

SPAX CONCRETE SCREWS

IN STEEL AND STAINLESS STEEL

CATALOGUE





SPAX
CONCRETE
SCREWS.
FAST. SECURE.

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WOOD CONNECTORS



SPAX DESIGN SOFTWARE CONCRETE SCREWS PLANNING AND MEASUREMENT

The SPAX design software for concrete screws offers optimised solutions and reliable results. Which concrete screw is right for my project? Our design software provides a quick and efficient answer to this question. The intuitive program not only allows you to customise your project – it also takes characteristic loads, seismic loads and fire loads into account. In addition, the software complies with all current standards, ETAs and Eurocode guidelines.

Additional benefits:

FAST AND EFFICIENT DESIGN

Based on the data entered, the SPAX design software for concrete screws selects the ideal fastening solution and simplifies the designer's work in just a few clicks.

Nothing is older than yesterday's software – automatic online program updates guarantee that you can always work with the latest version.

You can download the software directly here:

<https://www.spax.com/concrete-screws>

Before you go, please note that one-off registration and local installation are required for use.

ALWAYS UP TO DATE



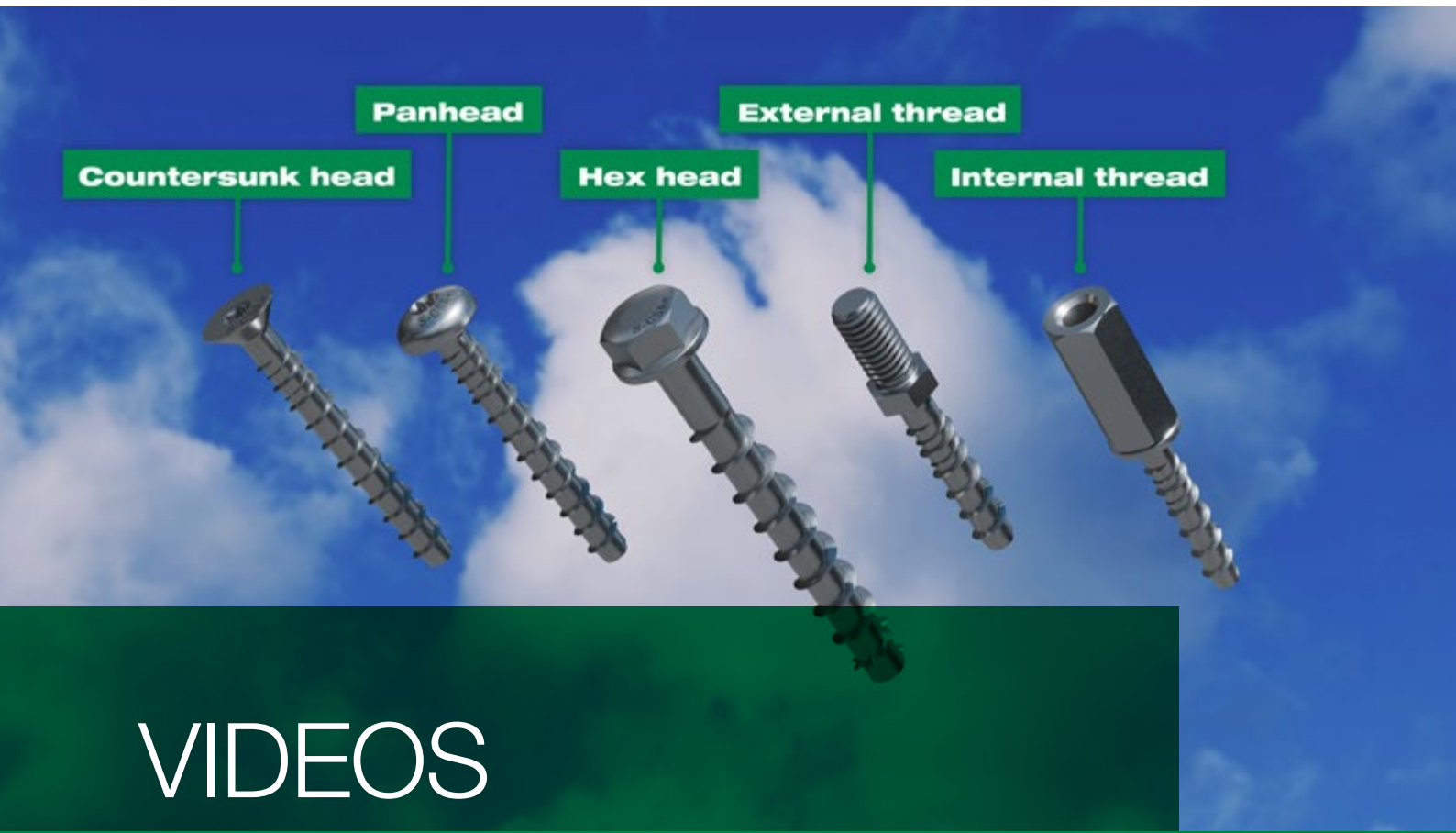
THE SPAX CONCRETE SCREW RANGE

What do I need concrete screws for? Concrete screws are the ideal choice for fast, secure and economical fastening directly in concrete.

At SPAX, we offer concrete screws with 5 different head shapes: hex head with washer, flat countersunk head, pan head, internal and external thread connection. The screws are approved in accordance with ETA-25/1162 for use in cracked and non-cracked concrete and in accordance with ETA-25/1160 for multiple fastenings (e.g. cable channels). The use of stainless steel A4 concrete screws is regulated in ETA-26/0484 . This enables use outdoors and in marine environments in both cracked and non-cracked concrete.

Our concrete screws offer fire resistance for up to 120 minutes and are approved for fastening sprinkler systems.

They can also be used in seismic performance categories C1 and C2 and, thanks to expansion-free anchoring, allow minimal edge and axial spacing. Another practical benefit: different anchoring depths mean the same screw can be used for different attachment thicknesses.



STEEL

FLAT COUNTERSUNK
HEAD



PAN HEAD



HEX HEAD



EXTERNAL
THREAD



INTERNAL
THREAD



STAINLESS STEEL A4

FLAT COUNTERSUNK
HEAD



PAN HEAD



HEX HEAD



APPROVALS

Single fastening, steel

ETA-25/1162



Multiple fastening, steel and stainless steel A4

ETA-25/1160



Single fastening, stainless steel A4

ETA-26/0484



SPAX CONCRETE SCREW

Properties and benefits

HEX HEAD WITH WASHER

It couldn't be easier. Thanks to the special head geometry and large washer, installing an attachment is child's play.

THREAD GEOMETRY

It all adds up. Thanks to the special thread geometry, the flanks cut deep into the concrete and provide maximum loads. The result? Fewer fastening points with smaller anchor plates and therefore lower costs.

TIP GEOMETRY

The shape of the screw tip enables quick positioning of the screw and secure installation in different mounting situations.



HEAD SHAPES

THE IDEAL SCREW FOR EVERY PROJECT. SPAX CONCRETE SCREWS OFFER DIFFERENT HEAD SHAPES FOR OPTIMAL CUSTOMISATION AND MAXIMUM FLEXIBILITY IN USE.

SPAX CONCRETE SCREW WITH HEX HEAD WITH WASHER

Everything in order. The hex head with pressed washer ensures that every push-through connection holds perfectly. Available in steel and stainless steel A4.



SPAX CONCRETE SCREW WITH FLAT COUNTERSUNK HEAD

Top score. The special angle below the head increases the stability of the concrete screw during insertion, while the flat countersunk head ensures a clean finish without corners or edges. Available in steel and stainless steel A4.



SPAX CONCRETE SCREW WITH PAN HEAD

The all-rounder. Pipes, rails, ventilation ducts or building-services systems – this concrete screw design with pan head keeps everything together. Available in steel and stainless steel A4.



SPAX CONCRETE SCREW WITH INTERNAL THREAD

True flexibility comes from the inside. Our concrete screw with step thread is ideal for a wide range of installations using threaded rods or connecting pieces. It is available with M8 and M10 internal threads for the direct installation of pipe clamps.



