

CHEMICAL CAPSULES



Description

Macsim Chemcaps, chemical anchors and studs provide a complete, polyester based anchoring system for special application to concrete, solid brick and masonry materials where the use of conventional mechanical anchors is unsatisfactory.

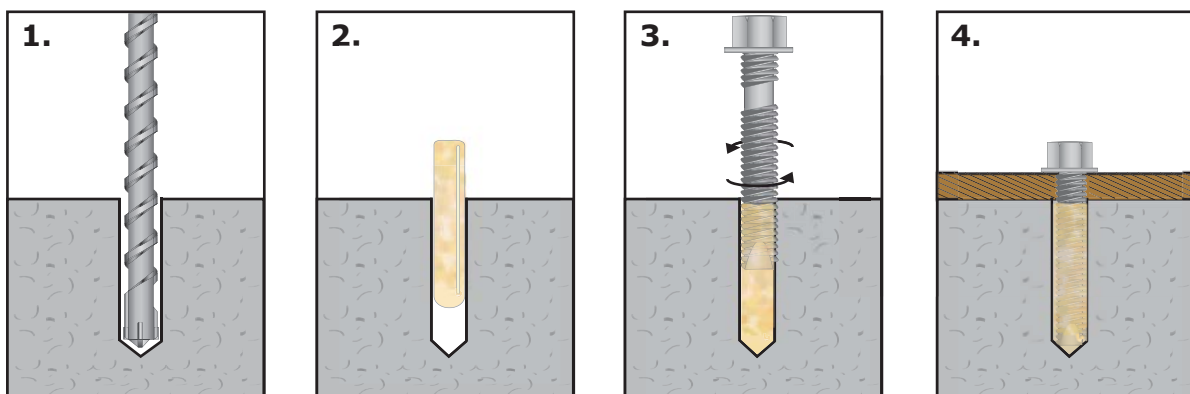
The Chemcap system is ideally suited to applications where high dynamic loads apply or for installations close to the edge of concrete or other solid masonry materials. Once cured, the adhesive resin provides a stress free bond with the stud and surrounding material.

During installation the capsule, quartz aggregate and resin are pulverized and mixed together and are distributed along the embedded portion of the stud. After curing is complete the synthetic mortar retains the stud and re-inforces the surrounding material.

Features

- High load capability
- Vibration resistant
- Resistant to shock loading
- Consolidates weak base material
- No expansion stress in base material
- Suitable for close-to-edge and close-centre fixing
- Clean and safe to handle
- No slipping or fretting
- Suitable for wide range of base materials
- Long shelf life
- Special lengths and stainless steel studs available to special order
- Can be used under water

Installation Procedure



Installation Procedure - Continued

1. Drill the correct diameter and depth of hole in concrete substrate and clean out by brushing and blowing dust clear.
2. Place Chemcap capsule in hole.
3. Attach supplied hexagonal key (male or female) and insert into stud top.
4. Using a rotary hammer drilling machine, attach hex key and drive the stud on hammer action into the capsule until the bottom of the hole is reached. The drill must be used with rotation/vibration when setting the stud.
5. Allow appropriate curing time before loading the anchor

Important Tips:

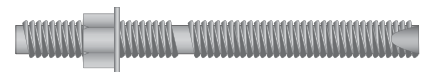
- (i) Once the stud bottoms, STOP the rotation. Over rotation will expel the resin from the hole and holding power will be reduced.
- (ii) DON'T use Chemcap anchor if temperature inside the base material is above 60°C.

Installation Recommendations

CHEMCAP CAPSULES					
Code	Stud Size (mm)	Drill Size (mm)	Hole Depth (mm)	Box Qty	Carton Qty
37C08	8	10	80	10	500
37C10	10	12	90	10	500
37C12	12	14	110	10	500
37C16	16	18	125	10	500
37C20	20	25	180	6	100
37C24	24	28	220	6	70



CHEMCAP STUD BOLTS - 5.8 GRADE STEEL ZINC*			
Code	Stud Size (mm)	Length (mm)	Box Qty
37S08	8	110	10
37S10	10	130	10
37S12	12	160	10
37S16	16	190	10
37S20	20	260	10
37S24	24	300	10



*Also available in Galvanised and Stainless Steel

PRODUCT SPECIFICATION MANUAL

Material Specifications

5.8 Spec. Stud Diameter	Maximum Tightening Torque (Nm)	Nominal Tensile Strength (N/mm ²)			Effective Cross Section (mm ²)	Nut Width Across Flats (mm)	Washer Diameter (mm)
		5.8 ZP Stud	5.8 Gal. Stud	A4/70 Stainless Stud.			
M8	15	580	580	700	32	13	16
M10	25	580	580	700	52	17	20
M12	40	580	580	700	76	19	24
M16	80	520	520	700	144	24	30
M20	160	520	520	700	225	30	37
M24	300	520	520	700	324	36	44

Curing Specifications

Base Material Temperature (°C)	Hardening Time (minutes)	Full Load Curing Time (minutes)
> + 20°C	10	20
+ 10°C TO + 20°C	15	30
0°C TO + 10°C	40	60
-5°C TO 0°C	200	300

Simple Load Characteristics

Anchor Size	Hole Diameter (mm)	Min. Embed. Depth (mm)	Ultimate Strength (Kn)		Recommended Working (Kn)		Recommended** (mm)	
			Tensile	Shear	Tensile	Shear	Anchor Spacing	Edge Distance
M8	10	80	18.00*	14.50	5.00	3.40	160	80
M10	12	90	28.00*	22.00	7.30	4.60	180	90
M12	14	110	42.00*	30.90	10.70	6.60	220	110
M16	18	125	74.30	57.50	16.70	11.90	250	125
M20	25	180	110.00	87.20	30.10	18.40	340	170
M24	28	220	160.90	129.10	43.10	35.10	420	210

* Load limited by 5.8 grade stud capacity.

** Reduction Factors apply for distances less than these