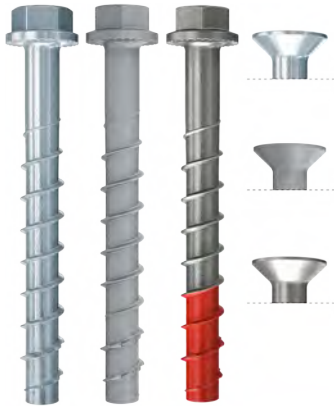


Concrete screw UltraCut FBS II 8-14

4



Railings



Inclined supports

Applications

- Guard rails
- Consoles/base plates
- Metal profiles
- Steel constructions
- Façades
- Protection barriers
- Results/beam anchors
- Shuttering props (only FBS II galvanised steel)
- Temporary anchoring, e.g. of building site equipment (only FBS II galvanised steel)
- Concrete-concrete connections (e.g. strengthening of bridges, parking garages or renovation of buildings)

Advantages

- Unique saw-tooth geometry cuts quickly into the building material.
- The ETA covers applications in cracked and non-cracked concrete and performance categories seismic C1 and C2.
- With up to 3 embedment depths, the FBS II allows for the same screw to be used for different component thicknesses.
- The concrete screw FBS II 8-10 in zinc-plated steel and stainless steel R has an ETA for masonry brick (EN771-1), solid sand-lime brick (EN771-2) and perforated sand-lime brick (EN771-2) for a flexible use in different substrates.
- The high coating quality of the FBS II CP is proved through the salt spray chamber test over 2,000h.
- For the zinc-plated steel version the checking gauge allows for reuse covered by the approval.
- The specially hardened red tip of the stainless steel R version provides faster and more secure installation.
- Together with the fischer adjusting washer FSW and the FBS II 10 wooden beams and wooden sleepers can be adjusted easily and quickly.

Certificates / Features



ETA-17/0740, in cracked concrete
ETA-20/0134, in masonry
ETA-15/0352, in cracked concrete
ETA-20/0321, for strengthening of existing concrete structures by concrete overlay



Building materials

Approved for:

- Concrete C20/25 to C50/60, cracked and non-cracked
- Strengthening of existing concrete structures with top layer concrete
- Masonry brick (EN771-1), solid sand-lime brick (EN771-2) and perforated sand-lime brick (EN771-2)

Also suitable for:

- Concrete C12/15
- Solid building materials

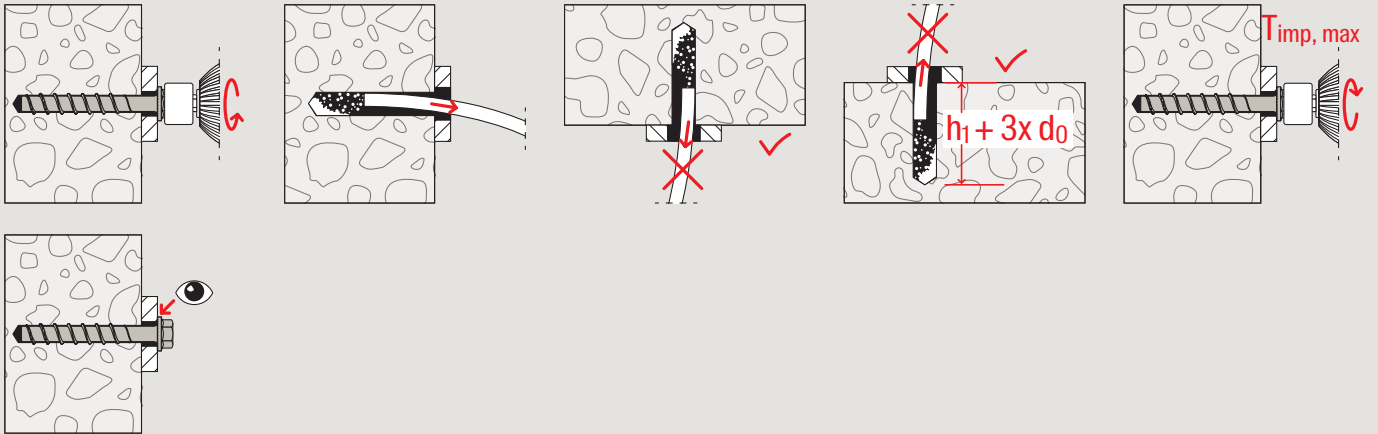
Versions

- Galvanised steel
- Stainless steel R
- Corrosion protection coating (CP)

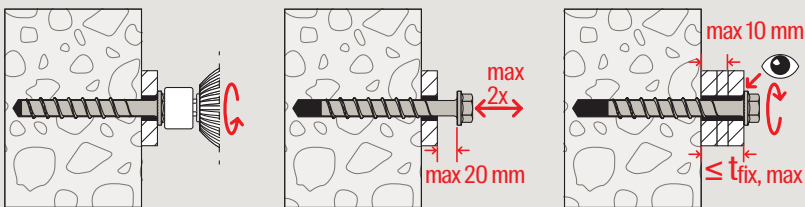
Functioning

- The UltraCut FBSII is recommended for the push-through installation.
- Drill holes do not need to be cleaned during vertical installation (ceiling and floor). For floor fixings the hole must be drilled 3x drill hole diameter deeper.
- The approved adjustment for the concrete screws allows the screw to be unscrewed twice for a total length of 20 mm, to place maximum 10 mm packing below the base plates or to align the attached part.
- The screw is installed correctly when the screw head sits flush on the fixture (visual setting control).
- For the installation of restructuring of existing concrete structures by concrete overlay, the setting tool SC-ST can be used for a faster installation.

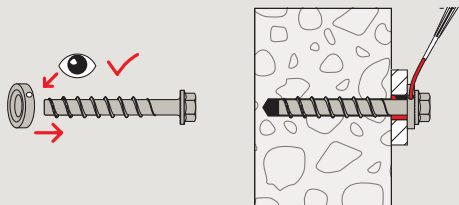
Installation UltraCut FBS II in concrete



