

 **STAHL**



SPIN-IN CAPSULES
SVA-PE



STAHL

Spin-in Capsules



SVA-PE



PRODUCT CODE	d_s	d	L_c	
	mm	mm	mm	pcs
SVA-PE-08	10	M8	85	10
SVA-PE-10	12	M10	85	10
SVA-PE-12	14	M12	95	10
SVA-PE-16	18	M16	95	10
SVA-PE-20	24	M20	180	6
SVA-PE-24	28	M24	215	6
SVA-PE-30	35	M30	270	2

Description

Glass capsules are designed particularly for applications in solid materials for example concrete or stone. The capsules contain both the resin and hardener. Components react while mixed.

Features

- Suitable for heavy loads.
- Excellent chemical resistance.
- Easy application.
- High durability.

Suitable for use in



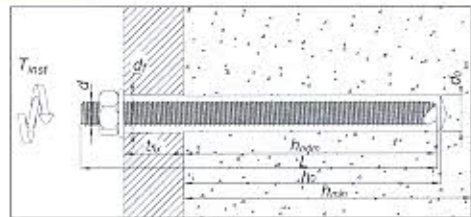
Brickwork Concrete Stone

Typical applications

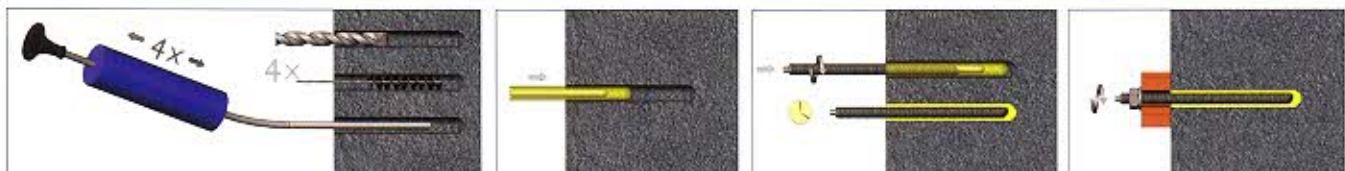
- Masonry support
- Fixing into tarmac
- Barriers, fencing and railing attachments
- Resistant to vibratory loads; especially suitable for machinery and road structures.

INSTALLATION DATA

THREAD SIZE			M8	M10	M12	M16	M20	M24	M30
Stud diameter	d	[mm]	8	10	12	16	20	24	30
Length	L	[mm]	110	130	160	130	260	300	380
Hole diameter in substrate	d_s	[mm]	10	12	14	18	24	28	35
Hole diameter in fixture	d_f	[mm]	9	12	14	18	22	26	32
Minimum hole depth	h_{min}	[mm]	85	95	115	130	175	215	275
Minimum installation depth	h_{inst}	[mm]	80	90	110	125	170	210	270
Minimum substrate thickness	h_{sub}	[mm]	120	130	140	180	230	270	340
Torque	T_{req}	[Nm]	10	20	40	80	120	180	300



Installation



1. Drill a hole of correct diameter and depth for stud or socket size being used.
2. Remove debris and thoroughly clean hole with brush and air-pump four times.
3. Insert SVA-PE capsule into the hole. Connect stud or socket to the drilling machine using the appropriate driver system.
4. Drive the stud or socket into capsule. To prevent over-mixing stop as soon as bottom of hole has been reached. Leave undisturbed until resin has set.
5. Position fixture and tighten to recommended torque.

MINIMUM CURING AND WORKING TIME

DRY/WET concrete	RESIN temperature	CONCRETE temperature	CURING time	WORKING time min
DRY CONCRETE	5 °C / 41 °F	-5 °C / 23 °F	8,0 h	-
	5 °C / 41 °F	0 °C / 32 °F	4,0 h	-
	5 °C / 41 °F	5 °C / 41 °F	2,5 h	-
	10 °C / 50 °F	10 °C / 50 °F	2,0 h	-
	15 °C / 59 °F	15 °C / 59 °F	90 min	-
	20 °C / 68 °F	20 °C / 68 °F	45 min	-
	25 °C / 77 °F	30 °C / 86 °F	20 min	-
	25 °C / 77 °F	40 °C / 104 °F	10 min	-

