

ACP CHEMICAL ANCHOR GLASS CAPSULES

G5.8 STEEL / 316 STAINLESS STEEL

ACP

Chemical Anchor
Glass Capsule



NCC
COMPLIANT
AS 5216



- Vinylester
- Dry or wet concrete
- Hammer or dustless drilling
- Small spacing and small edge distances
- Very fast, reliable curing, thus hardly any waiting time
- Long shelf life of 36 months from production date
- Styrene free
- Suspended ventilation systems, safety barriers, noise-protection walls, fastening in cold stores

AS 5216 Compliant, NCC

ETA for cracked and uncracked concrete

Approved for seismic action category C1

Fire reports for all sizes

Part Number	Chemical Capsule	Drill Dia x Depth, $d_0 \times h_0$ [mm]	Minimum Concrete Thickness, h_{min} [mm]	Minimum Edge Distance, c_{min} [mm]	Minimum Spacing, s_{min} [mm]	Maximum Installation Torque, $max T_{inst}$ [Nm]		
1027.0100000	ACP 10	12 x 90	120	45	50	20	10	500
1027.0120000	ACP 12	14 x 110	140	45	60	40	10	500
1027.0160000	ACP 16	18 x 125	160	50	75	80	10	500
1027.0200000	ACP 20	22 x 170	220	55	90	150	10	200

Curing Times

Concrete Temperature [°C] *	0°	5°	10°	20°	30°
Capsule Temperature	-15°C to +40°C				
Curing Time, min.	50'	25'	15'	6'	6'

*Refer to the ETA for temperatures below 0°C.

Temperature Range

Concrete temperature at installation: -20°C to +40°C

In-Service Temperature		Max. Long-term Temperature	Max. Short-term Temperature
Temperature Range I	-40°C to +40°C	+24°C	+40°C
Temperature Range II	-40°C to +80°C	+50°C	+80°C

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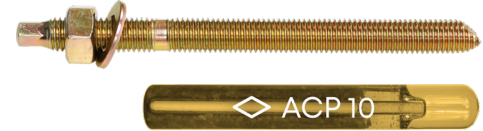
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Anchor Summary

SCM-Y Chem Stud G5.8 Zinc with ACP

- Zinc plated (3µm min.) / G5.8 steel
- Nut and washer supplied



Part Number for Stud	Description, Dia x L	Max. Fixture Thickness, t_{fix}	Embedment Depth, h_{nom} ($=h_{ef}$)	Drill Hole Dia x Depth, $d_o \times h_o$	Minimum Concrete Thickness, h_{min}	Design Capacity in 32MPa Cracked Concrete ¹⁾		
						Tension (24°C / 40°C ²⁾)	Tension (50°C / 80°C ²⁾)	Shear
1056.0100130	M10 x 130mm (nut/washer)	22mm	90mm	12 x 90mm	120mm	11.2kN	9.4kN	13.6kN
1056.0120160	M12 x 160mm (nut/washer)	26mm	110mm	14 x 110mm	140mm	17.4kN	14.7kN	20.0kN
1056.0160190	M16 x 190mm (nut/washer)	37mm	125mm	18 x 125mm	160mm	27.7kN	23.2kN	37.6kN
1056.0200260	M20 x 260mm (nut/washer)	60mm	170mm	22 x 170mm	220mm	47.1kN	39.5kN	58.4kN

SCM-G Chem Stud G5.8 HDG with ACP

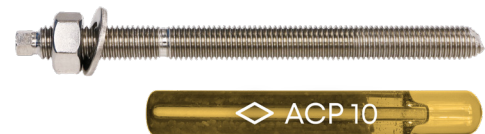
- Galvanised (50µm min.) / G5.8 steel
- Nut and washer supplied



Part Number for Stud	Description, Dia x L	Max. Fixture Thickness, t_{fix}	Embedment Depth, h_{nom} ($=h_{ef}$)	Drill Hole Dia x Depth, $d_o \times h_o$	Minimum Concrete Thickness, h_{min}	Design Capacity in 32MPa Cracked Concrete ¹⁾		
						Tension (24°C / 40°C ²⁾)	Tension (50°C / 80°C ²⁾)	Shear
1054.0100130	M10 x 130mm (nut/washer)	22mm	90mm	12 x 90mm	120mm	11.2kN	9.4kN	13.6kN
1054.0120160	M12 x 160mm (nut/washer)	26mm	110mm	14 x 110mm	140mm	17.4kN	14.7kN	20.0kN
1054.0160190	M16 x 190mm (nut/washer)	37mm	125mm	18 x 125mm	160mm	27.7kN	23.2kN	37.6kN
1054.0200260	M20 x 260mm (nut/washer)	60mm	170mm	22 x 170mm	220mm	47.1kN	39.5kN	58.4kN

