

PRODUCT CATALOGUE & SPECIFICATION GUIDE



MASONRY ANCHORS



BREMICK
FASTENERS

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LOAD CONTROLLED SLEEVE ANCHOR



Bremick BREMIBOLT™ Anchors are heavy duty one piece, preassembled, torque controlled, mechanical anchors consisting of a high tensile threaded plow bolt and washer with a hardened cold formed coned end assembled with a heavy gauge carbon steel shear sleeve and nylon compression ring. During setting the cone is drawn into the expansion sleeve which provides a controlled expansion force to provide a lock to the base material through a combination of friction and base material deformation. Pretension in the installed high tensile anchor is preserved by a pre engineered nylon compression ring seated at the base of the shear sleeve that is designed to crush during the installation process which prevents anchor rotation, eliminates sleeve compression, maintains bolt pretension and high clamping forces. Complies to AS3850.

Bremick BREMIBOLT™ Anchors are available with Hexagonal heads, other head styles are available on request.

APPLICATIONS

Heavy duty torque controlled anchor, for general use in concrete for secure high load applications.

FEATURES

- Heavy Duty
- High Tensile Carbon Steel components
- Reliable Torque controlled setting
- Follow up expansion
- Immediate loading
- Suitable dynamic loading
- High shear resistance

ANCILLARY PRODUCTS CLEANING TOOLS

For Brushes, Blow Pumps and Sieves please refer to the Chemical Injection System section of this book.

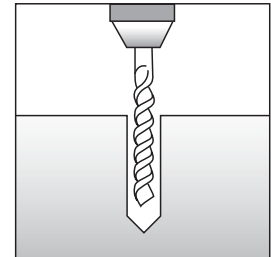
SUGGESTED SPECIFICATION

Heavy duty torque controlled anchors shall be preassembled and manufactured from Grade 8.8 high tensile steel components complete with nylon compression ring and shall comply to AS3850. Anchors shall be sourced from Bremick Pty Ltd.

SETTING INSTRUCTIONS

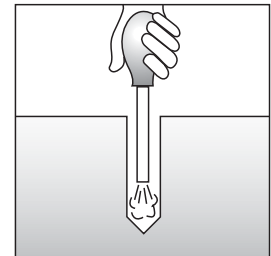
1: Drill

Drill hole in base material to specified diameter and depth.



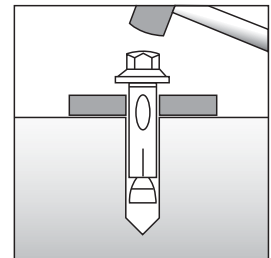
2: Clean

Blow out dust and drilling fragments.



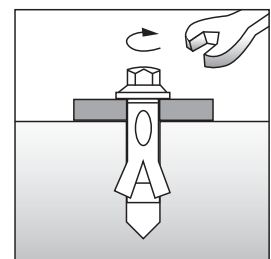
3: Insert

Insert anchor into hole and drive until nut and washer are flush with the material surface.



4: Set

Using a wrench or drive socket expand anchor by tightening bolt to specified torque. 3-5 turns or specified torque.



LOAD CONTROLLED SLEEVE ANCHOR AS3850



Description	Hole/Drill Diameter (mm)	Thread Size (mm)	Anchor Length (mm)	Min Hole Depth (mm)	Max Fast. Thickness (mm)	Std Pack	Product Code
SZ-S 15/25	15	M10	116	95	25	25	AHDMZ151102
SZ-S 15/45	15	M10	136	95	45		AHDMZ151302
SZ-S 18/0	18	M12	107	105	0	20	AHDMZ181002
SZ-S 18/20	18	M12	127	105	20		AHDMZ181202
SZ-S 18/40	18	M12	147	105	40		AHDMZ181402
SZ-S 24/20	24	M16	150	130	20	10	AHDMZ241402
SZ-S 24/50	24	M16	180	130	50		AHDMZ241702

Load Controlled Sleeve Anchors

- Hexagonal Head
- Over size washer
- Class 8.8 High Tensile Steel
- Rolled Threads
- Polyethylene Compression Ring
- Fully Tested and Approved for use in Tiltwall Construction

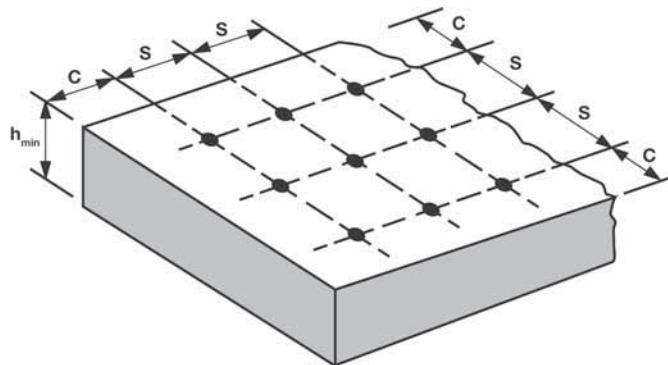
AS 3850



LOAD CONTROLLED SLEEVE ANCHORS HEXAGONAL HEAD - ZINC PLATED

INSTALLATION DETAILS

FASTENER DETAILS				INSTALLATION DETAILS									
Anchor Size	Anchor/ Drill Hole Diameter	Thread Size	Anchor Length	Effective Embedment Depth	Characteristic Anchor Spacing (Tension & Shear)	Characteristic Edge Distance (Tension & Shear)	Minimum Anchor Spacing (Tension & Shear)	Minimum Edge Distance (Tension & Shear)	Minimum Base Material Thickness	Maximum Fixture Thickness	Clearance Hole Diameter (Fixture)	Installation Torque (Concrete)	Width Across Flats
	D _o (mm)	D (mm)	L (mm)	h _i (mm)	S _{cr} (mm)	C _{cr} (mm)	S _{min} (mm)	C _{min} (mm)	h _{min} (mm)	t _{fix} (mm)	D _c (mm)	T _{inst} (Nm)	SW (mm)
SZ-S 15/25	15	M10	116	71	210	180	70	70	90	25	17	50	17
SZ-S 15/45	15	M10	136	71	210	180	70	70	90	45	17	50	17
SZ-S 18/0	18	M12	107	80	240	200	80	80	100	0	20	80	19
SZ-S 18/20	18	M12	127	80	240	200	80	80	100	20	20	80	19
SZ-S 18/40	18	M12	147	80	240	200	80	80	100	40	20	80	19
SZ-S 24/20	24	M16	150	100	300	250	100	100	125	20	26	160	24
SZ-S 24/50	24	M16	180	100	300	250	100	100	125	50	26	160	24



Notation, Spacing, Edge Distance & Base Material Thickness

PERFORMANCE DATA - CONCRETE (RECOMMENDED LOADS)

INSTALLATION DETAILS				RECOMMENDED LOADS IN CONCRETE (N _{rec,c} / V _{rec,c})									
Product Designation	Hole/ Drill Diameter (mm)	Major Thread Diameter (mm)	Effective Embedment Depth (mm)	25MPa Concrete (f _c)		32MPa Concrete (f _c)		40MPa Concrete (f _c)		50MPa Concrete (f _c)		65MPa Concrete (f _c)	
				Tension (N _{rec,c}) KN	Shear (V _{rec,c}) KN	Tension (N _{rec,c}) KN	Shear (V _{rec,c}) KN	Tension (N _{rec,c}) KN	Shear (V _{rec,c}) KN	Tension (N _{rec,c}) KN	Shear (V _{rec,c}) KN	Tension (N _{rec,c}) KN	Shear (V _{rec,c}) KN
SZ-S 15/**	15	M10	71	8.3	12.0	10.3	15.0	11.6	16.9	12.8	18.5	14.8	21.4
SZ-S 18/**	18	M12	80	9.9	19.8	12.4	24.8	14.0	28.0	15.4	30.7	17.8	35.5
SZ-S 24/**	24	M16	100	13.9	27.7	17.3	34.7	19.5	39.1	21.5	43.0	24.8	49.6

All above Values are Design Values for anchors installed in concrete with anchors installed at characteristic embedment depths, as shown. Recommended Loads have been derived with a Safety factor of 4.
All Shear Values are Single Shear.

For further performance data, including Characteristic, Working Stress, Limit State Design Values and design data please refer to our Web Site www.bremick.com.au



Bremick Sleeve Anchors are one piece, preassembled, torque controlled, mechanical anchors consisting of a threaded plow bolt with a cold formed coned end assembled with a pressed carbon steel expansion sleeve. During setting the cone is drawn into the anchor sleeve which provides sufficient expansion force to provide a lock to the base material through a combination of friction and base material deformation. Pretension in the installed anchor is preserved by pre engineered deformations in the sleeve that are designed to crush during the installation process.

Bremick Sleeve Anchors are available in all head forms including, Hexagonal, Flush, countersunk, hook and eye bolts. **Bremick Sleeve Anchors** are also available in Stainless steel, zinc plated and Galvanised.

APPLICATIONS

Quality, medium duty torque controlled deformation type sleeve anchor, for general use in concrete, solid masonry and stone.

FEATURES

- Fast and simple installation
- Ideal for through fastening.
- Reliable force controlled setting
- Follow up expansion
- Immediate loading
- Suitable for over head application
- Available in Zinc Plate, Galvanised and Stainless Steel
- Available in a wide variety of head types.

**ANCILLARY PRODUCTS
CLEANING TOOLS**

For Brushes and Blow Pumps please refer to the Chemical Injection System section of this book.

SUGGESTED SPECIFICATION

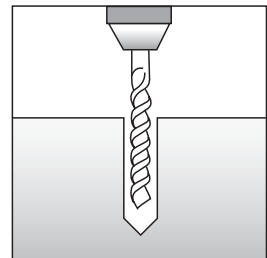
Carbon Steel Sleeve Anchor
Carbon steel expansion sleeve anchors shall be preassembled with astyle head.

All components shall be zinc plated/galvanised and shall be sourced from Bremick Pty Ltd.

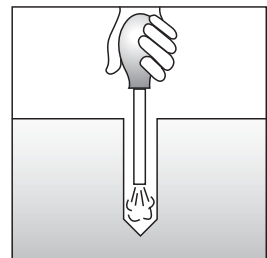
Stainless Steel Sleeve Anchor
Stainless steel expansion sleeve anchors shall be manufactured from Stainless Steel 316 and preassembled with astyle head and shall be sourced from Bremick Pty Ltd.

SETTING INSTRUCTIONS

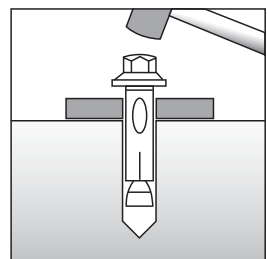
1: Drill
Drill hole in base material to specified diameter and depth. Care should be taken to control hole diameter.



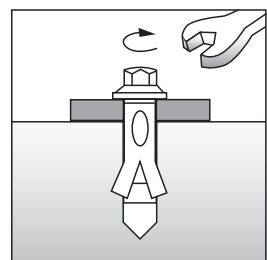
2: Clean
Blow out dust and drilling fragments.



3: Insert
Insert anchor into hole and drive until nut and washer are flush with the material surface.



4: Set
Using a wrench expand anchor by tightening to specified torque.





**HEXAGONAL FLANGE HEAD
ZINC PLATED
DIN 6923, AS1789**

Hole/Drill Diameter (mm)	Thread Size (mm)	Anchor Length (mm)	Hole Depth (mm)	Max. Fast. Thickness (mm)	Std Pack	Product Code	
6.5	M5	25	21	4	100	ASNMZ060252	
		35	30	5		ASNMZ060352	
		55	40	15		ASNMZ060552	
		75	55	20		ASNMZ060752	
8	M6	40	25	15	100	ASNMZ080402	
		65	35	30		ASNMZ080652	
		85	50	35		50	ASNMZ080852
10	M8	40	35	5	50	ASNMZ100402	
		50	40	10		ASNMZ100502	
		60	50	10		ASNMZ100602	
		75	55	20		ASNMZ100752	
		100	60	40		25	ASNMZ101002
		125	75	50		ASNMZ101252	
12	M10	60	40	20	25	ASNMZ120602	
		60	40	20	100	ASNMZ12060B	
		75	50	25	25	ASNMZ120752	
		100	60	40	20	ASNMZ121002	
		130	80	50	ASNMZ121302		
16	M12	65	55	10	20	ASNMZ160652	
		110	70	40	10	ASNMZ161102	
		145	95	50	ASNMZ161452		
20*	M16	75	60	15	10	ASNMZ200752	
		105	80	25	5	ASNMZ201052	
		150	100	50	ASNMZ201502		

*20mm Nut and Washer Separate

**HEXAGONAL FLANGE HEAD
GALVANISED
DIN 6923, AS1214**



Hole/Drill Diameter (mm)	Thread Size (mm)	Anchor Length (mm)	Hole Depth (mm)	Max. Fast. Thickness (mm)	Std Pack	Product Code
8	M6	40	25	15	100	ASNMG080402
		65	35	30		ASNMG080652
		85	50	35	50	ASNMG080852
10	M8	40	35	5	50	ASNMG100402
		50	40	10		ASNMG100502
		60	50	10		ASNMG100602
		75	55	20		ASNMG100752
		100	60	40	25	ASNMG101002
		125	75	50		ASNMG101252
12	M10	60	40	20	25	ASNMG120602
		75	50	25		ASNMG120752
		100	60	40	20	ASNMG121002
		130	80	50		ASNMG121302
16	M12	65	55	10	20	ASNMG160652
		110	70	40	10	ASNMG161102
		145	95	50		ASNMG161452
20*	M16	75	60	15	10	ASNMG200752
		105	80	25	5	ASNMG201052
		150	100	50		ASNMG201502

*20mm Nut and Washer Separate



**HEXAGONAL FLANGE HEAD
316 STAINLESS STEEL
DIN 6923**

Hole/Drill Diameter (mm)	Thread Size (mm)	Anchor Length (mm)	Hole Depth (mm)	Max. Fast. Thickness (mm)	Std Pack	Product Code
6*	M4.5	40	30	10	100	ASNM6060402
		60	40	20	50	ASNM6060602
8*	M6	40	25	15	100	ASNM6080402
		65	35	30	50	ASNM6080652
		85	50	35		ASNM6080852
10*	M8	50	40	10	50	ASNM6100502
		75	55	20		ASNM6100752
		100	60	40	25	ASNM6101002
12*	M10	60	40	20	25	ASNM6120602
		75	50	25		ASNM6120752
		100	60	40		ASNM6121002

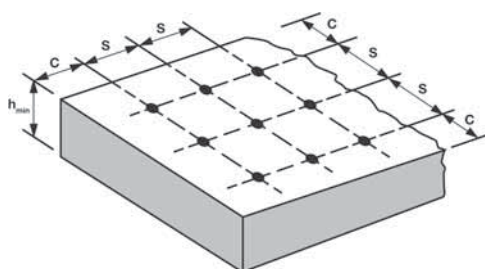
*Nuts and Washers Separate

HEXAGONAL FLANGE HEAD ZINC PLATED, GALVANISED AND 316 STAINLESS STEEL



INSTALLATION DETAILS

FASTENER DETAILS			INSTALLATION DETAILS									
Anchor/ Drill Diameter	Thread Size	Anchor Length	Effective Embedment Depth	Characteristic Anchor Spacing (Tension & Shear)	Characteristic Edge Distance (Tension & Shear)	Minimum Anchor Spacing (Tension & Shear)	Minimum Edge Distance (Tension & Shear)	Minimum Base Material Thickness	Maximum Fixture Thickness	Clearance Hole Diameter (Fixture)	Installation Torque (Concrete)	Width Across Flats
D _o (mm)	D (mm)	L (mm)	h _t (mm)	S _{cr} (mm)	C _{cr} (mm)	S _{min} (mm)	C _{min} (mm)	h _{min} (mm)	t _{fix} (mm)	D _c (mm)	T _{inst} (Nm)	SW (mm)
6	M4.5	40	30	65	80	30	30	40	10	8	2.0	8
		60	40	65	80	30	30	50	20	8	2.0	8
6.5	M5	25	21	65	80	30	30	26	4	8	2.5	8
		35	30	65	80	30	30	40	5	8	2.5	8
		55	40	65	80	30	30	50	15	8	2.5	8
		75	55	65	80	30	30	70	20	8	2.5	8
8	M6	40	25	80	100	40	40	35	15	10	6.0	10
		65	35	80	100	40	40	45	30	10	6.0	10
		85	50	80	100	40	40	65	35	10	6.0	10
10	M8	40	35	100	120	50	50	45	5	12	11.0	13
		50	40	100	120	50	50	50	10	12	11.0	13
		60	50	100	120	50	50	65	10	12	11.0	13
		75	55	100	120	50	50	70	20	12	11.0	13
		100	60	100	120	50	50	80	40	12	11.0	13
		125	75	100	120	50	50	95	50	12	11.0	13
12	M10	60	40	120	140	60	60	50	20	14	22.0	16
		75	50	120	140	60	60	63	25	14	22.0	16
		100	60	120	140	60	60	75	40	14	22.0	16
		130	80	120	140	60	60	100	50	14	22.0	16
16	M12	65	55	160	190	80	80	70	10	18	38.0	18
		110	70	160	190	80	80	90	40	18	38.0	18
		145	95	160	190	80	80	120	50	18	38.0	18
20	M16	75	60	200	240	100	100	75	15	22	95.0	24
		105	80	200	240	100	100	100	25	22	95.0	24
		150	100	200	240	100	100	125	50	22	95.0	24



Notation, Spacing, Edge Distance & Base Material Thickness



HEXAGONAL FLANGE HEAD ZINC PLATED, GALVANISED AND 316 STAINLESS STEEL

PERFORMANCE DATA - CONCRETE (RECOMMENDED LOADS)

INSTALLATION DETAILS			RECOMMENDED LOADS IN CONCRETE (Nrec,c/ Vrec,c)									
Hole/ Drill Diameter	Major Thread Diameter	Embedment Depth	25MPa Concrete (fc)		32MPa Concrete (fc)		40MPa Concrete (fc)		50MPa Concrete (fc)		65MPa Concrete (fc)	
			Tension (Nrec,c) KN	Shear (Vrec,c) KN	Tension (Nrec,c) KN	Shear (Vrec,c) KN	Tension (Nrec,c) KN	Shear (Vrec,c) KN	Tension (Nrec,c) KN	Shear (Vrec,c) KN	Tension (Nrec,c) KN	Shear (Vrec,c) KN
(mm)	(mm)	(mm)										
6	M4.5	30	2.0	1.9	2.3	2.1	2.6	2.4	2.8	2.6	3.3	3.1
		40	2.7	2.0	3.1	2.2	3.5	2.5	3.8	2.7	4.4	3.2
6.5	M5	21	1.3	1.9	1.5	2.1	1.7	2.4	1.8	2.6	2.1	3.1
		30	2.0	1.9	2.3	2.1	2.6	2.4	2.8	2.6	3.3	3.1
		40	2.7	2.0	3.1	2.2	3.5	2.5	3.8	2.7	4.4	3.2
		55	3.7	2.0	4.2	2.3	4.7	2.5	5.2	2.8	6.0	3.2
8	M6	25	1.6	2.8	1.8	3.1	2.0	3.5	2.2	3.9	2.5	4.5
		35	2.6	3.0	2.9	3.4	3.3	3.8	3.6	4.2	4.2	4.8
		50	3.5	3.0	4.0	3.4	4.5	3.9	5.0	4.2	5.7	4.9
10	M8	30	2.2	4.4	2.5	5.0	2.8	5.6	3.0	6.2	3.5	7.1
		35	2.3	4.6	2.6	5.2	2.9	5.9	3.2	6.4	3.7	7.4
		40	3.7	4.7	4.2	5.3	4.7	6.0	5.2	6.6	6.0	7.6
		50	5.1	4.7	5.8	5.4	6.5	6.1	7.1	6.7	8.2	7.7
		55	7.1	4.8	8.1	5.5	9.2	6.2	10.0	6.8	11.6	7.8
		60	10.1	4.8	11.5	5.5	13.0	6.2	14.2	6.8	16.4	7.9
		70	11.0	5.1	12.5	5.8	14.1	6.5	15.4	7.1	17.8	8.2
12	M10	40	3.2	5.9	3.6	6.8	4.1	7.6	4.4	8.4	5.1	9.7
		45	3.3	5.9	3.8	6.8	4.3	7.6	4.7	8.4	5.4	9.7
		50	5.0	6.0	5.7	6.8	6.5	7.7	7.1	8.4	8.2	9.7
		60	6.9	6.0	7.9	6.8	8.9	7.7	9.7	8.5	11.2	9.8
		80	10.1	6.3	11.5	7.2	13.0	8.1	14.2	8.9	16.4	10.3
16	M12	55	5.1	9.2	5.8	10.5	6.5	11.8	7.1	12.9	8.2	15.0
		70	7.6	9.3	8.6	10.6	9.8	12.0	10.7	13.1	12.3	15.2
		95	10.6	9.8	12.0	11.2	13.6	12.7	14.9	13.9	17.2	16.0
20	M16	60	6.6	14.2	7.5	16.2	8.4	18.3	9.2	20.0	10.7	23.1
		80	11.8	14.3	13.5	16.3	15.2	18.4	16.6	20.2	19.2	23.3
		100	21.0	14.8	23.9	16.9	27.1	19.1	29.6	20.9	34.2	24.2

All above Values are Design Values for anchors installed in concrete with anchors installed at characteristic embedment depths, as shown. Recommended Loads have been derived with a Safety factor of 4.

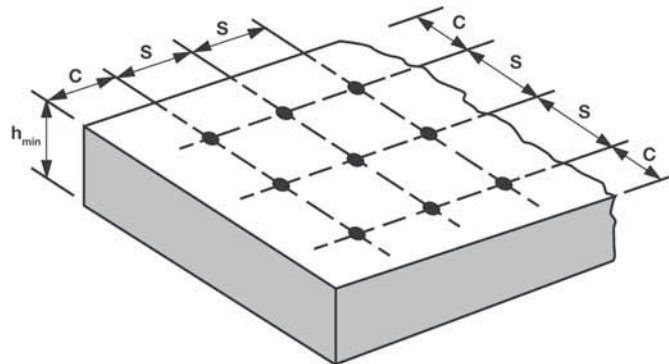
All Shear Values are Single Shear.

For further performance data, including Characteristic, Working Stress, Limit State Design Values and design data please refer to our Web Site www.bremick.com.au

**COUNTERSUNK HEAD
ZINC PLATED
ASME B18.6.4, AS1789**



Hole/Drill Diameter (mm)	Thread Size (mm)	Anchor Length (mm)	Hole Depth (mm)	Max. Fast. Thickness (mm)	Std Pack	Product Code
6.5	M5	35	30	5	100	ASKMZ060352
		55	40	15		ASKMZ060552
		75	55	20		ASKMZ060752
		100	65	35		ASKMZ061002
8	M6	40	25	15	100	ASKMZ080402
		60	35	25		ASKMZ080602
		85	50	35		50
10	M8	75	55	20	50	ASKMZ100752
		100	60	40		ASKMZ101002
		125	75	50		ASKMZ101252



Notation, Spacing, Edge Distance & Base Material Thickness



COUNTERSUNK HEAD ZINC PLATED

INSTALLATION DETAILS

FASTENER DETAILS			INSTALLATION DETAILS									
Anchor/ Drill Diameter	Thread Size	Anchor Length	Effective Embedment Depth	Characteristic Anchor Spacing (Tension & Shear)	Characteristic Edge Distance (Tension & Shear)	Minimum Anchor Spacing (Tension & Shear)	Minimum Edge Distance (Tension & Shear)	Minimum Base Material Thickness	Maximum Fixture Thickness	Clearance Hole Diameter (Fixture)	Installation Torque (Concrete)	Phillips Driver
D _o (mm)	D (mm)	L (mm)	h _t (mm)	S _{cr} (mm)	C _{cr} (mm)	S _{min} (mm)	C _{min} (mm)	h _{min} (mm)	t _{fix} (mm)	D _c (mm)	T _{inst} (Nm)	PH#
6.5	M5	35	30	65	80	30	30	38	5	7	2.5	PH3
		55	40	65	80	30	30	50	15	7	2.5	PH3
		75	55	65	80	30	30	70	20	7	2.5	PH3
		100	65	65	80	30	30	85	35	7	2.5	PH3
8	M6	40	25	80	100	40	40	35	15	8	6.0	PH4
		60	35	80	100	40	40	45	25	8	6.0	PH4
		85	50	80	100	40	40	65	35	8	6.0	PH4
10	M8	75	55	100	120	50	50	70	20	10	11.0	PH4
		100	60	100	120	50	50	75	40	10	11.0	PH4
		125	75	100	120	50	50	95	50	10	11.0	PH4

PERFORMANCE DATA - CONCRETE (RECOMMENDED LOADS)

INSTALLATION DETAILS			RECOMMENDED LOADS IN CONCRETE (Nrec,c/ Vrec,c)									
Hole/ Drill Diameter	Major Thread Diameter	Embedment Depth	25MPa Concrete (fc)		32MPa Concrete (fc)		40MPa Concrete (fc)		50MPa Concrete (fc)		65MPa Concrete (fc)	
(mm)	(mm)	(mm)	Tension (Nrec,c) KN	Shear (Vrec,c) KN	Tension (Nrec,c) KN	Shear (Vrec,c) KN	Tension (Nrec,c) KN	Shear (Vrec,c) KN	Tension (Nrec,c) KN	Shear (Vrec,c) KN	Tension (Nrec,c) KN	Shear (Vrec,c) KN
6.5	M5	30	2.0	1.9	2.3	2.1	2.6	2.4	2.8	2.6	3.3	3.1
		40	2.7	2.0	3.1	2.2	3.5	2.5	3.8	2.7	4.4	3.2
		55	3.7	2.0	4.2	2.3	4.7	2.5	5.2	2.8	6.0	3.2
		65	5.1	2.1	5.8	2.3	6.5	2.6	7.1	2.9	8.2	3.3
8	M6	25	1.6	2.8	1.8	3.1	2.0	3.5	2.2	3.9	2.5	4.5
		35	2.6	3.0	2.9	3.4	3.3	3.8	3.6	4.2	4.2	4.8
		50	3.5	3.0	4.0	3.4	4.5	3.9	5.0	4.2	5.7	4.9
10	M8	55	7.1	4.8	8.1	5.5	9.2	6.2	10.0	6.8	11.6	7.8
		60	10.1	4.8	11.5	5.5	13.0	6.2	14.2	6.8	16.4	7.9
		75	14.7	5.3	16.8	6.0	19.0	6.8	20.8	7.5	24.0	8.6

All above Values are Design Values for anchors installed in concrete with anchors installed at characteristic embedment depths, as shown. Recommended Loads have been derived with a Safety factor of 4.
All Shear Values are Single Shear.

For further performance data, including Characteristic, Working Stress, Limit State Design Values and design data please refer to our Web Site www.bremick.com.au

**HEXAGONAL FLUSH HEAD
ZINC PLATED
AS1789**



Hole/Drill Diameter (mm)	Thread Size (mm)	Anchor Length (mm)	Hole Depth (mm)	Max. Fast. Thickness (mm)	Std Pack	Product Code
10	M8	45	30	15	50	ASFMZ100452
		55	35	20		ASFMZ100552
		65	50	15		ASFMZ100652
		80	60	20		ASFMZ100802
		100	70	30		ASFMZ101002
12	M10	65	45	20	50	ASFMZ120652
		80	55	25	25	ASFMZ120802
		100	60	40		ASFMZ121002

**HEXAGONAL FLUSH HEAD
316 STAINLESS STEEL**



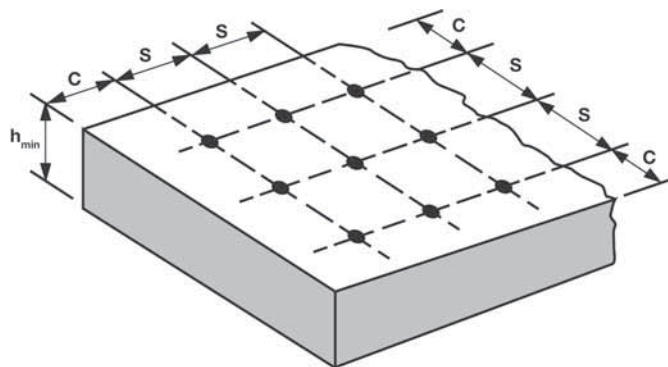
Hole/Drill Diameter (mm)	Thread Size (mm)	Anchor Length (mm)	Hole Depth (mm)	Max. Fast. Thickness (mm)	Std Pack	Product Code
10	M8	40	35	5	50	ASFM6100402
		60	50	10		ASFM6100602
		80	60	20		ASFM6100802
		100	70	30		ASFM6101002
12	M10	75	50	25	25	ASFM6120752



HEXAGONAL FLUSH HEAD ZINC PLATED AND 316 STAINLESS STEEL

INSTALLATION DETAILS

FASTENER DETAILS			INSTALLATION DETAILS									
Anchor/ Drill Diameter	Thread Size	Anchor Length	Effective Embedment Depth	Characteristic Anchor Spacing (Tension & Shear)	Characteristic Edge Distance (Tension & Shear)	Minimum Anchor Spacing (Tension & Shear)	Minimum Edge Distance (Tension & Shear)	Minimum Base Material Thickness	Maximum Fixture Thickness	Clearance Hole Diameter (Fixture)	Installation Torque (Concrete)	Width Across Flats
D_o (mm)	D (mm)	L (mm)	h_t (mm)	S_{cr} (mm)	C_{cr} (mm)	S_{min} (mm)	C_{min} (mm)	h_{min} (mm)	t_{fix} (mm)	D_c (mm)	T_{inst} (Nm)	SW (mm)
10	M8	40	35	100	100	50	50	50	5	10	11	13
		45	30	100	100	50	50	40	15	10	11	13
		55	35	100	100	50	50	45	20	10	11	13
		60	50	100	100	50	50	65	10	10	11	13
		65	50	100	100	50	50	65	15	10	11	13
		80	60	100	100	50	50	75	20	10	11	13
		100	70	100	100	50	50	90	30	10	11	13
12	M10	65	45	120	120	60	60	60	20	12	22	16
		75	50	120	120	60	60	65	25	12	22	16
		80	55	120	120	60	60	70	25	12	22	16
		100	60	120	120	60	60	75	40	12	22	16



Notation, Spacing, Edge Distance & Base Material Thickness

HEXAGONAL FLUSH HEAD ZINC PLATED AND 316 STAINLESS STEEL



PERFORMANCE DATA - CONCRETE (RECOMMENDED LOADS)

INSTALLATION DETAILS			RECOMMENDED LOADS IN CONCRETE (Nrec,c/ Vrec,c)									
Hole/ Drill Diameter	Major Thread Diameter	Embedment Depth	25MPa Concrete (fc)		32MPa Concrete (fc)		40MPa Concrete (fc)		50MPa Concrete (fc)		65MPa Concrete (fc)	
(mm)	(mm)	(mm)	Tension (Nrec,c) KN	Shear (Vrec,c) KN	Tension (Nrec,c) KN	Shear (Vrec,c) KN	Tension (Nrec,c) KN	Shear (Vrec,c) KN	Tension (Nrec,c) KN	Shear (Vrec,c) KN	Tension (Nrec,c) KN	Shear (Vrec,c) KN
10	M8	30	2.2	4.4	2.5	5.0	2.8	5.6	3.0	6.2	3.5	7.1
		35	2.3	4.6	2.6	5.2	2.9	5.9	3.2	6.4	3.7	7.4
		40	3.7	4.7	4.2	5.3	4.7	6.0	5.2	6.6	6.0	7.6
		50	5.1	4.7	5.8	5.4	6.5	6.1	7.1	6.7	8.2	7.7
		55	7.1	4.8	8.1	5.5	9.2	6.2	10.0	6.8	11.6	7.8
		60	10.1	4.8	11.5	5.5	13.0	6.2	14.2	6.8	16.4	7.9
		70	11.0	5.1	12.5	5.8	14.1	6.5	15.4	7.1	17.8	8.2
		75	14.7	5.3	16.8	6.0	19.0	6.8	20.8	7.5	24.0	8.6
12	M10	40	3.2	5.9	3.6	6.8	4.1	7.6	4.4	8.4	5.1	9.7
		45	3.3	5.9	3.8	6.8	4.3	7.6	4.7	8.4	5.4	9.7
		50	5.0	6.0	5.7	6.8	6.5	7.7	7.1	8.4	8.2	9.7
		60	6.9	6.0	7.9	6.8	8.9	7.7	9.7	8.5	11.2	9.8
		80	10.1	6.3	11.5	7.2	13.0	8.1	14.2	8.9	16.4	10.3

All above Values are Design Values for anchors installed in concrete with anchors installed at characteristic embedment depths, as shown. Recommended Loads have been derived with a Safety factor of 4.
All Shear Values are Single Shear.