SVA-PE RESIN + STEEL RODS M8 - M30

Size	
Embedment depth	h_{ep} [mm]
TENSION LOADS	
STEEL FAILURE	
Characteristic resistance	$N_{s,Rk}$ [kN]
Design resistance $\gamma_{s,Rk}=1,5$	$N_{s,Rd}$ [kN]
PULLOUT AND CONCRETE FAILURE IN NON-CRACKED CONCRETE C20/25	
Characteristic resistance	$N_{p,Rk}$ [kN]
Design resistance $\gamma_{p,Rk}=1,8$ (M8-M20) / 2,1 (M24, M30)	$N_{p,Rd}$ [kN]
Increasing factor and partial safety factor	C30/37 - C40/50 - C50/60 -
Spacing	s_{min} [mm]
Edge distance	c_{min} [mm]
SHEAR LOADS	
CONCRETE EDGE FAILURE C20/25	
Edge distance	c_{min} [mm]
Characteristic resistance for cm	$V_{s,Rk}$ [kN]
Design resistance $\gamma_{s,Rk}=1,5$	$V_{s,Rd}$ [kN]
STEEL FAILURE	
Characteristic resistance with distance sleeve	$V_{s,Rk}$ [kN]
Design resistance $\gamma_{s,Rk}=1,25$	$V_{s,Rd}$ [kN]
Edge distance	c_{min} [mm]

5.8								8.8								A4							
M8	M10	M12	M16	M20	M24	M30		M8	M10	M12	M16	M20	M24	M30		M8	M10	M12	M16	M20	M24	M30	
80	90	110	125	170	210	270		80	90	110	125	170	210	270		80	90	110	125	170	210	270	
18,0	29,0	42,0	78,0	122,0	176,0	280,0		29,0	46,0	67,0	126,0	196,0	282,0	449,0		26,0	41,0	59,0	110,0	171,0	247,0	393,0	
12,0	19,3	28,0	52,0	81,3	117,3	186,7		19,3	30,7	44,7	84,0	130,7	188,0	299,3		13,9	21,9	31,6	58,8	91,4	132,1	210,2	
20,0	25,0	35,0	50,0	75,0	115,0	140,0		20,0	25,0	35,0	50,0	75,0	115,0	140,0		20,0	25,0	35,0	50,0	75,0	115,0	140,0	
9,5	11,9	16,7	23,8	35,7	54,8	66,7		9,5	11,9	16,7	23,8	35,7	54,8	66,7		9,5	11,9	16,7	23,8	35,7	54,8	66,7	
1,04	1,04	1,04	1,04	1,04	1,00	1,00		1,04	1,04	1,04	1,04	1,04	1,00	1,00		1,04	1,04	1,04	1,04	1,04	1,00	1,00	
1,07	1,07	1,07	1,07	1,07	1,00	1,00		1,07	1,07	1,07	1,07	1,07	1,00	1,00		1,07	1,07	1,07	1,07	1,07	1,00	1,00	
1,09	1,09	1,09	1,09	1,09	1,00	1,00		1,09	1,09	1,09	1,09	1,09	1,00	1,00		1,09	1,09	1,09	1,09	1,09	1,00	1,00	
160	180	220	250	340	420	540		160	180	220	250	340	420	540		160	180	220	250	340	420	540	
80	90	110	125	170	210	270		80	90	110	125	170	210	270		80	90	110	125	170	210	270	
40	45	55	63	85	105	135		40	45	55	63	85	105	135		40	45	55	63	85	105	135	
3,9	5,0	7,4	10,0	18,3	27,4	44,9		3,9	5,0	7,4	10,0	18,3	27,4	44,9		3,9	5,0	7,4	10,0	18,3	27,4	44,9	
2,6	3,3	4,9	6,7	12,2	18,3	29,9		2,6	3,3	4,9	6,7	12,2	18,3	29,9		2,6	3,3	4,9	6,7	12,2	18,3	29,9	
9,0	14,0	21,0	39,0	61,0	88,0	140,0		15,0	23,0	34,0	63,0	98,0	141,0	224,0		13,0	20,0	29,0	55,0	86,0	124,0	196,0	
7,2	11,2	16,8	31,2	48,8	70,4	112,0		12,0	18,4	27,2	50,4	78,4	112,8	179,2		8,3	12,8	18,6	35,3	55,1	79,5	125,6	
70	89	110	156	190	229	288		98	122	150	207	255	308	389		89	113	137	196	239	287	361	

EDGE DISTANCE AND SPACING

EDGE distance (tensile)							
c_e [mm]	M8	M10	M12	M16	M20	M24	M30
40	0,64	-	-	-	-	-	-
45	0,68	0,64	-	-	-	-	-
55	0,76	0,71	0,64	-	-	-	-
65	0,86	0,79	0,70	0,65	-	-	-
85	1,00	0,96	0,83	0,76	0,64	-	-
105	-	1,00	0,89	0,82	0,68	-	-
120	-	-	1,00	0,97	0,78	0,68	-
135	-	-	-	1,00	0,84	0,73	0,64
150	-	-	-	-	0,91	0,78	0,67
160	-	-	-	-	0,95	0,82	0,70
180	-	-	-	-	1,00	0,89	0,75
220	-	-	-	-	-	1,00	0,86
255	-	-	-	-	-	-	0,96
285	-	-	-	-	-	-	1,00