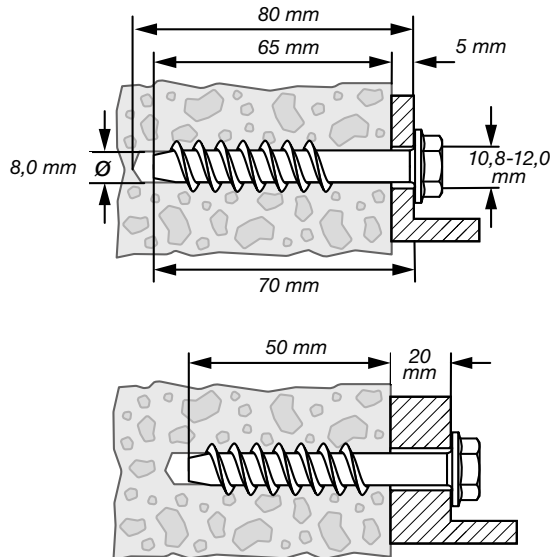
SPAX CONCRETE SCREW WITH EXTERNAL THREAD

Hanging made easy. The hanger bolt made of zinc-plated steel is the perfect anchoring solution for pipe routes, single-pipe suspensions or suspended mounting rails in building services.



VARIABLE ANCHORING DEPTHS

The SPAX concrete screws with different anchoring depths enable flexible adaptation to the respective applications.



HIGHEST LOAD AT STANDARD ANCHORING DEPTH (ACC. TO ETA-25/1162)

e.g. S-CSA+ HW 8x70 in non-cracked concrete

- .. Standard anchoring depth is 65 mm
- .. Permissible design tensile load at h_{nom2} 65 mm is 12.27 kN

RAPID INSTALLATION THROUGH REDUCED ANCHORING DEPTH (ACC. TO ETA-25/1162)

e.g. S-CSA+ HW 8x70 in non-cracked concrete

- .. Reduced anchoring depth is 50 mm
- .. Permissible design tensile load at h_{nom1} 50 mm is 8.07 kN

USES IN INTERIOR APPLICATIONS

- Railings & handrails
- Shelving systems
- Public seating
- Brackets and cable routes

USES IN OUTDOOR APPLICATIONS

- Railings & handrails
- Public seating
- Cable routes and suspensions in weather-exposed areas
- Bridge suspensions/cable anchorages

SUITABLE FASTENING SUBSTRATES

- Cracked concrete C20 / 25 to C50 / 60
- Non-cracked concrete C20 / 25 to C50 / 60
- Reinforced concrete
- Unreinforced concrete
- Prestressed hollow-core concrete slabs



CERTIFICATION MARKS



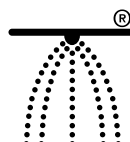
ETA-25/1162
Steel
(Option 1)



ETA-26/0484
Stainless steel A4
(Option 1)

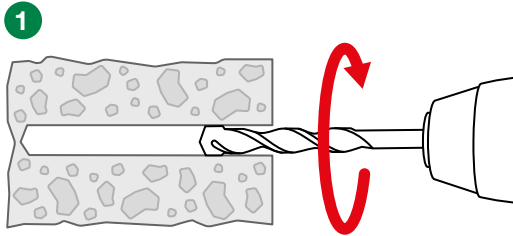


ETA-25/1160
Steel & stainless steel A4
(Part 6)

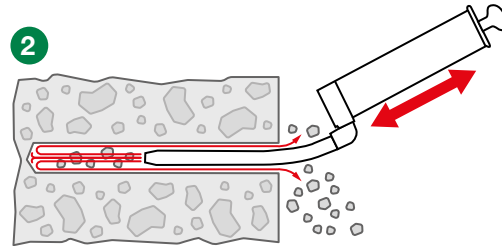


INSTALLATION

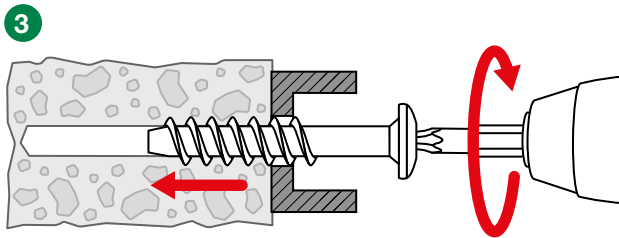
With impact driver or torque wrench
(Attention: observe maximum torque)



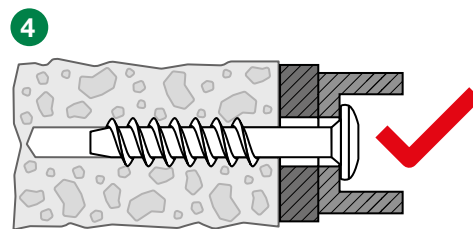
Pre-drill with the corresponding drill diameter



Clean the drill hole

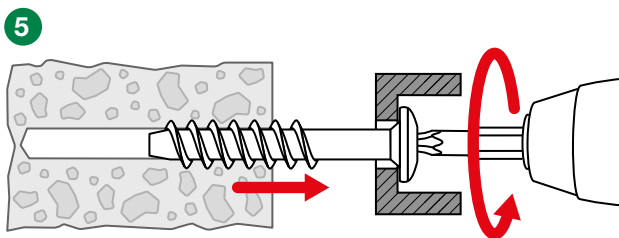


Now insert the concrete screw

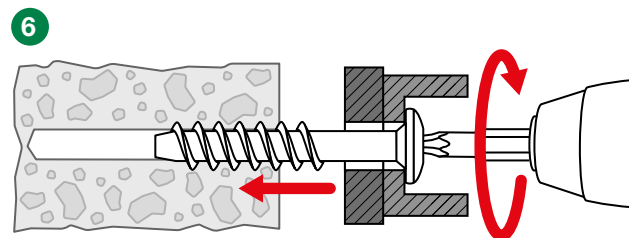


Done!

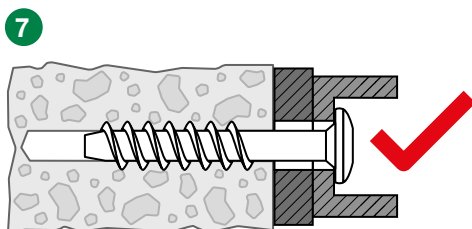
SUBSEQUENT ATTACHMENT ADJUSTMENT



Loosen the concrete screw
(up to two times, max. 10 mm overall)



Position the attachment underneath and screw in the concrete screw.



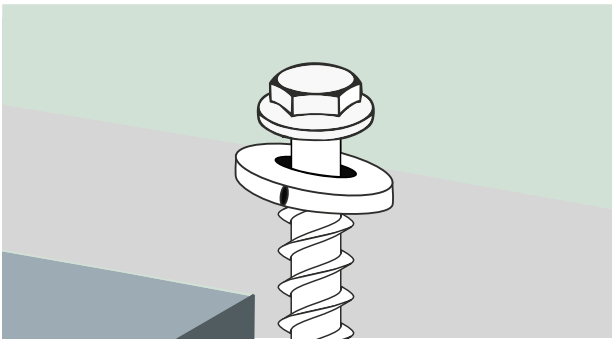
Done!

ANNULAR GAP FILLING WASHER

The **SPAX concrete screws** with hex head and washer (S-CSA+ HW and S-CSA HW A4) can also be used in areas with requirements for seismic performance category C2 in accordance with ETA-25/1162 and ETA-26/0484.

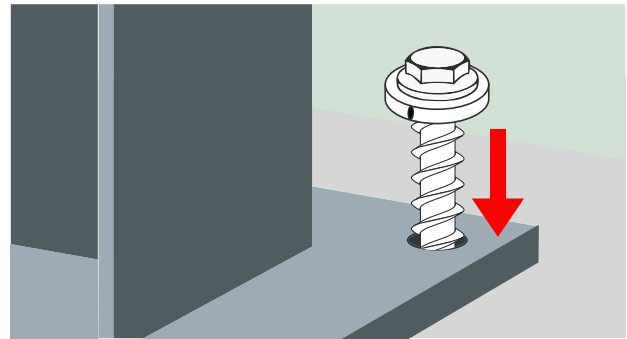
This requires the use of a suitable **annular gap filling washer** and a suitable **mortar** with a compressive strength $\geq 50 \text{ N/mm}^2$.