For further performance data, including Characteristic, Working Stress, Limit State Design Values and design data please refer to our Web Site www.bremick.com.au



**EYE BOLT
ZINC PLATED
AS1789**

Hole/Drill Diameter (mm)	Thread Size (mm)	Anchor Length (mm)	Hole Depth (mm)	Max. Fast. Thickness (mm)	Std Pack	Product Code
8	M6	45	45	0	100	AEBMZ080452



**HOOK BOLT
ZINC PLATED
AS1789**

Hole/Drill Diameter (mm)	Thread Size (mm)	Anchor Length (mm)	Hole Depth (mm)	Max. Fast. Thickness (mm)	Std Pack	Product Code
8	M6	45	45	0	100	AHBMZ080452



**EYE BOLT & HOOK BOLT
ZINC PLATED**

INSTALLATION DETAILS

FASTENER DETAILS			INSTALLATION DETAILS									
Anchor/ Drill Diameter	Thread Size	Anchor Length	Effective Embedment Depth	Characteristic Anchor Spacing (Tension & Shear)	Characteristic Edge Distance (Tension & Shear)	Minimum Anchor Spacing (Tension & Shear)	Minimum Edge Distance (Tension & Shear)	Minimum Base Material Thickness	Maximum Fixture Thickness	Clearance Hole Diameter (Fixture)	Installation Torque (Concrete)	Width Across Flats
D _c (mm)	D (mm)	L (mm)	h _t (mm)	S _{cr} (mm)	C _{cr} (mm)	S _{min} (mm)	C _{min} (mm)	h _{min} (mm)	t _{fix} (mm)	D _c (mm)	T _{inst} (Nm)	SW (mm)
8	M6	45	45	80	100	40	40	60	N/A	8	10	10

PERFORMANCE DATA - CONCRETE (RECOMMENDED LOADS)

INSTALLATION DETAILS			RECOMMENDED LOADS IN CONCRETE (Nrec,c/ Vrec,c)									
Hole/ Drill Diameter	Thread Size	Embedment Depth	25MPa Concrete (fc)		32MPa Concrete (fc)		40MPa Concrete (fc)		50MPa Concrete (fc)		65MPa Concrete (fc)	
(mm)	(mm)	(mm)	Tension (Nrec,c) KN	Shear (Vrec,c) KN	Tension (Nrec,c) KN	Shear (Vrec,c) KN	Tension (Nrec,c) KN	Shear (Vrec,c) KN	Tension (Nrec,c) KN	Shear (Vrec,c) KN	Tension (Nrec,c) KN	Shear (Vrec,c) KN
8	M6	30	0.3	0.6	0.4	0.6	0.4	0.7	0.4	0.8	0.5	0.9

All above Values are Design Values for anchors installed in concrete with anchors installed at characteristic embedment depths, as shown. Recommended Loads have been derived with a Safety factor of 4. All Shear Values are Single Shear.

For further performance data, including Characteristic, Working Stress, Limit State Design Values and design data please refer to our Web Site www.bremick.com.au

SLEEVE ANCHOR - SUSPENSION

21



Bremick Suspension Sleeve Anchors are single unit preassembled torque controlled sleeve anchors that incorporate a medium duty suspension head. The specially designed head being ideal for the attachment of cable ties or Suspension Support wires for suspended ceiling installation.

Bremick Suspension Sleeve Anchors are available in lengths of 25mm or 35mm in zinc plate.

APPLICATIONS

- Suspended ceiling supports
- Cable supports

FEATURES

- Simple installation
- Fully assembled
- Fully assembled fastener
- Reliable Torque controlled setting
- Follow up expansion
- Can be loaded immediately after installation
- Over head application

ANCILLARY PRODUCTS CLEANING TOOLS

For Brushes and Blow Pumps please refer to the Chemical Injection System section of this book.

SUGGESTED SPECIFICATION

Carbon Steel Suspension Sleeve Anchors

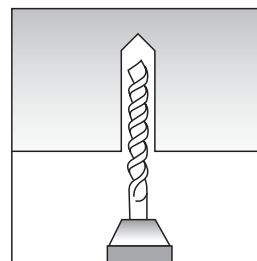
Suspension anchors shall be manufactured from carbon steel with a preassembled expansion mechanism and pressed steel suspension head.

All components shall be zinc plated and shall be sourced from Bremick Pty Ltd.

SETTING INSTRUCTIONS

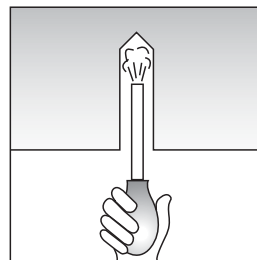
1: Drill

Drill hole in base material to specified diameter and depth.



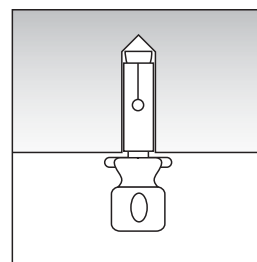
2: Clean

Blow out dust and drilling fragments



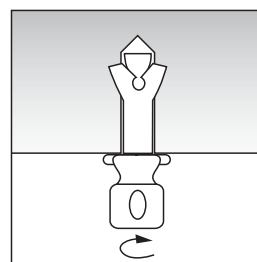
3: Insert

Insert anchor into hole and drive until the head is flush with the material surface.



4: Insert Fastener

Using a wrench expand anchor by tightening head to specified torque.



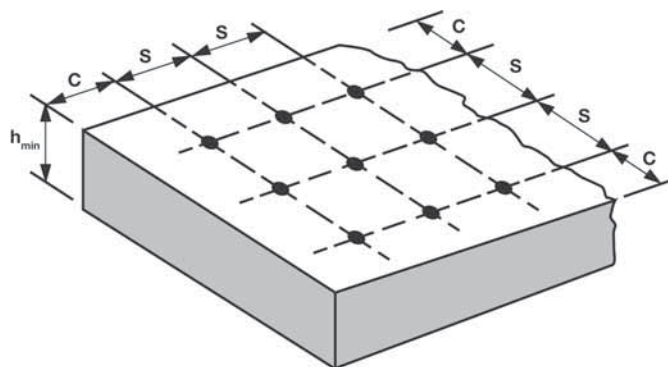


SUSPENSION ZINC PLATED AS1789

Hole/Drill Diameter (mm)	Thread Size (mm)	Anchor Length (mm)	Hole Depth (mm)	Max. Fast. Thickness (mm)	Std Pack	Product Code
6.5	M5	25	25	0	100	ASUMZ060252
		35	35	0		ASUMZ060352

INSTALLATION DETAILS

FASTENER DETAILS			INSTALLATION DETAILS									
Anchor/ Drill Diameter	Thread Size	Anchor Length	Characteristic Embedment Depth	Characteristic Anchor Spacing (Tension & Shear)	Characteristic Edge Distance (Tension & Shear)	Minimum Anchor Spacing (Tension & Shear)	Minimum Edge Distance (Tension & Shear)	Minimum Base Material Thickness	Maximum Fixture Thickness	Clearance Hole Diameter (Fixture)	Installation Torque (Concrete)	Width Across Flats
D_o (mm)	D (mm)	L (mm)	h_i (mm)	S_{cr} (mm)	C_{cr} (mm)	S_{min} (mm)	C_{min} (mm)	h_{min} (mm)	t_{fix} (mm)	D_c (mm)	T_{inst} (Nm)	SW (mm)
6.5	M5	25	25	65	80	30	30	35	N/A	8	8	10
		35	35	65	80	30	30	45	N/A	8	8	10



Notation, Spacing, Edge Distance & Base Material Thickness

PERFORMANCE DATA - CONCRETE (RECOMMENDED LOADS)

INSTALLATION DETAILS			RECOMMENDED LOADS IN CONCRETE (Nrec,c/ Vrec,c)									
Hole/ Drill Diameter	Major Thread Diameter	Embedment Depth	25MPa Concrete (fc)		32MPa Concrete (fc)		40MPa Concrete (fc)		50MPa Concrete (fc)		65MPa Concrete (fc)	
(mm)	(mm)	(mm)	Tension (Nrec,c) KN	Shear (Vrec,c) KN	Tension (Nrec,c) KN	Shear (Vrec,c) KN	Tension (Nrec,c) KN	Shear (Vrec,c) KN	Tension (Nrec,c) KN	Shear (Vrec,c) KN	Tension (Nrec,c) KN	Shear (Vrec,c) KN
6.5	M5	25	1.3	1.9	1.5	2.1	1.7	2.4	1.8	2.6	2.1	3.1
		35	2.0	1.9	2.3	2.1	2.6	2.4	2.8	2.6	3.3	3.1

All above Values are Design Values for anchors installed in concrete with anchors installed at characteristic embedment depths, as shown. Recommended Loads have been derived with a Safety factor of 4.
All Shear Values are Single Shear.

For further performance data, including Characteristic, Working Stress, Limit State Design Values and design data please refer to our Web Site www.bremick.com.au



Bremick Suspension - Tie Wire Sleeve Anchors are light duty expansion anchors with a one piece deformed shank incorporating a special head for the attachment of supporting tie wires.

APPLICATIONS

- Suspended ceiling supports
- Cable tie supports

FEATURES

- High Load Capacity
- Fast and simple installation
- Fully assembled fastener
- Reliable force controlled setting
- Follow up expansion
- Can be loaded immediately after installation
- Over head application

ANCILLARY PRODUCTS CLEANING TOOLS

For Brushes and Blow Pumps please refer to the Chemical Injection System section of this book.

SUGGESTED SPECIFICATION

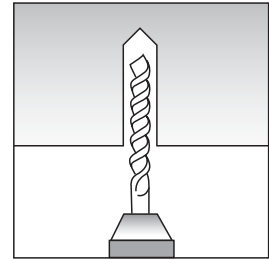
All cable/ceiling supports shall be one piece suspension tie wire anchors manufactured from carbon steel.

All components shall be zinc plated and shall be sourced from Bremick Pty Ltd.

SETTING INSTRUCTIONS

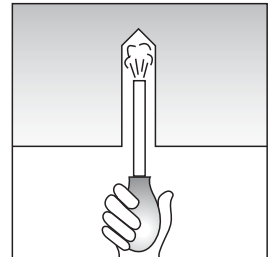
1: Drill

Drill hole in base material to specified diameter and depth.



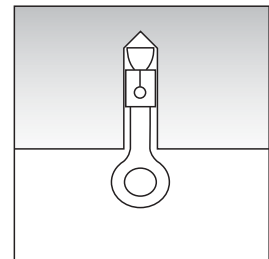
2: Clean

Blow out dust and drilling fragments



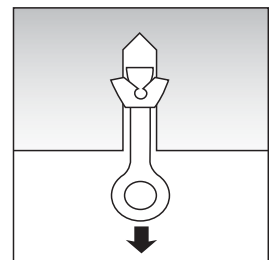
3: Insert

Insert anchor into hole and drive with a hammer to required depth.



4: Insert Fastener

Expansion will take place once the anchor is loaded. Allow for a small displacement when loaded.



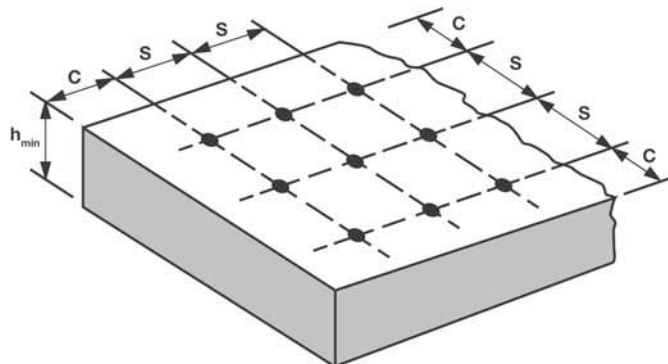


**SUSPENSION - TIEWIRE
ZINC PLATED
AS1789**

Hole/Drill Diameter (mm)	Thread Size (mm)	Anchor Length (mm)	Hole Depth (mm)	Max. Fast. Thickness (mm)	Std Pack	Product Code
6	M6	60	40	0	100	ATWMZ060602

INSTALLATION DETAILS

FASTENER DETAILS			INSTALLATION DETAILS									
Anchor/Drill Diameter	Shank Size	Anchor Length	Effective Embedment Depth	Characteristic Anchor Spacing (Tension & Shear)	Characteristic Edge Distance (Tension & Shear)	Minimum Anchor Spacing (Tension & Shear)	Minimum Edge Distance (Tension & Shear)	Minimum Base Material Thickness	Maximum Fixture Thickness	Clearance Hole Diameter (Fixture)	Installation Torque (Concrete)	Width Across Flats
D_o (mm)	D (mm)	L (mm)	h_t (mm)	S_{cr} (mm)	C_{cr} (mm)	S_{min} (mm)	C_{min} (mm)	h_{min} (mm)	t_{fix} (mm)	D_c (mm)	T_{inst} (Nm)	SW (mm)
6	6	60	40	65	80	30	30	50	N/A	6	N/A	N/A



Notation, Spacing, Edge Distance & Base Material Thickness

PERFORMANCE DATA - CONCRETE (RECOMMENDED LOADS)

INSTALLATION DETAILS			RECOMMENDED LOADS IN CONCRETE (Nrec,c/ Vrec,c)									
Hole/Drill Diameter	Major Diameter	Embedment Depth	25MPa Concrete (fc)		32MPa Concrete (fc)		40MPa Concrete (fc)		50MPa Concrete (fc)		65MPa Concrete (fc)	
(mm)	(mm)	(mm)	Tension (Nrec,c) KN	Shear (Vrec,c) KN	Tension (Nrec,c) KN	Shear (Vrec,c) KN	Tension (Nrec,c) KN	Shear (Vrec,c) KN	Tension (Nrec,c) KN	Shear (Vrec,c) KN	Tension (Nrec,c) KN	Shear (Vrec,c) KN
6	6	30	1.6	1.9	1.8	2.1	2.0	2.4	2.2	2.6	2.6	3.1

All above Values are Design Values for anchors installed in concrete with anchors installed at characteristic embedment depths, as shown. Recommended Loads have been derived with a Safety factor of 4. All Shear Values are Single Shear.

For further performance data, including Characteristic, Working Stress, Limit State Design Values and design data please refer to our Web Site www.bremick.com.au



Bremick Through Bolts are a single unit pre assembled wedge type anchor, consisting of a nut, washer, threaded bolt with a precision formed tapered mandril and a spring steel expansion collar. **Through Bolts** provide torque controlled setting which when tightened draw the tapered mandril into the spring steel collar which generates controlled expansion against the walls of the hole.

Bremick Through Bolts are available in Zinc Plate, Galvanised and Stainless Steel 316.

APPLICATIONS

Heavy duty torque controlled, deformation type stud bolt anchor specifically developed for through fastening into concrete.

BENEFITS

- Fast and simple installation
- Minimum drill hole diameter.
- Drill hole diameter same as anchor diameter
- Ideal for through fastening.
- Supplied with nut and washer
- Reliable force controlled setting
- High loading capacity.
- Follow up expansion with one piece wedge mechanism
- Can be loaded immediately after installation

**ANCILLARY PRODUCTS
CLEANING TOOLS**

For Brushes and Blow Pumps please refer to the Chemical Injection System section of this book.

SUGGESTED SPECIFICATION

Carbon Steel Through Bolts

Carbon steel expansion anchors shall be manufactured from Class 4.6 carbon steel with a one piece anchor body and a band style expansion collar. All components shall be zinc plated and shall be sourced from Bremick Pty Ltd.

Hot Dipped Galvanised Through Bolts

Carbon steel expansion anchors shall be manufactured from Class 4.6 carbon steel with a one piece anchor body and a band style expansion collar. All components shall be hot dip galvanised and shall be sourced from Bremick Pty Ltd.

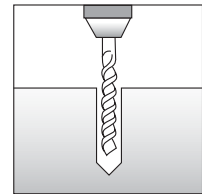
Stainless Steel Through Bolts

Carbon steel expansion anchors shall be manufactured from 316 stainless steel with a one piece anchor body and a band style expansion collar and shall be sourced from Bremick Pty Ltd.

SETTING INSTRUCTIONS

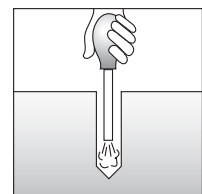
1: Drill

Drill hole in base material to specified diameter and depth. Care should be taken to control hole diameter.



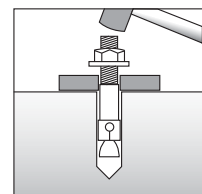
2: Clean

Blow out dust and drilling fragments.



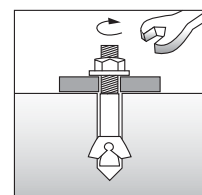
3: Insert

Insert anchor into hole and drive until nut and washer are flush with the material surface.



4: Set

Using a wrench expand anchor by tightening nut to specified torque.





ZINC PLATED
AS1789

Hole/Drill Diameter (mm)	Thread Size (mm)	Anchor Length (mm)	Hole Depth (mm)	Max. Fast. Thickness (mm)	Std Pack	Product Code
6	M6	85	50	35	100	ATBMZ060852
		120	50	70	50	ATBMZ061202
8	M8	80	55	25	50	ATBMZ080802
		100	55	45		ATBMZ081002
		120	55	65		ATBMZ081202
10	M10	65	45	20	25	ATBMZ100652
		90	60	30		ATBMZ100902
		120	60	60		ATBMZ101202
12	M12	80	65	15	20	ATBMZ120802
		100	75	25		ATBMZ121002
		120	80	40		ATBMZ121202
		140	90	50		ATBMZ121402
16	M16	105	85	20	20	ATBMZ161052
		125	95	30		ATBMZ161252
		140	100	40		ATBMZ161402
		180	120	60		ATBMZ161802
20	M20	125	100	25	10	ATBMZ201252
		160	120	40		ATBMZ201602
		200	120	80		ATBMZ202002

THROUGH BOLTS

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GALVANISED
 ISO4032, AS1214


Hole/Drill Diameter (mm)	Thread Size (mm)	Anchor Length (mm)	Hole Depth (mm)	Max. Fast. Thickness (mm)	Std Pack	Product Code
10	M10	90	60	30	20	ATBMG100902
12	M12	80	65	15	20	ATBMG120802
		100	75	25		ATBMG121002
		120	80	40		ATBMG121202
		140	90	50		ATBMG121402
16	M16	105	85	20	20	ATBMG161052
		125	95	30		ATBMG161252
		140	100	40		ATBMG161402
		180	120	60		ATBMG161802
20	M20	125	100	25	10	ATBMG201252
		160	120	40		ATBMG201602
		200	120	80		ATBMG202002

316 STAINLESS STEEL
 ISO4032

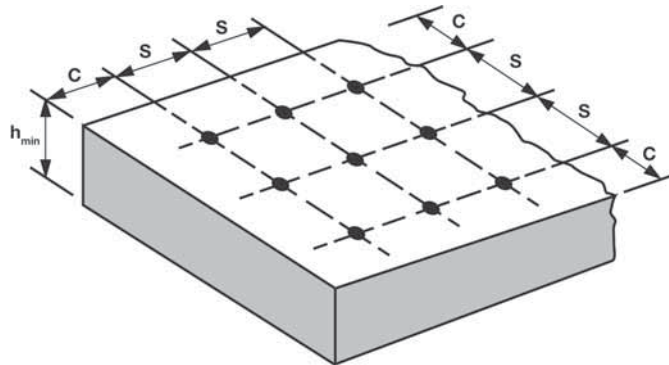

Hole/Drill Diameter (mm)	Thread Size (mm)	Anchor Length (mm)	Hole Depth (mm)	Max. Fast. Thickness (mm)	Std Pack	Product Code
10	M10	90	60	30	20	ATBM6100902
12	M12	80	65	15	20	ATBM6120802
		100	75	25		ATBM6121002
		140	90	50		ATBM6121402
16	M16	105	85	20	20	ATBM6161052
		125	95	30		ATBM6161252
		140	100	40		ATBM6161402
		180	120	60		ATBM6161802
20	M20	125	100	25	10	ATBM6201252
		160	120	40		ATBM6201602



**ZINC PLATED, GALVANISED
& 316 STAINLESS STEEL**

INSTALLATION DETAILS

FASTENER DETAILS			INSTALLATION DETAILS									
Anchor/ Drill Diameter	Thread Size	Anchor Length	Effective Embedment Depth	Characteristic Anchor Spacing (Tension & Shear)	Characteristic Edge Distance (Tension & Shear)	Minimum Anchor Spacing (Tension & Shear)	Minimum Edge Distance (Tension & Shear)	Minimum Base Material Thickness	Maximum Fixture Thickness	Clearance Hole Diameter (Fixture)	Installation Torque (Concrete)	Width Across Flats
D_o (mm)	D (mm)	L (mm)	h_t (mm)	S_{cr} (mm)	C_{cr} (mm)	S_{min} (mm)	C_{min} (mm)	h_{min} (mm)	t_{fix} (mm)	D_c (mm)	T_{inst} (Nm)	SW (mm)
6	M6	85	50	65	80	30	30	70	35	8	5	10
		120	50	65	80	30	30	70	70	8	5	10
8	M8	80	55	80	100	40	40	75	25	10	15	13
		100	55	80	100	40	40	75	45	10	15	13
		120	55	80	100	40	40	75	65	10	15	13
10	M10	65	45	100	120	50	50	65	20	12	30	16
		90	60	100	120	50	50	80	30	12	30	16
		120	60	100	120	50	50	80	60	12	30	16
12	M12	80	65	120	140	60	60	90	15	16	45	18
		100	75	120	140	60	60	100	25	16	45	18
		120	80	120	140	60	60	110	40	16	45	18
		140	90	120	140	60	60	120	50	16	45	18
16	M16	105	85	160	190	80	80	120	20	20	110	24
		125	95	160	190	80	80	130	30	20	110	24
		140	100	160	190	80	80	135	40	20	110	24
		180	120	160	190	80	80	170	60	20	110	24
20	M20	125	100	200	240	100	100	150	25	24	180	30
		160	120	200	240	100	100	175	40	24	180	30
		200	120	200	240	100	100	175	80	24	180	30



Notation, Spacing, Edge Distance & Base Material Thickness

ZINC PLATED, GALVANISED & 316 STAINLESS STEEL



PERFORMANCE DATA - CONCRETE (RECOMMENDED LOADS)

INSTALLATION DETAILS			RECOMMENDED LOADS IN CONCRETE (N _{rec,c} / V _{rec,c})									
Hole/ Drill Diameter	Major Thread Diameter	Embedment Depth	25MPa Concrete (f _c)		32MPa Concrete (f _c)		40MPa Concrete (f _c)		50MPa Concrete (f _c)		65MPa Concrete (f _c)	
			Tension (N _{rec,c}) KN	Shear (V _{rec,c}) KN	Tension (N _{rec,c}) KN	Shear (V _{rec,c}) KN	Tension (N _{rec,c}) KN	Shear (V _{rec,c}) KN	Tension (N _{rec,c}) KN	Shear (V _{rec,c}) KN	Tension (N _{rec,c}) KN	Shear (V _{rec,c}) KN
(mm)	(mm)	(mm)										
6	M6	50	1.8	2.9	2.1	3.3	2.3	3.7	2.5	4.1	2.9	4.7
8	M8	55	2.6	5.0	2.9	5.7	3.3	6.5	3.6	7.1	4.2	8.2
10	M10	45	3.1	6.8	3.6	7.8	4.0	8.8	4.4	9.6	5.1	11.1
		60	3.8	6.8	4.3	7.8	4.8	8.8	5.3	9.6	6.1	11.1
12	M12	65	4.6	10.5	5.3	11.9	6.0	13.5	6.5	14.8	7.5	17.1
		75	5.4	12.7	6.2	14.4	7.0	16.4	7.6	17.9	8.8	20.7
		80	7.1	13.3	8.1	15.1	9.2	17.1	10.0	18.7	11.6	21.6
		90	8.8	13.8	10.0	15.8	11.4	17.8	12.4	19.5	14.3	22.5
16	M16	85	7.6	16.8	8.6	19.1	9.7	21.6	10.6	23.6	12.3	27.3
		95	10.2	22.1	11.6	25.1	13.2	28.4	14.4	31.1	16.6	35.9
		100	12.5	23.1	14.3	26.3	16.1	29.8	17.6	32.5	20.4	37.6
		120	13.9	23.6	15.9	26.8	18.0	30.4	19.6	33.2	22.7	38.4
20	M20	100	17.0	32.5	19.4	37.1	21.9	41.9	23.9	45.8	27.7	53.0
		120	19.6	37.1	22.3	42.2	25.2	47.8	27.6	52.2	31.9	60.4

All above Values are Design Values for anchors installed in concrete with anchors installed at characteristic embedment depths, as shown. Recommended Loads have been derived with a Safety factor of 4.
All Shear Values are Single Shear.

For further performance data, including Characteristic, Working Stress, Limit State Design Values and design data please refer to our Web Site www.bremick.com.au



Bremick Drop-In (wedge) Anchors are single unit, pre assemblies, deformation controlled expansion anchors consisting of an internally threaded shell, a precision formed internal taper and an integral expansion cone. Expansion is achieved by driving the cone with a hammer and proprietary **Setting Tool** forcing the shell against the wall of the hole. Fastening is then achieved by the installation and tightening of a bolt or threaded rod.

Bremick Drop-In Anchors are available with parallel shells or lipped shells that ensure flush installation with the concrete base material.

Bremick Drop-In Anchors are available in Zinc Plated Carbon Steel and 316 Stainless Steel.

APPLICATIONS

Medium Duty internally threaded anchor for shallow embedment applications in concrete and hard natural stone. Commonly used for anchoring threaded rods for the suspension of pipe work and sprinkler supports.

FEATURES

- Simple expansion with hammer blows
- Shallow embedment depth reduces clashes with reinforcement steel.
- Can be loaded immediately after installation.
- Versatile internally threaded deformation controlled expansion anchor.
- Can be deep set below concrete surface.
- Can be flush set
- Suitable for use with bolts or threaded rods of any length

**ANCILLARY PRODUCTS
CLEANING TOOLS**

For further information please refer to the Chemical Injection System section of this book.

BOLTS

For Bolts, Set Screws, Socket Screws and Threaded Rod please refer to the Bremick Industrial Products Catalogue.

SUGGESTED SPECIFICATION

Zinc Plated Drop-In Anchors

Drop-In anchors shall be a one piece wedge type anchor consisting of an internally threaded sleeve and expansion cone. Anchors shall be manufactured from carbon steel Corrosion

protection shall be provided by zinc electroplating plated, anchors and bolts shall be sourced from Bremick Pty Ltd.

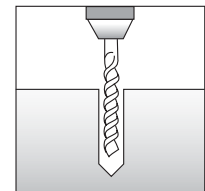
Stainless Steel Drop-In Anchors

Drop-In anchors shall be a one piece wedge type anchor consisting of an internally threaded sleeve and expansion cone. Anchors shall be manufactured from stainless steel 316, anchors and bolts shall be sourced from Bremick Pty Ltd.

SETTING INSTRUCTIONS

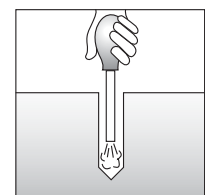
1: Drill

Drill hole in base material to specified diameter and depth.



