

EF500R+

EXTREME STRENGTH STRUCTURAL CHEMICAL ANCHOR

CERTIFICATION

TDS

MSDS

Anchor Selection Guide Extract



NCC
COMPLIANT
AS 5216



For Install Support

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Quality
ISO 9001
SAI GLOBAL

EF500R+

EXTREME STRENGTH STRUCTURAL CHEMICAL ANCHOR

EF500R+

Extreme Strength Structural
Chemical Anchor



- Pure epoxy
- Installations in dry, wet and flooded holes
- Suitable with all drilling methods including diamond core and dustless
- Anchoring in seismic regions
- Post-installed rebar connections
- Fixings close to free edges
- Overhead applications
- Fixing into cracked concrete, solid masonry, hard natural stone and solid rock
- Crash barriers
- Structural steel to concrete connections
- Available in side by side cartridges (585ml 3:1)

Approvals & Certifications

ETA Option 1 for cracked and uncracked concrete including diamond cored and dustless drilling, 100-year design life

ETA according to AS 5216 for post-installed rebar connections including diamond cored and dustless drilling, 100-year design life

ETA according to TR-069 for post-installed rebar connections with improved bond-splitting behaviour

Approved for seismic action categories C1 & C2

AS 5216 compliant, NCC

Fire resistance F240 for reinforcing bars, F120 for threaded rod

Fire exposure curve for post-installed rebar connections in the ETA

WRAS Approved for use in potable water

French VOC A+ Rated

Qualifies for LEED V.4.1 BETA (JULY 2019) Specifications



Application Times

Temp. (°C)*	5°	10°	15°	20°	25°	30°	35°	40°
Working (mins.)	300'	150'	40'	25'	18'	12'	8'	6'
Cure (hrs.)	24	18	12	8	6	4	2	2

*Base material & cartridge temperature. Cartridge must be conditioned to minimum 10°C.

Service temperature: -40°C to +70°C



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Anchor Summary

SCM-Y Chem Stud G5.8 Zinc with EF500R+

- Zinc plated (3µm min.) / G5.8 steel
- Nut and washer supplied
- M30 and larger size custom length threaded rod are also available



Part Number for Stud	Description, Dia x L	Max. Fixture Thickness, $t_{fix}^{1)}$	Standard Embedment Depth, $h_{nom} (=h_{ef})$	Drill Hole Dia x Depth, $d_0 \times h_0$	Minimum Concrete Thickness, $h_{min}^{1)}$	Seismic C1/C2	Design Capacity in 32MPa Cracked Concrete ²⁾		Indicative Price Per Fixing ³⁾
							Tension	Shear	
1056.0080110	M8 x 110mm (nut/washer)	16mm	80mm	10 x 85mm	110mm	✓ / -	11.2kN	8.8kN	\$1.30
1056.0100130	M10 x 130mm (nut/washer)	22mm	90mm	12 x 95mm	120mm	✓ / -	15.8kN	13.6kN	\$1.49
1056.0120160	M12 x 160mm (nut/washer)	26mm	110mm	14 x 115mm	140mm	✓ / ✓	21.7kN	20.0kN	\$2.26
1056.0160190	M16 x 190mm (nut/washer)	37mm	125mm	18 x 130mm	161mm	✓ / ✓	32.9kN	37.6kN	\$3.81
1056.0200260	M20 x 260mm (nut/washer)	62mm	170mm	22 x 175mm	214mm	✓ / ✓	52.2kN	59.2kN	\$7.94
1056.0240300	M24 x 300mm (nut/washer)	51mm	210mm	26 x 215mm	262mm	✓ / -	77.4kN	84.8kN	\$12.09
Please enquire	M30 custom length threaded rod	Length - h_{ef} - 43mm	270mm typical	35 x 275mm	340mm	✓ / -	88.8kN	134.4kN	TBA

SCM-G Chem Stud G5.8 HDG with EF500R+

- Galvanised (50µm min.) / G5.8 steel
- Nut and washer supplied
- M30 and larger size custom length threaded rod are also available