Please note that the thickness of the attachment T_{fix} is reduced by the thickness of the annular gap filling washer.



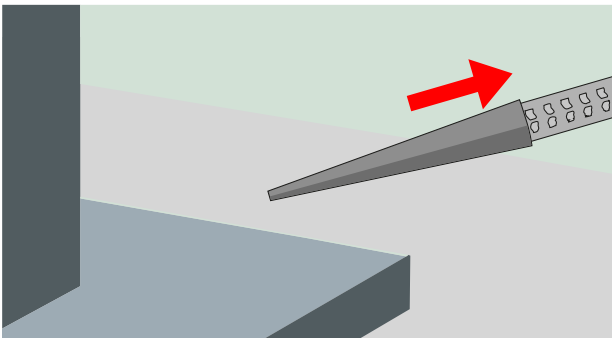
ANNULAR GAP FILLING WASHER

1. Install the appropriate annular gap filling washer in addition to the SPAX concrete screw.



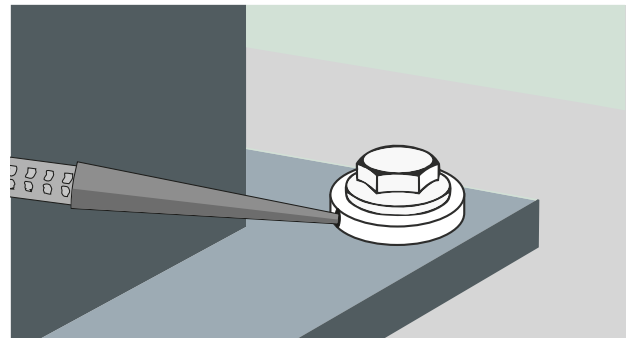
INSTALLATION

2. Screw in the SPAX concrete screw together with the filling washer until the anchoring depth h_{nom} is reached.



MATERIAL

3. Attach the mixing reduction tip to the static mixer nozzle. Adhesive tape can be used if required.



INSTALLATION

4. Fill the annular gap between the SPAX concrete screw and the attachment through the hole in the filling washer until mortar emerges from this hole.

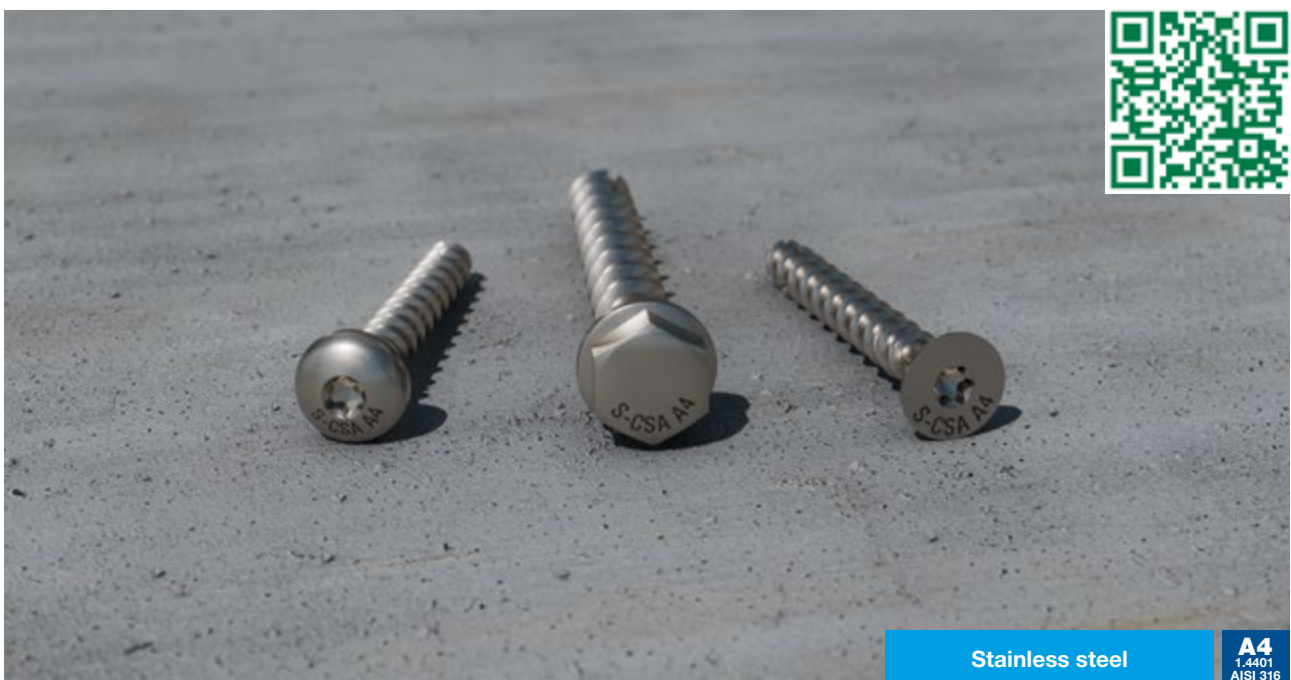
Please observe the installation instructions for the injection mortar. The load may only be applied after the injection mortar has reached its curing time.

SPAX ENVIRONMENTAL PRODUCT DECLARATION

Sustainability becomes measurable

Sustainable construction requires reliable and comparable data. With our verified **Environmental Product Declarations** (EPD), SPAX creates transparency in fastening technology.

The EPD documents the entire life cycle of our concrete screws – from raw material extraction through production and transport to use and disposal – and complies with international standards. It therefore provides a sound basis for sustainable planning and building certifications such as DGNB, LEED or BREEAM. Our life-cycle assessments show that SPAX achieves particularly low CO₂ values compared with the market – **measurable, traceable and independently verified**. For you, this means transparent sustainability data, planning certainty and documented advantages for your projects. SPAX makes visible what was previously hidden – the environmental impact of every screw.



Stainless steel

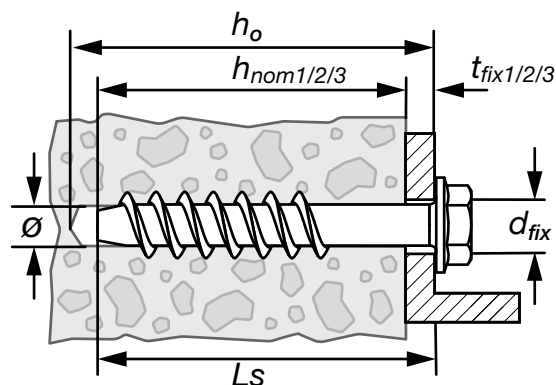
A4
1.4401
AISI 316

SPAX concrete screw S-CSA+ HW / xSCSAHW

Steel, zinc-plated

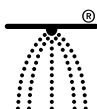
ETA-25/1162

for fastening in cracked and non-cracked concrete (Option 1)