EDGE distance (shear)							
c_e [mm]	M8	M10	M12	M16	M20	M24	M30
40	1,00	-	-	-	-	-	-
45	1,13	1,00	-	-	-	-	-
55	1,38	1,22	1,00	-	-	-	-
63	1,58	1,40	1,15	1,00	-	-	-
85	-	1,89	1,55	1,35	1,00	-	-
105	-	-	1,91	1,67	1,24	1,00	-
135	-	-	-	2,14	1,59	1,29	1,00
155	-	-	-	2,46	1,82	1,48	1,15
185	-	-	-	-	2,18	1,76	1,37
225	-	-	-	-	-	2,14	1,67
255	-	-	-	-	-	-	1,89
285	-	-	-	-	-	-	2,10

SPACING							
s [mm]	M8	M10	M12	M16	M20	M24	M30
40	0,63	-	-	-	-	-	-
45	0,64	0,63	-	-	-	-	-
55	0,67	0,65	0,63	-	-	-	-
65	0,70	0,68	0,65	0,63	-	-	-
85	0,77	0,74	0,69	0,67	0,63	-	-
95	0,80	0,76	0,72	0,69	0,64	-	-
120	0,88	0,83	0,77	0,74	0,68	0,64	-
135	0,92	0,88	0,81	0,77	0,70	0,66	0,63
150	0,97	0,92	0,84	0,80	0,72	0,68	0,64
160	1,0	0,94	0,86	0,82	0,74	0,69	0,65
180	-	1,00	0,91	0,86	0,76	0,71	0,67
220	-	-	1,00	0,94	0,82	0,76	0,70
255	-	-	-	1,00	0,88	0,80	0,74
285	-	-	-	-	0,92	0,84	0,76
315	-	-	-	-	0,96	0,88	0,79
340	-	-	-	-	1,00	0,90	0,81
390	-	-	-	-	-	0,96	0,86
420	-	-	-	-	-	1,00	0,89
500	-	-	-	-	-	-	0,96
550	-	-	-	-	-	-	1,00

Accessories

STH-STUDS HEXAGONAL

HEXAGONAL HEAD STUDS
5.8 STEEL ZINC PLATED

PRODUCT CODE	mm	pcs
STH-STUDS-08110	M8x110	10
STH-STUDS-08160	M8x160	10
STH-STUDS-10130	M10x130	10
STH-STUDS-10170	M10x170	10
STH-STUDS-10190	M10x190	10
STH-STUDS-12160	M12x160	10
STH-STUDS-12190	M12x190	10
STH-STUDS-12220	M12x220	10
STH-STUDS-12260	M12x260	10
STH-STUDS-12300	M12x300	5
STH-STUDS-16190	M16x190	10
STH-STUDS-16220	M16x220	10
STH-STUDS-16260	M16x260	10
STH-STUDS-16300	M16x300	5
STH-STUDS-16380	M16x380	1
STH-STUDS-20260	M20x260	5
STH-STUDS-20300	M20x300	1
STH-STUDS-24300	M24x300	1
STH-STUDS-30380	M30x380	1

HEXAGONAL HEAD STUDS
8.8 STEEL ZINC PLATED

PRODUCT CODE	mm	pcs
STH-STUD-88-08110	M8x110	10
STH-STUD-88-08160	M8x160	10
STH-STUD-88-10130	M10x130	10
STH-STUD-88-10170	M10x170	10
STH-STUD-88-10190	M10x190	10
STH-STUD-88-12160	M12x160	10
STH-STUD-88-12190	M12x190	10
STH-STUD-88-12220	M12x220	10
STH-STUD-88-12260	M12x260	10
STH-STUD-88-12300	M12x300	5
STH-STUD-88-16190	M16x190	10
STH-STUD-88-16220	M16x220	10
STH-STUD-88-16260	M16x260	10
STH-STUD-88-16300	M16x300	5
STH-STUD-88-16380	M16x380	1
STH-STUD-88-20260	M20x260	5
STH-STUD-88-20300	M20x300	1
STH-STUD-88-24300	M24x300	1
STH-STUD-88-30380	M30x380	1

HEXAGONAL HEAD STUDS
A4 STAINLESS STEEL

PRODUCT CODE	mm	pcs
STH-STUD-A4-08110	M8x110	10
STH-STUD-A4-08160	M8x160	10
STH-STUD-A4-10130	M10x130	10
STH-STUD-A4-10170	M10x170	10
STH-STUD-A4-10190	M10x190	10
STH-STUD-A4-12160	M12x160	10
STH-STUD-A4-12190	M12x190	10
STH-STUD-A4-12220	M12x220	10
STH-STUD-A4-12260	M12x260	10
STH-STUD-A4-12300	M12x300	5
STH-STUD-A4-16190	M16x190	10
STH-STUD-A4-16220	M16x220	10
STH-STUD-A4-16260	M16x260	10
STH-STUD-A4-16300	M16x300	5
STH-STUD-A4-16380	M16x380	1
STH-STUD-A4-20260	M20x260	5
STH-STUD-A4-20300	M20x300	1
STH-STUD-A4-24300	M24x300	1
STH-STUD-A4-30380	M30x380	1



