NCC COMPLIANT
AS5216 CONFORMING

CHEMICAL INJECTION
BREMFIX POLYESTER

Range M8 - M16

Zinc Plated Studs
Dry, internal applications

ZINC YELLOW

FEATURES & BENEFITS

- Ideal for non critical applications.
- Intended working life of 50 years.
- ETA rating - Option 7 for sizes M8 - M16.
- VOC A+ rating.
- WRAS Approved for potable drinking water.
- LEED Compliance.
- Suitable for dry, wet & flooded holes.
- Fast turnaround time.

APPLICATIONS/TRADES

- Medium duty connections to concrete.
- Close to edge fixings - handrails, balustrades.

COMPLIANCE

National Construction Code

AS5216

ETA

OPTION 7
Uncracked Concrete

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RANGE

Chemical Injection - Product Code & description	Anchor thread size & drill hole dimensions	ETA Cert'n level	# fixings per cartridge (per below Range tables)	
			300ml	410ml
ACIPCSF3002 BremFix Polyester Chemical Injection - 300ml cartridge Use dispensing tool TMACISF4002 **ACIPCPR4102** BremFix Polyester Chemical Injection - 410ml cartridge Use dispensing tool TMACICG3802	M8 (10 x 80mm hole)	Option 7 - Uncracked Concrete	75	100
	M10 (12 x 90mm hole)		50	67
	M12 (14 x 110mm hole)		32	42
	M16 (18 x 125mm hole)		20	26

Chemical Anchor Stud - Product Code	Pack Qty	Thread size	Anchor length (mm) l_t	Drill hole Ø (mm) d_o	Drill hole depth (mm) h_1	Minimum concrete thickness (mm) h_{min}	Maximum fixture thickness (mm) $t_{fix,\ max}$	Fixture clearance hole Ø (mm) d_f
Chemical Anchor Studs (Property Class 5.8)								
ACSMZ081102	10	M8	110	10	80	110	15	10
ACSMZ101302	10	M10	130	12	90	120	20	12
ACSMZ121602	10	M12	160	14	110	140	25	14
ACSMZ161902	10	M16	190	18	125	155	35	18
Flat Cut Chemical Anchor Studs (Property Class 5.8)								
SFCMZ121602	10	M12	160	14	110	140	25	14
SFCMZ161902	10	M16	190	18	125	155	35	18

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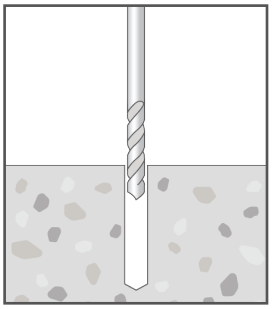
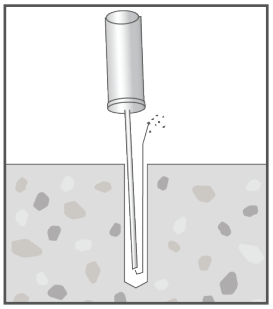
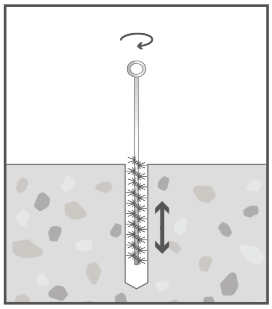
INSTALLATION



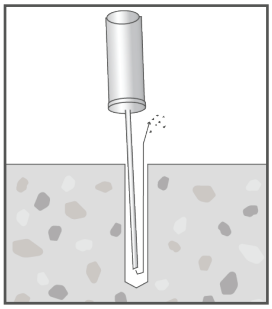
Drill hole into substrate to the specified diameter and depth using a rotary hammer drill and correctly sized carbide bit.



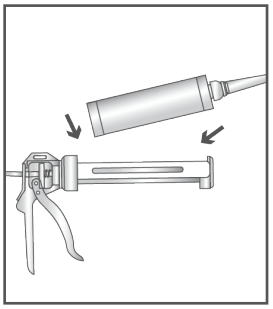
Blow out from the base of the drill hole at least 4 times until removed air is free of noticeable debris. For drill holes up to 22mm diameter - a manual blower pump may be used to clean the hole. For larger diameter holes - compressed air cleaning must be used and may also be used for smaller holes.



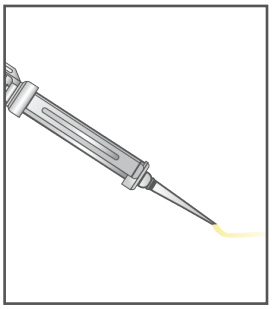
Brush 4 times with a wire brush (its diameter should be greater than the drill hole diameter) - inserting the brush to the base of the hole and withdrawing it with a twisting motion. If no resistance is felt during this step, the brush is worn - replace it.