Dimensions [mm]						Option 1						SPAX Number	EAN code Packaging unit PU 4003530...
Drill hole Ø [mm]	Length L _s [mm]	Hole depth h _o [mm]	Drive		Torque max [Nm]	h _{nom} 1	t _{fix} 1	h _{nom} 2	t _{fix} 2	h _{nom} 3	t _{fix} 3		
			SW	T									
6,0 d _{fix} = 7,7-9,0 mm	35	h _{nom} + 10 mm	13	30	90	*	*	*	*	*	*	1881010600355	296024
	45		13	30	90	40	5	-	-	-	-	1881010600455	296031
	50		13	30	90	40	10	-	-	-	-	1881010600505	296048
	60		13	30	90	40	20	55	5	-	-	1881010600605	296055
	70		13	30	90	40	30	55	15	-	-	1881010600705	296062
	80		13	30	90	40	40	55	25	-	-	1881010600805	296079
8,0 d _{fix} = 10,8-12,0 mm	55	h _{nom} + 10 mm	13	-	290	50	5	-	-	-	-	1881010800555	296116
	70		13	-	290	50	20	65	5	-	-	1881010800705	296123
	80		13	-	290	50	30	65	15	-	-	1881010800805	296130
	90		13	-	290	50	40	65	25	-	-	1881010800905	296147
	100		13	-	290	50	50	65	35	-	-	1881010801005	296154
	120		13	-	290	50	70	65	55	-	-	1881010801205	296161
	140		13	-	290	50	90	65	75	-	-	1881010801405	296178
	200		13	-	290	50	150	65	135	-	-	1881010802005	297311
10,0 d _{fix} = 13-14 mm	240	h _{nom} + 10 mm	13	-	290	50	190	65	175	-	-	1881010802405	297328
	60		15	-	650	55	5	-	-	-	-	1881011000605	296185
	70		15	-	650	55	15	-	-	-	-	1881011000705	296192
	80		15	-	650	55	25	70	10	-	-	1881011000805	296208
	90		15	-	650	55	35	70	20	85	5	1881011000905	296215
	100		15	-	650	55	45	70	30	85	15	1881011001005	296222
	120		15	-	650	55	65	70	50	85	35	1881011001205	296239
	140		15	-	650	55	85	70	70	85	55	1881011001405	296246
	160		15	-	650	55	105	70	90	85	75	1881011001605	296253
	200		15	-	650	55	145	70	130	85	115	1881011002005	297335
14,0 d _{fix} = 17-18 mm	240	h _{nom} + 10 mm	15	-	650	55	185	70	170	85	155	1881011002405	297342
	75		21	-	650	65	10	-	-	-	-	1881011400755	296260
	100		21	-	650	65	35	85	15	-	-	1881011401005	296277
	130		21	-	650	65	65	85	45	115	15	1881011401305	296284
	150		21	-	650	65	85	85	65	115	35	1881011401505	296291

*not included in ETA



ETA-25/1162



SPAX concrete screw S-CSA+ HW / xSCSAHW

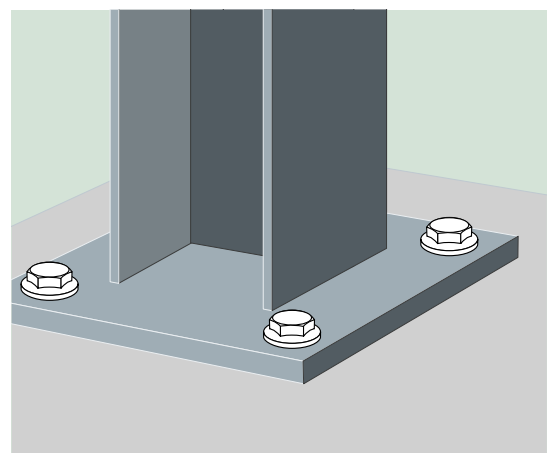
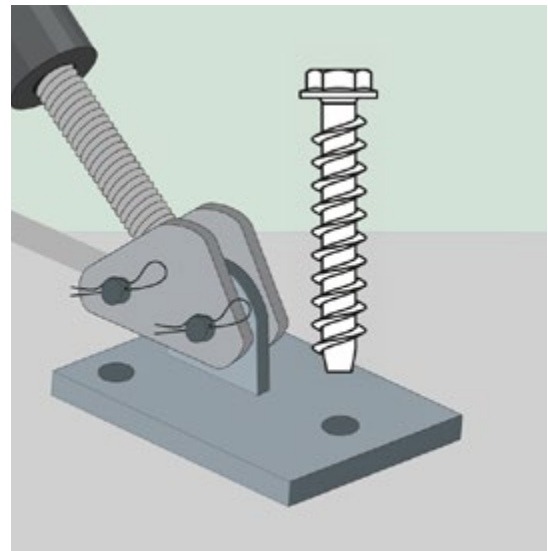
Steel, zinc-plated

ETA-25/1160

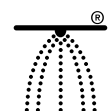
Multiple fastening for non-load-bearing applications in concrete (Part 6)

Part 6				Content per PU pc.	SPAX Design code
hnom 1	tfix 1	hnom 2	tfix 2		
35	1	-	-	100	xSCSAHW635
35	10	40	5	100	xSCSAHW645
35	15	40	10	100	xSCSAHW650
35	25	40	20	100	xSCSAHW660
35	35	40	30	75	xSCSAHW670
35	45	40	40	75	xSCSAHW680
*	*	*	*	75	xSCSAHW855
*	*	*	*	50	xSCSAHW870
*	*	*	*	50	xSCSAHW880
*	*	*	*	50	xSCSAHW890
*	*	*	*	50	xSCSAHW8100
*	*	*	*	25	xSCSAHW8120
*	*	*	*	25	xSCSAHW8140
*	*	*	*	25	xSCSAHW8200
*	*	*	*	25	xSCSAHW8240
*	*	*	*	50	xSCSAHW1060
*	*	*	*	25	xSCSAHW1070
*	*	*	*	25	xSCSAHW1080
*	*	*	*	25	xSCSAHW1090
*	*	*	*	25	xSCSAHW10100
*	*	*	*	25	xSCSAHW10120
*	*	*	*	25	xSCSAHW10140
*	*	*	*	25	xSCSAHW10170
*	*	*	*	20	xSCSAHW10200
*	*	*	*	20	xSCSAHW10240
*	*	*	*	20	xSCSAHW1475
*	*	*	*	10	xSCSAHW14100
*	*	*	*	10	xSCSAHW14130
*	*	*	*	10	xSCSAHW14150

*not included in ETA



ETA-25/1160

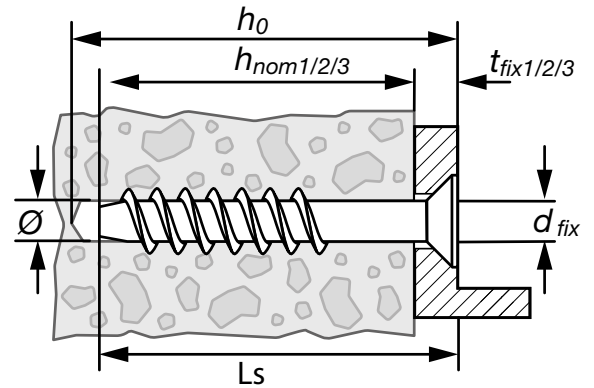


SPAX concrete screw S-CSA+ CS / xSCSACF

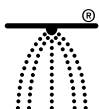
Steel, zinc-plated

ETA-25/1162

for fastening in cracked and non-cracked concrete (Option 1)



Dimensions [mm]					Option 1						SPAX Number	EAN code Packaging unit PU 4003530...
Drill hole $\varnothing$ [mm]	Length L_s [mm]	Hole depth h_0 [mm]	Drive T	Torque max [Nm]	hnom 1	tfix 1	hnom 2	tfix 2	hnom 3	tfix 3		
6,0 $d_{fix} =$ 7,7-9,0 mm	45	h_{nom} + 10 mm	30	90	40	5	-	-	-	-	1871010600455	296321
	50		30	90	40	10	-	-	-	-	1871010600505	296338
	60		30	90	40	20	55	5	-	-	1871010600605	296345
	80		30	90	40	40	55	25	-	-	1871010600805	296352
	100		30	90	40	60	55	45	-	-	1871010601005	296369
	120		30	90	40	80	55	65	-	-	1871010601205	296376
8,0 $d_{fix} =$ 10,8-12,0 mm	60	h_{nom} + 10 mm	45	290	50	10	-	-	-	-	1871010800605	296383
	80		45	290	50	30	65	15	-	-	1871010800805	296390
	100		45	290	50	50	65	35	-	-	1871010801005	296406
10,0 $d_{fix} =$ 13-14 mm	70	h_{nom} + 10 mm	50	650	55	15	-	-	-	-	1871011000705	296819
	90		50	650	55	35	70	20	85	5	1871011000905	296826
	100		50	650	55	45	70	30	85	15	1871011001005	296833
	120		50	650	55	65	70	50	85	35	1871011001205	296840