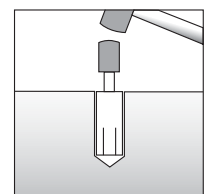
2: Clean

Blow out dust and drilling fragments.



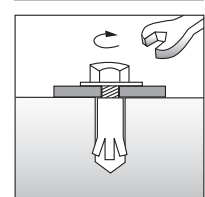
3: Insert

Insert anchor into hole and expand anchor with setting tool and hammer.



4: Set

Mount fixture and fasten with bolt or insert threaded rod for hangers.



DROP-IN ANCHORS

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ZINC PLATED

AS1789



Hole/Drill Diameter (mm)	Thread Size (mm)	Hole Depth (mm)	Std Pack	Product Code
8	M6	25	100	ADIMZ060002
10	M8	30	50	ADIMZ080002
12	M10	40	50	ADIMZ100002
16	M12	50	25	ADIMZ120002
20	M16	60	20	ADIMZ160002
25	M20	80	10	ADIMZ200002

316 STAINLESS STEEL

Hole/Drill Diameter (mm)	Thread Size (mm)	Hole Depth (mm)	Std Pack	Product Code
8	M6	25	100	ADIM6060002
10	M8	30	50	ADIM6080002
12	M10	40	50	ADIM6100002
16	M12	50	25	ADIM6120002
20	M16	60	20	ADIM6160002

LIPPED DROP-IN ANCHORS**ZINC PLATED**

AS1789



Hole/Drill Diameter (mm)	Thread Size (mm)	Hole Depth (mm)	Std Pack	Product Code
12	M10	40	50	ADLMZ100002



**SETTING TOOLS
ZINC PLATED**

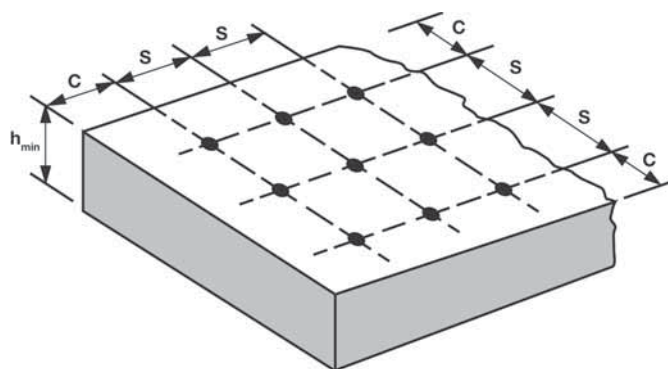
Description	Thread Size	Std Pack	Product Code
Setting tool to suit M6 Drop-in anchor	M6	1	TMADIST0602
Setting tool to suit M8 Drop-in anchor	M8	1	TMADIST0802
Setting tool to suit M10 Drop-in anchor	M10	1	TMADIST0102
Setting tool to suit M12 Drop-in anchor	M12	1	TMADIST0122
Setting tool to suit M16 Drop-in anchor	M16	1	TMADIST0162
Setting tool to suit M20 Drop-in anchor	M20	1	TMADIST0202



**DROP-IN ANCHORS &
LIPPED DROP-IN ANCHORS
ZINC PLATED & 316 STAINLESS STEEL**

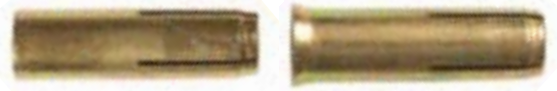
INSTALLATION DETAILS

FASTENER DETAILS			INSTALLATION DETAILS									
Anchor/ Drill Diameter	Thread Size	Anchor Length	Effective Embedment Depth	Characteristic Anchor Spacing (Tension & Shear)	Characteristic Edge Distance (Tension & Shear)	Minimum Anchor Spacing (Tension & Shear)	Minimum Edge Distance (Tension & Shear)	Minimum Base Material Thickness	Maximum Fixture Thickness	Clearance Hole Diameter (Fixture)	Installation Torque (Concrete)	Width Across Flats
D_o (mm)	D (mm)	L (mm)	h_t (mm)	S_{cr} (mm)	C_{cr} (mm)	S_{min} (mm)	C_{min} (mm)	h_{min} (mm)	t_{fix} (mm)	D_c (mm)	T_{inst} (Nm)	SW (mm)
8	M6	25	25	80	100	40	65	40	N/A	10	4.5	10
10	M8	30	30	100	120	50	80	45	N/A	12	11.0	13
12	M10	40	40	120	145	60	95	60	N/A	14	22.0	16
16	M12	50	50	160	180	80	130	75	N/A	18	38.0	18
20	M16	60	60	200	250	100	160	90	N/A	22	95.0	24
25	M20	80	80	250	300	120	200	120	N/A	27	185.0	30



Notation, Spacing, Edge Distance & Base Material Thickness

DROP-IN ANCHORS & LIPPED DROP-IN ANCHORS ZINC PLATED & 316 STAINLESS STEEL



PERFORMANCE DATA - CONCRETE (RECOMMENDED LOADS)

INSTALLATION DETAILS			RECOMMENDED LOADS IN CONCRETE (Nrec,c/ Vrec,c)									
Hole/ Drill Diameter	Major Thread Diameter	Embedment Depth	25MPa Concrete (fc)		32MPa Concrete (fc)		40MPa Concrete (fc)		50MPa Concrete (fc)		65MPa Concrete (fc)	
			Tension (Nrec,c) KN	Shear (Vrec,c) KN	Tension (Nrec,c) KN	Shear (Vrec,c) KN	Tension (Nrec,c) KN	Shear (Vrec,c) KN	Tension (Nrec,c) KN	Shear (Vrec,c) KN	Tension (Nrec,c) KN	Shear (Vrec,c) KN
(mm)	(mm)	(mm)										
8	M6	25	3.2	2.2	3.6	2.5	4.1	2.8	4.5	3.1	5.2	3.5
10	M8	30	3.5	2.7	4.0	3.1	4.5	3.5	4.9	3.8	5.7	4.4
12	M10	40	5.3	4.1	6.1	4.6	6.9	5.2	7.5	5.7	8.7	6.6
16	M12	50	7.8	8.3	8.9	9.4	10.1	10.6	11.0	11.6	12.8	13.4
20	M16	60	11.8	12.5	13.5	14.3	15.3	16.1	16.7	17.6	19.3	20.4
25	M20	80	16.5	17.6	18.8	20.0	21.3	22.6	23.2	24.7	26.9	28.6

All above Values are Design Values for anchors installed in concrete with anchors installed at characteristic embedment depths, as shown. Recommended Loads have been derived with a Safety factor of 4.
All Shear Values are Single Shear.

For further performance data, including Characteristic, Working Stress, Limit State Design Values and design data please refer to our Web Site www.bremick.com.au



The **Bremick Shield Anchor** is a torque controlled expansion anchor consisting of an internally threaded tapered mandril pre assembled inside a slotted expansion sleeve. Expansion is achieved by the application of torque which draws the tapered mandril inside the sleeve forcing the sleeve against the wall of the hole. **Bremick Shield Anchors** are particularly suited for use in low strength or brittle base materials such as hollow blocks and hollow core precast panels due to the large bearing surface of the anchor.

Bremick Shield Anchors are available in both metric and imperial sizes.

APPLICATIONS

Medium Duty torque controlled expansion anchor for application in concrete, masonry and stone.

Particularly suitable for application in hollow blocks and hollow cell precast panels.

BENEFITS

- Simple Installation
- Flush setting
- Removable
- Relatively low expansion stress
- Can be loaded immediately after installation.
- Available in fractional and metric sizes
- Suitable for fastening with bolts and threaded rod of any length.

ANCILLARY PRODUCTS FOR BOLTS, SET SCREWS AND THREADED ROD

Please refer to the Bremick Industrial Book

CLEANING TOOLS

Please refer to the Chemical Injection System section of this book.

SUGGESTED SPECIFICATION

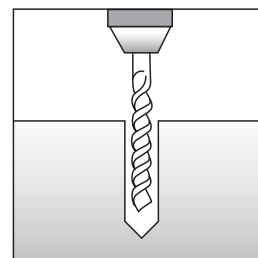
Zinc Plated Shield Anchors

Expansion anchors shall be pre assembled and consist of a slotted pressed steel expansion sleeve and an internally threaded expansion cone. Corrosion protection shall be provided by electro plated zinc and all anchors shall be sourced from Bremick Pty Ltd.

SETTING INSTRUCTIONS

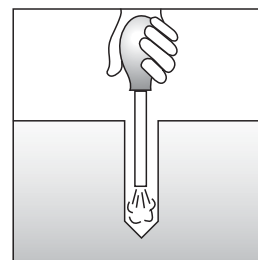
1: Drill

Drill hole in base material to specified Diameter and depth.



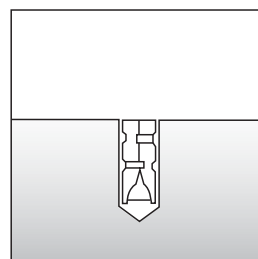
2: Clean

Blow out dust and drilling fragments.



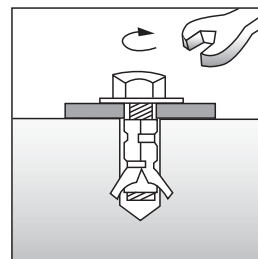
3: Insert

Insert anchor into hole until flush with surface.



4: Set

Insert bolt in to anchor and expand anchor by application of torque via bolt until specified torque is obtained.



**METRIC
ZINC PLATED
AS1789**



Hole/Drill Diameter (mm)	Thread Size (mm)	Hole Depth (mm)	Std Pack	Product Code
12	M6	35	50	ASHMZ060002
16	M8	52	25	ASHMZ080002
16	M10	52	25	ASHMZ100002
22	M12	65	25	ASHMZ120002

**IMPERIAL
ZINC PLATED
AS1789**



Hole/Drill Diameter (mm)	Thread Size (inches)	Hole Depth (inches)	Std Pack	Product Code
1/2"	1/4	1 3/8"	50	ASHIZ060002
5/8"	5/16	2 1/16"	25	ASHIZ080002
5/8"	3/8	2 1/16"	25	ASHIZ100002
7/8"	1/2	2 9/16"	25	ASHIZ120002

For Set Screws, Bolts and Washers refer to the Bremick Industrial Book.



METRIC ZINC PLATED

INSTALLATION DETAILS (METRIC)

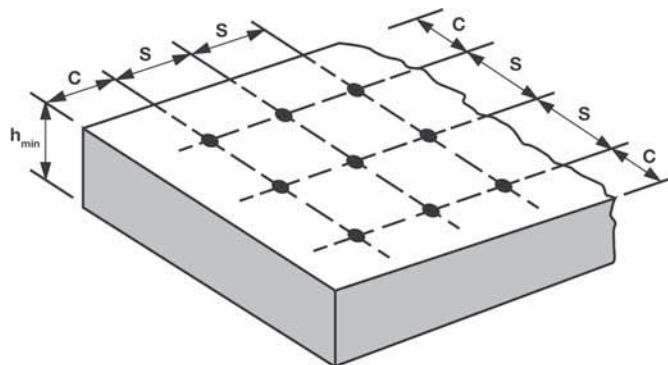
FASTENER DETAILS			INSTALLATION DETAILS									
Anchor/ Drill Diameter	Thread Size	Anchor Length	Effective Embedment Depth	Characteristic Anchor Spacing (Tension & Shear)	Characteristic Edge Distance (Tension & Shear)	Minimum Anchor Spacing (Tension & Shear)	Minimum Edge Distance (Tension & Shear)	Minimum Base Material Thickness	Maximum Fixture Thickness	Clearance Hole Diameter (Fixture)	Installation Torque (Concrete)	Width Across Flats
D_o (mm)	D (mm)	L (mm)	h_t (mm)	S_{cr} (mm)	C_{cr} (mm)	S_{min} (mm)	C_{min} (mm)	h_{min} (mm)	t_{fix} (mm)	D_c (mm)	T_{inst} (Nm)	SW (mm)
12	M6	35	35	120	145	60	95	45	N/A	14	8	10
16	M8	52	52	160	190	80	130	65	N/A	18	25	13
16	M10	52	52	160	190	80	130	65	N/A	18	40	16
22	M12	65	65	220	265	110	175	85	N/A	25	50	18



IMPERIAL ZINC PLATED

INSTALLATION DETAILS (IMPERIAL)

FASTENER DETAILS			INSTALLATION DETAILS									
Anchor/ Drill Diameter	Thread Size	Anchor Length	Effective Embedment Depth	Characteristic Anchor Spacing (Tension & Shear)	Characteristic Edge Distance (Tension & Shear)	Minimum Anchor Spacing (Tension & Shear)	Minimum Edge Distance (Tension & Shear)	Minimum Base Material Thickness	Maximum Fixture Thickness	Clearance Hole Diameter (Fixture)	Installation Torque (Concrete)	Width Across Flats
D_o (inches)	D (inches)	L (inches)	h_t (inches)	S_{cr} (mm)	C_{cr} (mm)	S_{min} (mm)	C_{min} (mm)	h_{min} (mm)	t_{fix} (mm)	D_c (mm)	T_{inst} (Nm)	SW (inches)
1/2"	1/4"	1.3/8"	1.3/8"	120	145	60	95	45	N/A	15	8	0.750
5/8"	5/16"	2.1/16"	2.1/16"	160	190	80	130	65	N/A	18	25	0.938
5/8"	3/8"	2.1/16"	2.1/16"	160	190	80	130	65	N/A	18	40	0.938
7/8"	1/2"	2.9/16"	2.9/16"	220	265	110	175	85	N/A	24	50	1.312



Notation, Spacing, Edge Distance & Base Material Thickness

METRIC ZINC PLATED



(METRIC) - PERFORMANCE DATA - CONCRETE (RECOMMENDED LOADS)

INSTALLATION DETAILS			RECOMMENDED LOADS IN CONCRETE (N _{rec,c} / V _{rec,c})									
Hole/ Drill Diameter	Major Thread Diameter	Embedment Depth	25MPa Concrete		32MPa Concrete		40MPa Concrete		50MPa Concrete		65MPa Concrete	
			(f _c)	(f _c)	(f _c)	(f _c)	(f _c)	(f _c)	(f _c)	(f _c)		
(mm)	(mm)	(mm)	Tension (N _{rec,c}) KN	Shear (V _{rec,c}) KN	Tension (N _{rec,c}) KN	Shear (V _{rec,c}) KN	Tension (N _{rec,c}) KN	Shear (V _{rec,c}) KN	Tension (N _{rec,c}) KN	Shear (V _{rec,c}) KN	Tension (N _{rec,c}) KN	Shear (V _{rec,c}) KN
12	M6	35	2.5	1.4	2.8	1.6	3.2	1.8	3.5	2.0	4.0	2.3
16	M8	52	4.7	2.7	5.3	3.0	6.0	3.4	6.6	3.7	7.6	4.3
16	M10	52	6.6	4.2	7.5	4.8	8.4	5.4	9.2	5.9	10.7	6.8
22	M12	65	8.9	6.1	10.1	6.9	11.4	7.8	12.5	8.6	14.5	9.9

All above Values are Design Values in concrete with anchors installed at characteristic embedment depths, as shown and are valid for products supplied by Bremick Pty Ltd only.

Recommended Loads have been derived with a Safety factor of 4.

All Shear Values are Single Shear.

(IMPERIAL) - PERFORMANCE DATA - CONCRETE (RECOMMENDED LOADS)

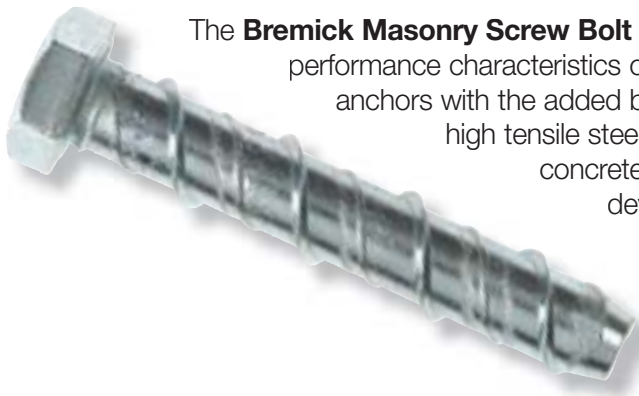
INSTALLATION DETAILS			RECOMMENDED LOADS IN CONCRETE (N _{rec,c} / V _{rec,c})									
Hole/ Drill Diameter	Major Thread Diameter	Embedment Depth	25MPa Concrete		32MPa Concrete		40MPa Concrete		50MPa Concrete		65MPa Concrete	
			(f _c)	(f _c)	(f _c)	(f _c)	(f _c)	(f _c)	(f _c)	(f _c)		
(inches)	(inches)	(inches)	Tension (N _{rec,c}) KN	Shear (V _{rec,c}) KN	Tension (N _{rec,c}) KN	Shear (V _{rec,c}) KN	Tension (N _{rec,c}) KN	Shear (V _{rec,c}) KN	Tension (N _{rec,c}) KN	Shear (V _{rec,c}) KN	Tension (N _{rec,c}) KN	Shear (V _{rec,c}) KN
1/2"	1/4"	1.3/8"	2.5	1.4	2.8	1.6	3.2	1.8	3.5	2.0	4.0	2.3
5/8"	5/16"	2.1/16"	4.7	2.7	5.3	3.0	6.0	3.4	6.6	3.7	7.6	4.3
5/8"	3/8"	2.1/16"	6.6	4.2	7.5	4.8	8.4	5.4	9.2	5.9	10.7	6.8
7/8"	1/2"	2.9/16"	8.9	6.1	10.1	6.9	11.4	7.8	12.5	8.6	14.5	9.9

All above Values are Design Values in concrete with anchors installed at characteristic embedment depths, as shown and are valid for products supplied by Bremick Pty Ltd only.

Recommended Loads have been derived with a Safety factor of 4.

All Shear Values are Single Shear.

For further performance data, including Characteristic, Working Stress, Limit State Design Values and design data please refer to our Web Site www.bremick.com.au



The **Bremick Masonry Screw Bolt** is a highly versatile anchor providing the combined performance characteristics of other mechanical anchors and those of chemical anchors with the added benefit of being fully removable. Manufactured from high tensile steel the shank with dual helix threads that self tap into concrete, masonry, stone and timber. The holding power is developed evenly along the entire shank with minimal pretension expansion forces enabling installation at close centres and edge distances.

APPLICATIONS

Fully removable medium duty self tapping masonry screw anchor for applications in concrete, masonry, natural stone and wood.

FEATURES

- Fast and simple installation
- Tapered point for easy starting
- Removable and reusable.
- Double helix for rapid thread formation
- Good performance in weak and brittle base materials
- Can be set close to free edges
- Can be reset in the same hole.
- Can be loaded immediately after installation.
- Can be through fastened.

**ANCILLARY PRODUCTS
CLEANING TOOLS**

For Brushes and Blow Pumps please refer to the Chemical Injection System section of this book.

SUGGESTED SPECIFICATION

Zinc Plated Masonry Screw Anchors

Masonry Screw Anchors shall be a one piece and manufactured from high tensile Class 8.8 carbon steel with a hexagonal head and double helix threaded shank. Corrosion protection shall be provided by zinc electroplating plated and shall be sourced from Bremick Pty Ltd.

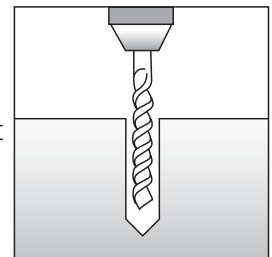
Galvanised Masonry Screw Anchors

Galvanised Masonry Screw Anchors shall be a one piece and manufactured from high tensile carbon steel with a hexagonal head and double helix threaded shank. Corrosion protection shall be provided by mechanical galvanising and shall be sourced from Bremick Pty Ltd.

SETTING INSTRUCTIONS

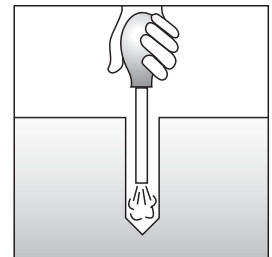
1: Drill

Drill hole to specified diameter and depth. Depth must be embedment plus 2 anchor diameters to accommodate cutting debris.



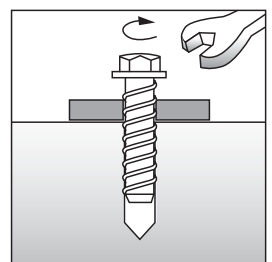
2: Clean

Blow out dust and drilling fragments.



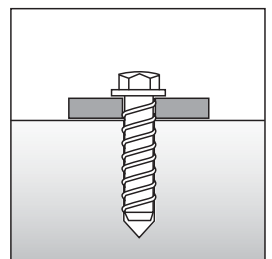
3: Set

Insert anchor into hole and screw in using spanners, sockets or an impact wrench. Apply constant forward pressure when driving. Set to specified torque.



4: Removal

Use hand tools when removing the anchor. Do not remove with power tools if resetting the anchor.





HEXAGONAL FLANGE HEAD ZINC PLATED

AS1789



PROPERTY CLASS 8.8

Hole/Drill Diameter (mm)	Thread Size (mm)	Anchor Length (mm)	Hole Depth (mm)	Max. Fast. Thickness (mm)	Std Pack	Product Code
5	7	50	35	25	100	ASBMZ050502
6	8	30	40	5	100	ASBMZ060302
		50	45	20		ASBMZ060502
		75	45	45		ASBMZ060752
		100	60	55		ASBMZ061002

The above hole depths include over drill to accommodate cutting debris.

HEXAGONAL HEAD ZINC PLATED

AS1789



PROPERTY CLASS 8.8

Hole/Drill Diameter (mm)	Thread Size (mm)	Anchor Length (mm)	Hole Depth (mm)	Max. Fast. Thickness (mm)	Std Pack	Product Code
8	10	60	55	20	100	ASBMZ080602
		75	55	35		ASBMZ080752
		100	55	60		ASBMZ081002
10	12	60	70	10	50	ASBMZ100602
		75	70	25		ASBMZ100752
		100	70	50		ASBMZ101002
		150	70	100	20	ASBMZ101502
12	14	75	85	15	50	ASBMZ120752
		100	85	40		ASBMZ121002
		150	85	90	20	ASBMZ121502
16	18	100	110	20	10	ASBMZ161002
		150	110	70		ASBMZ161502

The above hole depths include over drill to accommodate cutting debris.



HEXAGONAL FLANGE HEAD GALVANISED

PROPERTY CLASS 8.8

AS1214

Hole/Drill Diameter (mm)	Thread Size (mm)	Anchor Length (mm)	Hole Depth (mm)	Max. Fast. Thickness (mm)	Std Pack	Product Code
5	7	50	35	25	100	ASBMG050502
6	8	30	40	5	100	ASBMG060302
		50	45	20		ASBMG060502
		75	45	45		ASBMG060752
		100	60	55		ASBMG061002

The above hole depths include over drill to accommodate cutting debris.



HEXAGONAL HEAD GALVANISED

PROPERTY CLASS 8.8

AS1214

Hole/Drill Diameter (mm)	Thread Size (mm)	Anchor Length (mm)	Hole Depth (mm)	Max. Fast. Thickness (mm)	Std Pack	Product Code
8	10	60	55	20	100	ASBMG080602
		75	55	35		ASBMG080752
		100	55	60		ASBMG081002
10	12	60	70	10	50	ASBMG100602
		75	70	25		ASBMG100752
		100	70	50		ASBMG101002
		150	70	100	20	ASBMG101502
12	14	75	85	15	50	ASBMG120752
		100	85	40		ASBMG121002
		150	85	90	20	ASBMG121502
16	18	100	110	20	10	ASBMG161002
		150	110	70		ASBMG161502

The above hole depths include over drill to accommodate cutting debris.



HEXAGONAL FLANGE HEAD & HEXAGONAL HEAD ZINC PLATED & GALVANISED



INSTALLATION DETAILS

FASTENER DETAILS			INSTALLATION DETAILS									
Anchor/ Drill Diameter	Thread Size	Anchor Length	Effective Embedment Depth	Characteristic Anchor Spacing (Tension & Shear)	Characteristic Edge Distance (Tension & Shear)	Minimum Anchor Spacing (Tension & Shear)	Minimum Edge Distance (Tension & Shear)	Minimum Base Material Thickness	Maximum Fixture Thickness	Clearance Hole Diameter (Fixture)	Installation Torque (Concrete)	Width Across Flats
D _o (mm)	D (mm)	L (mm)	h _t (mm)	S _{cr} (mm)	C _{cr} (mm)	S _{min} (mm)	C _{min} (mm)	h _{min} (mm)	t _{fix} (mm)	D _c (mm)	T _{inst} (Nm)	SW (mm)
5	7	50	25	100	80	30	20	45	25	10	15	8
			38	100	80	30	20	60	12	10	15	8
6	8	30	30	100	80	30	20	60	0	10	25	10
			25	100	80	30	20	50	5	10	25	10
		50	30	100	80	30	20	60	20	10	25	10
			45	100	80	30	20	75	5	10	25	10
		75	30	100	80	30	20	60	45	10	25	10
			45	100	80	30	20	75	30	10	25	10
		100	30	100	80	30	20	60	70	10	25	10
			45	100	80	30	20	75	55	10	25	10
8	10	60	40	120	90	40	25	75	20	12	40	15
			60	120	90	40	25	100	0	12	40	15
		75	40	120	90	40	25	75	35	12	40	15
			60	120	90	40	25	100	15	12	40	15
		100	40	120	90	40	25	75	60	12	40	15
			60	120	90	40	25	100	40	12	40	15
10	12	60	50	170	120	60	30	100	10	14	60	17
			75	170	120	60	30	125	15	14	60	17
		75	50	170	120	60	30	100	25	14	60	17
			75	170	120	60	30	125	0	14	60	17
		100	50	170	120	60	30	100	50	14	60	17
			75	170	120	60	30	125	25	14	60	17
		150	50	170	120	60	30	100	100	14	60	17
			75	170	120	60	30	125	75	14	60	17
12	14	75	60	200	140	60	35	120	15	16	80	19
			90	200	140	60	35	150	10	16	80	19
		100	60	200	140	60	35	120	40	16	80	19
			90	200	140	60	35	150	10	16	80	19
		150	60	200	140	60	35	120	90	16	80	19
			90	200	140	60	35	150	60	16	80	19
16	18	100	80	300	160	80	80	150	20	20	120	27
			100	300	160	80	80	160	0	20	120	27
		150	80	300	160	80	80	150	70	20	120	27
			120	300	160	80	80	200	30	20	120	27



HEXAGONAL FLANGE HEAD & HEXAGONAL HEAD ZINC PLATED & GALVANISED

PERFORMANCE DATA - CONCRETE (RECOMMENDED LOADS)

INSTALLATION DETAILS			RECOMMENDED LOADS IN CONCRETE (Nrec,c/ Vrec,c)									
Hole/ Drill Diameter (mm)	Major Thread Diameter (mm)	Embedment Depth (mm)	25MPa Concrete (fc)		32MPa Concrete (fc)		40MPa Concrete (fc)		50MPa Concrete (fc)		65MPa Concrete (fc)	
			Tension (Nrec,c) KN	Shear (Vrec,c) KN	Tension (Nrec,c) KN	Shear (Vrec,c) KN	Tension (Nrec,c) KN	Shear (Vrec,c) KN	Tension (Nrec,c) KN	Shear (Vrec,c) KN	Tension (Nrec,c) KN	Shear (Vrec,c) KN
5	7	25	1.2	3.1	1.3	3.5	1.5	4.0	1.6	4.4	1.9	5.1
		38	2.6	3.2	3.0	3.7	3.4	4.2	3.7	4.5	4.3	5.2
6	8	30	2.2	2.8	2.5	3.1	2.8	3.5	3.1	3.9	3.6	4.5
		45	4.4	3.9	5.0	4.4	5.7	5.0	6.2	5.4	7.2	6.3
8	10	40	3.3	6.6	3.8	7.5	4.3	8.5	4.7	9.3	5.4	10.8
		60	6.6	8.3	7.5	9.4	8.5	10.6	9.3	11.6	10.8	13.4
10	12	50	5.0	11.0	5.6	12.5	6.4	14.2	7.0	15.5	8.1	17.9
		75	9.9	13.8	11.3	15.7	12.8	17.7	14.0	19.4	16.1	22.4
12	14	60	7.2	14.9	8.2	16.9	9.2	19.2	10.1	20.9	11.7	24.2
		90	14.3	16.5	16.3	18.8	18.4	21.3	20.2	23.3	23.3	26.9
16	18	80	12.4	15.1	14.1	17.2	16.0	19.5	17.4	21.3	20.2	24.7
		120	17.1	19.3	19.4	21.9	22.0	24.8	24.0	27.1	27.8	31.4

All above Values are Design Values in concrete with anchors installed at characteristic embedment depths, as shown and are valid for products supplied by Bremick Pty Ltd only.

Recommended Loads have been derived with a Safety factor of 4.

All Shear Values are Single Shear.

For further performance data, including Characteristic, Working Stress, Limit State Design Values and design data please refer to our Web Site www.bremick.com.au



BREMIFIX™ is a comprehensive chemical anchoring system providing cost effective solutions for all adhesive fastening applications.



SPIN CAPSULES

High performance epoxy acrylate adhesive in a single application glass capsule.



EPOXY INJECTION

Solvent free, epoxy injection system with high bond strength even in extreme application conditions.



STY FREE EASF INJECTION

NEW Formula: Low odour Epoxy Acrylate Styrene Free cartridge injection system, high loads and can be used in wet conditions. Suitable for use in regular caulking guns.

(Replaces **BREMIFIX™** Styfree Polyester resin)



POLYESTER INJECTION

High performance polyester cartridge injection system, where economy is important.



