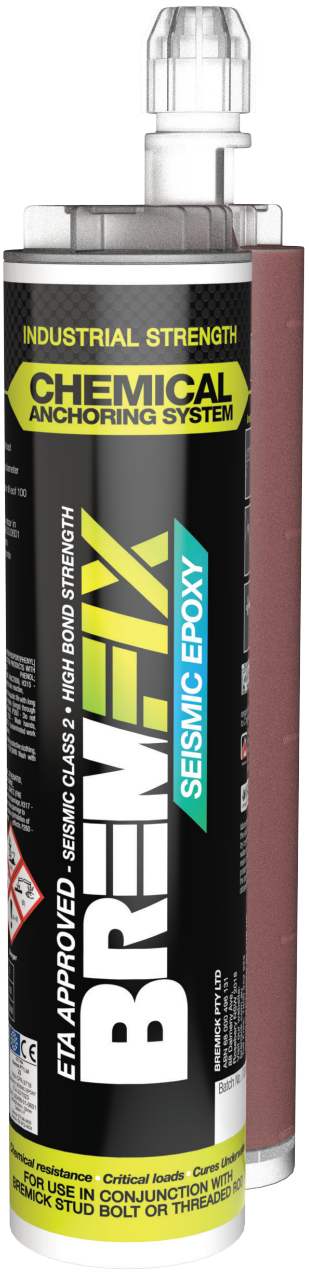
NCC COMPLIANT
AS5216 CONFORMING

CHEMICAL INJECTION
BREMFIX PURE EPOXY

Range M8 - M24

Stainless Steel Studs
External & marine applications



STAINLESS STEEL 316

FEATURES & BENEFITS

- Ideal for safety critical applications.
- Intended working life of 100 years.
- ETA rating - Up to Seismic C2: refer to Range tables.
- VOC A+ rating.
- WRAS Approved for potable drinking water.
- LEED Compliance.
- Suitable for wet & flooded holes.
- Hammer drilled or diamond cored holes.
- Long working time.

APPLICATIONS/TRADES

- Structural steel connections to concrete.
- Road, tunnel & bridge heavy construction.
- Seismic / cracked concrete applications.
- Critical Infrastructure structural connections.

COMPLIANCE

National Construction Code

AS5216

ETA

C1 C2* SEISMIC FIXING

FIRE RESISTANCE F120

* Refer to Range table for line specific approval levels

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RANGE

Chemical Injection - Product Code & description	Anchor thread size	ETA Cert'n level	# fixings per cartridge (per below Range tables)
ACIPCSE5852 Pure Epoxy 600, Seismic C2 Chemical Injection - 585ml cartridge Use dispensing tool TMACISE5852	M8 (10 x 80mm hole)	Seismic C1	145
	M10 (12 x 90mm hole)	Seismic C1	95
	M12 (14 x 110mm hole)	Seismic C2	60
	M16 (18 x 125mm hole)	Seismic C2	40
	M20 (22 x 170mm hole)	Seismic C2	20
	M24 (28 x 210mm hole)	Seismic C2	9

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 (Stainless Steel A4 - 70)								
ACSM6081102	10	M8	110	10	80	110	15	9
ACSM6101302	10	M10	130	12	90	120	20	12
ACSM6121602	10	M12	160	14	110	140	25	14
ACSM6161902	10	M16	190	18	125	155	35	18
ACSM6202602	5	M20	260	22	170	215	50	22
ACSM6243002	5	M24	300	28	210	270	55	26

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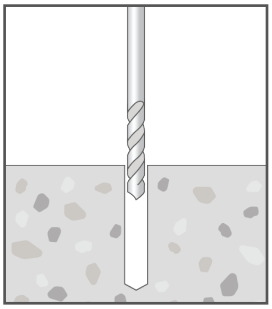
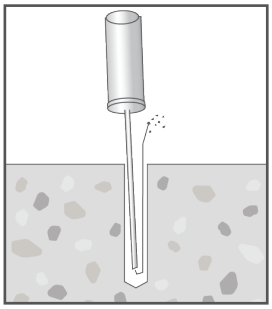
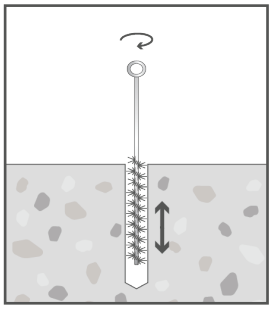
INSTALLATION