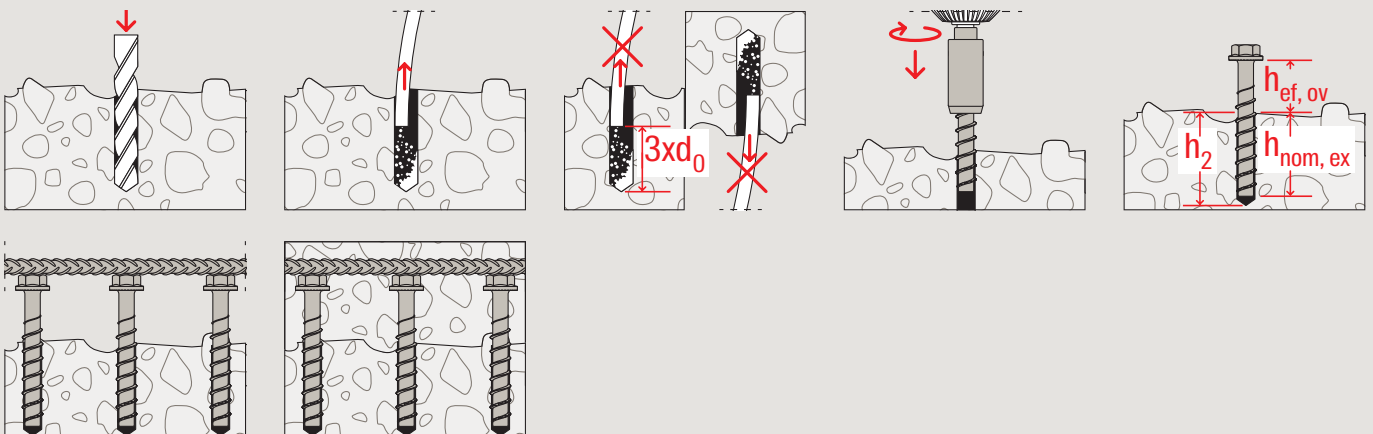
Fixture adjustment



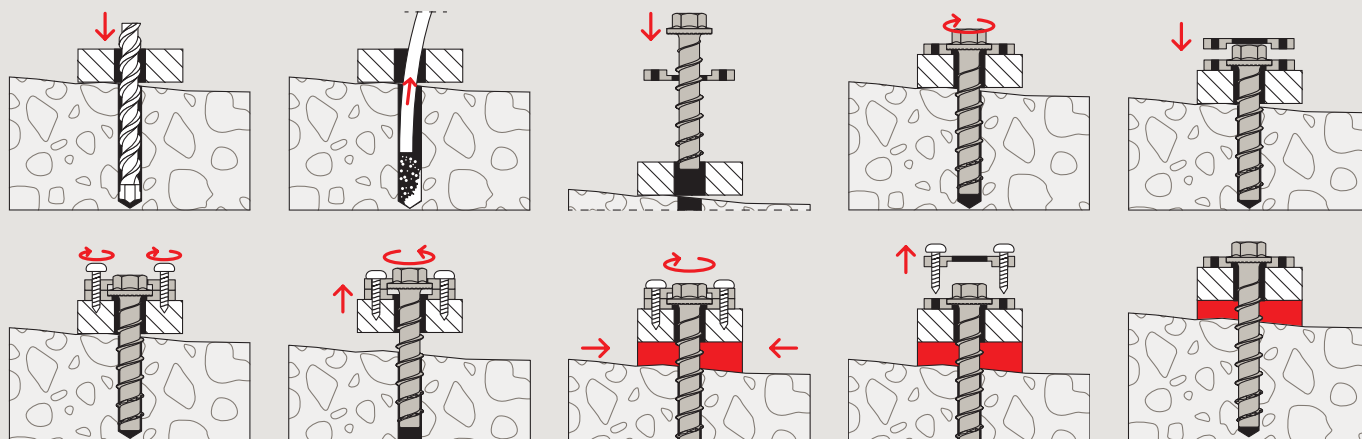
Additional for seismic applications



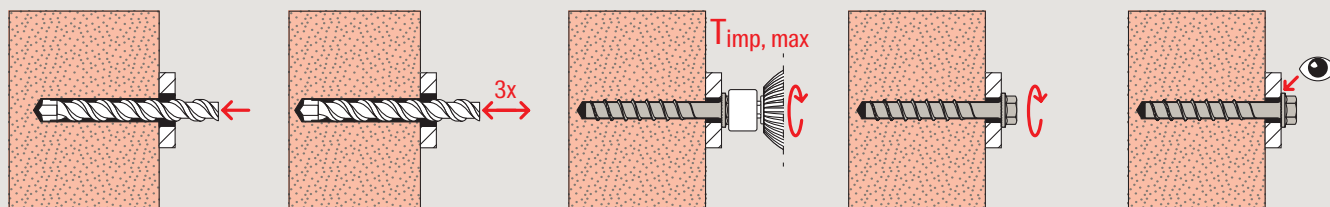
Installation UltraCut FBS II (concrete-concrete connection)



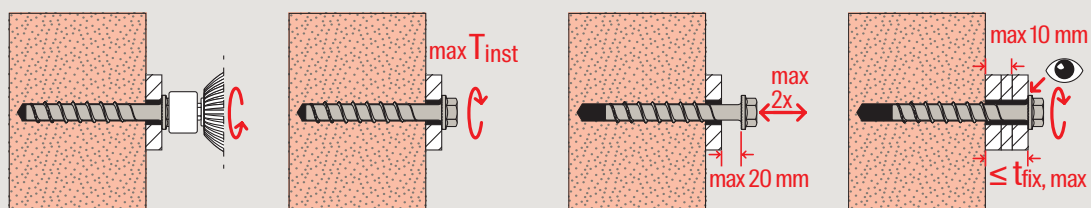
Installation wooden sleeper with adjusting disc FWS