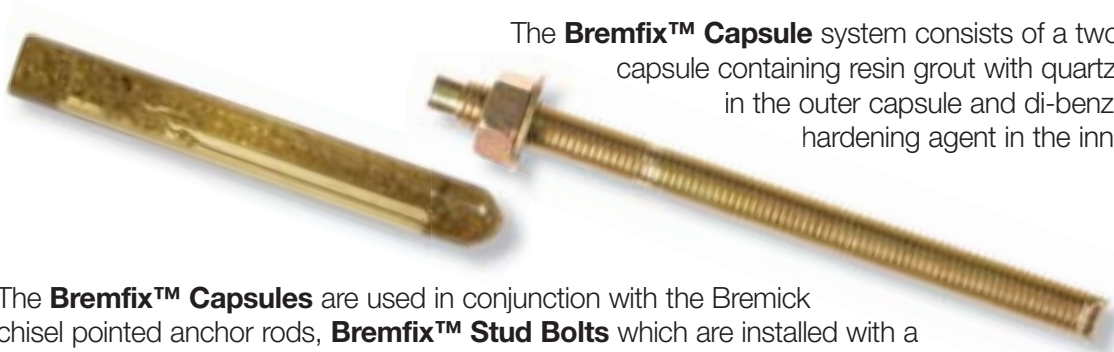
STUD BOLTS

Chisel cut anchor rods for use with **BREMIFIX™** Capsules and Flat Cut rods for use with **BREMIFIX™** injection systems.

Base Material										Anchor Diameter Range						Fastener		Other						
Concrete	Stone	Marble	Solid Masonry	Hollow Block	Aerated Concrete (Hebel)	Damp Substrate	Wet Substrate	Diamond Cored Holes	8mm	10mm	12mm	16mm	20mm	22mm	24mm	30mm	36mm	Bremfix Stud Bolts (Flat Cut)	Bremfix Stud Bolts (Chisel Cut)	Rebar	Plain Round Bar	Hollow Wall Sieves	Tropical Climates	Water Tight Fastening

Capsule System																									
Bremfix Capsule					X													X	X	X	X		X		
Injection System																									
Bremfix Epoxy					X																				X
Bremfix Styfree-EASF								X									X								
Bremfix Poly						X	X	X																	

Suitable May be suitable depending on application Not Suitable X



The **Bremfix™ Capsule** system consists of a two part glass capsule containing resin grout with quartz aggregate in the outer capsule and di-benzol peroxide hardening agent in the inner capsule.

The **Bremfix™ Capsules** are used in conjunction with the Bremick chisel pointed anchor rods, **Bremfix™ Stud Bolts** which are installed with a rotary hammer drill and rod adapters. **Bremfix™ Capsules** are used for installing anchor rods from M8 to M24mm into solid concrete and masonry materials.

APPLICATIONS

High quality heavy duty fastening of Stud Bolts into concrete, and solid masonry.

- High load capacity
- Rapid curing
- Accurate mixing
- No expansion forces in base material
- Small spacing and edge distances
- Assured setting depths
- Hex drive on all Stud Bolts
- Depth indicator on stud

**ANCILLARY PRODUCTS
CLEANING TOOLS**

For Brushes and Blow Pumps please refer to the Chemical Injection System section of this book.

SUGGESTED SPECIFICATION

Bremfix™ Adhesive Capsule System

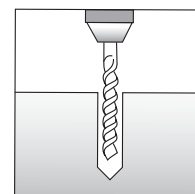
The bonded anchor used shall be Bremfix adhesive capsules and Bremfix™ chisel cut anchor rods. The capsule shall be a clear glass ampule containing epoxy acrylate resin, hardener and quartz aggregate.

Installation shall be in accordance with the manufactures recommendations and all capsules and anchor rods shall be sourced from Bremick Pty Ltd.

SETTING INSTRUCTIONS

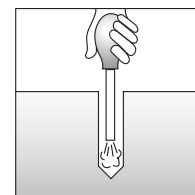
1: Drill

To specified depth and diameter.



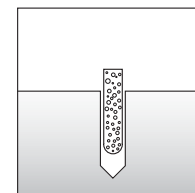
2: Clean

Brush and blow debris from drilled hole.



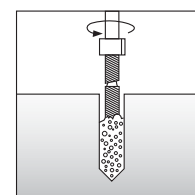
3: Insert

Insert capsule into drill hole.



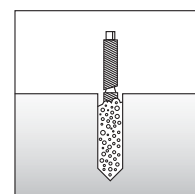
4: Mix Capsule

Using adapter and rotary hammer drive rod through capsule to embedment depth.



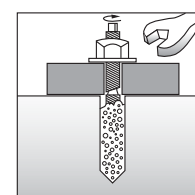
5: Cure

Allow adhesive to cure with no disturbance of the fastener. (Gel & cure time chart refers)



6: Fix

Mount fixture and tighten to specified torque.



SPIN CAPSULE



Size (mm)	Hole/Drill Diameter (mm)	Suit Stud Diameter (mm)	Min Hole Depth (mm)	Max Fast. Thickness (mm)	Std Pack	Product Code
8	10	M8	80	22	10	ACCMP080002
10	12	M10	90	30	10	ACCMP100002
12	14	M12	110	35	10	ACCMP120002
16	18	M16	125	50	10	ACCMP160002
20	22	M20	170	70	6	ACCMP200002
24	26	M24	210	65	6	ACCMP240002

CHEMICAL STUD BOLT

EXTERNAL HEXAGONAL HEAD CHISEL POINT WITH NUT, WASHER AND DRIVE SOCKET - ZINC PLATED



AS1789

PROPERTY CLASS 5.8

Hole/Drill Diameter (mm)	Stud Diameter (mm)	Stud Length (mm)	Min Hole Depth (mm)	Max Fast. Thickness (mm)	Std Pack	Product Code
10	M8	110	80	22	10	ACSMZ081102
12	M10	130	90	30	10	ACSMZ101302
14	M12	160	110	35	50	ACSMZ12160B
14	M12	160	110	35	10	ACSMZ121602
18	M16	190	125	50	10	ACSMZ161902
22	M20	260	170	70	5	ACSMZ202602
26	M24	300	210	65	5	ACSMZ243002

*Includes nut & washer



EXTERNAL HEXAGONAL HEAD CHISEL POINT WITH NUT, WASHER AND DRIVE SOCKET - GALVANISED

PROPERTY CLASS 5.8

AS1789

Hole/Drill Diameter (mm)	Stud Diameter (mm)	Stud Length (mm)	Min Hole Depth (mm)	Max Fast. Thickness (mm)	Std Pack (mm)	Product Code
10	M8	110	80	22	10	ACSMG081102
12	M10	130	90	30	10	ACSMG101302
14	M12	160	110	35	10	ACSMG121602
18	M16	190	125	50	10	ACSMG161902
22	M20	260	170	70	5	ACSMG202602
26	M24	300	210	65	5	ACSMG243002

*Includes nut & washer



EXTERNAL HEXAGONAL HEAD CHISEL POINT WITH NUT, WASHER AND DRIVE SOCKET -316 STAINLESS STEEL

Hole/Drill Diameter (mm)	Stud Diameter (mm)	Stud Length (mm)	Min Hole Depth (mm)	Max Fast. Thickness (mm)	Std Pack (mm)	Product Code
12	M10	130	90	30	10	ACSM6101302
14	M12	160	110	35	10	ACSM6121602
18	M16	190	125	50	10	ACSM6161902
22	M20	260	170	70	5	ACSM6202602
26	M24	300	210	65	5	ACSM6243002

*Includes nut & washer

GEL TIMES AND SETTING TIMES

Temp. °C	WET HOLE	DRY HOLE
	Minimum time before loading (min)	Minimum time before loading (min)
-5	600	300
0	600	300
5	120	60
10	120	60
20	40	20
30	20	10
35	20	10



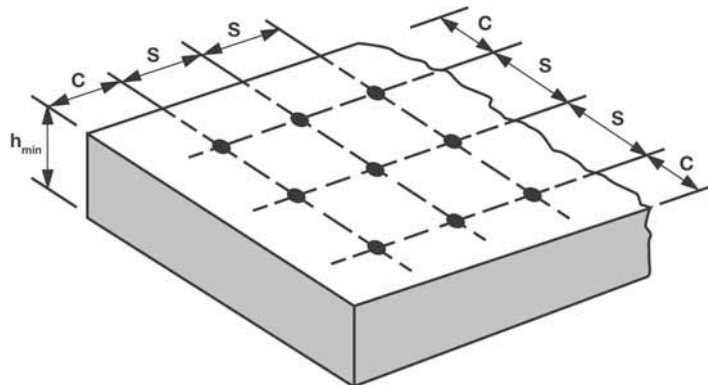
Full cure is achieved in 24 hours

BREMIFIX™ CHISEL POINTED STUD BOLTS ZINC PLATED, GALVANISED AND 316 STAINLESS STEEL



INSTALLATION DETAILS

FASTENER DETAILS			INSTALLATION DETAILS									
Anchor/ Drill Diameter	Thread Size	Anchor Length	Effective Embedment Depth	Characteristic Anchor Spacing (Tension & Shear)	Characteristic Edge Distance (Tension & Shear)	Minimum Anchor Spacing (Tension & Shear)	Minimum Edge Distance (Tension & Shear)	Minimum Base Material Thickness	Maximum Fixture Thickness	Clearance Hole Diameter (Fixture)	Installation Torque (Concrete)	Width Across Flats
D _o (mm)	D (mm)	L (mm)	h _i (mm)	S _{cr} (mm)	C _{cr} (mm)	S _{min} (mm)	C _{min} (mm)	h _{min} (mm)	t _{fix} (mm)	D _c (mm)	T _{inst} (Nm)	SW (mm)
10	M8	110	80	240	120	40	40	100	22	12	10	13
12	M10	130	90	180	90	45	45	120	30	14	20	16
14	M12	160	110	220	110	55	55	140	35	16	40	18
18	M16	190	125	250	125	65	65	160	50	50	80	24
22	M20	260	170	340	170	85	85	220	70	27	120	30
26	M24	300	210	420	210	105	105	280	65	30	180	36



Notation, Spacing, Edge Distance & Base Material Thickness

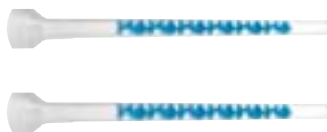
PERFORMANCE DATA - CONCRETE (RECOMMENDED LOADS)

INSTALLATION DETAILS			RECOMMENDED LOADS IN CONCRETE (N _{rec,c} / V _{rec,c})									
Hole/ Drill Diameter	Major Thread Diameter	Embedment Depth	25MPa Concrete (f _c)		32MPa Concrete (f _c)		40MPa Concrete (f _c)		50MPa Concrete (f _c)		65MPa Concrete (f _c)	
(mm)	(mm)	(mm)	Tension (N _{rec,c}) KN	Shear (V _{rec,c}) KN	Tension (N _{rec,c}) KN	Shear (V _{rec,c}) KN	Tension (N _{rec,c}) KN	Shear (V _{rec,c}) KN	Tension (N _{rec,c}) KN	Shear (V _{rec,c}) KN	Tension (N _{rec,c}) KN	Shear (V _{rec,c}) KN
10	M8	80	5.1	3.9	5.3	4.1	5.6	4.3	5.8	4.5	6.3	4.9
12	M10	90	7.7	6.2	8.0	6.5	8.3	6.8	8.7	7.1	9.5	7.7
14	M12	110	10.2	9.0	10.6	9.4	11.1	9.8	11.6	10.3	12.6	11.2
18	M16	125	12.8	16.8	13.3	17.5	13.9	18.3	14.5	19.2	15.8	20.9
25	M20	170	19.1	26.3	19.9	27.4	20.8	28.7	21.8	30.0	23.7	32.7
28	M24	210	23.0	37.8	23.9	39.3	25.0	41.2	26.2	43.1	28.5	46.9

All above Values are Design Values for anchors installed in concrete with anchors installed at characteristic embedment depths, as shown. Recommended Loads have been derived with a Safety factor of 4. All Shear Values are Single Shear.

For further performance data, including Characteristic, Working Stress, Limit State Design Values and design data please refer to our Web Site www.bremick.com.au

Bremifix™ Epoxy is a “one shot” two part Epoxy adhesive cartridge system based on a solvent free Epoxy resin. Ideal as a general purpose thixotropic structural adhesive and anchoring system.



Bremifix™ Epoxy has excellent resistance to most chemicals and will bond or repair almost any material. Applied in one single action **Bremifix™ Epoxy** produces a cost effective, tough, chemical resistant fixing in concrete, solid masonry and stone. The high bond strength ensures maximum performance in damp base materials and fastening into smooth faced holes. The controlled curing time simplifies the fastening of deep set, large diameter applications and fastenings made into warm base materials and in tropical climates.

APPLICATIONS

High quality heavy duty fastening of Stud Bolts into concrete, and solid masonry.

- Grouting starter bars
- Anchoring into cored holes
- Anchoring in damp environments
- Grouting dowel bars
- Anchoring in tropical environments
- High strength adhesive

FEATURES

- Controlled curing
- High strength
- Powerful adhesion
- Suitable for diamond cored holes
- Can be used in damp conditions
- Bonds most materials (excluding rubber & PVC)
- Long shelf life

ANCILLARY PRODUCTS CLEANING TOOLS

For Brushes and Blow Pumps please refer to the end of this section.

SUGGESTED SPECIFICATION

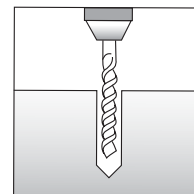
Bremifix™ Epoxy Injection System

The bonded anchor used shall be Bremifix Epoxy injection mortar and Bremifix anchor rods. The two part epoxy resin shall be solvent free and shall be dispensed from a one shot cartridge and matching applicator gun. Installation shall be in accordance with the manufactures recommendations and all chemicals and anchor rods shall be sourced from Bremick Pty Ltd.

SETTING INSTRUCTIONS

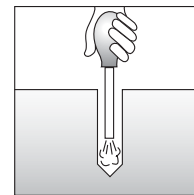
1: Drill

To specified depth and diameter.



2: Clean

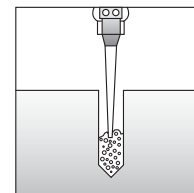
Brush and blow debris from drilled hole. Base material must be clean and dry.



3: Inject

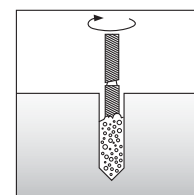
Inject mortar working from the bottom of the hole to approximately 1/3rd full.

NB: Dispense first 10ml to waste.



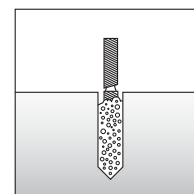
4: Insert Fastener

Insert rod or bar rotating by hand to expel air.



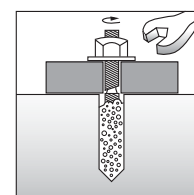
5: Cure

Allow mortar to fully cure with no disturbance of the fastener.



6: Fix

Mount fixture and tighten to specified torque.



EPOXY 400ml

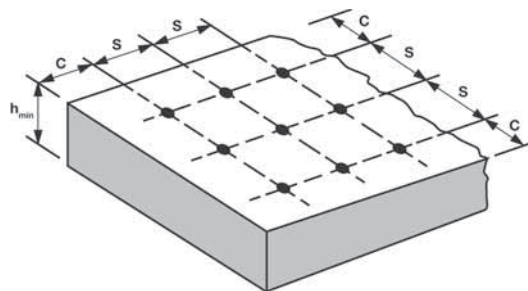


Description	Std Pack	Product Code
Injection Cartridge Dispensing Hand Gun (To suit Bremfix Epoxy 400ml cartridge)	1	TMACIEP4002
Bremfix Epoxy injection Cartridge Pack Consists of 6 (400ml) cartridges each with 2 mixer nozzles)	6	ACIPCER4002
Mixer Nozzles	10	ACIMIXR0102

EPOXY 400ml BREMIFIX™ STUDS ZINC PLATED, GALVANISED AND 316 STAINLESS STEEL INSTALLATION DETAILS



FASTENER DETAILS			INSTALLATION DETAILS									
Anchor/ Drill Diameter	Thread Size	Anchor Length	Effective Embedment Depth	Characteristic Anchor Spacing (Tension & Shear)	Characteristic Edge Distance (Tension & Shear)	Minimum Anchor Spacing (Tension & Shear)	Minimum Edge Distance (Tension & Shear)	Minimum Base Material Thickness	Maximum Fixture Thickness	Clearance Hole Diameter (Fixture)	Installation Torque (Concrete)	Width Across Flats
D _o (mm)	D (mm)	L (mm)	h _t (mm)	S _{cr} (mm)	C _{cr} (mm)	S _{min} (mm)	C _{min} (mm)	h _{min} (mm)	t _{fix} (mm)	D _c (mm)	T _{inst} (Nm)	SW (mm)
10	M8	110	80	100	100	35	35	100	22	10	10	13
12	M10	130	90	130	130	40	35	120	30	12	20	16
14	M12	160	110	150	150	50	35	150	35	14	40	18
18	M16	190	125	170	170	60	35	170	50	18	80	24
25	M20	260	170	210	190	80	80	220	70	24	120	30
28	M24	300	210	240	240	100	100	280	65	28	180	36
35	M30	380	280	350	350	130	130	350	70	35	400	46



Notation, Spacing, Edge Distance & Base Material Thickness



EPOXY 400ml BREMIFIX™ STUDS ZINC PLATED, GALVANISED AND 316 STAINLESS STEEL

PERFORMANCE DATA - CONCRETE (RECOMMENDED LOADS)

INSTALLATION DETAILS			RECOMMENDED LOADS IN CONCRETE (Nrec,c/ Vrec,c)									
Hole/ Drill Diameter	Major Thread Diameter	Embedment Depth	25MPa Concrete (fc)		32MPa Concrete (fc)		40MPa Concrete (fc)		50MPa Concrete (fc)		65MPa Concrete (fc)	
			Tension (Nrec,c) KN	Shear (Vrec,c) KN	Tension (Nrec,c) KN	Shear (Vrec,c) KN	Tension (Nrec,c) KN	Shear (Vrec,c) KN	Tension (Nrec,c) KN	Shear (Vrec,c) KN	Tension (Nrec,c) KN	Shear (Vrec,c) KN
(mm)	(mm)	(mm)										
10	M8	80	4.8	2.4	5.0	2.5	5.3	2.6	5.5	2.8	6.0	3.0
12	M10	90	7.7	3.9	8.0	4.0	8.4	4.2	8.8	4.4	9.5	4.8
14	M12	110	11.2	5.6	11.6	5.8	12.2	6.1	12.7	6.3	13.8	6.9
18	M16	125	20.8	10.4	21.6	10.8	22.7	11.3	23.7	11.9	25.8	12.9
25	M20	170	32.5	16.2	33.8	16.9	35.4	17.7	37.0	18.5	40.3	20.1
28	M24	210	46.8	23.4	48.7	24.3	51.0	25.5	53.4	26.7	58.1	29.0
35	M30	280	120.7	52.8	125.5	54.9	131.6	57.6	137.6	60.2	149.7	65.5

All above Values are Design Values for anchors installed in concrete with anchors installed at characteristic embedment depths, as shown. Recommended Loads have been derived with a Safety factor of 4.
All Shear Values are Single Shear.

CONSUMPTION ESTIMATION GUIDE

INSTALLATION DETAILS			FIXINGS / 400ml UNIT
Hole/ Drill Diameter	Thread Size	Embedment Depth	
(mm)	(mm)	(mm)	#
10	M8	80	103
12	M10	90	75
14	M12	110	52
18	M16	125	35
25	M20	170	10
28	M24	210	7
35	M30	280	3

For further performance data, including Characteristic, Working Stress, Limit State Design Values and design data please refer to our Web Site www.bremick.com.au

GEL TIMES AND SETTING TIMES



Temp. °C	Gel Time (min)	Minimum time before loading (hours)	Full Cure Time (hours)
5	15	18	36
15	60	8	20
20	50	6	18
25	45	6	18
30	40	5	17
35	35	5	17

MATERIAL PROPERTIES

ULTIMATE PHYSICAL PROPERTIES

COMPRESSIVE STRENGTH	(ASTM 695)	82.48 N/mm ²
TENSILE STRENGTH	(ASTM 638)	28.21 N/mm ²
FLEXURAL STRENGTH	(ASTM 795)	41.64 N/mm ²
ELASTIC MODULUS		4811.00 N/mm ²
FLEXURAL MODULUS		4249.00 N/mm ²
MIXED DENSITY		1.40 g/cm ³

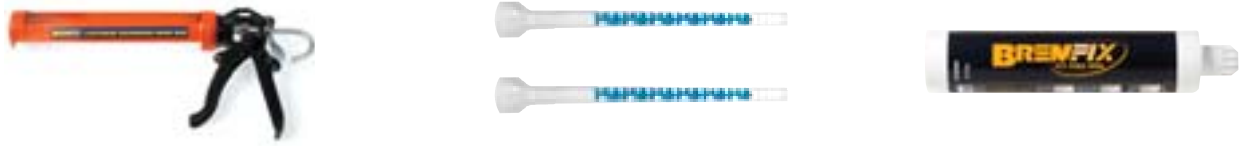
STORAGE

Store in a clean dry area at temperatures between 5°C and 25°C.

Do not expose to direct sunlight.

Storage at higher temperatures will reduce shelf life.

Bremifix™ Styfree - EASF (epoxy Acrylate styrene free) is a high performance, rapid curing two part chemical anchoring system based on Modified Epoxy Acrylate in Methacrylate Monomers. Applied in one single action, this hybrid resin will produce a cost effective, strong, chemical resistant fastening.



Bremifix™ Styfree - EASF is low odour and non flammable resulting in a safe system that has no occupational exposure limits assigned to it. The cartridge has economic 300ml volume and for total convenience can be dispensed using a standard caulkung gun. **Bremifix™ Styfree - EASF** is specifically designed for chemical anchoring as a system with **Bremifix™ Stud Bolts** or threaded rod into concrete, solid masonry and stone, even in wet conditions.

APPLICATIONS

High quality heavy duty fastening of Stud Bolts into concrete, and solid masonry.

- Anchoring with Stud bolts
- Hollow blocks with sieves
- Concrete
- Stone
- Masonry
- Aerated concrete

FEATURES

- Rapid Curing
- Non Flammable
- High chemical resistance
- Watertight fastening
- Suitable for underwater applications
- Economic
- Used with standard caulking gun

**ANCILLARY PRODUCTS
CLEANING TOOLS**

For Brushes, Blow Pumps and Sieves please refer to the end of this section.

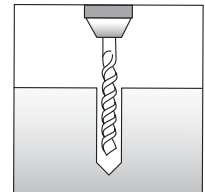
SUGGESTED SPECIFICATION

Bremifix™ StyFree - EASF Injection System
The bonded anchor used shall be Bremifix™ Sty Free - EASF injection mortar and Bremifix™ anchor rods. The 2 part Epoxy Acrylate resin shall be free form Styrene Monomers. Installation shall be in accordance with the manufactures recommendations and all chemicals and anchor rods shall be sourced form Bremick Fasteners Pty Ltd.

SETTING INSTRUCTIONS

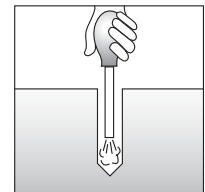
1: Drill

To specified depth and diameter.



2: Clean

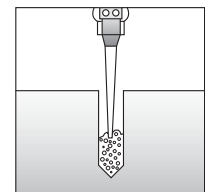
Brush and blow debris from drilled hole. For underwater use brush & flush with clean water.



3: Inject

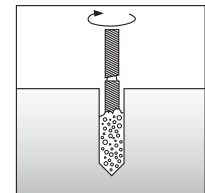
Inject mortar working from the bottom of the hole to approximately 1/3rd full.

NB: Dispense first 10ml to waste.



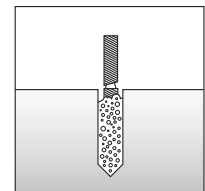
4: Insert Fastener

Insert rod or bar rotating by hand to expel air.



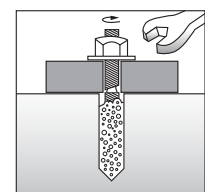
5: Cure

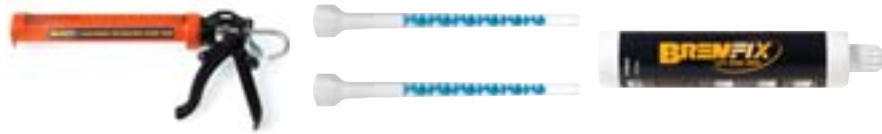
Allow mortar to fully cure with no disturbance of the fastener.



6: Fix

Mount fixture and tighten to specified torque.



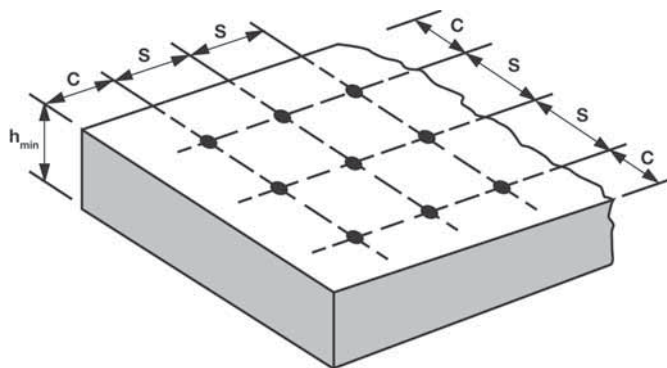
**STYRENE FREE
300ml**


Description	Std Pack	Product Code
Injection Cartridge Dispensing Hand Gun (To suit Bremfix Styfree 300 cartridge)	1	TMACISF4002
Bremfix Sty Free Injection Cartridge Pack Consists of 6 (300ml) cartridges each with 2 mixer nozzles	6	ACIEASF3002
Mixer Nozzles	10	ACIMIXR0102

**STYRENE EASF FREE 300ml
BREMIFIX™ STUDS
ZINC PLATED, GALVANISED
AND 316 STAINLESS STEEL**

INSTALLATION DETAILS

FASTENER DETAILS			INSTALLATION DETAILS									
Anchor/ Drill Diameter	Thread Size	Anchor Length	Effective Embedment Depth	Characteristic Anchor Spacing (Tension & Shear)	Characteristic Edge Distance (Tension & Shear)	Minimum Anchor Spacing (Tension & Shear)	Minimum Edge Distance (Tension & Shear)	Minimum Base Material Thickness	Maximum Fixture Thickness	Clearance Hole Diameter (Fixture)	Installation Torque (Concrete)	Width Across Flats
D _o (mm)	D (mm)	L (mm)	h _t (mm)	S _{cr} (mm)	C _{cr} (mm)	S _{min} (mm)	C _{min} (mm)	h _{min} (mm)	t _{fix} (mm)	D _c (mm)	T _{inst} (Nm)	SW (mm)
10	M8	110	80	100	100	35	35	100	22	12	10	13
12	M10	130	90	130	130	40	35	120	30	14	20	16
14	M12	160	110	150	150	50	35	140	35	16	40	18
18	M16	190	125	170	170	60	50	160	50	20	80	24
24	M20	260	170	210	190	80	80	220	70	27	120	30
28	M24	300	210	240	240	100	100	280	65	30	180	36


Notation, Spacing, Edge Distance & Base Material Thickness



STYRENE FREE EASF 300ml BREMIFIX™ STUDS ZINC PLATED, GALVANISED AND 316 STAINLESS STEEL

PERFORMANCE DATA - CONCRETE (RECOMMENDED LOADS)

INSTALLATION DETAILS			RECOMMENDED LOADS IN CONCRETE (Nrec,c/ Vrec,c)									
Hole/ Drill Diameter (mm)	Major Thread Diameter (mm)	Embedment Depth (mm)	25MPa Concrete (fc)		32MPa Concrete (fc)		40MPa Concrete (fc)		50MPa Concrete (fc)		65MPa Concrete (fc)	
			Tension (Nrec,c) KN	Shear (Vrec,c) KN	Tension (Nrec,c) KN	Shear (Vrec,c) KN	Tension (Nrec,c) KN	Shear (Vrec,c) KN	Tension (Nrec,c) KN	Shear (Vrec,c) KN	Tension (Nrec,c) KN	Shear (Vrec,c) KN
10	M8	80	4.8	2.4	5.0	2.5	5.3	2.6	5.5	2.8	6.0	3.0
12	M10	90	7.7	3.9	8.0	4.0	8.4	4.2	8.8	4.4	9.5	4.8
14	M12	110	11.2	5.6	11.6	5.8	12.2	6.1	12.7	6.4	13.8	6.9
18	M16	125	15.7	10.4	16.3	10.8	17.1	11.3	17.8	11.9	19.4	12.9
24	M20	170	24.9	16.2	25.9	16.9	27.1	17.7	28.4	18.5	30.9	20.1
28	M24	210	32.4	23.4	33.7	24.3	35.3	25.5	36.9	26.7	40.2	29.0

All above Values are Design Values for anchors installed in concrete with anchors installed at characteristic embedment depths, as shown. Recommended Loads have been derived with a Safety factor of 4.
All Shear Values are Single Shear.

CONSUMPTION ESTIMATION GUIDE

INSTALLATION DETAILS			FIXINGS / 300ml UNIT #
Hole/ Drill Diameter (mm)	Thread Size (mm)	Embedment Depth (mm)	
10	M8	80	66
12	M10	90	48
14	M12	110	33
18	M16	125	22
25	M20	170	6
28	M24	210	4
35	M30	280	2

For further performance data, including Characteristic, Working Stress, Limit State Design Values and design data please refer to our Web Site www.bremick.com.au

GEL TIMES AND SETTING TIMES

Temp. °C	Gel Time (min)	Minimum time before loading (min)
-5	50	90
5	12	50
10	9	45
15	6	35
20	4	30
25	4	30
30	3	30
35	2	30



Full cure is achieved in 24 hours

MATERIAL PROPERTIES

ULTIMATE PHYSICAL PROPERTIES

COMPRESSIVE STRENGTH	(ASTM 695)	62.7 N/mm ²
TENSILE STRENGTH	(ASTM 638)	12.85 N/mm ²
FLEXURAL STRENGTH	(ASTM 795)	23.88 N/mm ²
ELASTIC MODULUS		6860.33 N/mm ²
FLEXURAL MODULUS		3250.33 N/mm ²
MIXED DENSITY		1.65 g/cm ³

STORAGE

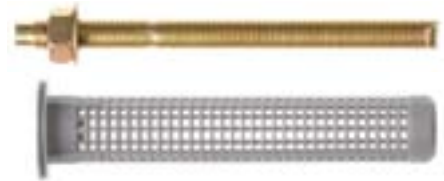
Store in a clean dry area at temperatures between 5°C and 25°C.

