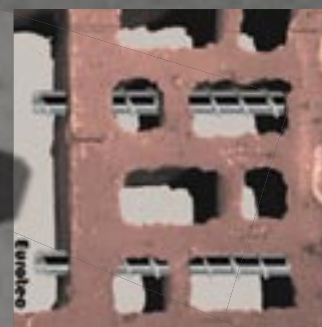


STAHLFIX



Bolt Anchor for Concrete

Stahlfix SAB





Stahlfix Anchor Bolt – SAB – Bolt anchor for concrete



Applications

- designed for fastening of lightweight structures arranged temporarily, e.g. falsework, board platforms etc.,
- fastening of lift shaft protective barriers
- fastening of cable raceways and mechanical installations.

Advantages:

- very short installation time, up to 50% shorter compared with traditional anchors,
- easy and fast anchor removal,
- distribution of stresses on the entire hole depth in the base,
- absence of installation stresses.

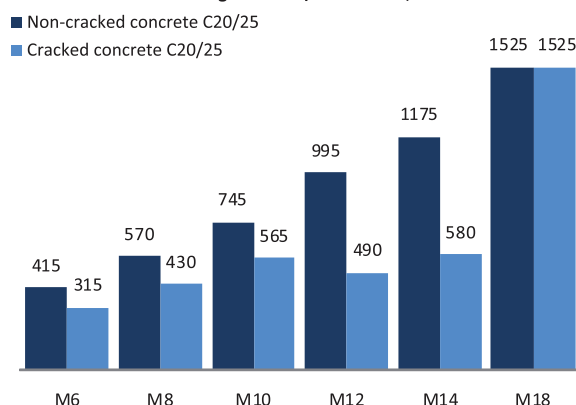
Anchor bar material:

SAB anchors are made of regular carbon steel of the mechanical property class 8.8, with min. 5µm zinc coating.

Base material:

Non-cracked concrete of min. C20/25 class.

Recommended tensile strengths in C20/25 concrete, in kG



anchor designation			
Stahlfix Anchor Bolt	Thread size d [mm]	Anchor length L [mm]	Anchor version
SAB	08	150	CS – countersunk head version
SAB	06	050	F – flange version
SAB	10	075	-flangeless version
SAB	08	050	H – open-hook version
SAB	10	050	E – closed-hook version

Technical specification of SAB CS, SAB F and SAB anchors



Product code	Thread size	Hole diameter	Min. hole depth	Effective anchor embedment	Min. base thickness	Max. thickness of fixed element	Min. hole diameter in fixed element	Anchor length
	d [mm]	d _o [mm]	h ₁ [mm]	h _{ef} /h _{red} [mm]	h _{min} [mm]	t _{fix} [mm]	d _f [mm]	L [mm]
SAB08050CS	8	6	70/50*	60/45*	120	5*	9	50
SAB08075CS						15/30*		75
SAB08100CS						40/55*		100
SAB08130CS						70/85*		130
SAB08150CS						90/105*		150
SAB06050F	6	5	70/50*	60/50*	120	-	7	50
SAB06075F						15/25*		75
SAB06100F						40/50*		100
SAB08030F	8	6	70/60*	60/50*	120	-	9	30
SAB08050F						-		50
SAB08075F						15/25*		75
SAB08100F						40/50*		100
SAB08130F						70/80*		130
SAB08150F						90/100*		150
SAB10060	10	8	70/60*	60/50*	120	10*	12	60
SAB10075						15/25*		75
SAB10100						40/50*		100
SAB10130						70/80*		130
SAB10150						90/100*		150
SAB12060	12	10	90/60*	80/50*	160	10*	14	60
SAB12075						25*		75
SAB12100						20/50*		100
SAB12130						50/80*		130
SAB12150						70/100*		150
SAB14075	14	12	90/60*	80/50*	160	25*	16	75
SAB14100						20/50*		100
SAB14130						50/80*		130
SAB14150						70/100*		150
SAB14200						120/150*		200
SAB18100	18	16	90	80	160	20	20	100
SAB18150						70		150
SAB18200						120		200

* Values for reduced anchor embedment



Installation data of SAB H, SAB E anchors, open-hook and closed-hook versions



Product code	Thread size	Hole diameter	Min. hole depth	Effective anchor embedment	Min. base thickness	Anchor length	Hook/eye inner diameter
	D [mm]	d _o [mm]	h ₁ [mm]	h _{ef} [mm]	h _{min} [mm]	L [mm]	d _H /d _E [mm]
SAB08050H	8	6	70	60	120	90	12
SAB10055H						90	14
SAB08050E	10	8	70	60	120	90	12
SAB10055E						90	14

* Values for reduced anchor embedment

Mechanical properties of SAB anchors

Thread size	M6	M8	M10	M12	M14	M18
f _{uk} (N/mm ²) Nominal tensile capacity	800	800	800	800	600	600
f _{yk} (N/mm ²) Nominal yield stress	640	640	640	640	640	640
A _s (mm ²) Effective cross section	28.9	43.9	74.8	110.3	148.9	197.6
W _{el} (mm ³) Sectional modulus	21.9	41.0	91.2	163.4	256.3	391.8
M ⁰ _{rk,s} (Nm) Characteristic bending moment	21.0	39.4	87.6	156.9	246.0	376.1

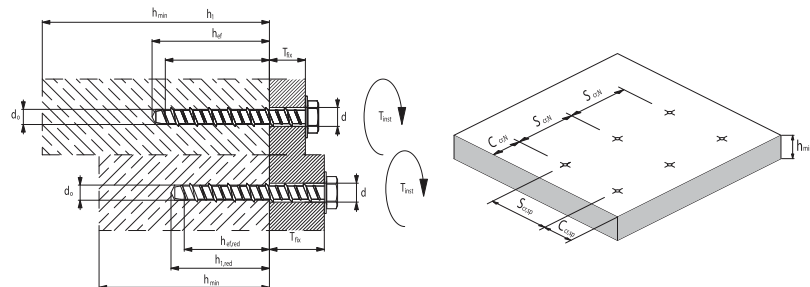
Calculated load capacity of SAB anchors in C20/25 concrete for nominal embedment h_{ef}

Anchor size symbol	SAB 6	SAB 8	SAB 10	SAB 12	SAB 14	SAB 18
Effective anchor embedment h _{ef} [mm]	60	60	60	80	80	80
Tensile capacity N _{rec} [kN]	4.15	5.7	7.45	9.95	11.75	15.25
Shear capacity V _{rec} [kN]	7.7	11.7	19.9	29.4	39.7	52.7
Anchor spacing S _{cr,N} [mm]	120	120	120	160	160	160
Edge distance C _{cr,N} [mm]	60	60	60	80	80	80
Required tightening torque T _{inst} [Nm]	15	20	35	40	45	50

Calculated load capacity of SAB anchors in C20/25 concrete for reduced embedment h_{ef,red}

Anchor size symbol	SAB 6	SAB 8	SAB 10	SAB 12	SAB 14	SAB 18
Effective anchor embedment h _{ef,red} [mm]	50	50	50	50	50	80
Tensile capacity N _{rec} [kN]	3.15	4.30	5.65	4.90	5.80	15.25
Shear capacity V _{rec} [kN]	2.2	3.3	4.3	4.5	4.9	5.8
Anchor spacing S _{cr,N} [mm]	100	100	100	100	100	160
Edge distance C _{cr,N} [mm]	50	50	50	50	50	80
Required tightening torque T _{inst} [Nm]	15	20	35	40	45	50

SAB anchor installation scheme



SAB anchor installation