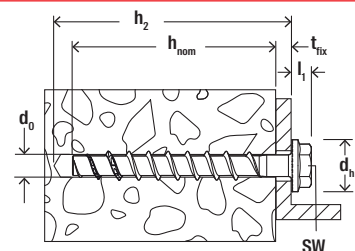


Installation UltraCut FBS II gvz in masonry



Fixture adjustment





Technical data

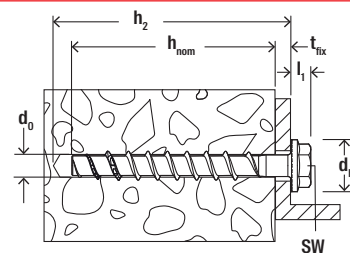
Concrete screw UltraCut FBS II US



FBS II US

FBS II US CP

Item	Item no.	Approval		Drill diameter d_0 [mm]	Head-ø d_h [mm]	Min. drill hole depth for through fixings h_2 [mm]	Screw dimension $d_s \times l_s$ [mm]	Nominal embed- ment depth / thickness of fixture h_{nom1} / t_{fix} [mm]	Nominal embed- ment depth / thickness of fixture h_{nom2} / t_{fix} [mm]	Nominal embed- ment depth / thickness of fixture h_{nom3} / t_{fix} [mm]	Drive	Sales unit [pcs]
		ETA	DIBt									
FBS II 8x55 5/- US TX gvz	536851	●	●	8	18	65	10.0 x 55	50 / 5	–	–	TX40 / SW 13	50
FBS II 8x55 5/- US TX CP	557781	●	–	8	18	65	10.0 x 55	50 / 5	–	–	TX40 / SW 13	50
FBS II 8x70 20/5 US TX gvz	536852	●	●	8	18	80	10.0 x 70	50 / 20	–	65 / 5	TX40 / SW 13	50
FBS II 8x70 20/5 US TX CP	557782	●	–	8	18	80	10.0 x 70	50 / 20	–	65 / 5	TX40 / SW 13	50
FBS II 8x80 30/15 US TX gvz	536853	●	●	8	18	90	10.0 x 80	50 / 30	–	65 / 15	TX40 / SW 13	50
FBS II 8x80 30/15 US TX CP	557783	●	–	8	18	90	10.0 x 80	50 / 30	–	65 / 65	TX40 / SW 13	50
FBS II 8x90 40/25 US TX gvz	536854	●	●	8	18	100	10.0 x 90	50 / 40	–	65 / 55	TX40 / SW 13	50
FBS II 8x90 40/25 US TX CP	557784	●	–	8	18	100	10.0 x 90	50 / 40	–	65 / 55	TX40 / SW 13	50
FBS II 8x100 50/35 US TX gvz	536855	●	●	8	18	110	10.0 x 100	50 / 50	–	65 / 35	TX40 / SW 13	50
FBS II 8x100 50/35 US TX CP	557785	●	–	8	18	110	10.0 x 100	50 / 50	–	65 / 35	TX40 / SW 13	50
FBS II 8x110 60/45 US TX gvz	536856	●	●	8	18	120	10.0 x 110	50 / 60	–	65 / 45	TX40 / SW 13	50
FBS II 8x130 80/65 US TX gvz	536857	●	●	8	18	140	10.0 x 130	50 / 80	–	–	TX40 / SW 13	50
FBS II 8x150 100/85 US TX gvz	558219	●	●	8	18	160	10.0 x 150	50 / 100	–	65 / 85	TX40 / SW 13	50
FBS II 8x170 120/105 US TX gvz	558220	●	●	8	18	180	10.0 x 170	50 / 120	–	65 / 105	TX40 / SW 13	50
FBS II 8x190 140/125 US TX gvz	558221	●	●	8	18	200	10.0 x 190	50 / 140	–	65 / 125	TX40 / SW 13	20
FBS II 10x60 5/-/- US gvz	536858	●	●	10	20.5	70	12.0 x 60	55 / 5	–	–	SW 15	50
FBS II 10x60 5/-/- US CP	557786	●	–	10	20.5	70	12.0 x 60	55 / 5	–	–	SW 15	50
FBS II 10x70 15/5/- US gvz	536859	●	●	10	20.5	80	12.0 x 70	55 / 15	65 / 5	–	SW 15	50
FBS II 10x70 15/5/- US CP	557787	●	–	10	20.5	80	12.0 x 70	55 / 15	65 / 5	–	SW 15	50
FBS II 10x80 25/15/- US gvz	536860	●	●	10	20.5	90	12.0 x 80	55 / 25	65 / 15	–	SW 15	50
FBS II 10x80 25/15/- US CP	557788	●	–	10	20.5	90	12.0 x 80	55 / 25	65 / 65	–	SW 15	50
FBS II 10x90 35/25/5 US gvz	536861	●	●	10	20.5	100	12.0 x 90	55 / 35	65 / 55	85 / 5	SW 15	50
FBS II 10x90 35/25/5 US CP	557789	●	–	10	20.5	100	12.0 x 90	55 / 35	65 / 55	85 / 5	SW 15	50
FBS II 10x100 45/35/15 US gvz	536862	●	●	10	20.5	110	12.0 x 100	55 / 45	65 / 35	85 / 15	SW 15	50
FBS II 10x100 45/35/15 US CP	557790	●	–	10	20.5	110	12.0 x 100	55 / 45	65 / 35	85 / 15	SW 15	50
FBS II 10x120 65/55/35 US gvz	536863	●	●	10	20.5	130	12.0 x 120	55 / 65	65 / 25	85 / 35	SW 15	50
FBS II 10x120 65/55/35 US CP	557791	●	–	10	20.5	130	12.0 x 120	55 / 65	65 / 25	85 / 35	SW 15	50
FBS II 10x140 85/75/55 US gvz	536864	●	●	10	20.5	150	12.0 x 140	55 / 85	65 / 45	85 / 55	SW 15	50
FBS II 10x140 85/75/55 US CP	557792	●	–	10	20.5	150	12.0 x 140	55 / 85	65 / 45	85 / 55	SW 15	50
FBS II 10x160 105/95/75 US gvz	536865	●	●	10	20.5	170	12.0 x 160	55 / 105	65 / 15	85 / 75	SW 15	50
FBS II 10x160 105/95/75 US CP	557793	●	–	10	20.5	170	12.0 x 160	55 / 105	65 / 15	–	SW 15	50
FBS II 10x200 145/135/115 US gvz	536866	●	●	10	20.5	210	12.0 x 200	55 / 145	65 / 135	85 / 115	SW 15	20
FBS II 10x230 175/165/145 US gvz	536867	●	●	10	20.5	240	12.0 x 230	55 / 175	65 / 165	85 / 145	SW 15	20
FBS II 10x260 205/195/175 US gvz	536868	●	●	10	20.5	270	12.0 x 260	55 / 205	65 / 195	85 / 175	SW 15	20
FBS II 10x280 225/215/195 US gvz	558222	●	●	10	20.5	290	12.0 x 280	55 / 225	65 / 215	85 / 195	SW 15	20
FBS II 12x70 10/-/- US gvz	536869	●	●	12	23	80	14.0 x 70	60 / 10	–	–	SW 17	20
FBS II 12x85 25/10/- US gvz	536870	●	●	12	23	95	14.0 x 85	60 / 25	75 / 10	–	SW 17	20
FBS II 12x85 25/10/- US CP	557794	●	–	12	23	95	14.0 x 85	60 / 25	75 / 10	–	SW 17	20
FBS II 12x110 50/35/10 US gvz	536871	●	●	12	23	120	14.0 x 110	60 / 50	75 / 35	100 / 10	SW 17	20
FBS II 12x110 50/35/10 US CP	557795	●	–	12	23	120	14.0 x 110	60 / 50	75 / 35	100 / 10	SW 17	20
FBS II 12x130 70/55/30 US gvz	536872	●	●	12	23	140	14.0 x 130	60 / 70	75 / 55	100 / 30	SW 17	20
FBS II 12x150 90/75/50 US gvz	536873	●	●	12	23	160	14.0 x 150	60 / 90	75 / 75	100 / 50	SW 17	20