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

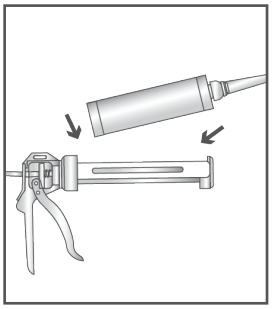


Blow out from the base of the drill hole at least 2 times until removed air is free of noticeable debris. For drill holes up to 18mm diameter - a manual blower pump may be used to clean the hole. For larger diameter holes - compressed air cleaning must be used and may also be used for smaller holes.

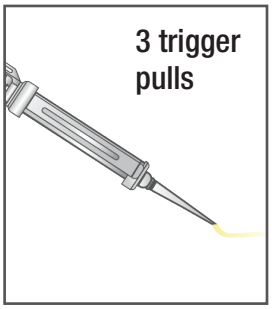


Brush 2 times with a wire brush (its diameter should be greater than the drill hole diameter) - inserting the brush to the base of the hole and withdrawing it with a twisting motion.
If no resistance is felt during this step, the brush is worn - replace it.

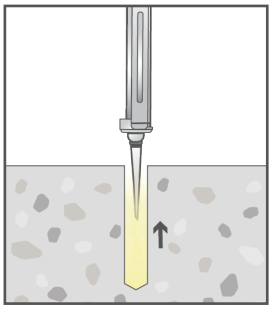
Repeat prior 2 steps for a total of: blow, brush, blow, brush, blow. Protect the hole from contamination until ready to complete the installation. For full details & alternative hole drilling/cleaning methods - please refer to the product ETA document.



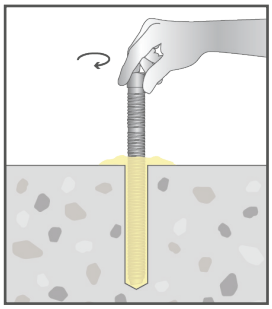
Insert the cartridge into the dispenser and screw the correct mixing nozzle onto the cartridge.



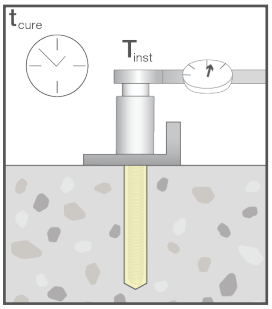
Prior to dispensing into the anchor hole, squeeze out 3 trigger pulls of material and discard. The adhesive should now have a consistent, uniform color indicating correct mixing is occurring.



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 (Stainless Steel A4 - 70)								
ACSM6081102	110	15	80	110	13	10	13.9	8.3
ACSM6101302	130	20	90	120	17	20	21.9	12.8
ACSM6121602	160	25	110	140	19	40	31.6	19.2
ACSM6161902	190	35	125	155	24	60	56.1	35.3
ACSM6202602	260	50	170	215	30	120	89.0	55.1
ACSM6243002	300	55	210	270	36	160	122.2	79.5

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 CURING TIMES

Temperature in the concrete substrate	Gel / working time	Minimum curing time - dry concrete hole	Minimum curing time - wet concrete hole
+5°C	70 minutes	60 hours	120 hours
+10°C	32 minutes	40 hours	80 hours
+15°C	28 minutes	30 hours	60 hours
+20°C	25 minutes	18 hours	36 hours
+25°C	22 minutes	17 hours	34 hours
+30°C	20 minutes	16 hours	32 hours
+40°C	18 minutes	12 hours	24 hours
Cartridge temperature: +15°C to +35°C			

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