Part Number for Stud	Description, Dia x L	Max. Fixture Thickness, $t_{fix}^{1)}$	Standard Embedment Depth, $h_{nom} (=h_{ef})$	Drill Hole Dia x Depth, $d_0 \times h_0$	Minimum Concrete Thickness, $h_{min}^{1)}$	Seismic C1/C2	Design Capacity in 32MPa Cracked Concrete ²⁾		Indicative Price Per Fixing ³⁾
							Tension	Shear	
1054.0080110	M8 x 110mm (nut/washer)	16mm	80mm	10 x 85mm	110mm	✓ / -	11.2kN	8.0kN	\$1.58
1054.0100130	M10 x 130mm (nut/washer)	22mm	90mm	12 x 95mm	120mm	✓ / -	15.8kN	12.8kN	\$1.86
1054.0120160	M12 x 160mm (nut/washer)	26mm	110mm	14 x 115mm	140mm	✓ / ✓	21.7kN	20.0kN	\$2.61
1054.0160190	M16 x 190mm (nut/washer)	37mm	125mm	18 x 130mm	161mm	✓ / ✓	32.9kN	37.6kN	\$4.66
1054.0200260	M20 x 260mm (nut/washer)	62mm	170mm	22 x 175mm	214mm	✓ / ✓	52.2kN	59.2kN	\$8.40
1054.0240300	M24 x 300mm (nut/washer)	51mm	210mm	26 x 215mm	262mm	✓ / -	77.4kN	84.8kN	\$14.14
Please enquire	M30 custom length threaded rod	Length - h_{ef} - 43mm	270mm typical	35 x 275mm	340mm	✓ / -	88.8kN	134.4kN	TBA

1) For standard embedment. Smaller and larger embedments are possible, please refer to the TDS or AFOS Anchor Design Software for more information. Custom length studs are also available.

2) 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 our AFOS Anchor Design Software or the ETA. Assuming up to 60% of total design loading is sustained loading.

3) Based on a volume of 300+ to 500+ fixings, 96+ chemical tubes, as of March 2026. Includes cost of chemical, stud, nut and washer.

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SCM-S Chem Stud 316 (A4) Stainless Steel with EF500R+

- 316 (A4-70) Stainless Steel
- Nut and washer supplied
- M30 and larger size custom length threaded rod are also available



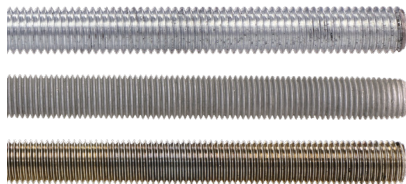
Part Number for Stud	Description, Dia x L	Max. Fixture Thickness, $t_{fx}^{1)}$	Standard Embedment Depth, h_{nom} ($=h_{ef}$)	Drill Hole Dia x Depth, d_0 x h_0	Minimum Concrete Thickness, $h_{min}^{1)}$	Seismic C1/C2	Design Capacity in 32MPa Cracked Concrete ²⁾		Indicative Price Per Fixing ³⁾
							Tension	Shear	
1055.0080110	M8 x 110mm (nut/washer)	16mm	80mm	10 x 85mm	110mm	✓ / -	11.2kN	8.3kN	\$3.31
1055.0100130	M10 x 130mm (nut/washer)	22mm	90mm	12 x 95mm	120mm	✓ / -	15.8kN	12.8kN	\$4.68
1055.0120160	M12 x 160mm (nut/washer)	26mm	110mm	14 x 115mm	140mm	✓ / ✓	21.7kN	19.2kN	\$6.35
1055.0160190	M16 x 190mm (nut/washer)	37mm	125mm	18 x 130mm	161mm	✓ / ✓	32.9kN	35.2kN	\$11.24
1055.0200260	M20 x 260mm (nut/washer)	62mm	170mm	22 x 175mm	214mm	✓ / ✓	52.2kN	55.1kN	\$22.67
1055.0240300	M24 x 300mm (nut/washer)	51mm	210mm	26 x 215mm	262mm	✓ / -	77.4kN	79.4kN	\$33.23
Please enquire	M30 custom length threaded rod	Length - h_{ef} - 43mm	270mm typical	35 x 275mm	340mm	✓ / -	88.8kN	125.6kN	TBA

1) For standard embedment. Smaller and larger embedments are possible, please refer to the TDS or AFOS Anchor Design Software for more information. Custom length studs are also available.

2) 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 our AFOS Anchor Design Software or the ETA. Assuming up to 60% of total design loading is sustained loading.

3) Based on a volume of 200+ to 500+ fixings, 96+ chemical tubes, as of March 2026. Includes cost of chemical, stud, nut and washer.

Other Steel Grades



Off the shelf custom length threaded rod is available in the following grades:

- G4.6 Zinc Plated
- G4.6 Galvanised
- G8.8 Galvanised
- 316 (A4-70) Stainless Steel

Other available grades include, but not limited to the following:

