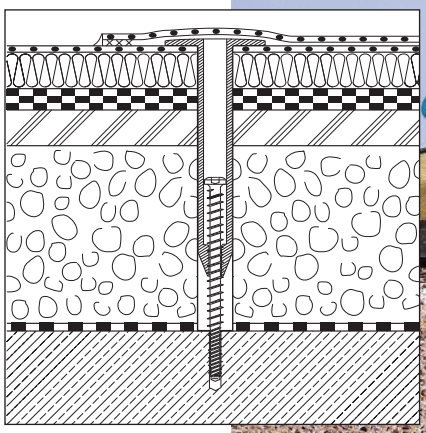
SFS intec

April 2009

ISO-TAK® TIA: Adjustable fastening system for membrane and insulation attachment to concrete roof decks.

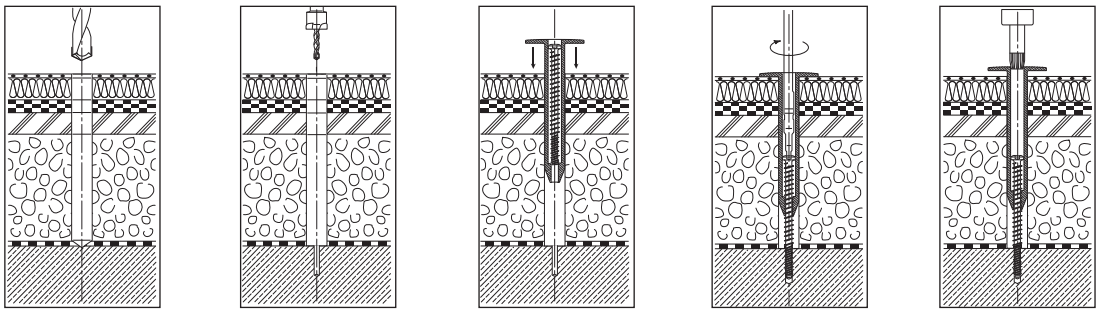
The TIA fastening system sets new standards in flat roof attachment:

- Only one fastener for differing thicknesses of roof build up
- One setting depth for all fasteners – Reduced drilling
- Suitable for new build and refurbishment projects
- Suitable for tapered schemes up to 515 mm roof build up



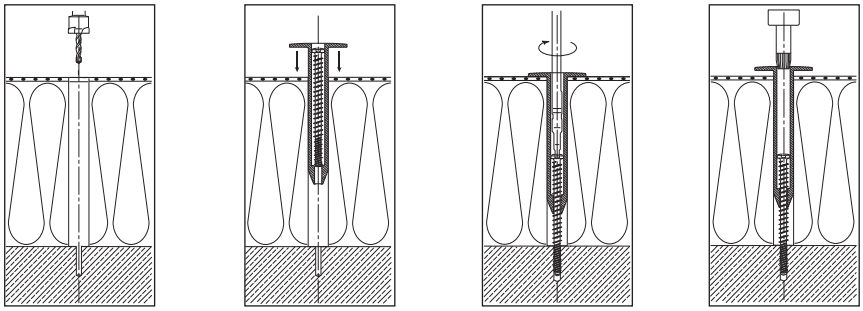
Installation process

Refurbishment



1 2 3 4 5

New construction



1 Pilot drill a 20.0 mm dia. hole through the existing roof build-up using a carbide drill bit

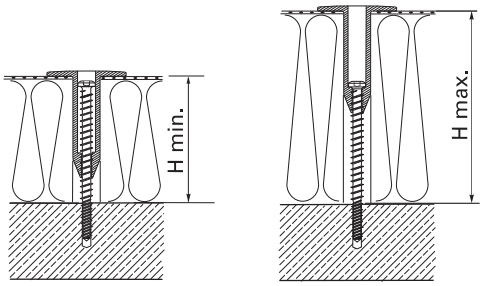
2 Drill a hole in the concrete structure.

3 Insert sleeve in the pre-drilled hole and insert fastener in sleeve.

4 Screw fastener through sleeve into concrete with applied pressure.

5 Tighten sleeve if necessary (clockwise if the sleeve head is not completely flush).

Fastener selection



Drilling depth: min. 25 mm
Setting depth: min. 18 mm

		A		B		C		D	
No	Sleeve L	TIA-T25-6,3 x 70 H min.	H. max.	TIA-T25-6,3 x 90 H min.	H. max.	TIA-T25-6,3 x 120 H min.	H. max.	TIA-T25-6,3 x 150 H min.	H. max.
1	65	75	95	85	115	115	145	145	175
2	85	95	115	95	135	115	165	145	195
3	105	115	135	115	155	115	185	145	215
4	135	145	165	145	185	145	215	145	245
5	165	175	195	175	215	175	245	175	275
6	185	195	215	195	235	195	265	195	295
7	195	205	225	205	245	205	275	205	305
8	225	235	255	235	275	235	305	235	335
9	255	265	285	265	305	265	335	265	365
10	285	295	315	295	335	295	365	295	395
11	325	335	355	335	375	335	405	335	435
12	365	375	395	375	415	375	445	375	475
13	405	415	435	415	455	415	485	415	515

