NCC COMPLIANT
AS5216 CONFORMING

CHEMICAL INJECTION
BREMFIX Vinylester

Range M8 - M24

Hot Dip Galvanised Studs
Damp, external applications

HOT DIPPED GALVANISED

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 1
Cracked Concrete

FIRE RESISTANCE F120
Pending Update

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RANGE

Chemical Injection - Product Code & description		ETA Cert'n level	# fixings per cartridge (per below Range tables)	
			300ml	410ml
ACIPCVR3002 BremFix Vinylester Chemical Injection - 300ml cartridge **ACIPCVR4102** BremFix Vinylester Chemical Injection - 410ml cartridge	M8 (10 x 80mm hole)	Option 1 - Cracked Concrete	75	100
	M10 (12 x 90mm hole)		50	67
	M12 (14 x 110mm hole)		32	42
	M16 (18 x 125mm hole)		20	26
	M20 (22 x 170mm hole)		12	15
	M24 (28 x 210mm hole)		6	8

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)								
ACSMG081102	10	M8	110	10	80	110	15	10
ACSMG101302	10	M10	130	12	90	120	20	12
ACSMG121602	10	M12	160	14	110	140	25	14
ACSMG161902	10	M16	190	18	125	160	35	18
ACSMG202602	5	M20	260	22	170	220	50	22
ACSMG243002	5	M24	300	28	210	260	55	26
Flat Cut Chemical Anchor Studs (Property Class 5.8)								
SFCMG101302	10	M10	130	12	90	120	20	12
SFCMG121602	10	M12	160	14	110	140	25	14
SFCMG161902	10	M16	190	18	125	160	35	18
SFCMG202602	5	M20	260	22	170	220	50	22
SFCMG243002	5	M24	300	28	210	260	55	26
Flat Cut Chemical Anchor Studs (Property Class 8.8)								
SF8MG121602	10	M12	160	14	110	140	25	14
SF8MG161902	10	M16	190	18	125	160	35	18
SF8MG202602	5	M20	260	22	170	220	50	22
SF8MG243002	5	M24	300	28	210	260	55	26

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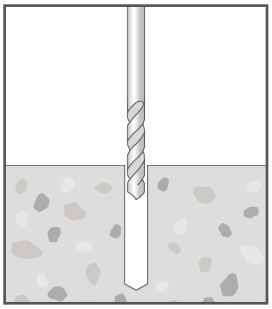
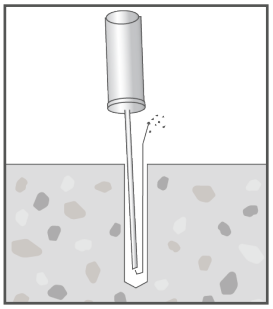
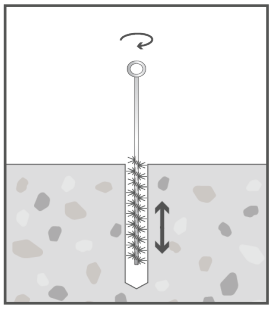
INSTALLATION



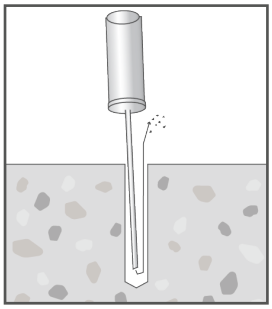
Drill hole into substrate to the specified diameter and depth using a rotary hammer drill and correctly sized carbide bit.



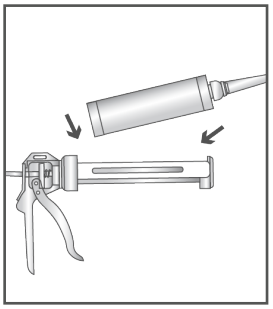
Blow out from the base of the drill hole at least 4 times until removed air is free of noticeable debris. For drill holes up to 22mm diameter - a manual blower pump may be used to clean the hole. For larger diameter holes - compressed air cleaning must be used and may also be used for smaller holes.



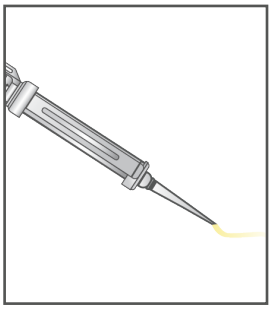
Brush 4 times with a wire brush (its diameter should be greater than the drill hole diameter) - inserting the brush to the base of the hole and withdrawing it with a twisting motion. If no resistance is felt during this step, the brush is worn - replace it.



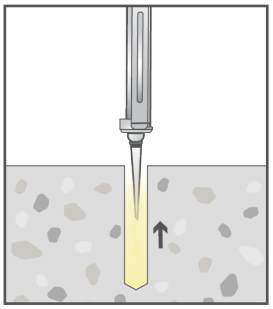
Blow out again at least 4 times.



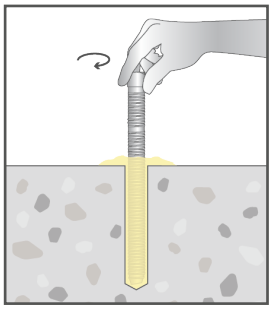
Insert the cartridge into the dispenser and screw the correct mixing nozzle onto the cartridge.



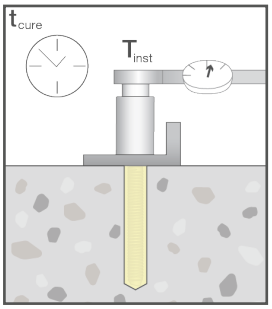
Prior to dispensing into the anchor hole, squeeze out a 10cm length bead of material and discard. The adhesive should now have a consistent, uniform color indicating correct mixing is occurring.



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)								
ACSMG081102	110	15	80	110	13	10	10.5	7.2
ACSMG101302	130	20	90	120	17	20	13.5	12.0
ACSMG121602	160	25	110	140	19	40	19.8	16.8
ACSMG161902	190	35	125	160	24	60	24.4	31.2
ACSMG202602	260	50	170	220	30	120	39.3	48.8
ACSMG243002	300	55	210	260	36	160	50.9	70.4
Chemical Anchor Flat Cut Studs (Property Class 5.8)								
SFCMG101302	130	20	90	120	17	20	13.5	12.0
SFCMG121602	160	25	110	140	19	40	19.8	16.8
SFCMG161902	190	35	125	160	24	60	24.4	31.2
SFCMG202602	260	50	170	220	30	120	39.3	48.8
SFCMG243002	300	55	210	260	36	160	50.9	70.4
Chemical Anchor Flat Cut Studs (Property Class 8.8)								
SF8MG121602	160	25	110	140	19	40	19.8	27.2
SF8MG161902	190	35	125	160	24	60	24.4	50.4
SF8MG202602	260	50	170	220	30	120	39.3	78.4
SF8MG243002	300	55	210	260	36	160	50.9	112.8

Note:

Installation in accordance with this Technical Data Sheet.
Concrete cylinder compressive strength = 32MPa.
Single anchor capacity - no nearby edge, minimum recommended concrete thickness
In service temperature range I.
Hammer drilled holes.
For combined load cases (tension & shear) - must also comply with $(N^* / N_{Rd}) + (V^* / V_{Rd}) \leq 1.2$.
To address specific design cases, please refer to the product ETA document and Bremick for further 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.

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MINIMUM GEL & CURING TIMES

Concrete substrate temperature	Gel / working time	Minimum curing time - dry concrete hole	Minimum curing time - wet concrete hole
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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