Do not expose to direct sunlight.

Storage at higher temperatures will reduce shelf life.

BREMIFIX™ STUD BOLTS OR THREADED ROD WITH PLASTIC SIEVES

Zinc plated, galvanised, stainless steel 304 or stainless steel 316



The **Bremfix Chemical Injection System** for masonry has been developed to enable reliable chemical fastenings in all common forms of masonry, solid ceramic brick, cellular brick, hollow blocks, concrete block and silicate bricks using a mesh sieve, chemical injection mortar and a threaded insert. Fastening is achieved by inserting a specially designed **Bremfix™ Plastic Sieve** (polyethylene) filled with **Bremfix™ Styfree - EASF** into a predrilled and cleaned hole in the base material. Following the placement of the pre-filled sieve a **Bremfix™ Stud Bolt**, or threaded rod, is inserted into the installed sieve causing extrusion of the chemical mortar through the sieve mesh into voids and fissures in the masonry base material. When cured fastening is achieved through a combination of chemical bonding (adhesion) and mechanical interlock (keying).

The Bremfix Injection system for masonry limits expansion forces in the base material permitting reliable fastenings in brittle and hollow masonry where other types of fasteners can not be used. **Bremfix™ Plastic Sieves** are available in a variety of sizes and can be used with **Bremfix™ Stud Bolts** or threaded rod.

APPLICATIONS

Fastening into ceramic and concrete masonry elements.

- Ceramic Brick
- Silicate Brick
- Cellular Brick
- Hollow Block

FEATURES

- Complete System
- Reliable performance
- Simple
- Fast cure
- High load
- No pre expansion forces

PRODUCT SYSTEM

- Bremfix™ Styfree - EASF injection mortar.
- Bremfix™ Injection gun
- Bremfix™ Plastic Sieves
- Bremfix™ Stud Bolts

**ANCILLARY PRODUCTS
CLEANING TOOLS**

Threaded rods, nuts & washers please refer to the Bremick Industrial catalogue.

Cleaning Tools

For Brushes and Blow Pumps please refer to the end of this section.

SUGGESTED SPECIFICATION

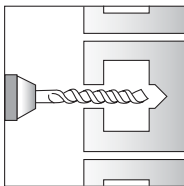
All fastenings into masonry walls shall be installed using preparatory chemical injection system that incorporates fine meshed sieves incorporating an integral centring devise.

Threaded inserts shall be of grade

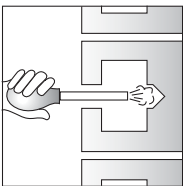
All elements of the fastening system shall be from Bremick Pty Ltd.

SETTING INSTRUCTIONS

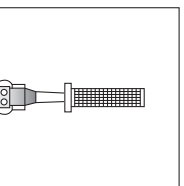
1: Drill



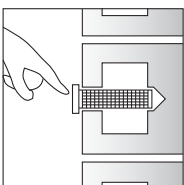
2: Clean



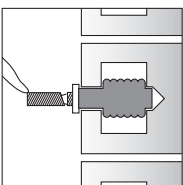
3: Fill Sieve



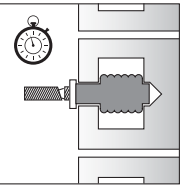
4: Insert Sieve



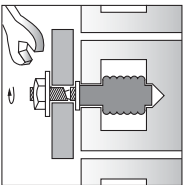
5: Insert Stud Bolt




6: Cure

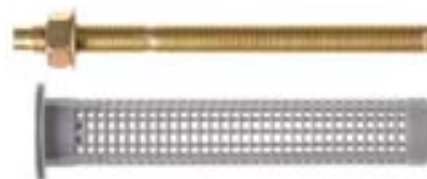


7: Fix





BREMIFIX™ STYFREE - EASF INJECTION SYSTEM FOR MASONRY WITH BREMIFIX™ STUD BOLTS AND BREMIFIX™ PLASTIC SIEVES ZINC PLATED

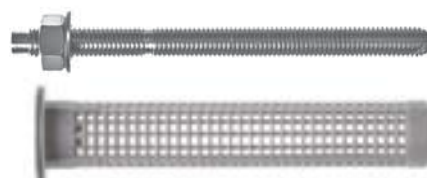


PROPERTY CLASS 5.8

Sieve/Hole Diameter (mm)	Thread Size (mm)	Anchor Length (mm)	Sieve Size (mm)	Min. Hole Depth (mm)	Max Fixt. Thickness (mm)	Stud Bolt Std Pack (mm)	Stud Bolt Product Code	Sieve Std Pack	Sieve Product Code
15	M8	110	15x85	85	15	10	ACSMZ081102	10	ACISP150852
15	M10	130	15x85	85	35	10	SFCMZ101302	10	ACISP150852
15	M10	130	15x130	130	5	10	SFCMZ101302	10	ACISP151302
15	M12	160	15x130	130	35	10	SFCMZ121602	10	ACISP151302

For other Stud sizes use threaded rod cut to length. Refer to the Bremick Industrial Price List for details of rods, nuts & washers.

BREMIFIX™ STYFREE - EASF INJECTION SYSTEM FOR MASONRY WITH BREMIFIX™ STUD BOLTS AND BREMIFIX™ PLASTIC SIEVES GALVANISED



PROPERTY CLASS 5.8

Sieve/Hole Diameter (mm)	Thread Size (mm)	Anchor Length (mm)	Sieve Size (mm)	Min. Hole Depth (mm)	Max Fixt. Thickness (mm)	Stud Bolt Std Pack (mm)	Stud Bolt Product Code	Sieve Std Pack	Sieve Product Code
15	M8	110	15x85	85	15	10	ACSMG081102	10	ACISP150852
15	M10	130	15x85	85	35	10	SFCMG101302	10	ACISP150852
15	M10	130	15x130	130	5	10	SFCMG101302	10	ACISP151302
15	M12	160	15x130	130	35	10	SFCMG121602	10	ACISP151302

For other Stud sizes use threaded rod cut to length. Refer to the Bremick Industrial Price List for details of rods, nuts & washers.

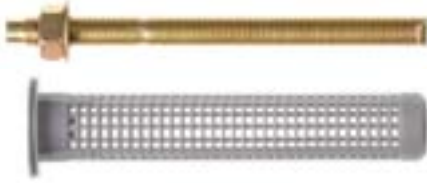
BREMIFIX™ STYFREE - EASF INJECTION SYSTEM FOR MASONRY WITH BREMIFIX™ STUD BOLTS AND BREMIFIX™ PLASTIC SIEVES 316 STAINLESS STEEL



PROPERTY CLASS 5.8

Sieve/Hole Diameter (mm)	Thread Size (mm)	Anchor Length (mm)	Sieve Size (mm)	Min. Hole Depth (mm)	Max Fixt. Thickness (mm)	Stud Bolt Std Pack (mm)	Stud Bolt Product Code	Sieve Std Pack	Sieve Product Code
15	M10	130	15x85	85	35	10	ACSM6101302	10	ACISP150852
15	M10	130	15x130	130	5	10	ACSM6101302	10	ACISP151302
15	M12	160	15x130	130	35	10	ACSM6121602	10	ACISP151302

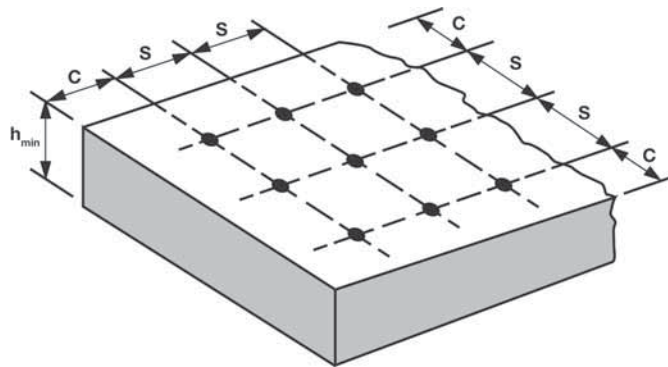
For other Stud sizes use threaded rod cut to length. Refer to the Bremick Industrial Price List for details of rods, nuts & washers.



BREMIFIX™ STYFREE - EASF INJECTION SYSTEM FOR MASONRY WITH BREMIFIX™ STUD BOLTS AND BREMIFIX™ PLASTIC SIEVES
ZINC PLATED, GALVANISED AND 316 STAINLESS STEEL

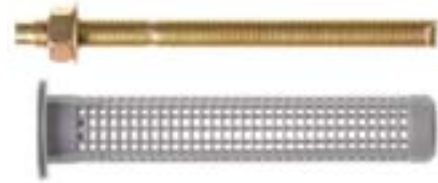
INSTALLATION DETAILS (BREMIFIX™ STUD BOLTS WITH PLASTIC SIEVES)

FASTENER DETAILS				INSTALLATION DETAILS									
Sieve/Drill Hole Diameter	Thread Size	Anchor Length	Sieves Size	Effective Embedment Depth	Characteristic Anchor Spacing (Tension & Shear)	Characteristic Edge Distance (Tension & Shear)	Minimum Anchor Spacing (Tension & Shear)	Minimum Edge Distance (Tension & Shear)	Minimum Base Material Thickness	Maximum Fixture Thickness	Clearance Hole Diameter (Fixture)	Installation Torque (Concrete)	Width Across Flats
D_o (mm)	D (mm)	L (mm)	LxDia (mm)	h_t (mm)	S_{cr} (mm)	C_{cr} (mm)	S_{min} (mm)	C_{min} (mm)	h_{min} (mm)	t_{fix} (mm)	D_c (mm)	T_{inst} (Nm)	SW (mm)
15	M8	110	15x85	85	100	60	100	60	65	15	10	3	13
15	M10	130	15x85	85	170	90	170	90	110	35	12	13	16
15	M10	130	15x130	130	170	90	170	90	170	5	12	13	16
15	M12	160	15x130	130	180	100	180	100	170	35	14	24	18



Notation, Spacing, Edge Distance & Base Material Thickness

BREMIFIX™ STYFREE - EASF INJECTION SYSTEM FOR MASONRY WITH THREADED ROD (CUT TO LENGTH) AND BREMIFIX™ PLASTIC SIEVES ZINC PLATED, GALVANISED AND STAINLESS STEEL GRADES 304 & 316



INSTALLATION DETAILS (THREADED ROD CUT TO LENGTH WITH PLASTIC SIEVES)

FASTENER DETAILS				INSTALLATION DETAILS									
Sieve/Drill Hole Diameter	Thread Size	Anchor Length	Sieves Size	Effective Embedment Depth	Characteristic Anchor Spacing (Tension & Shear)	Characteristic Edge Distance (Tension & Shear)	Minimum Anchor Spacing (Tension & Shear)	Minimum Edge Distance (Tension & Shear)	Minimum Base Material Thickness	Maximum Fixture Thickness	Clearance Hole Diameter (Fixture)	Installation Torque (Concrete)	Width Across Flats
D _o (mm)	D (mm)	L (mm)	LxDia (mm)	h _t (mm)	S _{cr} (mm)	C _{cr} (mm)	S _{min} (mm)	C _{min} (mm)	h _{min} (mm)	t _{fix} (mm)	D _c (mm)	T _{inst} (Nm)	SW (mm)
12	M8	80	12x50	50	100	60	100	60	65	20	10	3	13
15	M10	125	15x85	85	170	90	170	90	110	30	12	13	16
15	M10	170	15x130	130	170	90	170	90	170	30	12	13	16
15	M12	140	15x85	85	180	100	180	100	110	40	14	24	18
15	M12	185	15x130	130	180	100	180	100	170	40	14	24	18
20	M16	145	20x85	85	190	100	190	110	110	40	18	43	24

To accommodate specific fixture thickness adjust length of threaded rod accordingly.

PERFORMANCE DATA - MASONRY (RECOMMENDED LOADS)

FASTENER DETAILS					RECOMMENDED LOADS IN CONCRETE (Nrec,c/ Vrec,c)					
Sieve/Drill Hole Diameter	Thread Size	Anchor Length	Sieve Size	Embedment Depth	Solid Ceramic Brick		Cellular Brick & Block		Solid Silicate Brick	
D _o (mm)	D (mm)	L (mm)	LxDia (mm)	H (mm)	Tension (NRukc) KN	Shear (Vruk) KN	Tension (NRukc) KN	Shear (Vruk) KN	Tension (NRukc) KN	Shear (Vruk) KN

FOR BREMIFIX STUD BOLTS - ZINC PLATED, GALVANISED AND STAINLESS STEEL GRADE 316

12	M8	110	15x85	50	2.0	2.0	0.4	0.4	1.6	1.6
15	M10	130	15x85	85	3.3	3.3	1.0	1.0	3.2	3.2
15	M10	130	15x130	130	3.3	3.3	1.0	1.0	3.2	3.2
15	M12	160	15x130	130	6.3	6.3	2.9	2.9	5.8	5.8

FOR BREMIFIX THREADED ROD CUT TO LENGTH CLASS 4.6 & 8.8 & STAINLESS STEEL GRADES 304 & 316

12	M8	CUT ROD	12x50	50	2.0	2.0	0.4	0.4	1.6	1.6
15	M10	CUT ROD	15x85	85	3.3	3.3	1.0	1.0	3.2	3.2
15	M10	CUT ROD	15x130	130	5.0	5.0	1.6	1.6	4.9	4.9
15	M12	CUT ROD	15x85	85	4.1	4.1	1.9	1.9	3.8	3.8
15	M12	CUT ROD	15x130	130	6.3	6.3	2.9	2.9	5.8	5.8
20	M16	CUT ROD	20x85	85	4.3	4.3	1.9	1.9	4.0	4.0

All above Values are Design Values in masonry with anchors installed at embedment depths, as shown and are valid for products supplied by Bremick Pty only.

Recommended Loads have been derived with a Safety factor of 4.

All Shear Values are Single Shear.

For further performance data, including Characteristic, Working Stress, Limit State Design Values and design data please refer to our Web Site www.bremick.com.au

CONSUMPTION ESTIMATION GUIDE

INSTALLATION DETAILS			FIXINGS / 300ml UNIT
Hole/Sieve Drill	Sieve Length	Stud Size	
(mm)	(mm)	(mm)	#
12	50	M8	27
15	85	M10	10
15	130	M10	7
15	85	M12	10
15	130	M12	7
20	85	M16	6

GEL TIMES AND SETTING TIMES

Temp.	Gel Time	Minimum time before loading
°C	(min)	(min)
-5	50	90
5	12	50
10	9	45
15	6	35
20	4	30
25	4	30
30	3	30
35	2	30



Full cure is achieved in 24 hrs

MATERIAL PROPERTIES

ULTIMATE PHYSICAL PROPERTIES

COMPRESSIVE STRENGTH	(ASTM 695)	62.7 N/mm ²
TENSILE STRENGTH	(ASTM 638)	12.85 N/mm ²
FLEXURAL STRENGTH	(ASTM 795)	23.88 N/mm ²
ELASTIC MODULUS		6860.33 N/mm ²
FLEXURAL MODULUS		3250.33 N/mm ²
MIXED DENSITY		1.65 g/cm ³

STORAGE

Store in a clean dry area at temperatures between 5°C and 25°C.

Do not expose to direct sunlight.

Storage at higher temperatures will reduce shelf life.

Bremfix™ Poly is a high performance, rapid curing, two part chemical anchoring system based on unsaturated Polyester resin in Styrene.



Applied in one single action this general purpose resin will produce a cost effective, strong, chemical resistant fixing. Suitable for fastening with **Bremfix™ Stud Bolts**, threaded rod or reinforcing bars into concrete, solid masonry or stone.

APPLICATIONS

High quality, economic fastening of Stud Bolts and threaded rods into concrete, and solid masonry.

- Anchoring with Stud Bolts
- Hollow blocks with sieves
- Concrete
- Stone
- Masonry
- Aerated concrete

FEATURES

- Rapid curing
- High strength
- Economic
- Reliable mixing
- 410ml Cartridge

ANCILLARY PRODUCTS CLEANING TOOLS

For Brushes, Blow Pumps and Sieves please refer to the end of this section

SUGGESTED SPECIFICATION

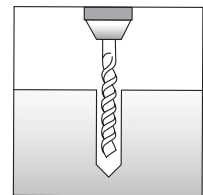
Bremfix™ Poly Injection System

The bonded anchor used shall be Bremfix™ Poly injection mortar and Bremfix™ anchor rods. The two part polyester resin shall be dispensed from a one shot cartridge and matching applicator gun. Installation shall be in accordance with the manufactures recommendations and all chemicals and anchor rods shall be sourced from Bremick Pty Ltd.

SETTING INSTRUCTIONS

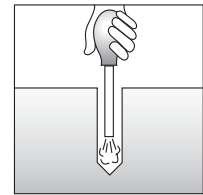
1: Drill

To specified depth and diameter.



2: Clean

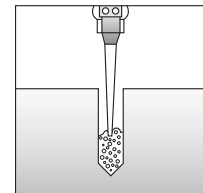
Brush and blow debris from drilled hole. Base material must be clean and dry.



3: Inject

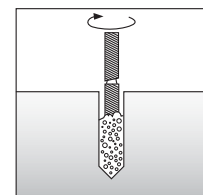
Inject mortar working from the bottom of the hole to approximately 1/3rd full.

NB: Dispense first 10ml to waste.



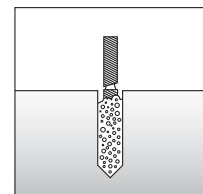
4: Insert Fastener

Insert rod or bar rotating by hand to expel air.



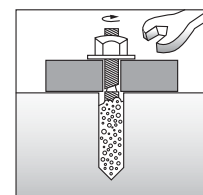
5: Cure

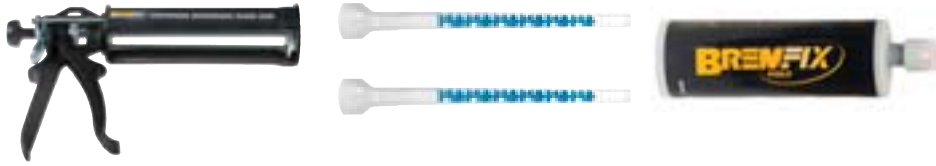
Allow mortar to fully cure with no disturbance of the fastener.



6: Fix

Mount fixture and tighten to specified torque.





POLYESTER
410ml

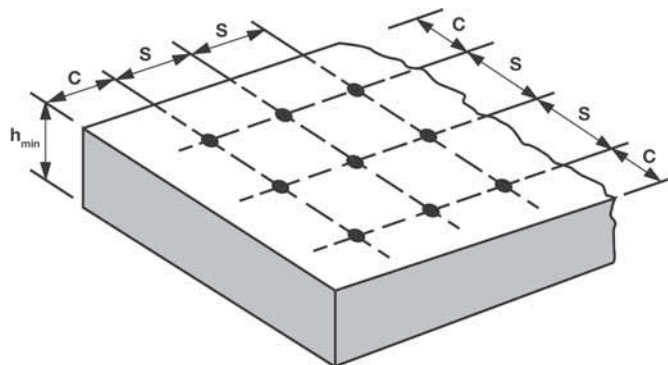
Description	Std Pack	Product Code
Injection Cartridge Dispensing Hand Gun (To suit 410ml Bremfix Poly cartridge)	1	TMACICG3802
Bremfix Poly Injection Cartridge Pack (Consists of 5 (410ml) cartridges each with 2 mixer nozzles)	5	ACIPCPR4102
Mixer Nozzles	10	ACIMIXR0102



POLYESTER 410ml
BREMIFIX™ STUDS
ZINC PLATED, GALVANISED
AND 316 STAINLESS STEEL

INSTALLATION DETAILS

FASTENER DETAILS			INSTALLATION DETAILS									
Anchor/ Drill Diameter	Thread Size	Anchor Length	Effective Embedment Depth	Characteristic Anchor Spacing (Tension & Shear)	Characteristic Edge Distance (Tension & Shear)	Minimum Anchor Spacing (Tension & Shear)	Minimum Edge Distance (Tension & Shear)	Minimum Base Material Thickness	Maximum Fixture Thickness	Clearance Hole Diameter (Fixture)	Installation Torque (Concrete)	Width Across Flats
D_o (mm)	D (mm)	L (mm)	h_t (mm)	S_{cr} (mm)	C_{cr} (mm)	S_{min} (mm)	C_{min} (mm)	h_{min} (mm)	t_{fix} (mm)	D_c (mm)	T_{inst} (Nm)	SW (mm)
10	M8	110	80	100	100	35	35	100	22	12	10	13
12	M10	130	90	130	130	40	35	120	30	14	20	16
14	M12	160	110	150	150	50	35	140	35	16	40	18
18	M16	190	125	170	170	60	50	160	50	20	80	24
25	M20	260	170	210	190	80	80	220	70	27	120	30
28	M24	300	210	240	240	100	100	280	65	30	180	36



Notation, Spacing, Edge Distance & Base Material Thickness

POLYESTER 410ml BREMIFIX™ STUDS ZINC PLATED, GALVANISED AND 316 STAINLESS STEEL



PERFORMANCE DATA - CONCRETE (RECOMMENDED LOADS)

INSTALLATION DETAILS			RECOMMENDED LOADS IN CONCRETE (Nrec,c/ Vrec,c)									
Hole/ Drill Diameter	Major Thread Diameter	Embedment Depth	25MPa Concrete (fc)		32MPa Concrete (fc)		40MPa Concrete (fc)		50MPa Concrete (fc)		65MPa Concrete (fc)	
			Tension (Nrec,c) KN	Shear (Vrec,c) KN	Tension (Nrec,c) KN	Shear (Vrec,c) KN	Tension (Nrec,c) KN	Shear (Vrec,c) KN	Tension (Nrec,c) KN	Shear (Vrec,c) KN	Tension (Nrec,c) KN	Shear (Vrec,c) KN
(mm)	(mm)	(mm)										
10	M8	80	4.4	2.6	4.6	2.7	4.8	2.8	5.0	2.9	5.4	3.2
12	M10	90	6.7	4.0	6.9	4.1	7.3	4.3	7.6	4.5	8.3	4.9
14	M12	110	9.5	5.9	9.8	6.1	10.3	6.4	10.8	6.7	11.7	7.3
18	M16	125	11.0	10.7	11.4	11.1	12.0	11.6	12.5	12.2	13.6	13.2
25	M20	170	17.8	17.0	18.5	17.7	19.4	18.6	20.3	19.4	22.0	21.1
28	M24	210	24.5	24.4	25.4	25.4	26.7	26.6	27.9	27.8	30.3	30.3

All above Values are Design Values for anchors installed in concrete with anchors installed at characteristic embedment depths, as shown. Recommended Loads have been derived with a Safety factor of 4.
All Shear Values are Single Shear.

CONSUMPTION ESTIMATION GUIDE

INSTALLATION DETAILS			FIXINGS / 300ml UNIT
Hole/Drill Drill (mm)	Thread Size (mm)	Embedment Depth (mm)	
10	M8	80	103
12	M10	90	75
14	M12	110	52
18	M16	125	35
25	M20	170	10
28	M24	210	7
35	M30	280	3

For further performance data, including Characteristic, Working Stress, Limit State Design Values and design data please refer to our Web Site www.bremick.com.au

GEL TIMES AND SETTING TIMES



Temp. °C	Gel Time (min)	Minimum time before loading (min)
-5	50	90
5	12	50
10	9	45
15	6	35
20	4	30
25	3	30
30	3	30
35	2	30

Full cure is achieved in 24 hrs

MATERIAL PROPERTIES

ULTIMATE PHYSICAL PROPERTIES

COMPRESSIVE STRENGTH (ASTM 695)	59.58 N/mm ²
TENSILE STRENGTH (ASTM 638)	13.38 N/mm ²
FLEXURAL STRENGTH (ASTM 790)	25.18 N/mm ²
ELASTIC MODULUS	8015.40 N/mm ²
FLEXURAL MODULUS	3486.40 N/mm ²
MIXED DENSITY	1.65 g/cm ³

STORAGE

Store in a clean dry area at temperatures between 5°C and 25°C.

Do not expose to direct sunlight.

Storage at higher temperatures will reduce shelf life.

FLAT CUT WITH NUTS AND WASHERS ZINC PLATED - FOR USE WITH CHEMICAL INJECTION MORTAR



AS1789

PROPERTY CLASS 5.8

Hole/Drill Diameter (mm)	Stud Diameter (mm)	Stud Length (mm)	Min Hole Depth (mm)	Max Fast. Thickness (mm)	Std Pack	Product Code
12	M10	130	90	30	10	SFCMZ101302
14	M12	160	110	35	10	SFCMZ121602
18	M16	190	125	50	10	SFCMZ161902
25	M20	260	170	70	5	SFCMZ202602
28	M24	300	210	65	5	SFCMZ243002

*Includes nut & washer

FLAT CUT WITH NUTS AND WASHERS GALVANISED - FOR USE WITH CHEMICAL INJECTION MORTAR

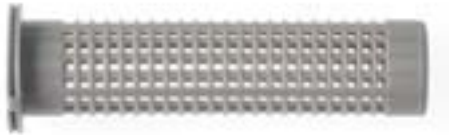


AS1214

PROPERTY CLASS 5.8

Hole/Drill Diameter (mm)	Stud Diameter (mm)	Stud Length (mm)	Min Hole Depth (mm)	Max Fast. Thickness (mm)	Std Pack	Product Code
2	M10	130	90	30	10	SFCMG101302
14	M12	160	110	35	10	SFCMG121602
18	M16	190	125	50	10	SFCMG161902
25	M20	260	170	70	5	SFCMG202602
28	M24	300	210	65	5	SFCMG243002

*Includes nut & washer



ACCESSORIES
PLASTIC SIEVES TO SUIT
BREMIFIX INJECTIONS SYSTEMS
 (Complete with centering ferrule)

Size	Suit Stud Diameter (mm)	Hole Drill Diameter (mm)	Min Hole Depth (mm)	Std Pack	Product Code
12x50	M8	12	50	10	ACISP120502
15x85	M10 or M12	15	85	10	ACISP150852
15x130	M10 or M12	15	130	10	ACISP151302
20x85	M16	20	85	10	ACISP200852

CHEMICAL INJECTION SYSTEMS



ACCESSORIES
HOLE CLEANING TOOLS

Description	Std Pack	Product Code
Blow Pump - Industrial	1	ACIBPLD0012
Hole Cleaning Brush 8-10mm	1	ACIHCMB0102
Hole Cleaning Brush 10-14 mm	1	ACIHCMB0142
Hole Cleaning Brush 10-28mm	1	ACIHCMB0282

NYLON NAIL-IN ANCHOR

67



Bremick Nylon Nail-In Anchors are friction type anchors that provide a highly economical fastening solution for light duty fastening needs. Nail-in anchors consist of a hollow nylon sleeve with longitudinal expansion slots pre assembled with a tapered serrated drive pin. The pin is driven into the sleeve and a friction grip is developed against the wall of the hole by the resulting anchor expansion.

Bremick Nylon Nail-In Anchors are available with head forms to suit most applications including: countersunk, mushroom and round heads.

APPLICATIONS

Fully assembled light duty plastic anchor for application in concrete, masonry and stone.

BENEFITS

- Quick and simple installation
- Setting by hammer.
- Removable with screw driver
- Through fastening
- Available in a variety of head types

ANCILLARY PRODUCTS CLEANING TOOLS

For Brushes and Blow Pumps please refer to the Chemical Injection System section of this book.

SUGGESTED SPECIFICATION

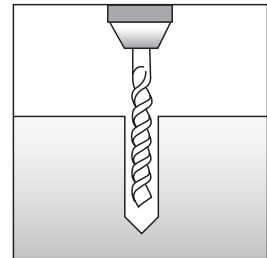
Nylon Nail In Anchors

The anchors used shall be nylon nail in anchors consisting of a nylon friction sleeve preassembled with a zinc plated carbon steel drive pin. Installation shall be in accordance with the manufactures recommendations and all anchors shall be sourced from Bremick Pty Ltd.

SETTING INSTRUCTIONS

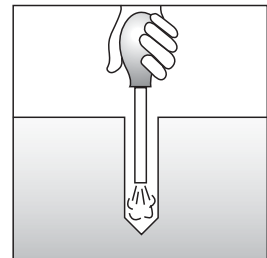
1: Drill

Drill hole in base material to specified diameter and depth.



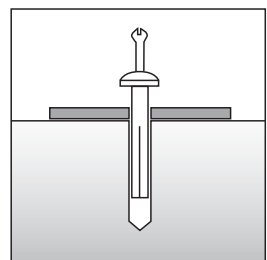
2: Clean

Blow out dust and drilling fragments. Alternatively drill hole 5mm deeper.



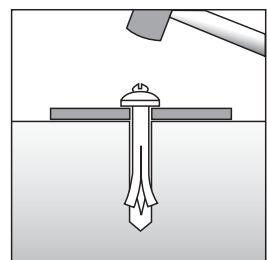
3: Insert

Insert nylon anchor into hole until the head is flush with the fixture.



4: Set

Set anchor by driving screw pin with hammer blows. Additional tightening or adjustment may be achieved with a screw driver.