Example
Demand fixing hight: 120 - 240 mm

Combination
3B = sleeve 105 + screw 90 covering 115 - 155 mm
4D = sleeve 135 + screw 150 covering 145 - 245 mm

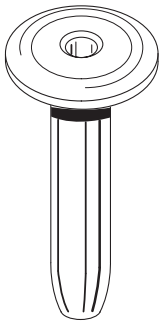
Technical data

recommended design load at min. setting depth of 18 mm:	0,5 kN (The design load can vary for each roof system. Please check with the membrane manufacturers data).
threadforming torque :	6-8 Nm
Material:	Carbon steel, case hardened
Anti-corrosion protection:	Durocoat, at least 15 cycles Kesternich (DIN 50018)

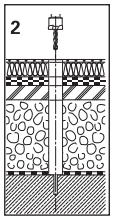
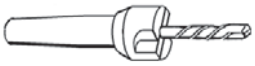
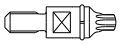
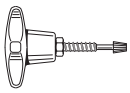
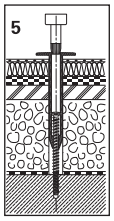
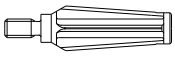
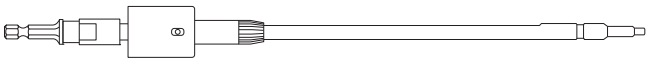
Delivery programme - screws

Order example / Order code				Weight kg/1000	Packaging unit (quantity)	Remarks
Type	Recess	Thread dia. d (mm)	Length L (mm)			
TIA	T25	6,3 x	70	13,1	250	
TIA	T25	6,3 x	90	16,5	250	
TIA	T25	6,3 x	120	21,1	250	
TIA	T25	6,3 x	150	23,7	100	

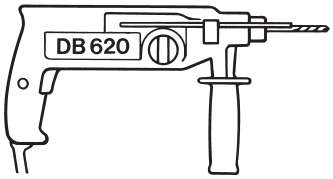
Delivery programme - sleeves

Order example / Order code			Sleeve	Weight kg/1000	Packaging unit (quantity)	Remarks
Type	Head diameter (mm)	Length L (mm)				
R	45 x	65		8,8	500	
R	45 x	85		10,2	500	
R	45 x	105		12,0	500	
R	45 x	135		14,2	500	
R	45 x	165		17,0	500	
R	45 x	185		18,0	500	
R	45 x	195		20,1	500	
R	45 x	225		21,0	250	
R	45 x	255		24,0	250	
R	45 x	285		25,3	250	
R	45 x	325		31,0	250	
R	45 x	365		35,0	250	
R	45 x	405		39,0	250	

Delivery programme - tools

Product	Order code	Application (see installation process)	Packaging unit (quantity)
Drill extension (500 mm and 750 mm)	ZAK-500 ZAK-750		1 1
Drill bit with stopper 	ZVK-5x25x90stop ZVK-5x35x100stop ZVK-5x45x110stop		1 1 1
Stepped drill bit	SDS-6/4,8x400		1
Drive shaft (300 mm and 670 mm long)	ZA ¼"-M6-300 ZA ¼"-M6-670		1 1
Socket 	T25-32-M6 T25-32-M6-Ring		1 1
Adjusting tool 	AJ 60 x 130 TIA		1
Adjusting bit (fits to the Drive shaft) 	AJ-M6		1
Adjusting tool 	DF32-300		1

Delivery programme - installation tools

Product	Order code	Packaging unit (quantity)
Electro pneumatic hammer drill with SDS 	DB 620	1 inc. case

Optimum fastening technology based on intensive cooperation with systems manufacturers

Roofing system manufacturers are constantly improving and developing their products, and SFS is matching these developments with new fastener technologies. SFS technical specialists are working in partnership with the leading manufacturers in waterproof membrane and insulation systems, as well as external cladding and roofing systems, structures and decking to bring competitive, high-performance fastener solutions to the market. SFS products are endorsed - sometimes exclusively - by many of the industry's major systems suppliers - testimony to our commitment to a partnership approach to practical, customized solutions for today's changing market.

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Technische Änderungen vorbehalten
Gedruckt in der Schweiz

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