SCM-S Chem Stud 316 (A4) Stainless Steel with ACP

- 316 (A4-70) Stainless Steel
- Nut and washer supplied



Part Number for Stud	Description, Dia x L	Max. Fixture Thickness, t_{fix}	Embedment Depth, h_{nom} ($=h_{ef}$)	Drill Hole Dia x Depth, $d_o \times h_o$	Minimum Concrete Thickness, h_{min}	Design Capacity in 32MPa Cracked Concrete ¹⁾		
						Tension (24°C / 40°C ²⁾)	Tension (50°C / 80°C ²⁾)	Shear
1055.0100130	M10 x 130mm (nut/washer)	22mm	90mm	12 x 90mm	120mm	11.2kN	9.4kN	12.8kN
1055.0120160	M12 x 160mm (nut/washer)	26mm	110mm	14 x 110mm	140mm	17.4kN	14.7kN	19.2kN
1055.0160190	M16 x 190mm (nut/washer)	37mm	125mm	18 x 125mm	160mm	27.7kN	23.2kN	35.2kN
1055.0200260	M20 x 260mm (nut/washer)	60mm	170mm	22 x 170mm	220mm	47.1kN	39.5kN	55.1kN

1) Without concrete edge or anchor spacing influence. Static and quasi-static load such as wind. To consider all design inputs and details, please refer to the ETA. Assuming up to 60% of total design loading is sustained loading.

2) Maximum long-term temperature / maximum short-term temperature in concrete.

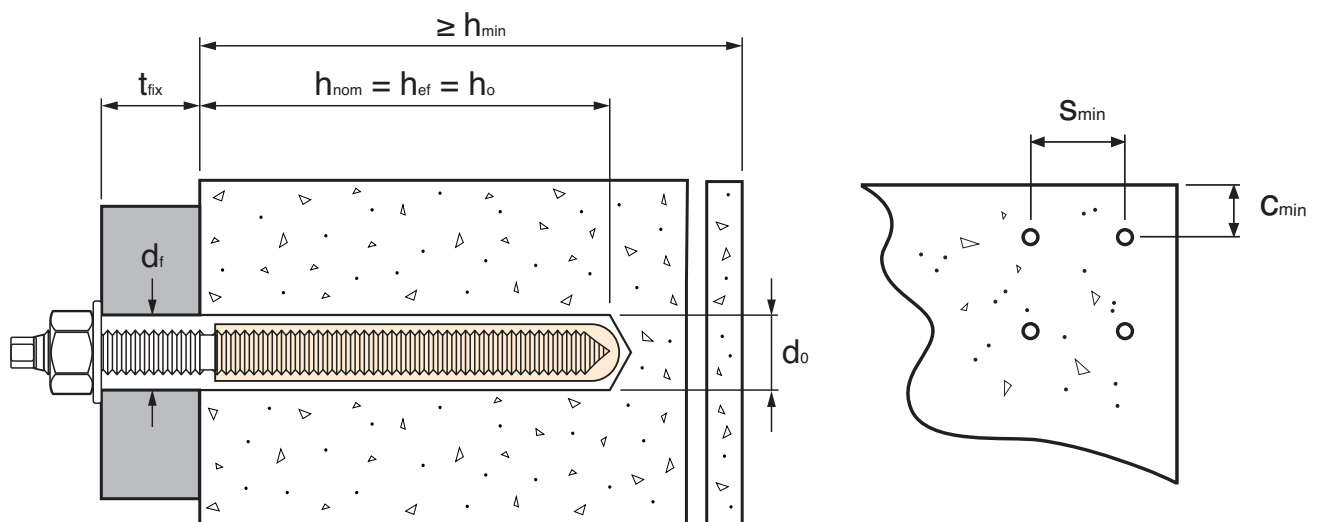
3) Custom length studs are also available on request.

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Installation Parameters

Chem Stud Size			M10	M12	M16	M20
Chemical Capsule			ACP 10	ACP 12	ACP 16	ACP 20
Embedment depth	$h_{nom} = h_{ef}$	[mm]	90	110	125	170
Drill hole diameter	d_o	[mm]	12	14	18	22
Depth of drill hole	h_o	[mm]	90	110	125	170
Diameter of cleaning brush	$d_b \geq$	[mm]	12.5	14.5	18.5	22.5
Diameter of clearance hole in fixture	d_f	[mm]	12	14	18	22
Maximum installation torque	$\max T_{inst}$	[Nm]	20	40	80	150
Minimum thickness of concrete member	h_{min}	[mm]	120	140	160	220
Minimum edge distance	c_{min}	[mm]	45	45	50	55
Minimum spacing	s_{min}	[mm]	50	60	75	90



Installation Instructions

Drill hole preparation and cleaning		
1		Drill hole perpendicular to concrete surface using hammer drill or dustless drill. If using a dustless drill, continue with step 3.
2a		Blow out dust or alternatively vacuum clean (min. 6 bar) down at least 2 times to the bottom of the hole.
2b		Brush the drill hole 2 times with Cleaning Brush. When inserting the brush into the drill hole, a clear resistance must be noticeable. Otherwise use a new Cleaning Brush.
2c		Blow out dust or alternatively vacuum clean (min. 6 bar) down at least 2 times to the bottom of the hole.

Install Chem Stud		
3		Check the depth of drill hole using the chem stud. If necessary, mark anchoring depth on the chem stud. Insert the capsule into the drill hole.
4		Drive in the anchor rod using a rotary tool in rotation mode. Stop immediately after reaching the setting depth.
5		Observe curing time. Do not move or load the anchor until it is fully cured.
6		Remove excess adhesive.
7		Install fixture and apply installation torque T_{inst} .

For other anchor properties, please refer to the ETA on our website.

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