Technical data

4

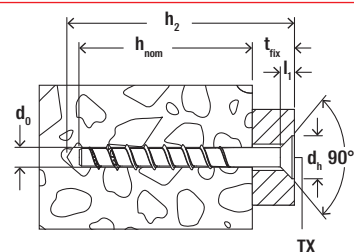
Concrete screw UltraCut FBS II US



FBS II US

FBS II US CP

Item	Item no.	Approval		Drill diameter d_0 [mm]	Head- ϕ d_h [mm]	Min. drill hole depth for through fixings h_2 [mm]	Screw dimension $d_s \times l_s$ [mm]	Nominal embedment depth / thickness of fixture h_{nom1} / t_{fix} [mm]	Nominal embedment depth / thickness of fixture h_{nom2} / t_{fix} [mm]	Nominal embedment depth / thickness of fixture h_{nom3} / t_{fix} [mm]	Drive	Sales unit [pcs]
		ETA	DIBt									
FBS II 12x170 110/95/70 US gvz	558223	●	●	12	23	180	14.0 x 170	60 / 110	75 / 95	100 / 70	SW 17	20
FBS II 12x190 130/115/90 US gvz	558224	●	●	12	23	200	14.0 x 190	60 / 130	75 / 115	100 / 90	SW 17	20
FBS II 12x210 150/135/110 US gvz	558225	●	●	12	23	220	14.0 x 210	60 / 150	75 / 135	100 / 110	SW 17	20
FBS II 14x75 10/-/- US gvz	536874	●	●	14	28	90	16.0 x 75	65 / 10	–	–	SW 21	20
FBS II 14x75 10/-/- US CP	557796	●	–	14	28	85	16.0 x 75	65 / 10	–	–	SW 21	20
FBS II 14x95 30/10/- US gvz	536875	●	●	14	28	110	16.0 x 95	65 / 30	85 / 10	–	SW 21	20
FBS II 14x95 30/10/- US CP	557797	●	–	14	28	105	16.0 x 95	65 / 30	85 / 10	–	SW 21	20
FBS II 14x100 35/15/- US gvz	536876	●	●	14	28	115	16.0 x 100	65 / 35	85 / 15	–	SW 21	20
FBS II 14x100 35/15/- US CP	557798	●	–	14	28	110	16.0 x 100	65 / 35	85 / 15	–	SW 21	20
FBS II 14x125 60/40/10 US gvz	536877	●	●	14	28	140	16.0 x 125	65 / 60	85 / 40	85 / 5	SW 21	10
FBS II 14x125 60/40/10 US CP	557799	●	–	14	28	135	16.0 x 125	65 / 60	85 / 40	85 / 5	SW 21	10
FBS II 14x150 85/65/35 US gvz	536878	●	●	14	28	165	16.0 x 150	65 / 85	85 / 65	115 / 35	SW 21	10
FBS II 14x180 115/85/65 US gvz	558226	●	●	14	28	190	16.0 x 180	65 / 115	85 / 95	115 / 65	SW 21	10
FBS II 14x210 145/125/95 US gvz	558227	●	●	14	28	220	16.0 x 210	65 / 145	85 / 125	115 / 95	SW 21	10
FBS II 14x240 175/155/125 US gvz	558228	●	●	14	28	250	16.0 x 240	65 / 175	85 / 155	115 / 125	SW 21	10



Technical data

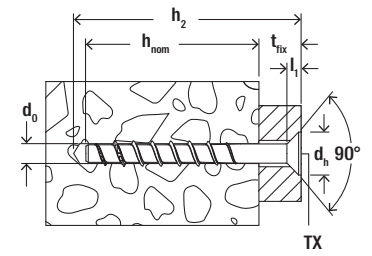
Concrete screw UltraCut FBS II SK



FBS II SK

FBS II CP SK CP

Item	Item no.	Approval		Drill diameter d_0 [mm]	Head- ϕ d_h [mm]	Min. drill hole depth for through fixings h_2 [mm]	Screw dimension $d_s \times l_s$ [mm]	Nominal embedment depth / thickness of fixture h_{nom1} / t_{fix} [mm]	Nominal embedment depth / thickness of fixture h_{nom2} / t_{fix} [mm]	Nominal embedment depth / thickness of fixture h_{nom3} / t_{fix} [mm]	Drive	Sales unit [pcs]
		ETA	DIBt									
FBS II 8x60 10/- SK gvz	536880	●	●	8	18	70	10.0 x 60	50 / 10	–	–	TX40	50
FBS II 8x60 10/- SK CP	557800	●	●	8	18	70	10.0 x 60	50 / 10	–	–	TX40	50
FBS II 8x80 30/15 SK gvz	536881	●	●	8	18	90	10.0 x 80	50 / 30	–	65 / 15	TX40	50



Technical data

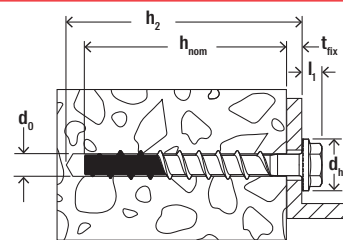
Concrete screw UltraCut FBS II SK



FBS II SK

FBS II CP SK CP

Item	Item no.	Approval		Drill diameter d_0 [mm]	Head- ϕ d_h [mm]	Min. drill hole depth for through fixings h_2 [mm]	Screw dimension $d_s \times l_s$ [mm]	Nominal embedment depth / thickness of fixture h_{nom1} / t_{fix} [mm]	Nominal embedment depth / thickness of fixture h_{nom2} / t_{fix} [mm]	Nominal embedment depth / thickness of fixture h_{nom3} / t_{fix} [mm]	Drive	Sales unit [pcs]
		ETA	DIBt									
FBS II 8x80 30/15 SK CP	557801	●	●	8	18	90	10.0 x 80	50 / 30	65 / 65	65 / 15	TX40	50
FBS II 8x90 40/25 SK gvz	536882	●	●	8	18	100	10.0 x 90	50 / 40	–	65 / 25	TX40	50
FBS II 8x90 40/25 SK CP	557802	●	●	8	18	100	10.0 x 90	50 / 40	65 / 55	65 / 25	TX40	50
FBS II 8x100 50/35 SK gvz	558229	●	●	8	18	110	10.0 x 100	50 / 50	–	65 / 35	TX40	50
FBS II 8x110 60/45 SK gvz	558230	●	●	8	18	120	10.0 x 110	50 / 60	–	65 / 45	TX40	50
FBS II 8x120 70/55 SK gvz	558231	●	●	8	18	130	10.0 x 120	50 / 70	–	65 / 55	TX40	50
FBS II 8x140 90/75 SK gvz	558232	●	●	8	18	150	10.0 x 140	50 / 90	–	65 / 75	TX40	50
FBS II 8x160 110/95 SK gvz	558233	●	●	8	18	170	10.0 x 160	50 / 110	–	65 / 95	TX40	50
FBS II 8x180 130/115 SK gvz	558234	●	●	8	18	190	10.0 x 180	50 / 130	–	65 / 115	TX40	20
FBS II 8x200 150/135 SK gvz	558235	●	●	8	18	210	10.0 x 200	50 / 150	–	65 / 135	TX40	20
FBS II 10x65 10/-/- SK gvz	536884	●	●	10	21	75	12.0 x 65	55 / 10	–	–	TX50	50
FBS II 10x65 10/-/- SK CP	557803	●	●	10	21	75	12.0 x 65	55 / 10	–	–	TX50	50
FBS II 10x80 25/15/- SK gvz	536885	●	●	10	21	90	12.0 x 80	55 / 25	65 / 15	–	TX50	50
FBS II 10x80 25/15/- SK CP	557804	●	●	10	21	90	12.0 x 80	55 / 25	65 / 15	–	TX50	50
FBS II 10x95 40/30/10 SK gvz	536886	●	●	10	21	105	12.0 x 95	55 / 40	65 / 30	85 / 10	TX50	50
FBS II 10x100 45/35/15 SK gvz	536887	●	●	10	21	110	12.0 x 100	55 / 45	65 / 35	85 / 15	TX50	50
FBS II 10x100 45/35/15 SK CP	557805	●	●	10	21	110	12.0 x 100	55 / 45	65 / 35	85 / 15	TX50	50
FBS II 10x120 65/55/35 SK gvz	536888	●	●	10	21	130	12.0 x 120	55 / 65	65 / 55	85 / 35	TX50	50
FBS II 10x140 85/75/55 SK gvz	558236	●	●	10	21	150	12.0 x 140	55 / 85	65 / 75	85 / 55	TX50	50
FBS II 10x160 105/95/75 SK gvz	558237	●	●	10	21	170	12.0 x 160	55 / 105	65 / 95	85 / 75	TX50	50
FBS II 10x180 125/115/95 SK gvz	558238	●	●	10	21	190	12.0 x 180	55 / 125	65 / 115	85 / 95	TX50	20