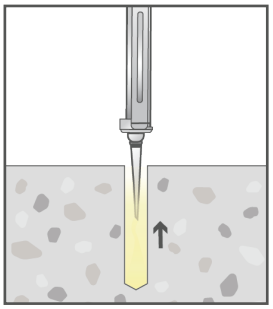
Blow out again at least 4 times.



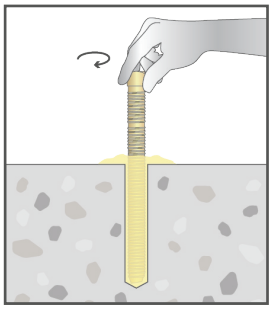
Insert the cartridge into the dispenser and screw the correct mixing nozzle onto the cartridge.



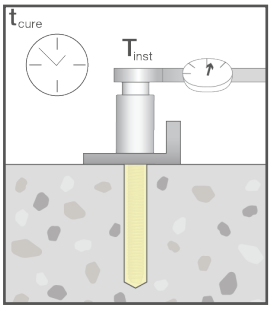
Prior to dispensing into the anchor hole, squeeze out a 10cm length bead of material and discard. The adhesive should now have a consistent, uniform color indicating correct mixing is occurring.



With the cartridge nozzle tip at the base of the cleaned drill hole, inject adhesive until the hole is approximately 2/3 full. Slowly withdraw the nozzle from the hole whilst injecting, keeping the nozzle tip immersed in the adhesive. This will avoid creating air pockets within the adhesive.



Ensure the anchor stud is clean and free of contaminants, grease etc. Push the anchor stud into the adhesive - slowly rotating the stud until it is seated against the base of the hole. An excess of adhesive around the top of the hole indicates sufficient material was injected into the hole, otherwise remove the anchor stud and renew the hole with adhesive.



All steps prior must be completed within the working time of the adhesive. Protect the anchor from disturbance until the full curing time has been reached. Once full cure is achieved, carefully place the fixture and apply the specified installation torque.

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PRODUCT INSTALL & PERFORMANCE INFORMATION

Chemical Anchor Stud - Product Code	Anchor length (mm)	Maximum fixture thickness (mm)	Drill hole depth (mm)	Minimum concrete thickness (mm)	Socket size AF (mm)	Installation torque (Nm)	Design Capacities: Uncracked concrete - tension (kN)	Design Capacities: Uncracked concrete - shear (kN)
	l_t	$t_{fix,\ max}$	h_1	h_{min}	SW	T_{inst}	N_{Rd}	V_{Rd}
Chemical Anchor Studs (Property Class 5.8)								
ACSMZ081102	110	15	80	110	13	10	6.2	7.2
ACSMZ101302	130	20	90	120	17	20	9.3	11.8
ACSMZ121602	160	25	110	140	19	40	12.4	16.8
ACSMZ161902	190	35	125	155	24	60	15.1	31.2
Chemical Anchor Flat Cut Studs (Property Class 5.8)								
SFCMZ121602	160	25	110	140	19	40	12.4	16.8
SFCMZ161902	190	35	125	155	24	60	15.1	31.2

Note:

Installation in accordance with this information.
Concrete cylinder compressive strength of 32MPa.
Single anchor capacity – no nearby concrete edge with minimum recommended concrete thickness.
In service temperature range I considered, hammer drilled holes.
ψ_{sus} = 1, refer to AS 5216:2021 clause 6.2.5.2 for details.
To address specific design cases, please refer to the product ETA document and contact Bremick for details.

Important Disclaimer: Product performance information contained herein is based on ETA certificate data and AS5216:2021 inputs as appropriate. Capacity information is limited to very simple load case configurations and is provided to enable a relative comparison within and across product ranges. The design of an anchoring solution for a particular application should be conducted by an appropriately qualified design professional.

MINIMUM GEL & CURING TIMES

Concrete substrate temperature	Gel / working time	Minimum curing time - dry concrete hole	Minimum curing time - wet concrete hole
-5°C ≤ substrate < 0°C	40 minutes	180 minutes	360 minutes
0°C ≤ substrate < 10°C	20 minutes	90 minutes	180 minutes
10°C ≤ substrate < 20°C	9 minutes	60 minutes	120 minutes
20°C ≤ substrate < 30°C	5 minutes	30 minutes	60 minutes
30°C ≤ substrate < 40°C	3 minutes	20 minutes	40 minutes
Cartridge / adhesive temperature ≥ 20°C			

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