ETA-25/1162



SPAX concrete screw S-CSA+ CS / xSCSACF

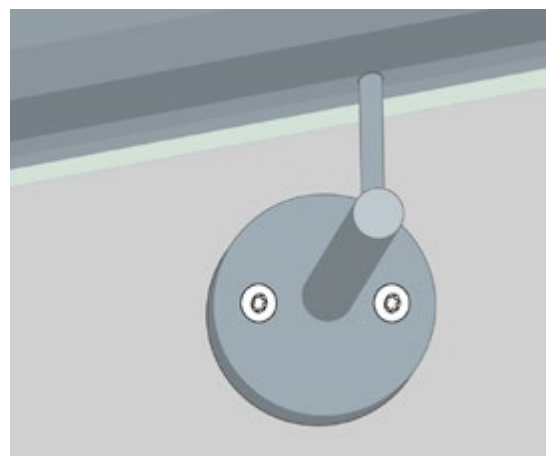
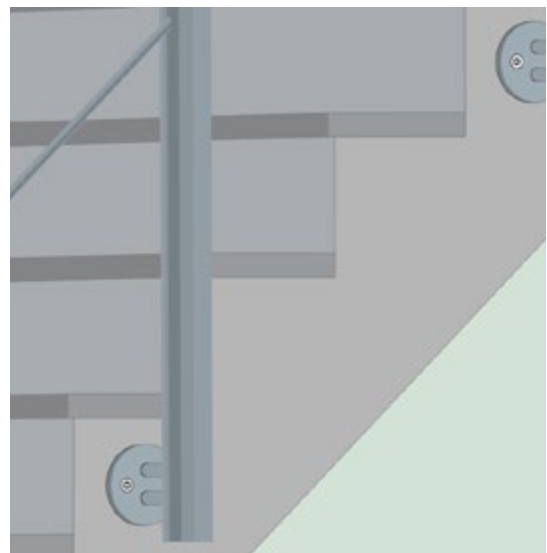
Steel, zinc-plated

ETA-25/1160

Multiple fastening for non-load-bearing applications in concrete (Part 6)

Part 6				Content per PU pc.	SPAX Design code
hnom 1	tfix 1	hnom 2	tfix 2		
35	10	40	5	100	xSCSACF645
35	15	40	10	100	xSCSACF650
35	25	40	20	100	xSCSACF660
35	45	40	40	100	xSCSACF680
35	65	40	60	75	xSCSACF6100
35	85	40	80	50	xSCSACF6120
*	*	*	*	100	xSCSACF860
*	*	*	*	75	xSCSACF880
*	*	*	*	50	xSCSACF8100
*	*	*	*	50	xSCSACF1070
*	*	*	*	50	xSCSACF1090
*	*	*	*	50	xSCSACF10100
*	*	*	*	25	xSCSACF10120

*not included in ETA

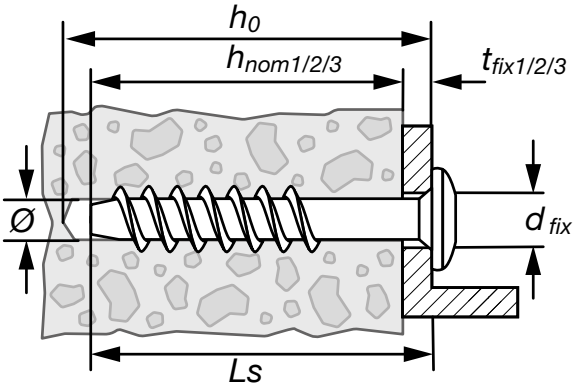


SPAX concrete screw S-CSA+ PH / xSCSAPL

Steel, zinc-plated

ETA-25/1162

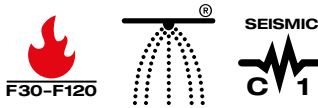
for fastening in cracked and non-cracked
concrete (Option 1)



Dimensions [mm]					Option 1						SPAX Number	EAN code Packaging unit PU 4003530...
Drill hole Ø [mm]	Length Ls [mm]	Hole depth ho [mm]	Drive T	Torque max [Nm]	hnom 1	tfix 1	hnom 2	tfix 2	hnom 3	tfix 3		
6,0 dfix = 7,7-9,0 mm	35	hnom + 10 mm	30	90	*	*	*	*	*	*	1711010600355	296468
	45		30	90	40	5	-	-	-	-	1711010600455	296475
	60		30	90	40	20	55	5	-	-	1711010600605	296482

*not included in ETA

*not included in ETA



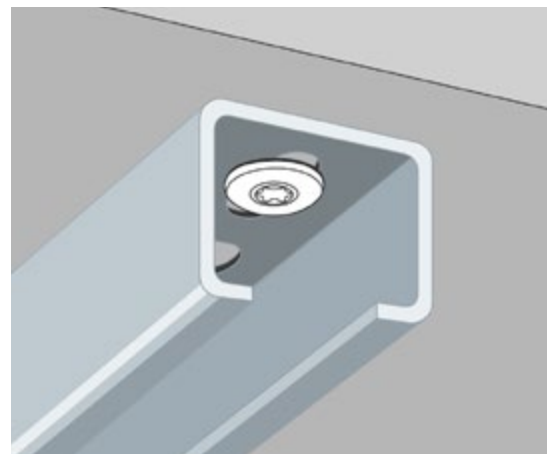
SPAX concrete screw S-CSA+ PH / xSCSAPL

Steel, zinc-plated

ETA-25/1160

Multiple fastening for non-load-bearing applications in concrete (Part 6)

Part 6				Content per PU pc.	SPAX Design code
hnom 1	tfix 1	hnom 2	tfix 2		
35	1	-	-	100	xSCSAPL635
35	10	40	5	100	xSCSAPL645
35	25	40	20	100	xSCSAPL660

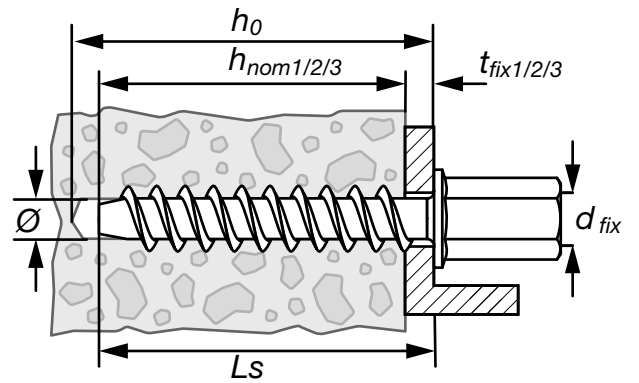


SPAX concrete screw S-CSA+ IT M8/M10 / xSCSAMI

Steel, zinc-plated

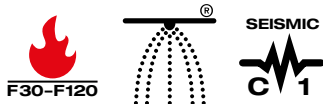
ETA-25/1162

for fastening in cracked and non-cracked
concrete (Option 1)



Dimensions [mm]					Option 1						SPAX Number	EAN code Packaging unit PU 4003530...
Drill hole $\varnothing$ [mm]	Length L_s [mm]	Hole depth h_0 [mm]	Drive SW	Torque max [Nm]	h_{nom} 1	t_{fix} 1	h_{nom} 2	t_{fix} 2	h_{nom} 3	t_{fix} 3		
6,0 $d_{fix} =$ 7,7-9,0 mm	35	h_{nom} + 10 mm	13	90	*	*	*	*	*	*	1841010600355	296437
	45		13	90	40	5	-	-	-	-	1841010600455	296444
	60		13	90	40	20	55	5	-	-	1841010600605	296451