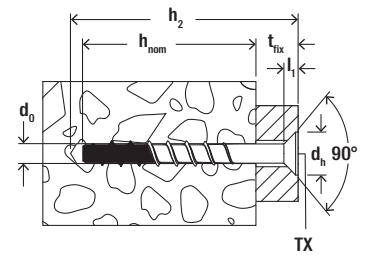
Technical data

Concrete screw UltraCut FBS II US R



FBS II US R

	Stainless steel	Approval	Drill diameter	Head-ø	Min. drill hole depth for through fixings	Screw dimension	Nominal embedment depth / thickness of fixture	Nominal embedment depth / thickness of fixture	Nominal embedment depth / thickness of fixture	Drive	Sales unit
	Item no.	ETA	d ₀ [mm]	d _h [mm]	h ₂ [mm]	d _s x l _s [mm]	h _{nom1} / t _{fix} [mm]	h _{nom2} / t _{fix} [mm]	h _{nom3} / t _{fix} [mm]		[pcs]
Item	R										
FBS II 8x60 10/- US	543565	●	8	18	70	10.0 x 60	50 / 10	–	–	SW 13	50
FBS II 8x70 20/5 US	543566	●	8	18	80	10.0 x 70	50 / 20	–	65 / 5	SW 13	50
FBS II 8x80 30/15 US	543567	●	8	18	90	10.0 x 80	50 / 30	–	65 / 15	SW 13	50
FBS II 8x90 40/25 US	543568	●	8	18	100	10.0 x 90	50 / 40	–	65 / 25	SW 13	50
FBS II 8x100 50/35 US	558239	●	8	18	110	10.0 x 100	50 / 50	–	65 / 35	SW 13	50
FBS II 8x120 70/55 US	558240	●	8	18	130	10.0 x 120	50 / 70	–	65 / 55	SW 13	50
FBS II 8x140 90/75 US	558241	●	8	18	150	10.0 x 140	50 / 90	–	65 / 75	SW 13	50
FBS II 8x160 110/95 US	558242	●	8	18	170	10.0 x 160	50 / 110	–	65 / 95	SW 13	50
FBS II 10x60 5/-/- US	543569	●	10	20.5	70	12.0 x 60	55 / 5	–	–	SW 15	50
FBS II 10x70 15/5/- US	543570	●	10	20.5	80	12.0 x 70	55 / 15	65 / 5	–	SW 15	50
FBS II 10x80 25/15/- US	543571	●	10	20.5	90	12.0 x 80	55 / 25	65 / 15	–	SW 15	50
FBS II 10x90 35/25/5 US	543572	●	10	20.5	100	12.0 x 90	55 / 35	65 / 25	85 / 5	SW 15	50
FBS II 10x100 45/35/15 US	543573	●	10	20.5	110	12.0 x 100	55 / 45	65 / 35	85 / 15	SW 15	50
FBS II 10x120 65/55/35 US	543574	●	10	20.5	130	12.0 x 120	55 / 65	65 / 55	85 / 35	SW 15	50
FBS II 10x140 85/75/55 US	558243	●	10	20.5	150	12.0 x 140	55 / 85	65 / 75	85 / 55	SW 15	50
FBS II 10x160 105/95/75 US	558244	●	10	20.5	170	12.0 x 160	55 / 105	65 / 95	85 / 75	SW 15	50
FBS II 12x70 10/-/- US	543575	●	12	23	80	14.0 x 70	55 / 85	–	–	SW 17	20
FBS II 12x85 25/10/- US	543576	●	12	13	95	14.0 x 85	60 / 25	75 / 10	–	SW 17	20
FBS II 12x110 50/35/10 US	543577	●	12	23	120	14.0 x 110	60 / 50	75 / 35	100 / 10	SW 17	20
FBS II 12x130 70/55/30 US	543578	●	12	23	140	14.0 x 130	60 / 70	75 / 55	100 / 30	SW 17	20
FBS II 12x160 100/85/60 US	558245	●	12	23	170	14.0 x 160	60 / 100	75 / 95	100 / 60	SW 17	20



Technical data

Concrete screw UltraCut FBS II SK R



FBS II SK R

	Stainless steel	Ap-pro-val	Drill diameter	Head-ø	Min. drill hole depth for through fixings	Nominal em-bedment depth / thickness of fixture	Nominal em-bedment depth / thickness of fixture	Nominal em-bedment depth / thickness of fixture	Drive	Sales unit
	Item no.	ETA	d ₀ [mm]	d _h [mm]	h ₂ [mm]	h _{nom1} / t _{fix} [mm]	h _{nom2} / t _{fix} [mm]	h _{nom3} / t _{fix} [mm]		[pcs]
Item	R									
FBS II 8x60 10/- SK	543579	●	8	18	70	50 / 10	–	–	TX40	50
FBS II 8x80 30/15 SK	543580	●	8	18	90	50 / 30	–	65 / 15	TX40	50
FBS II 8x90 40/25 SK	543581	●	8	18	100	50 / 40	–	65 / 25	TX40	50
FBS II 8x100 50/35 SK	558246	●	8	18	110	50 / 50	–	65 / 35	TX40	50
FBS II 10x65 10/- SK	543582	●	10	21	75	50 / 10	–	–	TX50	50
FBS II 10x80 25/15/- SK	543583	●	10	21	90	55 / 25	65 / 15	65 / 65	TX50	50
FBS II 10x95 40/30/10 SK	543584	●	10	21	105	55 / 40	65 / 30	85 / 10	TX50	50
FBS II 10x100 45/35/15 SK	543585	●	10	21	110	55 / 45	65 / 35	85 / 15	TX50	50
FBS II 10x120 65/55/35 SK	543586	●	10	21	130	55 / 65	65 / 55	85 / 35	TX50	50

Technical data

Accessories UltraCut FBS II



FMB II TX

SC-ST

		Ap-pro-val	Internal diameter	Drive	Match	Sales unit
	Item no.	DIBt	D [mm]			[pcs]
Item						
FUP 8	537200	–	9.9	–	FBS II 8	1
FUP 10	537201	●	12	–	FBS II 10	1
FUP 12	537202	●	13.9	–	FBS II 12	1
FUP 14	537203	●	15.6	–	FBS II 14	1
Socket 1/2" size 10	538577	–	–	1/2" / SW10	FBS II 6	1
Socket 1/2" size 13	538578	–	–	1/2" / SW13	FBS II 8	1
Socket 1/2" size 15	538579	–	–	1/2" / SW15	FBS II 10	1
Socket 1/2" size 17	538580	–	–	1/2" / SW17	FBS II 12	1
Socket 1/2" size 21	538581	–	–	1/2" / SW21	FBS II 14	1
Socket 1/2" - 1/4"	553928	–	–	1/2" / 1/4"	FBS II 6 / FBS II 8 / FBS II 8 SK	1
Socket 1/2" - 5/16"	538576	–	–	1/2" - 5/16"	FBS II 10 / FBS II 10 SK	1
Socket 1/2" - TX50	553929	–	–	1/2" / TX50	FBS II 10 SK	1
FMB II TX20 Bit	564312	–	–	TX20	–	1
FMB II TX25 Bit	564313	–	–	TX25	–	1
FMB II TX30 Bit	564314	–	–	TX30	FBS II 6	1
FMB II TX40 Bit	564315	–	–	TX40	FBS II 8 / FBS II 8 SK	1