**MUSHROOM HEAD
ZINC PLATED SCREW
AS1789**

Hole/Drill Diameter (mm)	Anchor Length (mm)	Hole Depth (mm)	Max. Fast. Thickness (mm)	Std Pack	Product Code
5	25	20	5	100	ANMMZ050252
	38	25	13		ANMMZ050382
6.5	25	20	5	100	ANMMZ060252
	38	25	13		ANMMZ060382
	50	30	20		ANMMZ060502
	75	35	40		ANMMZ060752



**ROUND HEAD
ZINC PLATED SCREW
AS1789**

Hole/Drill Diameter (mm)	Anchor Length (mm)	Hole Depth (mm)	Max. Fast. Thickness (mm)	Std Pack	Product Code
5	25	20	5	100	ANRMZ050252
	38	25	13		ANRMZ050382
6.5	25	20	5	100	ANRMZ060252
	38	25	13		ANRMZ060382
	50	30	20		ANRMZ060502
	75	35	40		ANRMZ060752



**COUNTERSUNK HEAD
ZINC PLATED SCREW
AS1789**

Hole/Drill Diameter (mm)	Anchor Length (mm)	Hole Depth (mm)	Max. Fast. Thickness (mm)	Std Pack	Product Code
5	25	20	5	100	ANKMZ050252
6.5	25	20	5	100	ANKMZ060252
	38	25	13		ANKMZ060382
	50	30	20		ANKMZ060502
	75	35	40		ANKMZ060752

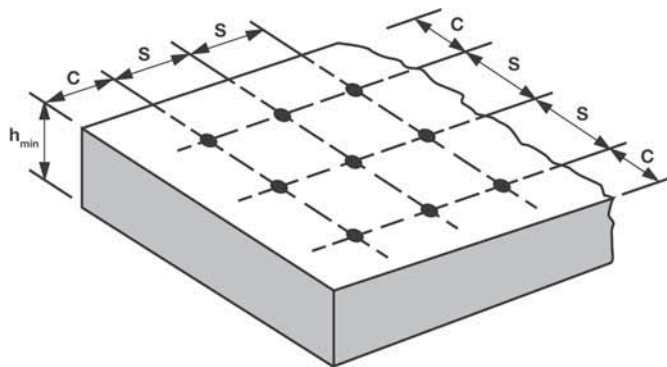


MUSHROOM, ROUND & COUNTERSUNK HEADS ZINC PLATED



INSTALLATION DETAILS

FASTENER DETAILS			INSTALLATION DETAILS					
Anchor/ Drill Diameter	Pin Diameter	Anchor Length	Effective Embedment Depth	Minimum Base Material Thickness	Maximum Fixture Thickness	Clearance Hole Diameter (Fixture)	Installation Torque	Driver Type
D _o (mm)	D (mm)	L (mm)	h _t (mm)	h _{min} (mm)	t _{fix} (mm)	D _c (mm)	T _{inst} (Nm)	
5	3	25	20	25	5	5	N/A	SLOTTED
		38	25	35	13	5	N/A	SLOTTED
6.5	3	25	20	25	5	6.5	N/A	SLOTTED
		38	25	35	13	6.5	N/A	SLOTTED
		50	30	40	20	6.5	N/A	SLOTTED
		75	35	45	40	6.5	N/A	SLOTTED



Notation, Spacing, Edge Distance & Base Material Thickness

PERFORMANCE DATA - CONCRETE & MASONRY (RECOMMENDED LOADS)

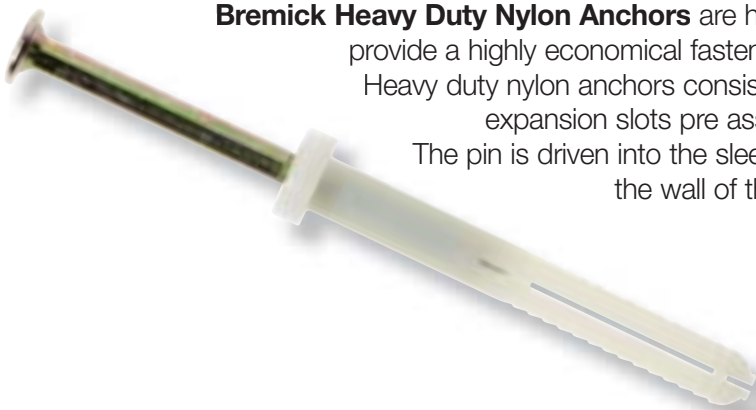
INSTALLATION DETAILS	Embedment Depth	RECOMMENDED LOADS IN CONCRETE & MASONRY (N _{rec,c} /V _{rec,c})									
		25MPa Concrete (f _c)		32MPa Concrete (f _c)		Solid Brick (f _c)		15 MPa Block (f _c)		Aerated Block (f _c)	
		Tension (NR _{ukc}) KN	Shear (VR _{ukc}) KN	Tension (NR _{ukc}) KN	Shear (VR _{ukc}) KN	Tension (NR _{ukc}) KN	Shear (VR _{ukc}) KN	Tension (NR _{ukc}) KN	Shear (VR _{ukc}) KN	Tension (NR _{ukc}) KN	Shear (VR _{ukc}) KN
Hole/ Drill Diameter	(mm)										
5	20	0.24	0.36	0.28	0.40	0.31	0.46	0.17	0.25	0.12	0.17
	25	0.28	0.36	0.31	0.40	0.35	0.46	0.20	0.25	0.13	0.17
6.5	20	0.28	0.58	0.31	0.66	0.35	0.74	0.20	0.41	0.13	0.28
	25	0.31	0.58	0.35	0.66	0.39	0.74	0.22	0.41	0.15	0.28
	30	0.34	0.58	0.38	0.66	0.44	0.74	0.24	0.41	0.16	0.28
	35	0.37	0.58	0.42	0.66	0.47	0.74	0.26	0.41	0.18	0.28

All above Values are Design Values for anchors installed in concrete and masonry with anchors installed at characteristic embedment depths, as shown and are valid for products supplied by Bremick Pty only.

Recommended Loads have been derived with a Safety factor of 4.

All Shear Values are Single Shear.

For further performance data, including Characteristic, Working Stress, Limit State Design Values and design data please refer to our Web Site www.bremick.com.au



Bremick Heavy Duty Nylon Anchors are high performance friction type anchors that provide a highly economical fastening solution for light duty fastening needs.

Heavy duty nylon anchors consist of a hollow nylon sleeve with longitudinal expansion slots pre assembled with a tapered serrated drive pin.

The pin is driven into the sleeve and a friction grip is developed against the wall of the hole by the resulting anchor expansion.

APPLICATIONS

Fully assembled high quality plastic anchor for application in concrete, masonry and stone.

BENEFITS

- Phillips 2 Drive Head
- Quick and simple installation
- Setting by hammer or screw driver
- Removable with screw driver
- Through fastening
- Higher loading due to enlarged head diameter
- The insulation properties of the nylon sleeve protect against bi-metallic corrosion

ANCILLARY PRODUCTS CLEANING TOOLS

For Brushes and Blow Pumps please refer to the Chemical Injection System section of this book.

SUGGESTED SPECIFICATION

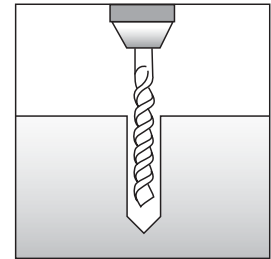
Heavy Duty Nylon Nail In Anchors

The anchors used shall be nylon nail in anchors consisting of a nylon friction sleeve with longitudinal expansion slots preassembled with a tapered, zinc plated, serrated drive pin with a phillips cross recessed head. Installation shall be in accordance with the manufactures recommendations and all anchors shall be sourced form Bremick Pty Ltd.

SETTING INSTRUCTIONS

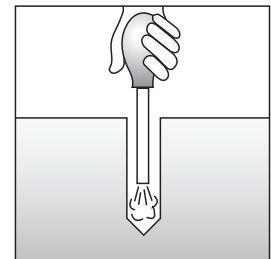
1: Drill

Drill hole in base material to specified diameter and depth.



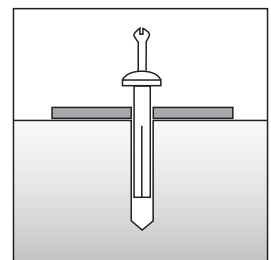
2: Clean

Blow out dust and drilling fragments. Alternatively drill hole 5mm deeper.



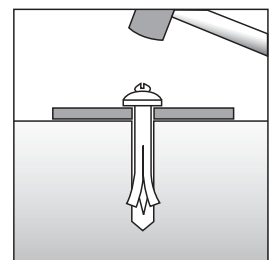
3: Insert

Insert nylon anchor into hole until the head is flush with the fixture.



4: Set

Set anchor by driving screw pin with hammer blows. Additional tightening or adjustment may be achieved with a screw driver.





HEAVY DUTY NYLON ANCHOR

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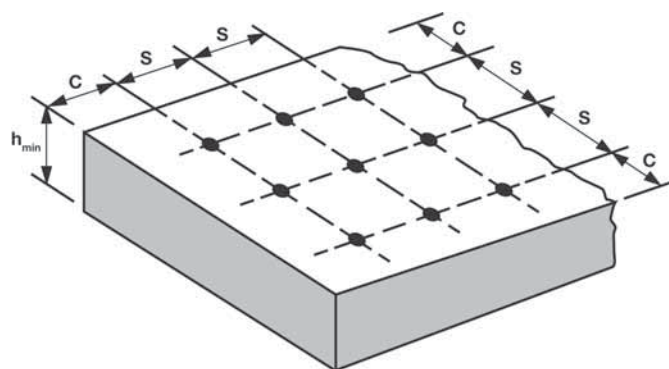
ZINC PLATED PIN AS1789



Hole/Drill Diameter (mm)	Anchor Length (mm)	Hole Depth (mm)	Max. Fast. Thickness (mm)	Std Pack	Product Code
5	33	25	8	100	ANHMZ050332
	43	28	15		ANHMZ050432
	50	30	20		ANHMZ050502
6	55	25	30	100	ANHMZ060552
	72	40	32		ANHMZ060722
8	72	40	32	100	ANHMZ080722

INSTALLATION DETAILS

FASTENER DETAILS			INSTALLATION DETAILS					
Anchor/Drill Diameter	Screw Diameter	Anchor Length	Effective Embedment Depth	Minimum Base Material Thickness	Maximum Fixture Thickness	Clearance Hole Diameter (Fixture)	Installation Torque	Phillips Driver
D_o (mm)	D (mm)	L (mm)	h_t (mm)	h_{min} (mm)	t_{fix} (mm)	D_c (mm)	T_{mst} (Nm)	
5	3.5	33	25	35	8	5	N/A	PH2
		43	28	35	15	5	N/A	PH2
		50	30	40	20	5	N/A	PH2
6	3.8	55	25	35	30	6	N/A	PH2
		72	40	50	32	6	N/A	PH2
8	4.5	72	40	50	32	8	N/A	PH3



Notation, Spacing, Edge Distance & Base Material Thickness



ZINC PLATED PIN

PERFORMANCE DATA - CONCRETE & MASONRY (RECOMMENDED LOADS)

INSTALLATION DETAILS		RECOMMENDED LOADS IN CONCRETE (Nrec,c/ Vrec,c)									
Hole/ Drill Diameter (mm)	Embedment Depth (mm)	25MPa Concrete (fc)		32MPa Concrete (fc)		Solid Brick (fc)		15 MPa Block (fc)		Aerated Block (fc)	
		Tension (NRukc) KN	Shear (VRukc) KN	Tension (NRukc) KN	Shear (VRukc) KN	Tension (NRukc) KN	Shear (VRukc) KN	Tension (NRukc) KN	Shear (VRukc) KN	Tension (NRukc) KN	Shear (VRukc) KN
5	25	0.28	0.38	0.31	0.43	0.35	0.48	0.20	0.27	0.13	0.18
	28	0.30	0.38	0.34	0.43	0.39	0.48	0.21	0.27	0.14	0.18
	30	0.33	0.38	0.37	0.43	0.42	0.48	0.23	0.27	0.16	0.18
6	25	0.33	0.61	0.38	0.69	0.43	0.78	0.23	0.43	0.16	0.29
	40	0.40	0.61	0.45	0.69	0.51	0.78	0.28	0.43	0.19	0.29
8	40	0.43	0.73	0.49	0.83	0.55	0.94	0.31	0.51	0.21	0.35

All above Values are Design Values for anchors installed in concrete and masonry with anchors installed at characteristic embedment depths, as shown and are valid for products supplied by Bremick Pty only.

Recommended Loads have been derived with a Safety factor of 4.

All Shear Values are Single Shear.



**Stainless Steel
316/A4**

KEW® - Heavy Duty Nylon Anchors are high performance friction type anchors that provide an economical and reliable fastening solution for light duty fastening needs. KEW® Heavy Duty Nylon Anchors consist of a hollow nylon sleeve with longitudinal expansion slots pre assembled with a stainless steel threaded screw pin. The pin is driven into the sleeve and a friction grip is developed against the wall of the hole.

Nylon sleeve with Stainless Steel A4/316 Screw Pin.

APPLICATIONS

Fully assembled high quality nylon sleeve with stainless steel 316/A4 drive pin for light duty fastening uses in concrete, masonry, brick, block and Hebel type materials.

Suitable for use in corrosive environments

- Metal flashings
- Skirting boards
- Metal brackets
- Timber supports

ANCILLARY PRODUCTS

For cleaning brushes and blow pumps please refer to the chemical injection section of this book.

SUGGESTED SPECIFICATION

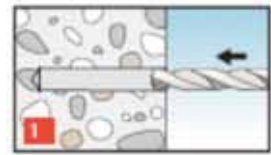
KEW® Heavy Duty Nylon Anchors

The anchors used shall be Nylon Nail In anchors with a stainless steel 316 / A4 pin. Installation shall be in accordance with the manufacturers recommendations and the anchors shall be sourced from Bremick Fasteners Pty Ltd.

SETTING INSTRUCTIONS

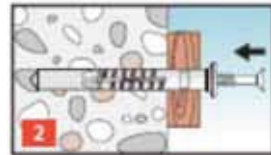
1: Drill & Clean

Drill hole in base material to specified diameter & depth.
Blow drill debris clear of hole.



2: Insert & Set

Insert anchor into hole until the head is flush with the fixture.
Drive pin into sleeve with hammer blows.



3: Adjust & finish

Additional adjustment or removal may be achieved with a screw driver.



APPROVALS





**COUNTER SUNK HEAD SCREW,
COUNTERSUNK COLLAR
NYLON SLEEVE WITH STAINLESS STEEL
316/A4 SCREW**

Hole/Drill Diameter (mm)	Anchor Length (mm)	Hole Depth (mm)	Max. Fast. Thickness (mm)	Std Pack	Product Code
6	40	50	10	50	ANKM6060402
	60	70	30	50	ANKM6060602
8	60	70	20	50	ANKM6080602
	80	90	40	50	ANKM6080802



**COUNTER SUNK HEAD SCREW,
ROUND COLLAR
NYLON SLEEVE WITH STAINLESS STEEL
316/A4 SCREW**

Hole/Drill Diameter (mm)	Anchor Length (mm)	Hole Depth (mm)	Max. Fast. Thickness (mm)	Std Pack	Product Code
6	40	50	10	50	ANRM6060402
	60	70	30	50	ANRM6060602
8	60	70	20	50	ANRM6080602
	80	90	40	50	ANRM6080602

**ROUND & COUNTERSUNK HEADS
NAIL SCREW - STAINLESS STEEL
GRADE 316 (A4)****INSTALLATION DETAILS**

FASTENER DETAILS			INSTALLATION DETAILS					
Anchor/ Drill Diameter	Pin Diameter	Anchor Length	Effective Embedment Depth	Minimum Base Material Thickness	Maximum Fixture Thickness	Clearance Hole Diameter (Fixture)	Installation Torque	Driver Type
D _o (mm)	D (mm)	L (mm)	h _t (mm)	h _{min} (mm)	t _{fix} (mm)	D _c (mm)	T _{inst} (Nm)	
6	3	40	30	37.5	10	6	N/A	PH2
		60	30	35	30	6	N/A	PH2
8	4	60	40	50	20	8	N/A	PH2
		80	40	35	40	8	N/A	PH2

PERFORMANCE DATA – CONCRETE & MASONRY (RECOMMENDED LOADS)

INSTALLATION DETAILS		RECOMMENDED LOADS IN CONCRETE & MASONRY (N _{rec,c} / V _{rec,c})									
Hole/ Drill Diameter (mm)	Embedment Depth (mm)	25MPa Concrete (fc)		32MPa Concrete (fc)		Solid Brick (fc)		15 MPa Block (fc)		Aerated Block (fc)	
		Tension (NRukc) KN	Shear (VRukc) KN	Teansion (NRukc) KN	Shear (VRukc) KN	Tension (NRukc) KN	Shear (VRukc) KN	Tension (NRukc) KN	Shear (VRukc) KN	Tension (NRukc) KN	Shear (VRukc) KN
6	30	0.33	0.36	0.37	0.40	0.28	0.46	0.23	0.25	0.08	0.17
8	30	0.38	0.58	0.43	0.66	0.35	0.74	0.27	0.41	0.10	0.28
	40	0.45	0.58	0.51	0.66	0.43	0.74	0.32	0.41	0.13	0.28

All above Values are Design Values in concrete and masonry with anchors installed at characteristic embedment depths, as shown and are valid for products supplied by Bremick Pty only.

Recommended Loads have been derived with a Safety factor of 4.

All Shear Values are Single Shear.



Bremick Metal Pin Anchors are vandal proof deformation controlled anchors consisting of a large flanged, hollow, longitudinally slotted Zinc Alloy expansion sleeve pre assembled with a tapered steel drive pin. Expansion is created by driving the pin which causes the sleeve to deform and create expansion force against the base material. The large flanged head provides high pull over resistance and is ideally suited for tamper proof applications.

APPLICATIONS

Non removable light duty fastenings to concrete, blocks, brick and stone where rapid installation and where high shear loads are required. Not recommended for overhead application.

BENEFITS

- Easy installation
- Low head profile
- Secure displacement controlled expansion.
- Through fastening
- Vandal proof fastening (not removable)
- Full metal design provides higher loading power than nylon nail in anchors.

ANCILLARY PRODUCTS CLEANING TOOLS

For Brushes and Blow Pumps please refer to the Chemical Injection System section of this book.

SUGGESTED SPECIFICATION

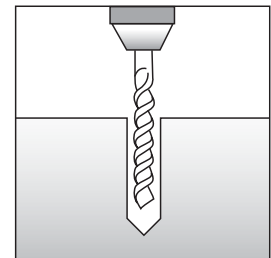
Metal Pin Anchors

The tamper resistant expansion anchors used shall be preassembled metal pin anchors with a large mushroom head with an integral slotted expansion sleeve made from corrosion resistant zinc alloy. Installation shall be in accordance with the manufactures recommendations and all anchors shall be sourced form Bremick Pty Ltd.

SETTING INSTRUCTIONS

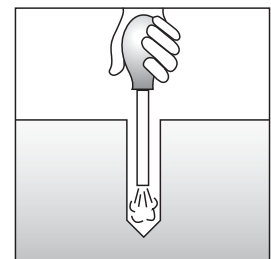
1: Drill

Drill hole in base material to specified Diameter, depth shall be 5mm deeper than required embedment depth.



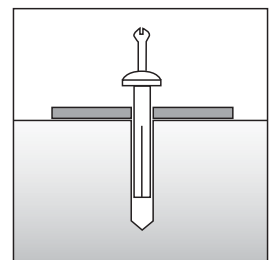
2: Clean

Blow out dust and drilling fragments.



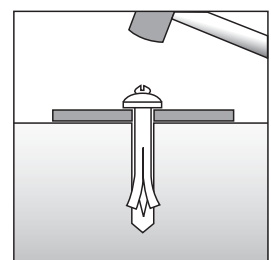
3: Insert

Mount fixture and Insert anchor through Fixture into hole.



4: Set

Set anchor by hammering anchor pin until flush set.





ZINC ALLOY BODY ZINC PLATED PIN AS1789



Hole/Drill Diameter (mm)	Anchor Length (mm)	Hole Depth (mm)	Max. Fast. Thickness (mm)	Std Pack	Product Code
5	22	20	2	100	AMPMZ050222
6.5	25	20	5	100	AMPMZ060252
	32	25	7		AMPMZ060322
	38	30	8		AMPMZ060382
	50	35	15		AMPMZ060502

INSTALLATION DETAILS

FASTENER DETAILS			INSTALLATION DETAILS					Driver
Anchor/Drill Diameter	Pin Diameter	Anchor Length	Effective Embedment Depth	Minimum Base Material Thickness	Maximum Fixture Thickness	Clearance Hole Diameter (Fixture)	Installation Torque	
D _o (mm)	D (mm)	L (mm)	h _t (mm)	h _{min} (mm)	t _{fix} (mm)	D _c (mm)	T _{inst} (Nm)	
5	3	22	20	25	2	5	N/A	Hammer
6.5	4	25	20	25	5	6.5	N/A	Hammer
		32	25	35	7	6.5	N/A	Hammer
		38	30	40	8	6.5	N/A	Hammer
		50	35	45	15	6.5	N/A	Hammer

PERFORMANCE DATA - CONCRETE & MASONRY (RECOMMENDED LOADS)

Hole/Drill Diameter (mm)	Embedment Depth (mm)	RECOMMENDED LOADS IN CONCRETE (Nrec,c/ Vrec,c)									
		25MPa Concrete (fc)		32MPa Concrete (fc)		Solid Brick (fc)		15 MPa Block (fc)		Aerated Block (fc)	
		Tension (NRukc) KN	Shear (Vruk) KN	Tension (NRukc) KN	Shear (Vruk) KN	Tension (NRukc) KN	Shear (Vruk) KN	Tension (NRukc) KN	Shear (Vruk) KN	Tension (NRukc) KN	Shear (Vruk) KN
5	20	0.93	0.50	1.05	0.57	1.19	0.65	1.30	0.71	1.51	0.82
6.5	20	0.95	0.58	1.08	0.66	1.23	0.74	1.34	0.81	1.55	0.94
	25	1.03	1.55	1.17	1.77	1.32	2.00	1.45	2.19	1.67	2.53
	30	1.23	1.63	1.40	1.85	1.58	2.10	1.73	2.29	2.00	2.65
	35	1.35	1.68	1.54	1.91	1.74	2.16	1.90	2.36	2.20	2.73

All above Values are Design Values for anchors installed in concrete and masonry with anchors installed at characteristic embedment depths, as shown and are valid for products supplied by Bremick Pty only.

Recommended Loads have been derived with a Safety factor of 4.

All Shear Values are Single Shear.

For further performance data, including Characteristic, Working Stress, Limit State Design Values and design data please refer to our Web Site www.bremick.com.au



KEW® Universal Frame Anchors are specifically designed for the fixing of timber frames to concrete, masonry and aerated blocks. KEW® Frame Anchors consist of an engineered nylon sleeve with longitudinal expansion slots, radial grooving for high grip, extended expansion area and integral anti rotation lugs which is pre assembled with a heavy duty 7mm diameter screw. Expansion is created by driving the tapered screw into the sleeve resulting in the generation of controlled expansion forces across the full length of the sleeve and the base material.

KEW® Universal Frame Anchors are available zinc plated, galvanised or 316 Stainless steel with either Hexagonal or Torx drive Countersunk Heads for use where a flush finish is required.

KEW® Frame Anchors are engineered and manufactured by KEW® GmbH Germany and are exclusively available from Bremick Fasteners.

APPLICATIONS

Through fastening of timber frames or metal brackets to all types of masonry, aerated block, concrete, solid brick and hollow brick.

Fastening of gates, door frames, windows, battens, timber, metal brackets, wall cladding and insulation panels (with KEW® Universal Insulation Discs).

FEATURES

- Triple-Split Expansion
- Extended Expansion zone
- Through fastening
- Anti rotation fins

ANCILLARY PRODUCTS CLEANING TOOLS

For Brushes and Blow Pumps please to Bremfix™ Section off this book. See also Insulation Discs.

SUGGESTED SPECIFICATION

KEW® Universal Frame Anchors

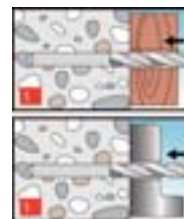
The preassembled expansion anchors used shall be KEW® Nylon Frame Anchors consisting of a longitudinally slotted nylon expansion sleeve complete with a zinc plated heavy duty drive screw. Installation shall be in accordance with the manufactures recommendations and all anchors shall be sourced from Bremick Pty Ltd.



SETTING INSTRUCTIONS

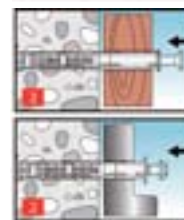
1: Drill

Drill hole in base material to specified diameter, depth shall be 5mm deeper than required embedment depth.



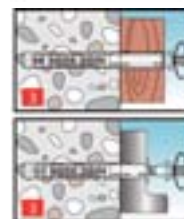
2: Insert

Mount fixture and insert anchor through fixture into hole.



3: Set

Set anchor by tightening with a socket or screw driver.



4: Finish



APPROVALS





**COUNTER SUNK HEAD SCREW
TORX DRIVE
ZINC PLATED**



Hole/Drill Diameter (mm)	Anchor Length (mm)	Hole Depth (mm)	Min. Anchorage Depth (mm)	Max. Fast. Thickness (mm)	Torx Drive Bit	Std Pack	Product Code
10	80	90	70	10	T40	50	RDDTZ100802
	100	110	80	20	T40	50	RDDTZ101002
	120	130	80	40	T40	50	RDDTZ101202
	140	150	80	60	T40	50	RDDTZ101402
	160	170	80	80	T40	50	RDDTZ101602
	180	190	80	100	T40	50	RDDTZ101802
	200	210	80	120	T40	50	RDDTZ102002

**COUNTER SUNK HEAD SCREW
TORX DRIVE
STAINLESS STEEL 316 (A4)**



Hole/Drill Diameter (mm)	Anchor Length (mm)	Hole Depth (mm)	Min. Anchorage Depth (mm)	Max. Fast. Thickness (mm)	Torx Drive Bit	Std Pack	Product Code
10	80	90	70	10	T40	50	RDDT6100802
	100	110	80	20	T40	50	RDDT6101002
	120	130	80	40	T40	50	RDDT6101202
	140	150	80	60	T40	50	RDDT6101402
	160	170	80	80	T40	50	RDDT6101602
	180	190	80	100	T40	50	RDDT6101802
	200	210	80	120	T40	50	RDDT6102002

**HEXAGONAL HEAD SCREW
HEX HEAD
ZINC PLATED**



Hole/Drill Diameter (mm)	Anchor Length (mm)	Hole Depth (mm)	Min. Anchorage Depth (mm)	Max. Fast. Thickness (mm)	Torx Drive Bit	Std Pack	Product Code
10	80	90	70	10	13	50	RDDSZ100802
	100	110	80	20	13	50	RDDSZ101002
	120	130	80	40	13	50	RDDSZ101202
	140	150	80	60	13	50	RDDSZ101402
	160	170	80	80	13	50	RDDSZ101602
	180	190	80	100	13	50	RDDSZ101802
	200	210	80	120	13	50	RDDSZ102002
	230	240	80	150	13	50	RDDSZ102302
	260	270	80	180	13	50	RDDSZ102602



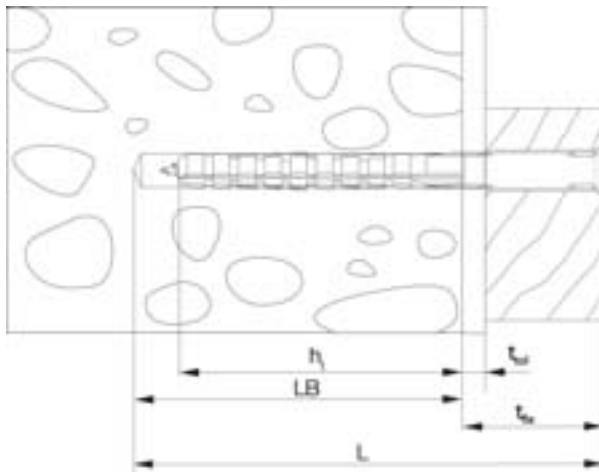
HEXAGONAL HEAD SCREW HEX HEAD STAINLESS STEEL 316 (A4)

Hole/Drill Diameter (mm)	Anchor Length (mm)	Hole Depth (mm)	Min. Anchorage Depth (mm)	Max. Fast. Thickness (mm)	Torx Drive Bit	Std Pack	Product Code
10	80	90	70	10	13	50	RDDS6100802
	100	110	80	20	13	50	RDDS6101002
	120	130	80	40	13	50	RDDS6101202
	140	150	80	60	13	50	RDDS6101402
	160	170	80	80	13	50	RDDS6101602
	180	190	80	100	13	50	RDDS6101802
	200	210	80	120	13	50	RDDS6102002

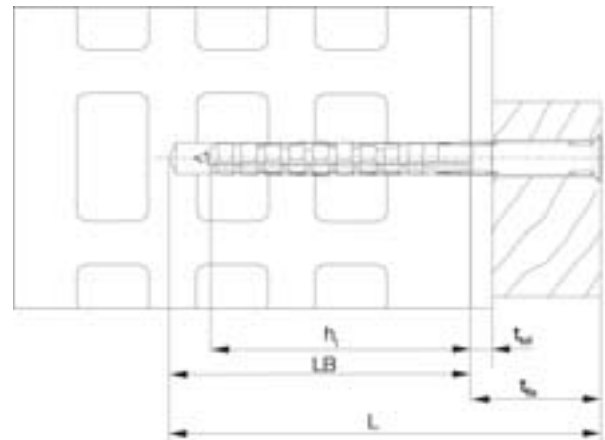


HEXAGONAL HEAD SCREW HEX HEAD GALVANISED

Hole/Drill Diameter (mm)	Anchor Length (mm)	Hole Depth (mm)	Min. Anchorage Depth (mm)	Max. Fast. Thickness (mm)	Torx Drive Bit	Std Pack	Product Code
10	80	90	70	10	13	50	RDDSG100802
	100	110	80	20	13	50	RDDSG101002
	120	130	80	40	13	50	RDDSG101202
	140	150	80	60	13	50	RDDSG101402
	160	170	80	80	13	50	RDDSG101602
	180	190	80	100	13	50	RDDSG101802
	200	210	80	120	13	50	RDDSG102002



INSTALLATION IN CONCRETE



INSTALLATION IN HOLLOW BRICK

**HEXAGONAL HEAD & COUNTER SUNK HEAD
ZINC PLATED SCREW, GALVANISED AND
STAINLESS STEEL 316****INSTALLATION DETAILS**

FASTENER DETAILS			INSTALLATION DETAILS							
Anchor/ Drill Diameter	Screw Diameter	Anchor Length	Minimum Drill/Hole Depth	Characteristic Embedment Depth	Minimum Base Material Thickness	Maximum Fixture Thickness	Clearance Hole Diameter (Fixture)	Installation Torque	Driver Type	
D _o (mm)	D (mm)	L (mm)	LB (mm)	h _t (mm)	h _{min} (mm)	t _{fix} (mm)	D _c (mm)	T _{inst} (Nm)	HEX SW (mm)	Torx Drive
10	7	80	90	70	113	10	12	15	13	T40
		100	110	80	138	20	12	15	13	T40
		120	130	80	163	40	12	15	13	T40
		140	150	80	188	60	12	15	13	T40
		160	170	80	213	80	12	15	13	T40
		180	190	80	238	100	12	15	13	T40
		200	210	80	263	120	12	15	13	T40
		230	240	80	300	150	12	15	13	T40
		260	270	80	338	180	12	15	13	T40

PERFORMANCE DATA – CONCRETE & MASONRY (RECOMMENDED LOADS)

INSTALLATION DETAILS		RECOMMENDED LOADS IN CONCRETE & MASONRY (N _{rec,c} / V _{rec,c})									
Hole/ Drill Diameter	Embedment Depth	25MPa Concrete (fc)		32MPa Concrete (fc)		Solid Brick (fc)		15 MPa Block (fc)		Aerated Block (fc)	
		Tension (NR _{ukc}) KN	Shear (VR _{ukc}) KN	Tension (NR _{ukc}) KN	Shear (VR _{ukc}) KN	Tension (NR _{ukc}) KN	Shear (VR _{ukc}) KN	Tension (NR _{ukc}) KN	Shear (VR _{ukc}) KN	Tension (NR _{ukc}) KN	Shear (VR _{ukc}) KN
10	70	1.35	2.00	1.54	2.28	1.28	2.58	0.53	1.42	0.65	0.96
	80	1.55	2.30	1.77	2.62	1.47	2.97	0.60	1.63	0.75	1.10

All above Values are Design Values in concrete and masonry with anchors installed at characteristic embedment depths, as shown and are valid for products supplied by Bremick Pty only.