*not included in ETA



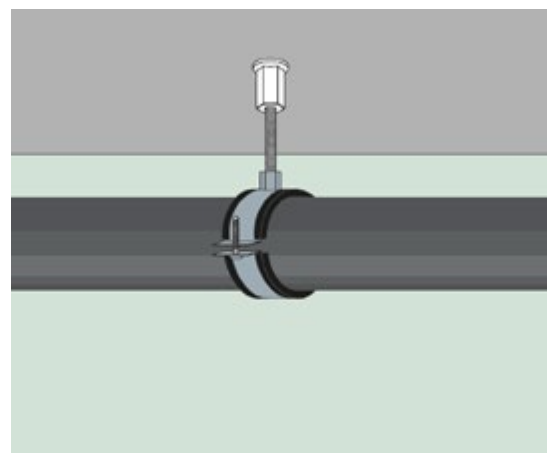
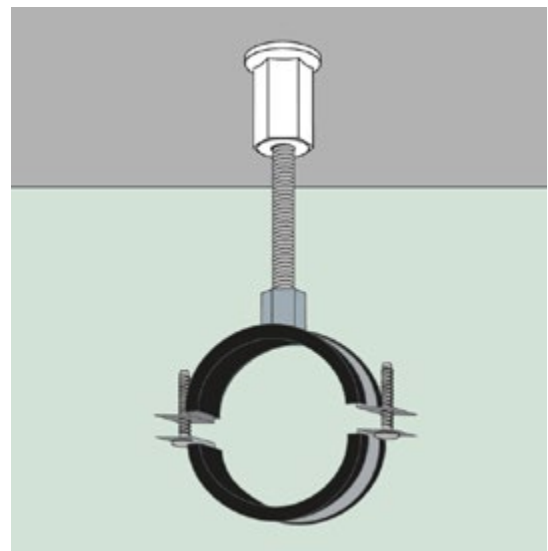
SPAX concrete screw S-CSA+ IT M8/M10 / xSCSAMI

Steel, zinc-plated

ETA-25/1160

Multiple fastening for non-load-bearing applications in concrete (Part 6)

Part 6				Content per PU pc.	SPAX Design code
hnom 1	tfix 1	hnom 2	tfix 2		
35	0	-	-	75	xSCSAMI635
35	10	40	5	75	xSCSAMI645
35	25	40	20	75	xSCSAMI660

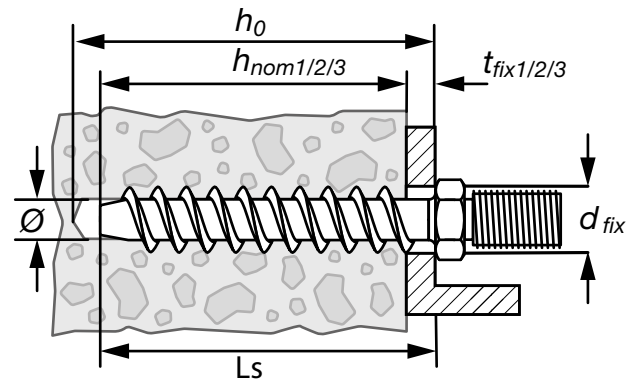


SPAX concrete screw S-CSA+ ET M8 / xSCSAME

Steel, zinc-plated

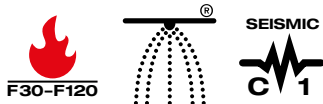
ETA-25/1162

for fastening in cracked and non-cracked
concrete (Option 1)



Dimensions [mm]					Option 1						SPAX Number	EAN code Packaging unit PU 4003530...
Drill hole Ø [mm]	Length Ls [mm]	Hole depth ho [mm]	Drive SW	Torque max [Nm]	hnom 1	tfix 1	hnom 2	tfix 2	hnom 3	tfix 3		
6,0 dfix = 7,7-9,0 mm	35	hnom + 10 mm	10	90	*	*	*	*	*	*	1861010600355	296413
	60		10	90	40	20	55	5	-	-	1861010600605	296420

*not included in ETA



ETA-25/1162



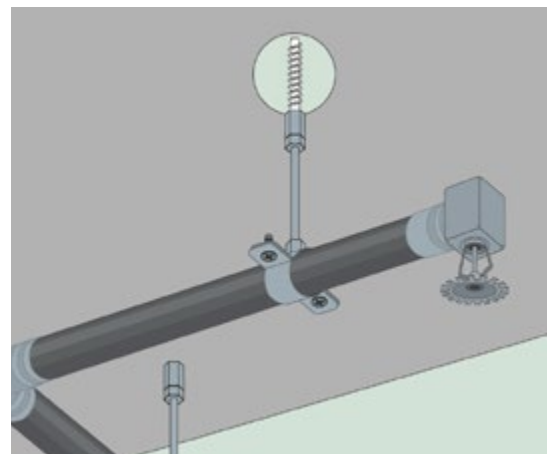
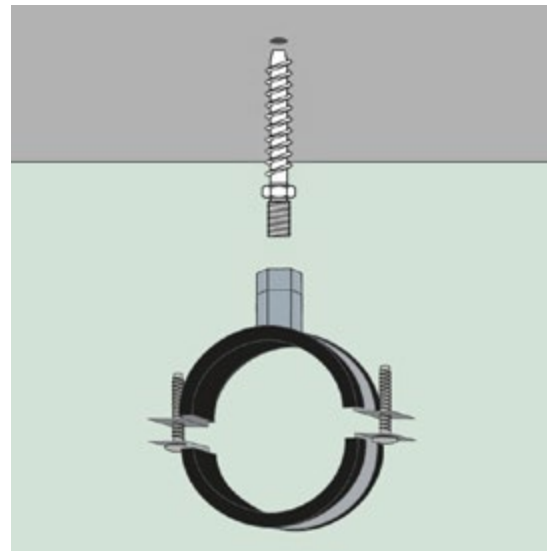
SPAX concrete screw S-CSA+ ET M8 / xSCSAME

Steel, zinc-plated

ETA-25/1160

Multiple fastening for non-load-bearing applications in concrete (Part 6)

Part 6				Content per PU pc.	SPAX Design code
hnom 1	tfix 1	hnom 2	tfix 2		
35	0	-	-	100	xSCSAME635
35	25	40	20	100	xSCSAME660

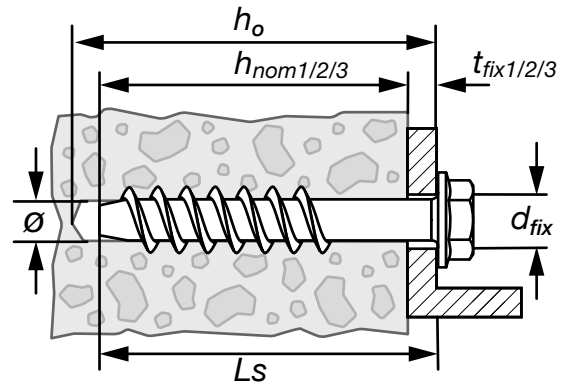


SPAX concrete screw S-CSA HW A4 / xSCSAHWA4

Stainless steel A4

ETA-26/0484

for fastening in cracked and non-cracked
concrete (Option 1)

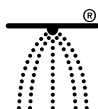


Stainless steel

A4
1.4401
AISI 316

Dimensions [mm]					Option 1						SPAX Number	EAN code Packaging unit PU 4003530...
Drill hole $\varnothing$ [mm]	Length L_s [mm]	Hole depth h_o [mm]	Drive SW	Torque max [Nm]	hnom 1	tfix 1	hnom 2	tfix 2	hnom 3	tfix 3		
6,0 $d_{fix} =$ 7,7-9,0 mm	50	hnom + 10 mm	13	90	*	*	*	*	*	*	1888000600505	296499
	60		13	90	*	*	*	*	*	*	1888000600605	296505
	70		13	90	*	*	*	*	*	*	1888000600705	296512
	80		13	90	*	*	*	*	*	*	1888000600805	296529
8,0 $d_{fix} =$ 10,8-12,0 mm	70	hnom + 10 mm	13	290	65	5	-	-	-	-	1888000800705	296543
	80		13	290	65	15	-	-	-	-	1888000800805	296550
	100		13	290	65	35	-	-	-	-	1888000801005	296567
10,0 $d_{fix} =$ 13-14 mm	90	hnom + 10 mm	15	360	65	25	-	-	-	-	1888001000905	296574
	100		15	360	65	35	95	5	-	-	1888001001005	296581