Technical data

Accessories UltraCut FBS II



FUP



Socket SW



Socket 1/2" - 1/4"



Socket TX50



FMB TX



FPB ProfiBit TX 50 5/16"



FMB II TX



SC-ST

Item	Item no.	Ap- pro- val	Internal diameter D [mm]	Drive	Match	Sales unit [pcs]
		DIBt				
FMB TX25 MaxxBit W5	533157	-	-	TX20	-	1
FMB TX30 MaxxBit W5	533158	-	-	TX30	FBS II 6	1
FMB TX40 MaxxBit W5	533159	-	-	TX40	FBS II 8 / FBS II 8 SK	1
FPB ProfiBit TX50 5/16"	557844	-	-	TX50	FBS II 10 SK	1
SC-ST 8 setting tool	557872	-	-	-	FBS II 8	1
SC-ST 10 setting tool	557874	-	-	-	FBS II 10	1
SC-ST 12 setting tool	563090	-	-	-	FBS II 12	1

Technical data

Accessories UltraCut FBS II



FFD



FSW 10

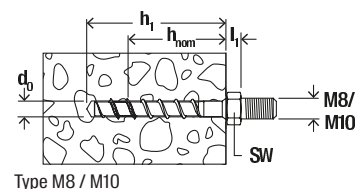
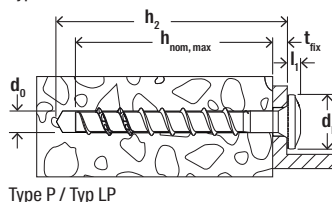
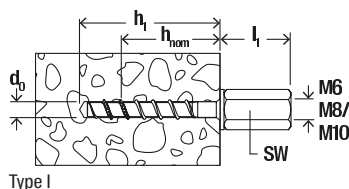
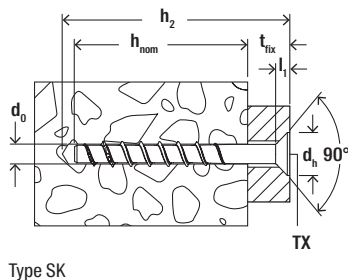
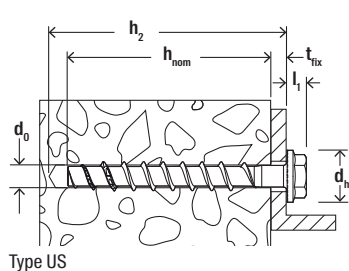


Washer U



Item	Item no.	Internal diameter D [mm]	External-ø d [mm]	Match	Sales unit [pcs]
FFD 22 x 9 x 6	547515	9	22	FBS II 6	4
Adjusting washer FSW 10	557276	17.5	44	FBS II 10 US	40
Washer for FBS 10	520471	13.5	44	FBS II 10 US	50

Installation data - concrete C20/25 - C50/60



UltraCut		FBS II 8		FBS II 10		FBS II 6				FBS II M8/M10	FBS II 6 I, M8/M10, M6
		SK	SK R	SK	SK R	SK	P	LP	US		
l_1	[mm]	6,0	7,0	7,0	7,0	6,0	3,9	3,6	6,2	3,6/5	15/16
d_k	[mm]	20,0	23,0	23,0	25,0	13,5	14,4	17,5	17,0	37,0/32	-
Concrete screw UltraCut FBS II 6-14 gvz / R						6	8	10	12	14	
Drill hole diameter		d_0		[mm]		6	8	10	12	14	
Nominal screw-in depth		h_{nom1}		[mm]		25 - 55	50	55	60	65	
		h_{nom2}		[mm]		25 - 55	-	65	75	85	
		h_{nom3}		[mm]		25 - 55	65	85	100	115	
Drill hole depth (push-trough installation)		$h_2 \geq$		[mm]		$l + 10$	$l + 10$	$l + 10$	$l + 10$	$l + 15$	
Clearance hole diameter		d_f		[mm]		≤ 8	10,6 - 12	12,8 - 14	14,8 - 16	16,9 - 18	
Maximum torque for installation with impact screw driver in concrete ³⁾		$t_{imp, max gvz}$		[Nm]		450 ¹⁾	600	650	650	650	
		$t_{imp, max R}$		[Nm]		-	450	450	650	-	
Width across flat		SW				10 ²⁾	13	15	17	21	
Drive		TX				T30	T40 (SK u. US)	T50 (SK)	-	-	

1) Screw-in depth < 35 mm 80 Nm

2) SW 13 for FBS II ... M10 and FBS II ... M8/M10 I

3) The values apply to concrete strength of approx. 40 N/mm², for other concrete strength classes the values may differ. The conversion of nominal output into effective tightening torque varies from machine to machine - always therefore use torque control.

Installation data masonry

Concrete screw UltraCut FBS II 8-10					
Building material	Compressive strength class [N/mm ²]	max. T_{inst} [Nm]		h_{nom} [mm]	
		FBS II 8	FBS II 10	FBS II 8	FBS II 10
Solid clay brick (EN771-1)	≥ 16	20	20	50	55
Solid sand-lime brick (EN771-2)	≥ 12	20	20	50	55
Perforated sand-lime brick (EN771-2)	≥ 12	4	8	50	55
Aerated concrete (EN771-4)*	≥ 6	5	5	65	85

* Not regulated in ETA-20/0134, only a recommendation.

Loads

Concrete screw Ultracut FBS II US hexagon head with integral washer and FBS II SK countersunk head

Permissible loads of a single anchor¹⁾ in normal concrete of strength class C20/25.

For the design the complete current assessment ETA-15/0352 has to be considered.

Type	Material/ surface	Screw-in depth h_{nom} [mm]	Minimum member thickness h_{min} [mm]	Instal- lation torque $T_{imp, max}^{2)}$ [Nm]	Cracked concrete				Non-cracked concrete			
					Permissible tension (N_{perm}) and shear loads (V_{perm}); minimum spacing (s_{min}) and edge distances (c_{min}) with reduced loads				Permissible tension (N_{perm}) and shear loads (V_{perm}); minimum spacing (s_{min}) and edge distances (c_{min}) with reduced loads			
					$N_{perm}^{3)}$ [kN]	$V_{perm}^{3)}$ [kN]	$s_{min}^{3)}$ [mm]	$c_{min}^{3)}$ [mm]	$N_{perm}^{3)}$ [kN]	$V_{perm}^{3)}$ [kN]	$s_{min}^{3)}$ [mm]	$c_{min}^{3)}$ [mm]
FBS II 6	gvz	40	80	450	1.2	4.3	35	35	3.8	4.3	35	35
	gvz	45	90	450	1.7	4.3	35	35	4.8	4.3	35	35
	gvz	50	90	450	1.9	4.3	35	35	5.7	4.3	35	35
	gvz	55	100	450	2.4	6.3	35	35	6.4	6.3	35	35
FBS II 8	gvz / CP	50	100	600	2.9	4.1	35	35	5.9	5.9	35	35
	gvz / CP	65	120	600	5.7	9.0	35	35	8.8	9.0	35	35
FBS II 10	gvz / CP	55	100	650	4.3	4.6	40	40	6.6	6.6	40	40
	gvz / CP	65	120	650	5.7	11.9	40	40	8.5	14.0	40	40
	gvz / CP	85	140	650	9.2	16.6	40	40	13.1	16.6	40	40
FBS II 12	gvz / CP	60	110	650	5.3	10.6	50	50	7.5	15.1	50	50
	gvz / CP	75	130	650	7.6	15.2	50	50	10.9	15.2	50	50
	gvz / CP	100	150	650	12.0	20.3	50	50	17.1	20.3	50	50
FBS II 14	gvz / CP	65	120	650	5.8	11.6	60	60	8.3	16.6	60	60
	gvz / CP	85	140	650	9.0	18.0	60	60	12.8	22.1	60	60
	gvz / CP	115	180	650	14.7	29.4	60	60	21.0	29.4	60	60

