0	-	-	-	-	-	-
69A	IWF-5,2	MW-40-F	1,35	1,94	2,20	-	-	-	-	-	-	-	-	-	-
69B	IWF-5,2	MW-40-R	1,35	1,94	2,20	-	-	-	-	-	-	-	-	-	-
70A	Sarnafast SBF-6,0	R75	1,32	1,42	1,42	0,72	1,42	32	5,0	0,35	0,58	75	-	-	-
71A	BS-4,8	MW-40-F	1,45	1,32	2,18	-	-	-	-	-	-	-	-	-	-
71B	BS-6,1	MW-40-F	1,32	2,16	2,11	0,72	1,45	32	5,0	0,35	0,58	75	-	-	-
72A	BS-4,8	IR-82x40	1,45	1,32	2,18	-	-	-	-	-	-	-	-	-	-
72B	BS-6,1	IRD-82x40	1,32	2,16	2,11	0,72	1,45	32	5,0	0,35	0,58	75	-	-	-

<sup>1)</sup> effective setting depth (penetration length of threaded part)  $\geq 18 \text{ mm}$

<sup>2)</sup> effective setting depth (penetration length of threaded part)  $\geq 22 \text{ mm}$

<sup>3)</sup> effective setting depth (penetration length of threaded part)  $\geq 18 \text{ mm}$ ; minimum density =  $400 \text{ kg/m}^3$

SFS intec flat roof fasteners

Annex 106