*not included in ETA



ETA-26/0484



SPAX concrete screw S-CSA HW A4 / xSCSAHWA4

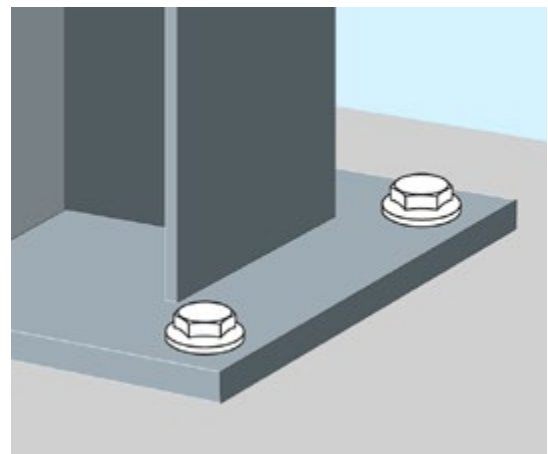
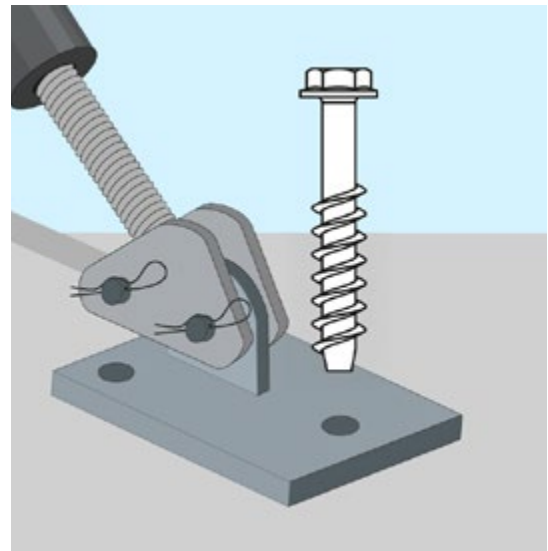
Stainless steel A4

ETA-25/1160

Multiple fastening for non-load-bearing applications in concrete (Part 6)

Part 6				Content per PU pc.	SPAX Design code
hnom 1	tfix 1	hnom 2	tfix 2		
40	10	-	-	50	xSCSAHW650A4
40	20	-	-	50	xSCSAHW660A4
40	30	-	-	50	xSCSAHW670A4
40	40	-	-	50	xSCSAHW680A4
*	*	*	*	50	xSCSAHW870A4
*	*	*	*	50	xSCSAHW880A4
*	*	*	*	50	xSCSAHW8100A4
*	*	*	*	25	xSCSAHW1090A4
*	*	*	*	25	xSCSAHW10100A4

*not included in ETA

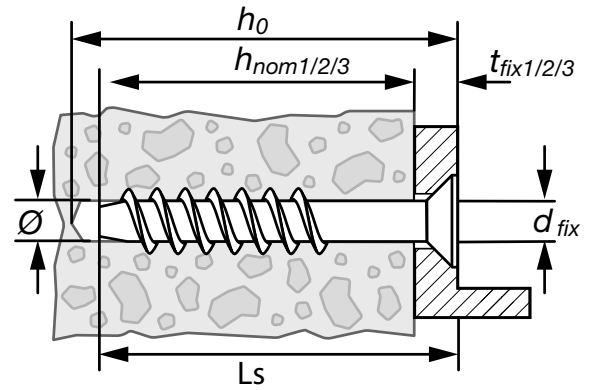


SPAX concrete screw S-CSA CS A4 / xSCSACFA4

Stainless steel A4

ETA-26/0484

for fastening in cracked and non-cracked
concrete (Option 1)

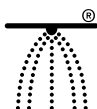


Stainless steel

A4
1.4401
AISI 316

Dimensions [mm]					Option 1						SPAX Number	EAN code Packaging unit PU 4003530...
Drill hole $\varnothing$ [mm]	Length L_s [mm]	Hole depth h_0 [mm]	Drive T	Torque max [Nm]	h_{nom} 1	t_{fix} 1	h_{nom} 2	t_{fix} 2	h_{nom} 3	t_{fix} 3		
6,0 $d_{fix} =$ 7,7-9,0 mm	70	h_{nom} + 10 mm	30	90	*	*	*	*	*	*	1878000600705	296604
	100		30	90	*	*	*	*	*	*	1878000601005	296611
8,0 $d_{fix} =$ 10,8-12,0 mm	80	h_{nom} + 10 mm	45	290	65	15	-	-	-	-	1878000800805	296642
10,0 $d_{fix} =$ 13-14 mm	105	h_{nom} + 10 mm	50	360	65	40	95	10	-	-	1878001001055	296659

*not included in ETA



ETA-26/0484



SPAX concrete screw S-CSA CS A4 / xSCSACFA4

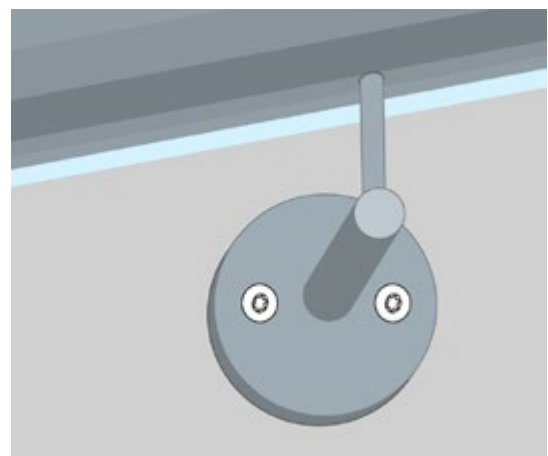
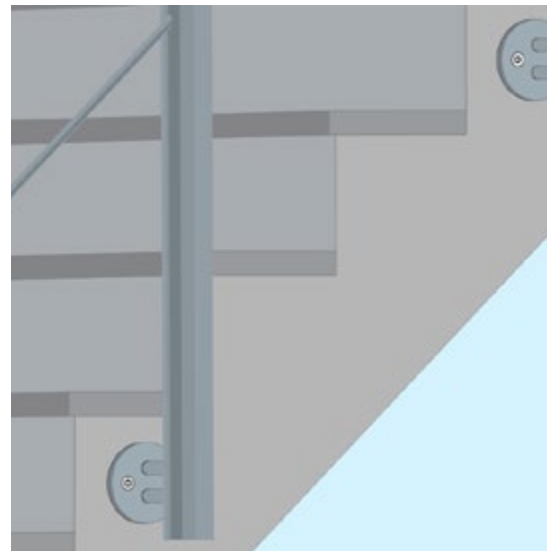
Stainless steel A4

ETA-25/1160

Multiple fastening for non-load-bearing applications in concrete (Part 6)

Part 6				Content per PU pc.	SPAX Design code
hnom 1	tfix 1	hnom 2	tfix 2		
40	30	-	-	50	xSCSACF670A4
40	60	-	-	50	xSCSACF6100A4
*	*	*	*	25	xSCSACF880A4
*	*	*	*	25	xSCSACF10105A4

*not included in ETA

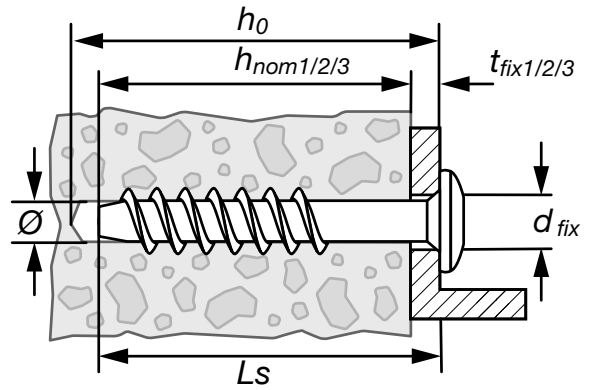


SPAX concrete screw S-CSA PH A4 / xSCSAPLA4

Stainless steel A4

ETA-26/0484

for fastening in cracked and non-cracked
concrete (Option 1)

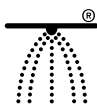


Stainless steel

A4
1.4401
AISI 316

Dimensions [mm]					Option 1						SPAX Number	EAN code Packaging unit PU 4003530...
Drill hole $\varnothing$ [mm]	Length L_s [mm]	Hole depth h_0 [mm]	Drive T	Torque max [Nm]	h_{nom} 1	t_{fix} 1	h_{nom} 2	t_{fix} 2	h_{nom} 3	t_{fix} 3		
6,0 $d_{fix} =$ 7,7-9,0 mm	60	h_{nom} + 10 mm	30	90	*	*	*	*	*	*	1718000600605	296666