- G10.9 Carbon Steel
- A4-80 Stainless Steel

Rebar



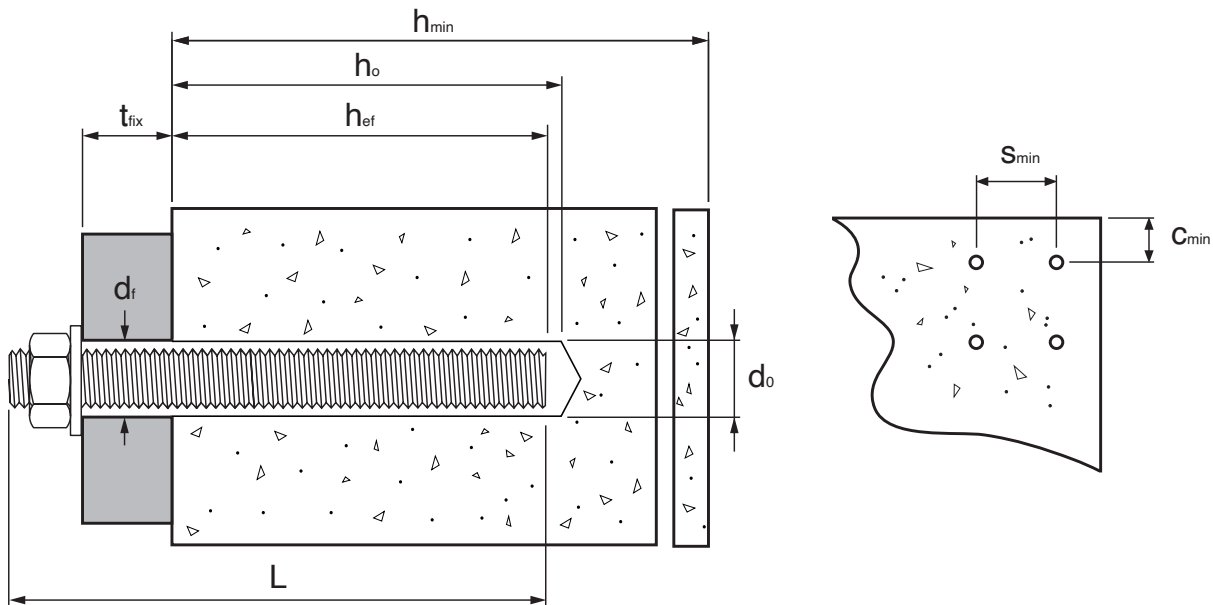
Please refer to our AFOS Anchor Design Software, the TDS and ETA for more details.

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Installation Parameters of Threaded Rod

Anchor Size			M8	M10	M12	M16	M20	M24	M30	
Drill hole diameter	$\varnothing d_o$	[mm]	10	12	14	18	22	26	35	
Torque moment	$\max T_{\text{fixt}}$	[Nm]	10	20	40	80	120	160	200	
Embedment depth for $h_{\text{ef,min}}$ (min)	h_{ef}	[mm]	60	60	70	80	90	96	120	
Embedment depth for $h_{\text{ef,max}}$ (max)	h_{ef}	[mm]	160	200	240	320	400	480	600	
Depth of drill hole	h_o	[mm]	$h_{\text{ef}} + 5$							
Diameter of clearance hole in fixture	d_f	[mm]	9	12	14	18	22	26	33	
Minimum edge distance	c_{min}	[mm]	40				50		60	
Minimum spacing	s_{min}	[mm]	40				50		60	
Minimum thickness of concrete member	h_{min}	[mm]	$h_{\text{ef}} + 30\text{mm} \geq 100\text{mm}$				$h_{\text{ef}} + 2d_o$			



Installation Parameters of Rebar

Rebar Size			Ø8	Ø10	Ø12	Ø16	Ø20	Ø25	Ø32	
Drill hole diameter	$\varnothing d_o$	[mm]	12	14	16	20	25	32	40	
Torque moment	$\max T_{\text{fixt}}$	[Nm]	10	20	40	80	120	180	200	
Embedment depth for $h_{\text{ef,min}}$ (min)	h_{ef}	[mm]	60	60	70	80	90	100	128	
Embedment depth for $h_{\text{ef,max}}$ (max)	h_{ef}	[mm]	160	200	240	320	400	500	640	
Depth of drill hole	h_o	[mm]	$h_{\text{ef}} + 5$							
Minimum edge distance	c_{min}	[mm]	40				50		70	
Minimum spacing	s_{min}	[mm]	40				50		70	
Minimum thickness of concrete member	h_{min}	[mm]	$h_{\text{ef}} + 30\text{mm} \geq 100\text{mm}$				$h_{\text{ef}} + 2d_o$			

For installation instructions and other anchor properties, please refer to the TDS or ETA on our website.



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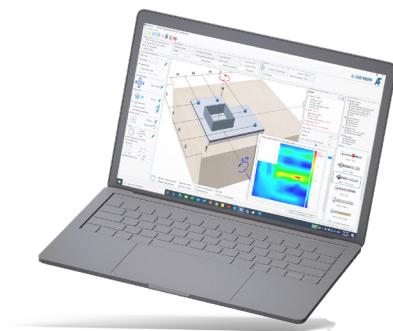
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AFOS[®]
Anchor Design Software

DOWNLOAD

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