

**Building materials**



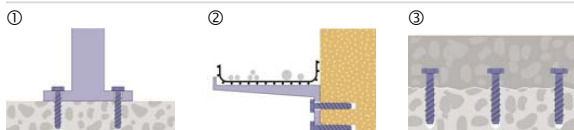
**Qualities**



**Characteristics**

- Applicable in most solid base materials.
- With little or no expansion, reduced edge distance and anchor spacing is achieved.
- Resists tension and shear loads.
- Disassembling and re-use of the drill hole possible.
- Suitable for ceilings (tension load according to DIN 18168)
- Can also be installed in cracked concrete.
- Application as a rebar connection between old and new concrete.

**Applications**



- ① Connecting constructions on concrete.
- ② Fastenings of cable channels.
- ③ As thrust reinforcing at carriage way reconstruction
- Application for metal constructions, wood and facade under-constructions.
- Assembling of discs, profiles, consoles, air ducts etc.
- Annealed screw applicable in almost any base materials: Concrete, natural stone, sandstone, brick.

**Installation**



- ① Drill the correct hole-Ø (screw name = Drill hole-Ø).
- ② Ensure sufficient drill hole depth, so that the dust from the cutting thread doesn't reduce installation.
- ③ Clean the drill hole.
- ④ Tighten the Concrete Screw with a torque spanner to the predetermined value  $T_{inst}$ .

Screw size		6mm	8mm	10mm	12mm	
Application on concrete:						
Recommended tension loads: <sup>1)</sup>						
N <sub>Emp</sub>	- Concrete uncracked C20/25 - C50/60	kN	1.3	3.6	4.7	6.6
	- Concrete cracked C20/25 - C50/60	kN	0.6	1.8	2.3	3.2
Recommended shear load:						
V <sub>Emp</sub>	- Concrete C20/25 - C50/60	kN	3.6	6.3	11.5	14.9
h <sub>min</sub>	Min. thickness of foundation	mm	60	80	100	120
h <sub>ef</sub>	Effective anchorage depth	mm	30	40	50	60
T <sub>inst</sub>	Torque at anchoring:	Nm	25	40	60	80
h <sub>1</sub>	Drill hole depth	mm	40	55	70	85
t <sub>fix</sub>	Assembling length usable	mm	0 20 45	20 35 60	10 25 50 100	15 40 70 90 140

Application on brick and sandstone:						
N <sub>Emp</sub>	Recommended tension load <sup>1)</sup>	kN	0.8	1	1.2	-
V <sub>Emp</sub>	Recommended shear load	kN	1.2	1.4	1.6	-
h <sub>min</sub>	Min. thickness of foundation	mm				
h <sub>ef</sub>	Effective anchorage depth	mm	40	60	60	-
T <sub>inst</sub>	Torque at anchoring:	Nm	15	20	20	-
h <sub>1</sub>	Drill hole depth	mm	50	75	80	-
t <sub>fix</sub>	Assembling length usable	mm	- 10 35	0 15 40	0 15 40 90	-

Application on aerated concrete:						
N <sub>Emp</sub>	Recommended tension load <sup>1)</sup>	kN	0.4	0.6	0.8	-
V <sub>Emp</sub>	Recommended shear load	kN	0.6	0.8	1	-
h <sub>min</sub>	Min. thickness of foundation	mm				
h <sub>ef</sub>	Effective anchorage depth	mm	60	80	80	-
T <sub>inst</sub>	Torque at anchoring:	Nm	10	15	15	-
h <sub>1</sub>	Drill hole depth	mm	70	90	90	-
t <sub>fix</sub>	Assembling length usable	mm	- - 15	- - 20	- - 10 60	-

SW	Spanner size	mm	10	15	17	19
d <sub>0</sub>	Drill hole-Ø in the building material	mm	6	8	10	12
d <sub>cut</sub>	Max. drill-Ø	mm	6.45	8.45	10.45	12.5
d <sub>f</sub>	Hole-Ø in the attached part	mm	8	10	12	14
l	Plug length	mm	30 50 75	60 75 100	60 75 100 150	75 100 130 150 200
d <sub>nom</sub>	Outside-Ø of the plug	mm	6	8	10	12



1) Without influence of anchor and edge distance / Safety factor 3