Recommended Loads have been derived with a Safety factor of 4.

All Shear Values are Single Shear.





Bremick Metal Frame Anchors are specifically designed for the fixing of timber frames to concrete, masonry and aerated blocks and provide parallel sleeve expansion that grips both the frame and the base material facilitating frame adjustment without the need of packers and shims. Frame Anchors consist of an engineered steel sleeve with a full length longitudinal expansion slot and a preformed taper at the sleeve head, a threaded steel bolt with a tapered head and a threaded expansion cone assembled at the foot of the anchor. Parallel sleeve expansion is achieved when tightened by the dual action of the expansion cones at both ends of the anchor which produces equal friction grip to the base material and the fastened frame.



APPLICATIONS

Fastening timber frames to concrete, masonry and aerated block work where a high degree of adjustment is required.

FEATURES

- High clamping forces
- Permits frame adjustment
- No frame pack required
- Through fastening
- Suitable for Stand off application
- Removable

**ANCILLARY PRODUCTS
CLEANING TOOLS**

For Brushes and Blow Pumps please refer to Section 1 of this publication.

SUGGESTED SPECIFICATION

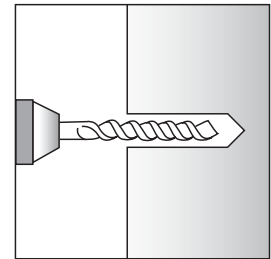
Metal Frame Anchors

The preassembled expansion anchors used shall be preassembled metal frame anchors consisting of a full length longitudinally slotted carbon steel expansion sleeve complete with a zinc plated heavy duty drive bolt and expansion cone. Installation shall be in accordance with the manufactures recommendations and all anchors shall be sourced form Bremick Pty Ltd.

SETTING INSTRUCTIONS

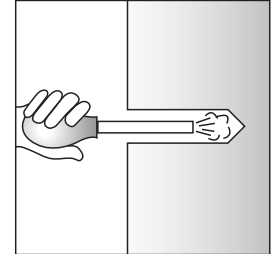
1: Drill

Drill hole in base material to specified Diameter, depth shall be 5mm deeper than required embedment depth.



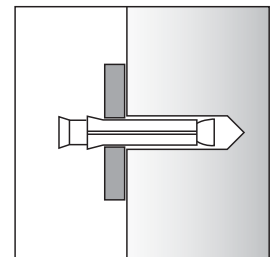
2: Clean

Blow out dust and drilling fragments.



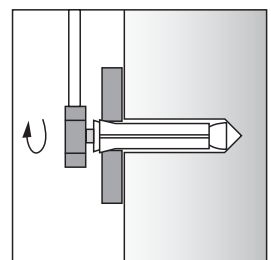
3: Insert

Mount fixture and Insert anchor through fixture into hole. Position fixture to desired location.



4: Set

Set anchor by tightening with a socket or screw driver.





FOR FASTENING WINDOW AND DOOR FRAMES TO CONCRETE AND MASONRY ZINC PLATED



Hole/Drill Diameter (mm)	Anchor Length (mm)	Hole Depth (mm)	Max. Fast. Thickness (mm)	Std Pack	Product Code
10	70	50	20	100	AMFMZ100702
	90	50	40		AMFMZ100902
	110	50	60		AMFMZ101102
	130	50	80		AMFMZ101302

COUNTERSUNK HEAD ZINC PLATED



INSTALLATION DETAILS

FASTENER DETAILS			INSTALLATION DETAILS					Phillips Driver
Anchor/Drill Diameter	Screw Diameter	Anchor Length	Effective Embedment Depth	Minimum Base Material Thickness	Maximum Fixture Thickness	Clearance Hole Diameter (Fixture)	Installation Torque	
D _o (mm)	D (mm)	L (mm)	h _e (mm)	h _{min} (mm)	t _{fix} (mm)	D _c (mm)	T _{inst} (Nm)	
10	M6	70	50	65	20	10	15	PH3
	M6	90	50	65	40	10	15	PH3
	M6	110	50	65	60	10	15	PH3
	M6	130	50	65	80	10	15	PH3

PERFORMANCE DATA - CONCRETE & MASONRY (RECOMMENDED LOADS)

INSTALLATION DETAILS		RECOMMENDED LOADS IN CONCRETE (N _{rec,c} / V _{rec,c})									
Hole/Drill Diameter (mm)	Embedment Depth (mm)	25MPa Concrete (f _c)		32MPa Concrete (f _c)		Solid Brick (f _c)		15 MPa Block (f _c)		Aerated Block (f _c)	
		Tension (NRukc) KN	Shear (Vruk) KN	Tension (NRukc) KN	Shear (Vruk) KN	Tension (NRukc) KN	Shear (Vruk) KN	Tension (NRukc) KN	Shear (Vruk) KN	Tension (NRukc) KN	Shear (Vruk) KN
10	70	1.40	1.98	1.60	2.25	1.81	2.55	0.99	1.40	0.67	0.95

All above Values are Design Values for anchors installed in concrete and masonry with anchors installed at characteristic embedment depths, as shown and are valid for products supplied by Bremick Pty only.

Recommended Loads have been derived with a Safety factor of 4.

All Shear Values are Single Shear.

For further performance data, including Characteristic, Working Stress, Limit State Design Values and design data please refer to our Web Site www.bremick.com.au



KEW® Universal Insulation Disks provide an innovative and highly versatile solution for securely fastening a wide variety of insulation materials to any base material. The pre-formed anchor holes in the KEW® Universal Insulation Disk permits installation with most fasteners including, frame anchors, nail in anchors, hammer screws and self drilling screws with diameters between 3mm and 10mm.

The unique geometry and large diameter KEW® Insulation Disk provides even holding pressure to ridged or soft insulation materials and can also be used to fasten membranes, foils and mesh fabrics.

A neat finish and thermal break is provided by placement of the end cap provided.

KEW® Universal Insulation Disks are engineered and manufactured by KEW® GmbH Germany and are exclusively available from Bremick Fasteners.

APPLICATIONS

Used together with masonry anchors or self drilling screws to fasten;

- Thermal Insulation
- Acoustic Insulation
- Membrane sheeting
- Foils
- Mesh fabrics

ANCILLARY PRODUCTS

- KEW® Frame Anchors
- Bremick Heavy Duty Nylon Anchors
- Bremick Stainless Self Drilling Screws Gauges 6g-14g.

CLEANING TOOLS

Please refer to Bremfix™ Section 1 of this Publication.

SUGGESTED SPECIFICATION

KEW® Universal Insulation Disks

All insulation panels shall be secured with KEW® Universal Insulation Discs and KEW® 10mm diameter Universal Frame Anchors. Installation shall be in accordance with the manufactures recommendations and all anchors shall be sourced from Bremick Pty Ltd.



SETTING INSTRUCTIONS

Fastening to Concrete & Masonry

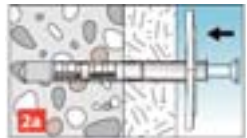
1: Drill

Drill hole through insulation and to recommended depth in base material. Brush & blow hole.



2: Insert

Insert anchor through pre-formed hole in insulation disk, then inert anchor into drilled hole.

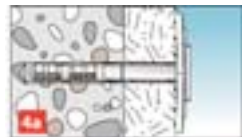


3: Set

Set anchor in accordance with anchor setting instructions.



4: Finish



Fastening to Timber

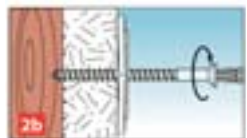
1: Insert

Insert self drilling screw through pre-formed hole in insulation disk, and push into insulation.



2: Tighten

Drive self drilling screw into base material until screw head is tight & flush with insulation disc..



3: Finish

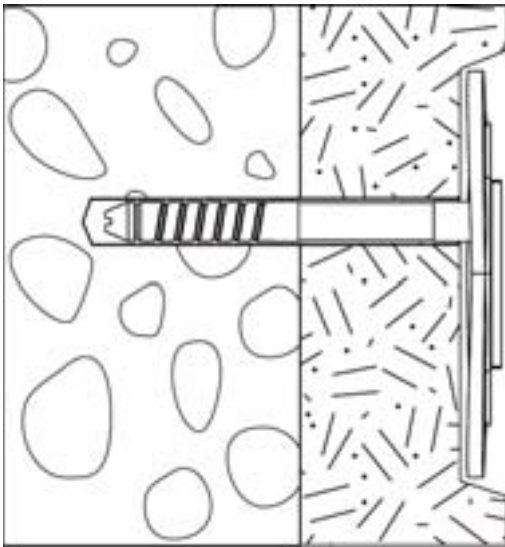




**KEW® UNIVERSAL INSULATION DISK
PLASTIC 84MM DIAMETER DISC**



Outside Diameter (mm)	Std Pack	Product Code
84	200	KEWUDS84000





KEW® Hammer Fix Insulation Fastener is a preassembled fastener system consisting of a plastic expansion sleeve with an integral 62mm diameter retaining disc with a steel expansion nail complete with a colour coded retaining head. Setting of the anchor is achieved by driving the steel pin into the expansion sleeve. The plastic locking mechanism on the nail head provides security and addition thermal insulation. The heavily textured face on the retaining disc ensures bonding of plaster and render where rendering is applied. The large diameter retaining disc provides even holding pressure to ridged insulation materials and especially suitable for composite systems where render or plaster overlays are applied.

Colour coded heads facilitate simple inspection.

KEW® Hammer Fix Insulation Fasteners are engineered and manufactured by KEW® GmbH Germany and are exclusively available from Bremick Fasteners.

APPLICATIONS

Secure fastening of composite thermal insulation systems to concrete, natural stone, solid/hollow brick and aerated block.

- Thermal Insulation
- Acoustic Insulation

FEATURES

- Colour coded
- Bonding for Render/plaster overlays
- Full Thermal insulation
- ETAG 004 approved.

ANCILLARY PRODUCTS CLEANING TOOLS

Please refer to Bremfix™ Section 1 of this Publication.

SUGGESTED SPECIFICATION

KEW® Hammer Fix Insulation Fastener
All insulation panels shall be secured with KEW® Hammer Fix Insulation Fasteners. Installation shall be in accordance with the manufactures recommendations and all anchors shall be sourced from Bremick Pty Ltd.



SETTING INSTRUCTIONS

Fastening to Concrete & Masonry

1: Drill

Drill hole through insulation and to recommended depth in base material. Brush & blow hole.



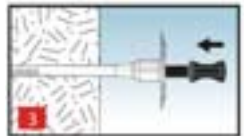
2: Clean Hole

Brush & blow hole to remove drilling debris.

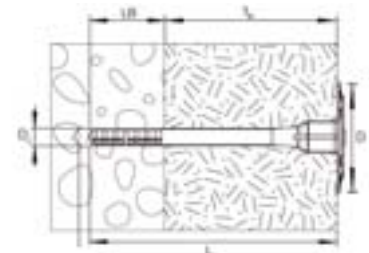


3: Insert & Set

Insert anchor into drilled hole. When fully inserted hammer the expansion pin into the sleeve until the head of the drive pin locks into the sleeve.



4: Finish



APPROVALS



ETA – 08/0315



KEW® HAMMER FIX INSULATION FASTENER PLASTIC WITH ZINC PLATED DRIVE PIN (COLOUR CODED)



Hole/Drill Diameter (mm)	Disc/ Diameter Colour Code (mm)	Anchor Length (mm)	Hole Depth (mm)	Min. Anchorage Depth (mm)	Insulation Thickness (mm)	Std Pack	Product Code
8	62mm Beige	100	110	30	60	200	KTSDBE08100
	62mm Yellow	120	130	30	80	200	KTSDYE08120
	62mm Green	140	150	30	100	200	KTSDGR08140
	62mm White	160	170	30	120	200	KTSDWH08160
	62mm Orange	180	190	30	140	200	KTSDOR08180
	62mm Brown	200	210	30	160	200	KTSDBR08200
	62mm Blue	220	230	30	180	100	KTSDL08220
	62mm Red	240	250	30	200	100	KTSDDR08240

KEW® HAMMER FIX INSULATION FASTENER PLASTIC WITH ZINC PLATED DRIVE PIN

**INSTALLATION DETAILS**

FASTENER DETAILS				INSTALLATION DETAILS				
Anchor/ Drill Hole Diameter	Retaining Disc Diameter	Anchor Length	Colour Code	Maximum Insulation Thickness	Minimum Drill/hole Depth	Characteristic Embedment Depth	Minimum Base Material Thickness	Setting Method
D _o (mm)	D (mm)	L (mm)		t _{ix} (mm)	LB (mm)	h _t (mm)	h _{min} (mm)	
8	62	100	Beige	60	110	30	38	HAMMER
8	62	120	Yellow	80	130	30	38	
8	62	140	Green	100	150	30	38	
8	62	160	White	120	170	30	38	
8	62	180	Orange	140	190	30	38	
8	62	200	Brown	160	210	30	38	
8	62	220	Blue	180	230	30	38	
8	62	240	Red	200	250	30	38	

PERFORMANCE DATA – APPROVED SAFE WORKING LOADS

INSTALLATION DETAILS		APPROVED SAFE WORKING LOADS (ETAG 014 - EUROPEAN TECHNICAL APPROVAL)					
Hole/ Drill Diameter (mm)	Embedment Depth (mm)	15 MPa Concrete (fc) Tension (NRukc) KN	50 MPa Concrete (fc) Teanson (NRukc) KN	Solid Brick Tension (NRukc) KN	SOLID SAND/ LIME BRICK Tension (NRukc) KN	Hollow Brick Tension (NRukc) KN	Aerated Block Tension (NRukc) KN
8	30	0.50	0.75	0.60	0.80	0.40	0.40

All Values are Approved Safe Working Loads in concrete and masonry with anchors installed at characteristic embedment depths, as shown. Approved Safe Working Loads are derived from test data and are valid for KEW Insulation Anchors supplied by Bremick Pty Ltd only. Testing and performance data derived in accordance with ETAG 014
European Technical Approval Number - ETA - 08/0314
Safety Factor = 3



KEW® METAL Insulation Fastener is a one piece fastener system consisting of a metal dowel pin with an integral 35mm diameter metal retaining disc. Setting of the anchor is achieved by simply driving the fastener into the pre drilled hole and a positive friction hold is developed by spring expansion of the anchor shaft. The 35mm diameter retaining disc provides even holding pressure to ridged insulation materials, for soft insulation and mineral wool insulation the KEW® Metal Insulation Fastener can be used in conjunction with the 80mm diameter MDSB disc.

KEW® Hammer Fix Insulation Fasteners are engineered and manufactured by KEW® GmbH Germany and are exclusively available from Bremick Fasteners.

APPLICATIONS

Secure fastening of composite thermal insulation systems to concrete, natural stone, solid and hollow brick.

- Ridged insulation
 - Polystyrene
 - PU Foam Panels
- Soft insulation with Disc
 - Glass Wool
 - Rock wool

FEATURES

- Fire Rated (120 min. to DIN 4102)
- Galvanized Steel
- Stainless Steel

**ANCILLARY PRODUCTS
CLEANING TOOLS**

Please refer to Bremfix™ Section of this Publication.

SUGGESTED SPECIFICATION

KEW® Metal Insulation Fastener

All insulation panels shall be secured with KEW® Metal Insulation Fasteners. All insulation fasteners are to be fire rated to 120 minutes, shall be installed in accordance with the manufactures recommendations and all anchors shall be sourced from Bremick Pty Ltd.



SETTING INSTRUCTIONS

Fastening Ridged Insulation

1: Drill

Drill hole through insulation and to recommended depth in base material. Brush & blow hole.



2: Insert & Set

Insert anchor into drilled hole and set by hammering until flush with the insulation material.



3: Finish



Fastening Soft Insulation

1b: Insert & Set

Secure 80mm disc on to shank, insert anchor into drilled hole and set by hammering until flush with the insulation material.



2b: Finish



APPROVALS



**KEW® METAL INSULATION FASTENER
GALVANIZED SHANK AND DISC**

Hole/Drill Diameter (mm)	Disc/ Diameter	Anchor Length (mm)	Hole Depth (mm)	Min. Anchorage Depth (mm)	Insulation Thickness (mm)	Std Pack	Product Code
8	35mm	90	100	50	40	250	KMDSH208090
	35mm	110	120	50	60	250	KMDSH208110
	35mm	140	140	50	90	250	KMDSH208140
	35mm	170	180	50	120	250	KMDSH208170
	35mm	200	210	50	150	250	KMDSH208200

**KEW® METAL INSULATION FASTENER
80MM DIAMETER GALVANIZED DISC****FOR USE WITH KEW® GAL METAL INSULATION FASTENER WITH SOFT INSULATION**

Diameter	Std Pack	Product Code
80mm	250	KMDSB280000

**KEW® METAL INSULATION FASTENER
STAINLESS STEEL 304 (A2) SHANK AND DISC**

Hole/Drill Diameter (mm)	Disc/ Diameter	Anchor Length (mm)	Hole Depth (mm)	Min. Anchorage Depth (mm)	Insulation Thickness (mm)	Std Pack	Product Code
8	35mm	90	100	50	40	250	KMDSH408090
	35mm	110	120	50	60	250	KMDSH408110
	35mm	140	140	50	90	250	KMDSH408140
	35mm	170	180	50	120	250	KMDSH408170
	35mm	200	210	50	150	250	KMDSH408200

**KEW® METAL INSULATION FASTENER
80MM DIAMETER STAINLESS STEEL 304 (A2) DISC****FOR USE WITH KEW® STAINLESS STEEL METAL INSULATION FASTENER WITH SOFT INSULATION**

Diameter	Std Pack	Product Code
80mm	250	KMDSB480000



KEW® METAL INSULATION FASTENER GALVANISED AND STAINLESS STEEL 304 (A2)

INSTALLATION DETAILS

FASTENER DETAILS			INSTALLATION DETAILS				
Anchor/ Drill Diameter	Retaining Disc Diameter	Anchor Length	Maximum Insulation Thickness	Minimum Drill/hole Depth	Characteristic Embedment Depth	Minimum Base Material Thickness	Setting Method
D_o (mm)	D (mm)	L (mm)	t_{fix} (mm)	LB (mm)	h_t (mm)	h_{min} (mm)	
8	35	90	40	110	50	63	HAMMER
	35	110	60	130	50	63	HAMMER
	35	140	90	150	50	63	HAMMER
	35	170	120	170	50	63	HAMMER
	35	200	150	190	50	63	HAMMER



KEW® HAMMER FIX INSULATION FASTENER PLASTIC WITH ZINC PLATED DRIVE PIN

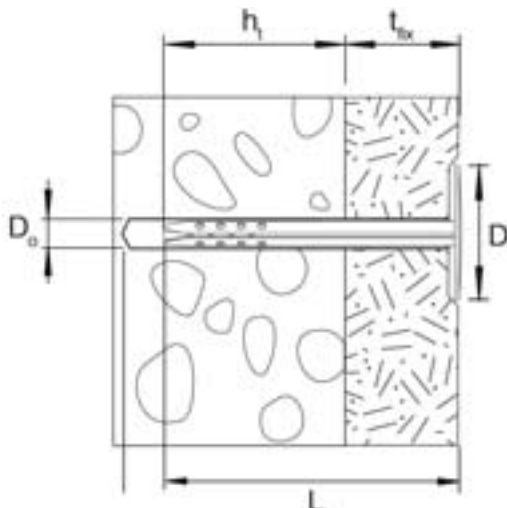
PERFORMANCE DATA – APPROVED SAFE WORKING LOADS

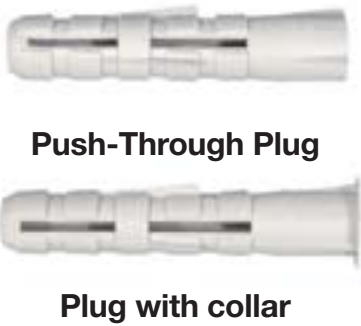
INSTALLATION DETAILS		APPROVED SAFE WORKING LOADS (ETAG 014 - EUROPEAN TECHNICAL APPROVAL)			
Hole/ Drill Diameter	Embedment Depth	120 MPa Concrete (f_c) Tension (NRukc) KN	40 MPa Concrete (f_c) Tension (NRukc) KN	Solid Brick Tension (NRukc) KN	Hollow Brick Tension (NRukc) KN
(mm)	(mm)				
8	50	0.40	0.50	0.40	0.30

All Values are Approved Safe Working Loads in concrete and masonry with anchors installed at characteristic embedment depths, as shown.

Approved Safe Working Loads are derived from test data and are valid for KEW Insulation Anchors supplied by Bremick Pty Ltd only.

Safety Factor = 3





KEW® Super Expansion Plugs provide a reliable fastening solution for a variety of light duty fastening applications in to concrete and solid masonry. KEW® Super Expansion Plugs consist of a high quality nylon sleeve with the unique **KEW® “ Triple-Split Design”** giving a three way expansion mechanism for increased friction and high loads. KEW® Super Expansion Plugs are to be used in conjunction with **Bremick screws** or in the case of larger plug sizes **Bremick Coach Screws**. KEW® Super Expansion Plugs are available in both **“Push Through”** rim less or **“Collared”** with a retaining collar for setting flush to the surface of the base material.

KEW® Super Expansion Plugs are engineered and manufactured by KEW® GmbH Germany and are exclusively available from Bremick Fasteners.

APPLICATIONS

High quality plastic anchor for light duty applications in all types of concrete, solid masonry and aerated blocks. Used in conjunction with Bremick timber screws or coach screws. (Limited suitability for hollow materials)

FEATURES

- Triple-Split expansion.
- Anti rotation fins
- Reliable expansion
- Through fastening
- Economic & fast

ANCILLARY PRODUCTS

- Bremick Stainless steel self tapping screws Gauges 5–12.
- Bremick Chip board screws gauges 8-10.
- Bremick Coach Screws.

CLEANING TOOLS

Please refer to Bremfix™ Section 1 of this Publication.

SUGGESTED SPECIFICATION

KEW® Super Expansion Plugs

The anchors used shall be nylon wall plugs that are to be used in conjunction with Self drilling screws. The wall plug shall consist of a one piece nylon plug with longitudinal expansion slots and radial friction grooves. Installation shall be in accordance with the manufactures recommendations and all anchors shall be sourced from Bremick Pty Ltd.



SETTING INSTRUCTIONS

1: Drill

Drill hole in base material to specified diameter and depth.

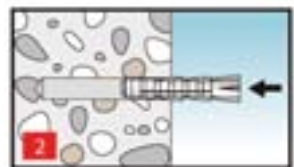


1b: Clean

Blow out dust and drilling fragments. Alternatively drill hole 5mm deeper.

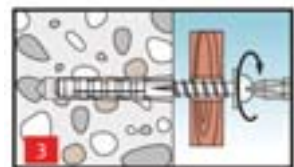
2: Insert

Insert wall plug into hole until flush with surface.

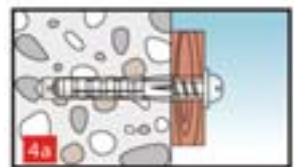


3: Set

Mount fixture and Fasten by driving the Bremick screw firmly into the wall plug until flush setting.



4: Finish



APPROVALS





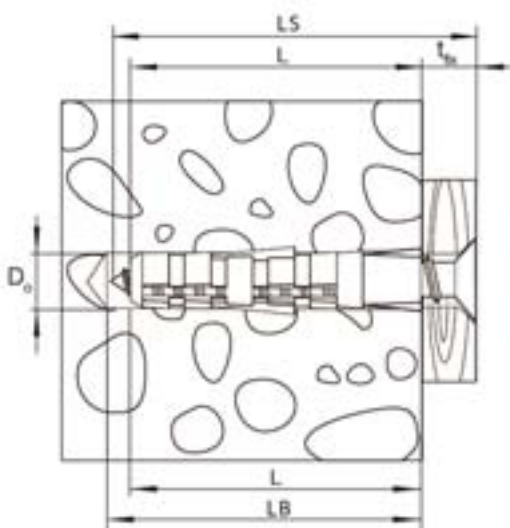
KEW® - SUPER EXPANSION PLUGS PUSH THROUGH NYLON

Hole/Drill Diameter (mm)	Anchor Length (mm)	Hole Depth (mm)	Screw Diameter (mm)	Screw Size (Gauge)	Std Pack	Product Code
5	25	35	2.5 - 4.0	5-7g	100	KDSDS050252
6	30	40	3.5 - 5.0	6-9g	100	KDSDS060302
7	35	45	4.0 - 5.5	9-12g	100	KDSDS070352
8	40	50	4.5 - 6.0	10-14g	100	KDSDS080402
10	50	65	6.0 - 8.0	14-18g	50	KDSDS100502
12	60	75	8.0 - 10.0	18-24g	25	KDSDS120602
14	70	85	10.0 - 12.0	24 - 28g	20	KDSDS140702



KEW® - SUPER EXPANSION PLUGS COLLARED NYLON

Hole/Drill Diameter (mm)	Anchor Length (mm)	Hole Depth (mm)	Screw Diameter (mm)	Screw Size (Gauge)	Std Pack	Product Code
5	25	35	2.5 - 4.0	5-7g	100	KKSDS050252
6	30	40	3.5 - 5.0	6-9g	100	KKSDS060302
7	35	45	4.0 - 5.5	9-12g	100	KKSDS070352
8	40	50	4.5 - 6.0	10-14g	50	KKSDS080402
10	50	65	6.0 - 8.0	14-18g	25	KKSDS100502
12	60	75	8.0 - 10.0	18-24g	25	KKSDS120602
14	70	85	10.0 - 12.0	24 - 28g	20	KKSDS140702



SCREW LENGTH SELECTION

The minimum screw length required is the sum of the following:

PLUG LENGTH	L
Plus	
RENDER, TILE DEPTH	
Plus	
FIXTURE THICKNESS	t_{fix}
Plus	
1 x SCREW DIAMETER	D
<hr/>	
Equals Minimum Screw Length	LS

**KEW® NYLON SUPER EXPANSION PLUGS
PUSH THROUGH AND COLLARED
INSTALLATION DETAILS****INSTALLATION DETAILS**

FASTENER DETAILS				INSTALLATION DETAILS						
Anchor/ Drill Hole Diameter	Screw Diameter/ Gauge	Anchor Length		Minimum Drill/Hole Depth	Characteristic Embedment Depth	Minimum Base Material Thickness	Maximum Fixture Thickness	Clearance Hole Diameter (Fixture)	Installation Torque	Drive Bit
D _o (mm)	D (mm)	D (g)	L (mm)	LB (mm)	h _t (mm)	h _{min} (mm)	t _{fix} (mm)	D _c (mm)	T _{inst} (Nm)	
5	2.5 - 4.0	5 - 7g	25	35	25	44	N/A	5	5	N/A
6	3.5 - 5.0	6 - 9g	30	40	30	50	N/A	6	5	N/A
7	4.0 - 5.5	9 - 12g	35	45	35	56	N/A	7	5	N/A
8	4.5 - 6.0	10 - 14g	40	50	40	63	N/A	8	8	N/A
10	6.0 - 8.0	14 - 18g	50	65	50	81	N/A	10	8	N/A
12	8.0 - 10.0	18 - 24g	60	75	60	94	N/A	12	10	N/A
14	10.0 - 12.0	24 - 28g	70	85	70	106	N/A	14	10	N/A

PERFORMANCE DATA – CONCRETE & MASONRY (RECOMMENDED LOADS)

INSTALLATION DETAILS		RECOMMENDED LOADS IN CONCRETE & MASONRY (N _{rec,c} / V _{rec,c})									
Hole/ Drill Diameter	Embedment Depth	25MPa Concrete (f _c)		32MPa Concrete (f _c)		Solid Brick (f _c)		15 MPa Block (f _c)		Aerated Block (f _c)	
(mm)	(mm)	Tension (NR _{ukc}) KN	Shear (VR _{ukc}) KN	Teansion (NR _{ukc}) KN	Shear (VR _{ukc}) KN	Tension (NR _{ukc}) KN	Shear (VR _{ukc}) KN	Tension (NR _{ukc}) KN	Shear (VR _{ukc}) KN	Tension (NR _{ukc}) KN	Shear (VR _{ukc}) KN
5	25	0.30	0.39	0.34	0.44	0.28	0.50	0.21	0.28	0.10	0.19
6	30	0.80	0.41	0.91	0.46	0.85	0.52	0.57	0.29	0.23	0.19
7	35	1.03	0.55	1.17	0.63	0.98	0.71	0.73	0.39	0.25	0.26
8	40	1.30	0.63	1.48	0.71	1.13	0.81	0.92	0.44	0.33	0.30
10	50	2.10	0.98	2.39	1.11	1.78	1.26	1.49	0.69	0.50	0.47
12	60	2.93	1.18	3.33	1.34	NA	NA	2.08	0.83	0.70	0.56
14	70	5.00	1.38	5.70	1.57	NA	NA	3.55	0.98	1.03	0.66

All above Values are Design Values in concrete and masonry with anchors installed at characteristic embedment depths, as shown and are valid for products supplied by Bremick Pty only.