*not included in ETA



ETA-26/0484



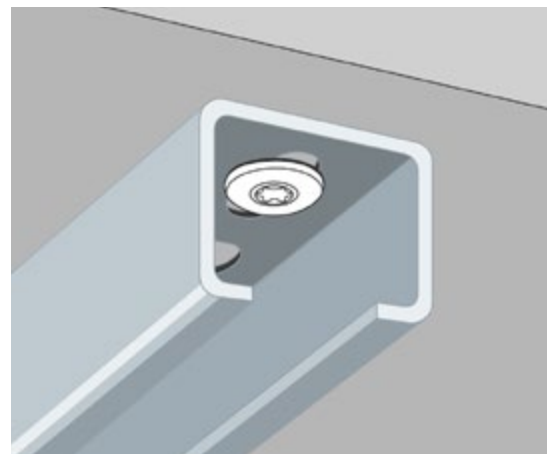
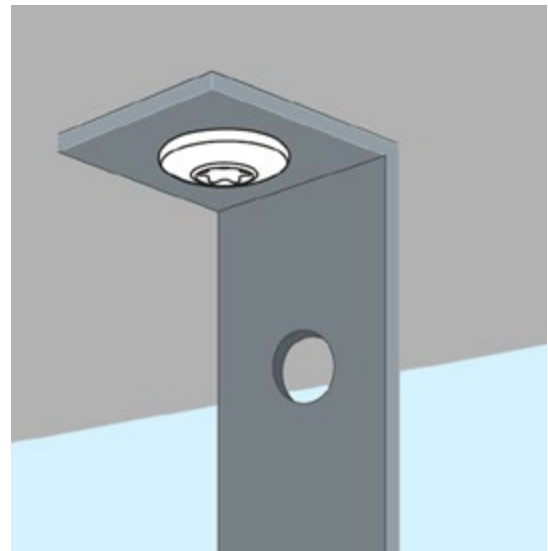
SPAX concrete screw S-CSA PH A4 / xSCSAPLA4

Stainless steel A4

ETA-25/1160

Multiple fastening for non-load-bearing applications in concrete (Part 6)

Part 6				Content per PU pc.	SPAX Design code
hnom 1	tfix 1	hnom 2	tfix 2		
40	20	-	-	50	xSCSAPL660A4



Concrete screw

Basics

Determining a concrete screw

The SPAX concrete screw enables safe and fast anchoring in concrete

A few details need to be considered when determining the correct size

Application example:

A 5 mm thick base plate is to be fastened to concrete.

The plate is to be anchored with a SPAX concrete screw with hex head and washer (**S-CSA+ HW**) .

The anchoring is carried out in cracked concrete with a tensile load (design load) of 5.0 kN as a single fastening.

The edge distance is to be 100 mm.

Procedure:

- 1** Based on the existing load, select a screw for cracked or non-cracked concrete. Then determine the diameter and head shape = **S-CSA+ HW**
- 2** Select a screw length at least equal to the sum of the thickness of the component to be fastened and the required anchoring depth.
 - The screw length is at least 5 mm (attachment thickness) + 65 mm (nominal anchoring depth) = **70 mm**
 - Possible screw: **S-CSA+ HW 8x70**
- 3** Determine the drill diameter and the specified drill-hole depth
 - Pre-drill diameter = **8 mm**
 - Drill-hole depth = **75 mm**
(= screw length – attachment thickness + 10 mm)
- 4** Pre-drill the base plate to **12 mm**
- 5** When positioning the drill holes, observe the minimum edge distances, axial spacing and the minimum thickness of the concrete component.
 - The edge distance is min. $1.5 \times h_{ef} = \mathbf{77,9\ mm}$ ($c \geq 1,5\ h_{ef}$)
 - The concrete component must be at least **115 mm** thick.

Please note:

- Different loads apply for fire exposure; see ETA-25/1162, Table C5
- Different anchoring depths apply for earthquakes; see ETA-25/1162, Tables C11 and C12
- For calculation, we recommend using the SPAX Design Software for concrete screws.

Concrete screw

Basics

Technical values from **ETA-25/1162** for single fastening without seismic or fire exposure

	S-CSA+ HW 6		S-CSA+ HW 8		S-CSA+ HW 10		S-CSA+ HW 14	
	h nom,1	h nom,2	h nom,1	h nom,2	h nom,1	h nom,2	h nom,1	h nom,2
h nom, [mm]	40	55	50	65	55	70	65	85
Ø [mm]	6		8		10		14	
h0 ≥ [mm]	50	65	60	75	65	80	75	95
h ef [mm]	29,8	42,5	39,2	51,9	42,5	55,3	49,3	66,3
dfix ≥ [mm]	7,7-9,0		10,8-12		13,0-14,0		17,0-18,0	
N design ₁ [kN]	2,33	3,20	4,53	8,35	5,27	6,87	6,0	11,07
N design ₂ [kN]	4,7	6,5	8,05	12,26	9,1	13,5	11,4	17,7
V design ₁ [kN]	7,52	7,52	15,28	15,28	19,08	25,44	26,22	40,9
V design ₂ [kN]	7,52	7,52	15,28	15,28	25,44	25,44	37,46	48,88
h min [mm]	80	95	100	115	100	115	120	140
c min [mm]	35		35		40		60	
s min [mm]	35		35		40		60	

<i>h nom, [mm]</i>	Anchoring depth
<i>Ø [mm]</i>	Drill-hole diameter
<i>h0 ≥ [mm]</i>	Drill-hole depth
<i>h ef [mm]</i>	effective anchoring depth
<i>dfix ≥ [mm]</i>	Clearance hole in the component to be connected
<i>N design₁ [kN]</i>	Tensile load in cracked concrete (design load)
<i>N design₂ [kN]</i>	Tensile load in non-cracked concrete (design load)
<i>V design₁ [kN]</i>	Shear load in cracked concrete (design load)
<i>V design₂ [kN]</i>	Shear load in non-cracked concrete (design load)
<i>h min [mm]</i>	Minimum component thickness
<i>c min [mm]</i>	min. edge distance
<i>s min [mm]</i>	min. spacing



SPAX CONCRETE DRILL

WITH SDS PLUS

FOR SPAX CONCRETE SCREWS

The concrete drills are ideally matched to SPAX concrete screws in terms of length and diameter.

CONCRETE DRILL

The SPAX concrete drill with SDS-Plus shank combines fast drilling with a long service life.

- Highly suitable for reinforced concrete
- With symmetrical 4-cutter geometry
- The centring tip allows very precise starting
- PGM certification guarantees precise drill-hole creation

SPAX concrete drill, 4-cutter with SDS PLUS



Dimensions [mm]			Number of cutting edges	SPAX number	EAN code
Overall length [mm]	Drill diameter [mm]	Working length [mm]			
160	5	95	4	5000205001600	4003530279881
	6	95	4	5000206001600	4003530279898
	8	95	4	5000208001600	4003530279904
	10	95	4	5000210001600	4003530279911
	12	85	4	5000212001600	4003530279928
260	6	190	4	5000206002600	4003530279935
	8	190	4	5000208002600	4003530279942
	10	190	4	5000210002600	4003530279959
	12	185	4	5000212002600	4003530279966
	14	182	4	5000214002600	4003530279973

SPAX WOOD CONNECTORS

We have expanded our broad and proven range of fasteners with the wood connector category, adding another complete range to our product portfolio – Go directly to our wood connector catalogue:



Joist hangers, rafter-purlin anchors, tension anchors and more offer many advantages, especially for timber-to-steel or timber-to-concrete connections.

With our wood connector range, we offer the perfect fastening solution for every challenge you encounter on site – all from a single source.

With SPAX, you are equipped for every situation – with our timber construction screws and our innovative wood connector range.



SPAX INTERNATIONAL GMBH & CO. KG
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