¹⁾ Design according to EN 1992-4:2018 (for static resp. quasi-static loads). The partial safety factors for material resistance as regulated in the ETA as well as a partial safety factor for load actions of $\gamma_L = 1.4$ are considered. As a single anchor counts e.g. an anchor with a spacing $s \geq 3 \times h_{ef}$ and an edge distance $c \geq 1.5 \times h_{ef}$. Accurate data see ETA.

²⁾ Maximum allowable torque for installation with any tangential impact screw driver. Further technical data see ETA.

³⁾ In the case of combinations of tension and shear loads, bending moments with reduced or minimum spacing and edge distances (anchor groups), the design must be carried out in accordance with the provisions of the complete ETA and the provisions of the EN 1992-4:2018. We recommend using our anchor design software C-FIX.

Loads

Concrete screw UltraCut FBS II US R hexagon head with integral washer and FBS II SK R countersunk head

Permissible loads of a single anchor¹⁾ in normal concrete of strength class C20/25.

For the design the complete current assessment ETA-17/0740 has to be considered.

Type	Material/ surface	Screw-in depth h_{nom} [mm]	Minimum member thickness h_{min} [mm]	Maximum installation torque $T_{imp, max}^{2)}$ [Nm]	Cracked concrete				Non-cracked concrete			
					Permissible tension (N_{perm}) and shear loads (V_{perm}); minimum spacing (s_{min}) and edge distances (c_{min}) with reduced loads				Permissible tension (N_{perm}) and shear loads (V_{perm}); minimum spacing (s_{min}) and edge distances (c_{min}) with reduced loads			
					$N_{perm}^{3)}$ [kN]	$V_{perm}^{3)}$ [kN]	$s_{min}^{3)}$ [mm]	$c_{min}^{3)}$ [mm]	$N_{perm}^{3)}$ [kN]	$V_{perm}^{3)}$ [kN]	$s_{min}^{3)}$ [mm]	$c_{min}^{3)}$ [mm]
FBS II 8	R	50	100	450	1.9	4.1	35	35	3.3	5.9	35	35
FBS II 8	R	65	120	450	4.3	6.1	35	35	6.7	8.8	35	35
FBS II 10	R	55	100	450	2.1	4.6	40	40	4.0	6.6	40	40
FBS II 10	R	65	120	450	2.9	6.0	40	40	6.7	8.5	40	40
FBS II 10	R	85	140	450	7.6	18.4	40	40	13.1	20.9	40	40
FBS II 12	R	60	110	650	2.1	5.3	50	50	4.8	7.5	50	50
FBS II 12	R	75	130	650	5.2	15.2	50	50	5.7	21.8	50	50
FBS II 12	R	100	150	650	12.0	23.9	50	50	17.1	26.2	50	50

¹⁾ Design according to EN 1992-4:2018 (for static resp. quasi-static loads). The partial safety factors for material resistance as regulated in the ETA as well as a partial safety factor for load actions of $\gamma_L = 1.4$ are considered. As a single anchor counts e.g. an anchor with a spacing $s \geq 3 \times h_{ef}$ and an edge distance $c \geq 1.5 \times h_{ef}$. Accurate data see ETA.

²⁾ Maximum allowable torque for installation with any tangential impact screw driver. Further technical data see ETA.

³⁾ In the case of combinations of tension and shear loads, bending moments with reduced or minimum spacing and edge distances (anchor groups), the design must be carried out in accordance with the provisions of the complete ETA and the provisions of the EN 1992-4:2018. We recommend using our anchor design software C-FIX.

Loads

Concrete screw UltraCut FBS II US/SK

Permissible loads¹⁾²⁾ for a single anchor in masonry for Push-through installation.

For the design the complete current assessment ETA-20/0134 of 14.07.2022 has to be considered.