METAL BRUSH

PRODUCT CODE	mm	pcs
STH-BRUSH-M08/M	M8	1
STH-BRUSH-M10/M	M10	1
STH-BRUSH-M12/M	M12	1
STH-BRUSH-M16/M	M16	1
STH-BRUSH-M20/M	M20	1
STH-BRUSH-M24/M	M24	1
STH-BRUSH-M30/M	M30	1



PLASTIC BRUSH

PRODUCT CODE	mm	pcs
STH-BRUSH-M08/10	M8-M10	1
STH-BRUSH-M10/14	M12-M14	1
STH-BRUSH-M16/28	M16	1

STH-STUDS FLAT

FLAT HEAD STUDS
5.8 STEEL ZINC PLATED

PRODUCT CODE	mm	pcs
STF-STUDS-08110	M8x110	10
STF-STUDS-08160	M8x160	10
STF-STUDS-10130	M10x130	10
STF-STUDS-10170	M10x170	10
STF-STUDS-10190	M10x190	10
STF-STUDS-12160	M12x160	10
STF-STUDS-12190	M12x190	10
STF-STUDS-12220	M12x220	10
STF-STUDS-12260	M12x260	10
STF-STUDS-12300	M12x300	5
STF-STUDS-16190	M16x190	10
STF-STUDS-16220	M16x220	10
STF-STUDS-16260	M16x260	10
STF-STUDS-16300	M16x300	5
STF-STUDS-16380	M16x380	1
STF-STUDS-20260	M20x260	5
STF-STUDS-20300	M20x300	1
STF-STUDS-24300	M24x300	1
STF-STUDS-30380	M30x380	1

FLAT HEAD STUDS
8.8 STEEL ZINC PLATED

PRODUCT CODE	mm	pcs
STF-STUD-88-08110	M8x110	10
STF-STUD-88-08160	M8x160	10
STF-STUD-88-10130	M10x130	10
STF-STUD-88-10170	M10x170	10
STF-STUD-88-10190	M10x190	10
STF-STUD-88-12160	M12x160	10
STF-STUD-88-12190	M12x190	10
STF-STUD-88-12220	M12x220	10
STF-STUD-88-12260	M12x260	10
STF-STUD-88-12300	M12x300	5
STF-STUD-88-16190	M16x190	10
STF-STUD-88-16220	M16x220	10
STF-STUD-88-16260	M16x260	10
STF-STUD-88-16300	M16x300	5
STF-STUD-88-16380	M16x380	1
STF-STUD-88-20260	M20x260	5
STF-STUD-88-20300	M20x300	1
STF-STUD-88-24300	M24x300	1
STF-STUD-88-30380	M30x380	1

FLAT HEAD STUDS
A4 STAINLESS STEEL

PRODUCT CODE	mm	pcs
STF-STUD-A4-08110	M8x110	10
STF-STUD-A4-08160	M8x160	10
STF-STUD-A4-10130	M10x130	10
STF-STUD-A4-10170	M10x170	10
STF-STUD-A4-10190	M10x190	10
STF-STUD-A4-12160	M12x160	10
STF-STUD-A4-12190	M12x190	10
STF-STUD-A4-12220	M12x220	10
STF-STUD-A4-12260	M12x260	10
STF-STUD-A4-12300	M12x300	5
STF-STUD-A4-16190	M16x190	10
STF-STUD-A4-16220	M16x220	10
STF-STUD-A4-16260	M16x260	10
STF-STUD-A4-16300	M16x300	5
STF-STUD-A4-16380	M16x380	1
STF-STUD-A4-20260	M20x260	5
STF-STUD-A4-20300	M20x300	1
STF-STUD-A4-24300	M24x300	1
STF-STUD-A4-30380	M30x380	1

BLOW PUMP

PRODUCT CODE	pcs
STH-PUMP-310	1
STH-PUMP-410	1



SVM-PSC

SVM-PSC is a high performance fixing system that is suitable for use in concrete and other solid or hollow masonry structures.



SHP-PE

Single component Hammer-in capsule SHP-PE capsule range is a high performance fixing system that offers a quick and simple method of usage.



SHP-PE

Double component Hammer-in capsule SHP-PE capsule range is a high performance fixing system that offers a quick and simple method of usage.