Type	Min. compressive brick strength f_b [N/mm ²]	Brick raw density ρ [kg/dm ³]	Minimum brick dimensions (L x W x H) [mm]	Nominal anchor depth h_{nom} [mm]	Minimum member thickness h_{min} [mm]	Maximum Installation torque $T_{imp, max}^{3)}$ [Nm]	Permissible tensile load ⁴⁾ N_{perm} [kN]	Permissible shear load ⁴⁾ parallel ⁵⁾ $V_{perm \parallel}$ [kN]	Minimum spacing ⁵⁾ $s_{min \parallel} / s_{min \perp}$ [mm]	Minimum edge distance ⁵⁾ c_{min} [mm]
Solid brick Mz, acc. to EN 771-1										
FBS II 6	≥ 12.0	≥ 1.8	240 x 115 x 71	≥ 40	≥ 115	80	0.54	0.34	80	50
FBS II 6	≥ 16.0	≥ 1.8	240 x 115 x 71	≥ 40	≥ 115	80	0.60	0.40	80	50
FBS II 6	≥ 17.5	≥ 1.8	240 x 115 x 71	≥ 40	≥ 115	80	0.66	0.40	80	50
FBS II 8	≥ 12.0	≥ 1.8	240 x 115 x 71	≥ 50	≥ 115	80	0.46	1.37	80	60
FBS II 8	≥ 16.0	≥ 1.8	240 x 115 x 71	≥ 50	≥ 115	80	0.54	1.60	80	60
FBS II 8	≥ 17.5	≥ 1.8	240 x 115 x 71	≥ 50	≥ 115	80	0.57	1.66	80	60
FBS II 10	≥ 12.0	≥ 1.8	240 x 115 x 71	≥ 55	≥ 115	80	0.40	1.26	80	70
FBS II 10	≥ 16.0	≥ 1.8	240 x 115 x 71	≥ 55	≥ 115	80	0.46	1.46	80	70
FBS II 10	≥ 17.5	≥ 1.8	240 x 115 x 71	≥ 55	≥ 115	80	0.49	1.51	80	70
Solid brick Mz, nordic, acc. to EN 771-1										
FBS II 6	≥ 16.0	≥ 1.8	228 x 108 x 54	≥ 40	≥ 108	80	0.34	0.31	80	50
FBS II 6	≥ 20.0	≥ 1.8	228 x 108 x 54	≥ 40	≥ 108	80	0.40	0.37	80	50
FBS II 8	≥ 16.0	≥ 1.8	228 x 108 x 54	≥ 50	≥ 108	80	0.46	1.34	80	60
FBS II 8	≥ 20.0	≥ 1.8	228 x 108 x 54	≥ 50	≥ 108	80	0.51	1.49	80	60
FBS II 10	≥ 16.0	≥ 1.8	228 x 108 x 54	≥ 55	≥ 108	80	0.37	1.23	80	70
FBS II 10	≥ 20.0	≥ 1.8	228 x 108 x 54	≥ 55	≥ 108	80	0.43	1.37	80	70
Solid sand-lime brick KS, acc. to EN 771-2										
FBS II 6	≥ 12.0	≥ 1.8	240 x 115 x 71	≥ 40	≥ 115	80	0.43	0.51	80	50
FBS II 6	≥ 16.0	≥ 1.8	240 x 115 x 71	≥ 40	≥ 115	80	0.49	0.60	80	50
FBS II 6	≥ 20.0	≥ 1.8	240 x 115 x 71	≥ 40	≥ 115	80	0.54	0.66	80	50
FBS II 8	≥ 12.0	≥ 1.8	240 x 115 x 71	≥ 50	≥ 115	80	0.54	0.66	80	60
FBS II 8	≥ 16.0	≥ 1.8	240 x 115 x 71	≥ 50	≥ 115	80	0.60	0.74	80	60
FBS II 8	≥ 20.0	≥ 1.8	240 x 115 x 71	≥ 50	≥ 115	80	0.69	0.83	80	60
FBS II 10	≥ 12.0	≥ 1.8	240 x 115 x 71	≥ 55	≥ 115	80	0.54	0.89	80	70
FBS II 10	≥ 16.0	≥ 1.8	240 x 115 x 71	≥ 55	≥ 115	80	0.63	1.00	80	70
FBS II 10	≥ 20.0	≥ 1.8	240 x 115 x 71	≥ 55	≥ 115	80	0.69	1.11	80	70
Perforated sand-lime brick KSL, acc. to EN 771-2										
FBS II 6	≥ 10.0	≥ 1.4	240 x 175 x 113	≥ 40	≥ 175	65	0.09	0.80	80	50
FBS II 6	≥ 12.0	≥ 1.4	240 x 175 x 113	≥ 40	≥ 175	65	0.11	0.94	80	50
FBS II 6	≥ 16.0	≥ 1.4	240 x 175 x 113	≥ 40	≥ 175	65	0.14	1.17	80	50
FBS II 6	≥ 17.5	≥ 1.4	240 x 175 x 113	≥ 40	≥ 175	65	0.17	1.26	80	50
FBS II 8	≥ 10.0	≥ 1.4	240 x 175 x 113	≥ 50	≥ 175	65	0.26	0.66	80	60
FBS II 8	≥ 12.0	≥ 1.4	240 x 175 x 113	≥ 50	≥ 175	65	0.29	1.03	80	60
FBS II 8	≥ 16.0	≥ 1.4	240 x 175 x 113	≥ 50	≥ 175	65	0.37	1.40	80	60
FBS II 8	≥ 17.5	≥ 1.4	240 x 175 x 113	≥ 50	≥ 175	65	0.40	1.49	80	60
FBS II 10	≥ 10.0	≥ 1.4	240 x 175 x 113	≥ 55	≥ 175	65	0.23	0.77	80	70
FBS II 10	≥ 12.0	≥ 1.4	240 x 175 x 113	≥ 55	≥ 175	65	0.26	1.23	80	70
FBS II 10	≥ 16.0	≥ 1.4	240 x 175 x 113	≥ 55	≥ 175	65	0.34	1.66	80	70
FBS II 10	≥ 17.5	≥ 1.4	240 x 175 x 113	≥ 55	≥ 175	65	0.37	1.77	80	70

¹⁾ The partial safety factors for material resistance as regulated in assessment as well as a partial safety factor for load actions of $\gamma_L = 1.4$ are considered. Load values are valid for zinc-plated steel all sizes and head shapes, for stainless steel R for the sizes 8 and 10. Exakt values see ETA.

²⁾ The given loads are valid for installation and use of fixations in dry masonry, use category d/d, width of the joints $w_j \leq 3$ mm and general purpose mortar with strength class M2.5 -M9. Further information and details on drill hole preparation, etc., see ETA.

³⁾ Maximum allowable device torque for installation with any tangential impact screw driver. Further technical data see ETA.

⁴⁾ In the case of combinations of tensile and shear loads, bending moments and reduced edge and axial spacings (anchor groups), the design must be carried out in accordance with the provisions of the complete assessment.

⁵⁾ Minimum feasible spacing resp. edge distance. Details as well as to the distances to joints see assessment.

⁶⁾ Shear load parallel to the vertical joint. Load reduction for shear load perpendicular to the vertical joint see ETA.

Loads

Concrete screw UltraCut FBS II for temporary fastening

Permissible loads of a single anchor¹⁾ in normal concrete of strength class C20/25 to C50/60.

For the design the complete current assessment Z-21.8-2049 has to be considered.

Type	Material/ surface	Screw-in depth	Minimum member thickness	Maximum installation torque	Minimum spacing (s_{min}) and edge distances (c_{min})		Cracked and non-cracked concrete			
		h_{nom}	h_{min}	$T_{imp, max}^{2)}$			Permissible load $F_{perm}^{4)}$			
		[mm]	[mm]	[Nm]	s_{min}	$c_{min}^{3)}$	$f_{c, cube} \geq 10 \text{ N/mm}^2$	$f_{c, cube} \geq 15 \text{ N/mm}^2$	$f_{c, cube} \geq 20 \text{ N/mm}^2$	$f_{c, cube} \geq 25 \text{ N/mm}^2$
					[mm]	[mm]	[kN]	[kN]	[kN]	[kN]
FBS II 8	gvz	50	100	400	200	65	1.9	2.3	2.6	2.9
	gvz	65	150	400	300	100	3.6	4.4	5.1	5.6
FBS II 10	gvz	55	105	400	210	70	2.2	2.7	3.1	3.5
	gvz	65	130	400	260	85	2.9	3.5	4.1	4.5
	gvz	85	205	650	410	135	5.8	7.1	8.1	9.1
FBS II 12	gvz	60	120	400	240	80	2.8	3.4	3.9	4.4
	gvz	75	150	400	300	100	4.0	4.9	5.6	6.1
	gvz	100	240	650	480	160	7.6	9.3	10.8	12.0
FBS II 14	gvz	65	115	400	230	75	2.3	2.8	3.2	3.6
	gvz	85	150	400	300	100	3.6	4.4	5.0	5.6
	gvz	115	255	650	510	170	8.9	10.9	12.6	14.0

¹⁾ Material safety factor as well as a partial safety factor for load actions of $\gamma_t = 1.4$ is considered. The screw may be used in the concrete member before the characteristic compressive strength $f_{c, cube}$ is reached. In this case, the concrete compressive strength $f_{c, cube}$ must have reached a value of at least 10 N/mm². Only intended for temporary use and one-time screwing into the same drill hole. Conditions for reuse of the screw see, approval.

²⁾ Values for impulse wrenches with tangential impact and automatic stop device.

³⁾ In case of combined action of shear load and installation close to the edge, the edge distance must be $\geq c_{min} \times 1.5$. Detail see approval.

⁴⁾ Values valid for all load directions.