Recommended Loads have been derived with a Safety factor of 4.

All Shear Values are Single Shear.a





Push-Through Universal Plug



Universal Plug with collar

KEW® Super Expansion Plugs provide a highly versatile and reliable fastening solution for light duty fastening applications in most materials, including boards.. KEW® Super Universal Plugs consist of a high quality nylon sleeve with the unique **KEW® “ Triple-Split Design”** giving a three way expansion mechanism for increased friction and high loads. When used in hollow materials and boards KEW® Super Universal Plugs “knot” behind the board to provide a positive “Key Lock”. KEW® Super Universal Plugs are to be used in conjunction with **Bremick screws** or in the case of larger plug sizes **Bremick Coach Screws**. KEW® Super Universal Plugs are available in both **“Push Through”** rim less or **“Collared”** with a retaining collar for setting flush to the surface of the base material.

KEW® Super Universal Plugs are engineered and manufactured by KEW® GmbH Germany and are exclusively available from Bremick Fasteners.

APPLICATIONS

Highly versatile anchor for light duty applications in concrete, masonry, aerated block, boards and plasterboard.

FEATURES

- Highly versatile
- Triple-Split Expansion
- “Knots” behind boards
- Economic and fast

ANCILLARY PRODUCTS

- Bremick Stainless steel self tapping screws Gauges 5–12.
- Bremick Chip board screws gauges 8-10.
- Bremick Coach Screws.

CLEANING TOOLS

Please refer to Bremfix™ Section 1 of this Publication.

SUGGESTED SPECIFICATION

KEW® Super Universal Plugs

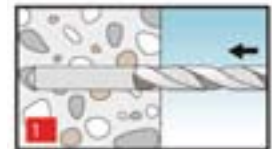
The anchors used shall be Universal wall plugs that are to be used in conjunction with Self drilling screws. The Universal plug shall consist of a one piece nylon plug with longitudinal friction grooves. Installation shall be in accordance with the manufactures recommendations and all anchors shall be sourced from Bremick Pty Ltd.



SETTING INSTRUCTIONS

1: Drill

Drill hole in base material to specified diameter and depth.

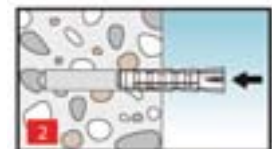


1b: Clean

Blow out dust and drilling fragments. Alternatively drill hole 5mm deeper.

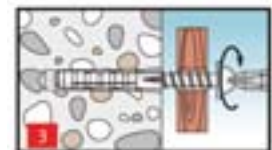
2: Insert

Insert wall plug into hole until flush with surface.



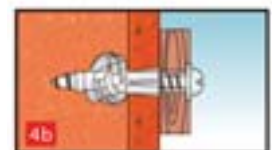
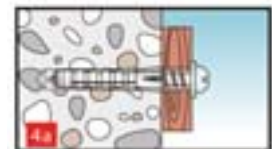
3: Set

Mount fixture and Fasten by driving the Bremick screw firmly into the wall plug until flush setting.



4: Finish

When used in boards, plasterboard and hollow materials the KEW® Super Expansion Plug “knots” to form a positive key.



APPROVALS





KEW® - SUPER UNIVERSAL PLUGS PUSH THROUGH NYLON

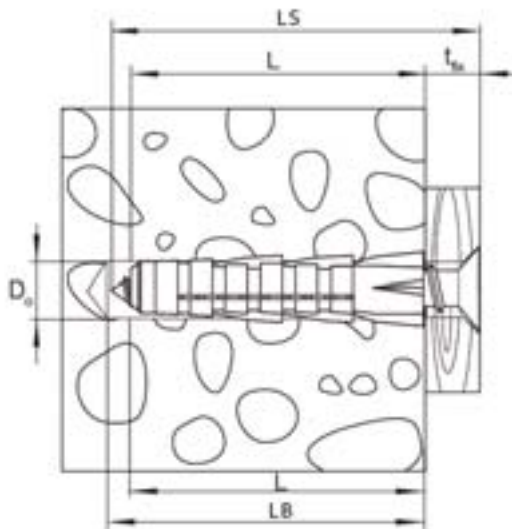


Hole/Drill Diameter (mm)	Anchor Length (mm)	Hole Depth (mm)	Screw Diameter (mm)	Screw Size (Gauge)	Std Pack	Product Code
5	30	40	3.0 - 4.0	5-7g	100	KESUD050302
6	35	45	4.0 - 5.0	6-9g	100	KESUD060352
8	50	60	5.0 - 6.0	10-14g	50	KESUD080502
10	60	75	7.0 - 8.0	14-18g	25	KESUD100602
12	71	85	8.0 - 10.0	18-24g	25	KESUD120712
14	75	90	10.0 - 12.0	24 - 28g	20	KESUD140752

KEW® - SUPER UNIVERSAL PLUGS COLLARED NYLON



Hole/Drill Diameter (mm)	Anchor Length (mm)	Hole Depth (mm)	Screw Diameter (mm)	Screw Size (Gauge)	Std Pack	Product Code
5	31	40	3.0 - 4.0	5-7g	100	KESUK050302
6	36	45	4.0 - 5.0	6-9g	100	KESUK060362
8	51	60	5.0 - 6.0	10-14g	50	KESUK080512
10	61	75	7.0 - 8.0	14-18g	25	KESUK100612
12	72	85	8.0 - 10.0	18-24g	25	KESUK120722
14	76	90	10.0 - 12.0	24 - 28g	20	KESUK140762





KEW® NYLON SUPER UNIVERSAL PLUGS PUSH THROUGH AND COLLARED INSTALLATION DETAILS

INSTALLATION DETAILS

FASTENER DETAILS				INSTALLATION DETAILS						
Anchor/ Drill Hole Diameter	Screw Diameter/ Gauge	Anchor Length		Minimum Drill/Hole Depth	Characteristic Embedment Depth	Minimum Base Material Thickness	Maximum Fixture Thickness	Clearance Hole Diameter (Fixture)	Installation Torque	Drive Bit
D _o (mm)	D (mm)	D (g)	L (mm)	LB (mm)	h _t (mm)	h _{min} (mm)	t _{fix} (mm)	D _c (mm)	T _{inst} (Nm)	
5	2.5 - 4.0	5 - 7g	30	40	30	50	N/A	5	5	N/A
6	3.5 - 5.0	6 - 9g	35	45	35	56	N/A	6	5	N/A
8	4.5 - 6.0	10 - 14g	50	60	50	75	N/A	8	8	N/A
10	6.0 - 8.0	14 - 18g	60	75	60	94	N/A	10	8	N/A
12	8.0 - 10.0	18 - 24g	71	85	71	106	N/A	12	10	N/A
14	10.0 - 12.0	24 - 28g	75	90	75	113	N/A	14	10	N/A

SCREW LENGTH SELECTION

The minimum screw length required is the sum of the following:

PLUG LENGTH **L**

Plus

RENDER, TILE DEPTH

Plus

FIXTURE THICKNESS **t_{fix}**

Plus

1 x SCREW DIAMETER **D**

Equals Minimum Screw Length **LS**

PERFORMANCE DATA – CONCRETE & MASONRY (RECOMMENDED LOADS)

INSTALLATION DETAILS		RECOMMENDED LOADS IN CONCRETE & MASONRY (N _{rec,c} / V _{rec,c})									
Hole/ Drill Diameter (mm)	Embedment Depth (mm)	25MPa Concrete (fc)		32MPa Concrete (fc)		Solid Brick (fc)		15 MPa Block (fc)		Aerated Block (fc)	
		Tension (NRukc) KN	Shear (VRukc) KN	Teansion (NRukc) KN	Shear (VRukc) KN	Tension (NRukc) KN	Shear (VRukc) KN	Tension (NRukc) KN	Shear (VRukc) KN	Tension (NRukc) KN	Shear (VRukc) KN
5	30	0.53	0.39	0.25	0.20	0.25	0.19	0.13	0.08	0.20	0.11
6	35	0.78	0.41	0.25	0.20	0.28	0.20	0.13	0.10	0.28	0.14
8	50	1.53	0.63	0.35	0.25	0.40	0.30	0.18	0.13	0.33	0.18
10	60	1.73	0.98	0.38	0.30	0.70	0.47	0.20	0.15	0.43	0.21
12	71	2.50	1.18	0.50	0.38	NA	NA	0.20	0.15	0.45	0.21
14	75	3.13	1.38	0.68	0.45	NA	NA	NA	NA	NA	NA

All above Values are Design Values in concrete and masonry with anchors installed at characteristic embedment depths, as shown and are valid for products supplied by Bremick Pty only.

Recommended Loads have been derived with a Safety factor of 4.

All Shear Values are Single Shear.



Bremplug™ Nylon Wall Plugs provide a cost effective fastening solution for a variety of light duty fastening applications in to concrete and masonry.

Bremplug™ Nylon Wall Plugs are manufactured from high quality nylon and consist of a nylon sleeve with longitudinal expansion slots, radial grooving for enhanced friction hold and integral anti spin lugs.

Bremplug™ Nylon Wall Plugs are to be used with **Bremick 8 and 10g timber screws**. Expansion is achieved by driving the timber screw in to the **Bremplug™** which expands the sleeve generating controlled friction grip between the sleeve and the base material.

APPLICATIONS

Versatile, high quality plastic anchor for light duty applications in concrete, masonry and stone and light weight blocks. To be used in conjunction with Bremick timber screws.

FEATURES

- Simple installation
- Good resistance to turning when setting
- Removable
- Through fastening
- Economic

**ANCILLARY PRODUCTS
SCREWS**

Stainless steel self tapping Gauges 5–12
(*Bremick Stainless steel book refers*)
Chip board screws gauges 8-10
For all other head configurations see
Bremick Screws & Rivets Product Catalogue.

CLEANING TOOLS

Please refer to the Chemical Injection System section of this book.

SUGGESTED SPECIFICATION

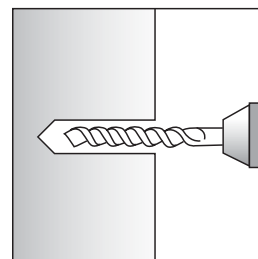
Nylon Wall Plugs

The anchors used shall be nylon wall plugs that are to be used in conjunction with Self drilling screws. The wall plug shall consist of a one piece nylon plug with longitudinal expansion slots and radial friction grooves. Installation shall be in accordance with the manufactures recommendations and all anchors shall be sourced from Bremick Pty Ltd.

SETTING INSTRUCTIONS

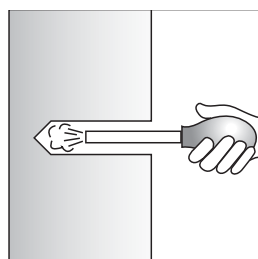
1: Drill

Drill hole in base material to specified diameter and depth.



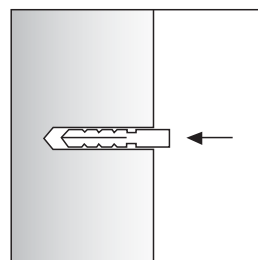
2: Clean

Blow out dust and drilling fragments. Alternatively drill hole 5mm deeper.



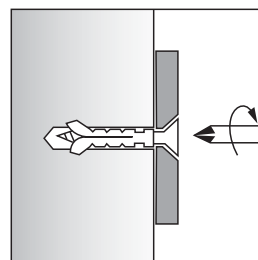
3: Insert

Insert wall plug into hole until flush with surface.



4: Set

Mount fixture and Fasten by driving the Bremick screw firmly into the wall plug until flush setting.





Hole/Drill Diameter (mm)	Anchor Length (mm)	Hole Depth (mm)	Wood Screw Gauge	Std Pack	Product Code
5	25	25	5-7G	100	PWPMN050252
6	30	30	6-9G	100	PWPMN060302
7	35	35	9-12G	100	PWPMN070352
8	40	40	10-14G	100	PWPMN080402
10	50	50	14-18G	50	PWPMN100502
12	60	60	18-24G	25	PWPMN120602

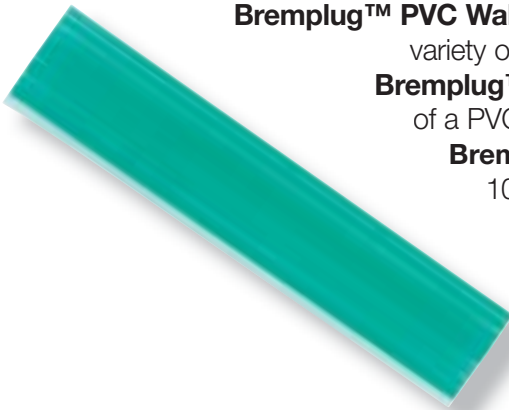
INSTALLATION DETAILS

FASTENER DETAILS			INSTALLATION DETAILS					Phillips Driver
Anchor/Drill Diameter	Screw Gauge	Anchor Length	Effective Embedment Depth	Minimum Base Material Thickness	Maximum Fixture Thickness	Clearance Hole Diameter (Fixture)	Installation Torque	
D _o (mm)	D (mm)	L (mm)	h _t (mm)	h _{min} (mm)	t _{fix} (mm)	D _c (mm)	T _{inst} (Nm)	
5	5-7g	25	25	35	N/A	5	5	N/A
6	6-9g	30	30	40	N/A	6	5	N/A
7	9-12g	35	35	45	N/A	7	5	N/A
8	10-14g	40	40	50	N/A	8	5	N/A
10	14-18g	50	50	65	N/A	10	5	N/A
12	18-24g	60	60	75	N/A	12	5	N/A

PERFORMANCE DATA - CONCRETE & MASONRY (RECOMMENDED LOADS)

INSTALLATION DETAILS		RECOMMENDED LOADS IN CONCRETE (Nrec,c/ Vrec,c)									
Hole/Drill Diameter (mm)	Embedment Depth (mm)	25MPa Concrete (fc)		32MPa Concrete (fc)		Solid Brick (fc)		15 MPa Block (fc)		Aerated Block (fc)	
		Tension (NRukc) KN	Shear (VRukc) KN	Tension (NRukc) KN	Shear (VRukc) KN	Tension (NRukc) KN	Shear (VRukc) KN	Tension (NRukc) KN	Shear (VRukc) KN	Tension (NRukc) KN	Shear (VRukc) KN
5	25	0.27	0.39	0.31	0.44	0.35	0.50	0.19	0.28	0.13	0.19
6	30	0.48	0.41	0.54	0.46	0.61	0.52	0.34	0.29	0.23	0.19
7	35	0.59	0.55	0.67	0.63	0.76	0.71	0.42	0.39	0.28	0.26
8	40	0.88	0.63	1.00	0.71	1.13	0.81	0.62	0.44	0.42	0.30
10	50	1.08	0.98	1.23	1.11	1.39	1.26	0.76	0.69	0.52	0.47
12	60	1.62	1.18	1.85	1.34	2.09	1.52	1.15	0.83	0.78	0.56

For further performance data, including Characteristic, Working Stress, Limit State Design Values and design data please refer to our Web Site www.bremick.com.au



Bremplug™ PVC Wall Plugs provide a highly cost effective fastening solution for a variety of light duty fastening applications in to concrete and masonry.

Bremplug™ PVC Wall Plugs are manufactured from PVC and consist of a PVC sleeve with longitudinal grooving for enhanced friction hold.

Bremplug™ PVC Wall Plugs are to be used with Bremick 8 and 10g timber screws. Expansion is achieved by driving the timber screw in to the **Bremplug™** which expands the sleeve generating controlled friction grip between the sleeve and the base material.

APPLICATIONS

Versatile and economical anchor for light duty applications in concrete, masonry and stone to be used in conjunction with Bremick chipboard screws.

FEATURES

- Simple installation
- Versatile
- Removable
- Through fastening

ANCILLARY PRODUCTS SCREWS

Stainless steel self tapping Gauges 4–14
(*Bremick Stainless steel book refers*)
Chip board screws gauges 8-10
See *Bremick Screws and Rivets Product Catalogue*.

CLEANING TOOLS

Please refer to the Chemical Injection System section of this book.

SUGGESTED SPECIFICATION

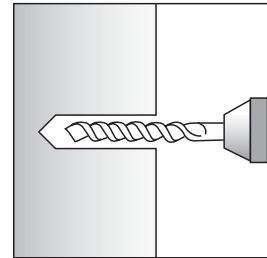
PVC Wall Plugs

The anchors used shall be PVC wall plugs that are to be used in conjunction with Self drilling screws. The wall plug shall consist of a one piece nylon plug with longitudinal friction grooves. Installation shall be in accordance with the manufactures recommendations and all anchors shall be sourced form Bremick Pty Ltd.

SETTING INSTRUCTIONS

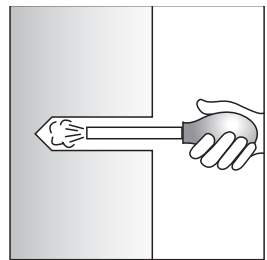
1: Drill

Drill hole in base material to specified diameter and depth.



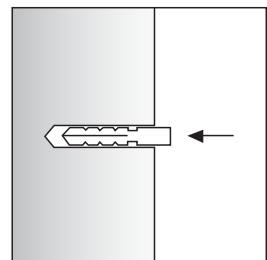
2: Clean

Blow out dust and drilling fragments. Alternatively drill hole 5mm deeper.



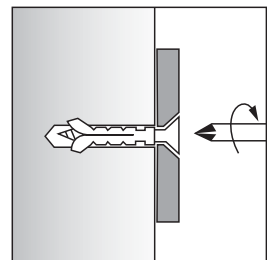
3: Insert

Insert wall plug into hole until flush with surface.



4: Set

Mount fixture and Fasten by driving the Bremick screw firmly into the wall plug until flush setting.





FRAME PACKS

Hole/Drill Diameter (mm)	Colour	Anchor Length (mm)	Hole Depth (mm)	Wood Screw Gauge	Std Pack	Product Code
5	White	25	25	4.5-6G	500	PWPMF050252
		35	35			PWPMF050352
6	Red	25	25	8-9G	500	PWPMF060252
		35	35			PWPMF060352
7	Green	25	25	10-12G	500	PWPMF070252
		35	35			PWPMF070352
8	Blue	25	25	14-16G	500	PWPMF080252
		35	35			PWPMF080352

For Screws refer to the Bremick Screws & Rivets Book.

INSTALLATION DETAILS

Colour Code	FASTENER DETAILS			INSTALLATION DETAILS					
	Anchor/ Drill Diameter	Screw Gauge	Anchor Length	Effective Embedment Depth	Minimum Base Material Thickness	Maximum Fixture Thickness	Clearance Hole Diameter (Fixture)	Installation Torque	Phillips Driver
	D _o (mm)	D (mm)	L (mm)	h _t (mm)	h _{min} (mm)	t _{fix} (mm)	D _c (mm)	T _{inst} (Nm)	
White	5	4.5-6g	25	25	35	N/A	5	5	N/A
			35	35	45	N/A	5	5	N/A
Red	6	8-9g	30	30	40	N/A	6	5	N/A
			35	35	45	N/A	6	5	N/A
Green	7	10-12g	35	35	45	N/A	7	5	N/A
			35	35	45	N/A	7	5	N/A
Blue	8	14-16g	40	40	50	N/A	8	5	N/A
			35	35	45	N/A	8	5	N/A

For further performance data, including Characteristic, Working Stress, Limit State Design Values and design data please refer to our Web Site www.bremick.com.au



PERFORMANCE DATA - CONCRETE & MASONRY (RECOMMENDED LOADS)

INSTALLATION DETAILS			LIMIT STATE DESIGN - DESIGN CAPACITIES IN CONCRETE (NRD,c ,VRD ,c)									
Hole/ Drill Diameter	Colour	Embedment Depth	25MPa Concrete (fc)		32MPa Concrete (fc)		Solid Brick (fc)		15 MPa Block (fc)		Aerated Block (fc)	
(mm)		(mm)	Tension (NRukc) KN	Shear (VRukc) KN	Tension (NRukc) KN	Shear (VRukc) KN	Tension (NRukc) KN	Shear (VRukc) KN	Tension (NRukc) KN	Shear (VRukc) KN	Tension (NRukc) KN	Shear (VRukc) KN
5	White	25	0.16	0.24	0.18	0.27	0.20	0.31	0.11	0.17	0.07	0.12
		35	0.17	0.24	0.19	0.27	0.22	0.31	0.12	0.17	0.08	0.12
6	Red	30	0.27	0.27	0.30	0.31	0.34	0.35	0.19	0.19	0.13	0.13
		35	0.29	0.27	0.33	0.31	0.37	0.35	0.21	0.19	0.14	0.13
7	Green	35	0.55	0.40	0.63	0.46	0.71	0.52	0.39	0.28	0.26	0.19
		35	0.63	0.40	0.71	0.46	0.81	0.52	0.44	0.28	0.30	0.19
8	Blue	40	0.63	0.50	0.71	0.57	0.81	0.65	0.44	0.36	0.30	0.24
		35	0.69	0.50	0.78	0.57	0.89	0.65	0.49	0.36	0.33	0.24

All above Values are Design Values for anchors installed in concrete and masonry with anchors installed at characteristic embedment depths, as shown and are valid for products supplied by Bremick Pty only.

Recommended Loads have been derived with a Safety factor of 4.

All Shear Values are Single Shear.



Bremick Cavity Wall Anchor is a steel fastener for secure fastening into hollow blocks, cavity wall and plaster boards up to 23mm thick and can be set using a screw driver or a preparatory **Setting Tool**. The **Cavity Wall Anchor** is a two piece, preassembled unit consisting of a fully threaded bolt inserted into a collapsible steel sleeve threaded at one end and with a broad serrated flange head that provides a flush firm seating. Once inserted the sleeve is collapsed by the application of torque with a screw driver or by drawing the screw with a **Setting Tool**. The fixture is secured behind the base material by the collapsed sleeve resulting in a secure interlocking fastener.

APPLICATIONS

Light duty fastenings to drywall panels, plaster board, timber boards and hollow blocks.

FEATURES

- Fully assembled fastening
- Fast installation
- Maximum holding power in thin boards
- Secure force controlled expansion
- Through fastening
- Flush setting with low profile screw head

**ANCILLARY PRODUCTS
SETTING TOOL**

For further information refer to the relevant section of this book.

SUGGESTED SPECIFICATION

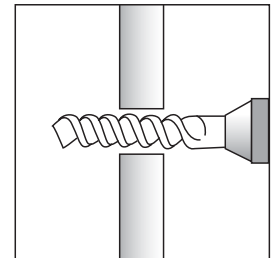
Cavity Wall Anchors

The anchors used shall be cavity wall anchors that are to be installed by means of a proprietary setting tool. The cavity wall anchors shall consist of a one piece, zinc plated, carbon steel anchor consisting of a collapsible expansion sleeve and a fully threaded bolt. Installation shall be in accordance with the manufactures recommendations and all anchors shall be sourced from Bremick Pty Ltd.

SETTING INSTRUCTIONS

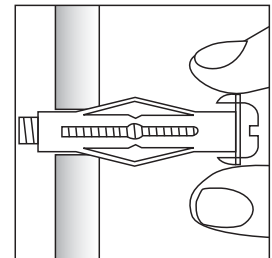
1: Drill

Drill 6.5 mm Diameter hole through base material.



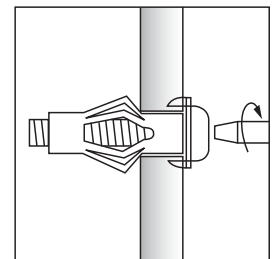
2: Insert

Insert anchor in to predrilled hole and push into base material to engage teeth.



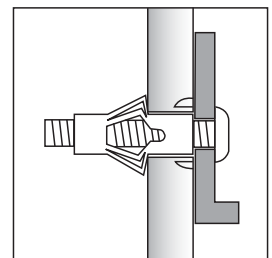
3: Set

Set anchor with a screw driver or setting tool to expand locking mechanism.



4: Fasten

Remove screw from anchor, mount fixture, reinsert screw into fastener, tighten with screw driver.





ZINC PLATED AS1789



Hole/Drill Diameter (mm)	Screw Thread Diameter (mm)	Anchor Length (mm)	Grip Range (mm)	Std Pack	Product Code
8	4	25	0-5	100	AHWMZ040052
		38	3-11		AHWMZ040112
		52	8-16		AHWMZ040162
		65	16-23		AHWMZ040232

SETTING TOOL



Description	Std Pack	Product Code
Hollow wall anchor setting tool	1	TMAHWST0012

INSTALLATION DETAILS

FASTENER DETAILS			INSTALLATION DETAILS					
Anchor/ Drill Diameter	Thread Size	Anchor Length	Grip Range	Minimum Base Material Thickness	Maximum Fixture Thickness	Clearance Hole Diameter (Fixture)	Installation Torque	Phillips Driver
D _o (mm)	D (mm)	L (mm)	min to max (mm)	h _{min} (mm)	t _{fix} (mm)	D _c (mm)	T _{inst} (Nm)	
8	M4	25	0 to 5	4	1	8	5	PH2/Slot
		38	3 to 11	4	7	8	5	PH2/Slot
		52	8 to 16	8	18	8	5	PH2/Slot
		65	16 to 23	10	13	8	5	PH2/Slot

PERFORMANCE DATA - GYPSUM/PLASTERBOARD

INSTALLATION DETAILS		CAPACITIES IN 10mm THICK GYPSUM / PLASTERBOARD	
Hole/ Drill Diameter	Embedment Depth	RECOMMENDED LOAD	
(mm)	(mm)	Tension (NR _{ukc}) KN	Shear (VR _{ukc}) KN
8	M4	0.10	0.30

All testing was undertaken in plasterboard with a minimum sample rate (n) of 10.
Recommended Loads have been derived with a minimum factor of safety of 4.
All Shear Values are Single Shear.

For further performance data, including Characteristic, Working Stress, Limit State Design Values and design data please refer to our Web Site www.bremick.com.au



The **Bremick Plaster Board Plug** is a one piece, self drilling fastener for making fast and secure fixings into plasterboard materials. Manufactured from corrosion resistant Zinc Alloy for higher loads or high quality nylon where lighter load capacity is acceptable. The **Bremick Plaster Board Plug** features an extended drill point for ease of application, special threads for secure holding power and a broad low profile head to ensure clean surface finish.

Widely used for interior finishing, curtain rails and light duty household fastening and is especially suitable for temporary fixtures as the fastener is fully removable.

APPLICATIONS

Light duty fastenings to drywall panels, plaster board, and gypsum boards.

FEATURES

- 3 cutting teeth for speed and to maintain centering
- Short length to assist setting.
- Self drilling design that reduces the risk of board tears
- Same drive head for setting of plaster board plug and screw
- Removable
- Fast and clean with good holding power

ANCILLARY PRODUCTS

Stainless steel self tapping screw Gauges 6-8g (*Bremick Stainless steel book refers*)
 Chipboard screws gauges 6-8g and for all other head configurations see *Bremick Screws and Rivets Product Catalogue*

SUGGESTED SPECIFICATION

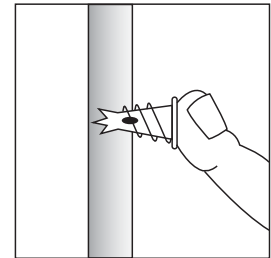
Plasterboard Plugs

Anchors used in gypsum wall boards shall be single piece self drilling type with a flush finish, low profile head and are to be used in conjunction with self drilling screws. The metal anchor shell shall be manufactured from corrosion resistant zinc alloy. Installation shall be in accordance with the manufactures recommendations and all anchors shall be sourced from Bremick Pty Ltd.

SETTING INSTRUCTIONS

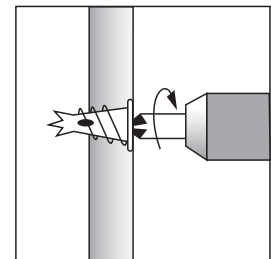
1: Drill

Push the teeth of the plaster board plug into the drywall panel.



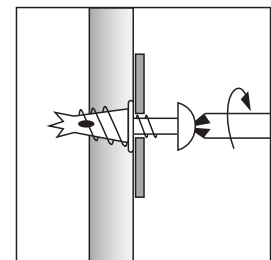
2: Set

Using a Phillips #2 screw driver set the plaster board plug until it sits flush with the surface of the board.



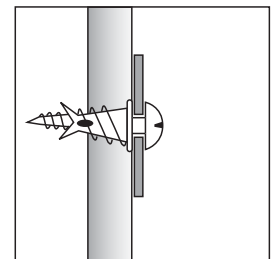
3: Fasten

Mount the fixture and fasten into the plaster board plug using a 6-8 gauge screw.



4: Tighten

Remove screw from anchor, mount fixture, reinsert Screw to into fastener, tighten with screw driver.





SELF DRILLING (PHILLIPS #3 DRIVER) ZINC ALLOY



Description	Screw Gauges	Std Pack	Product Code
Zinc Alloy	6-8G	100	PBAMZ#80002

INSTALLATION DETAILS

FASTENER DETAILS			INSTALLATION DETAILS				
Anchor/ Drill Diameter	Screw Gauge	Anchor Length	Minimum Base Material Thickness	Maximum Fixture Thickness	Clearance Hole Diameter (Fixture)	Installation Torque	Phillips Driver
D_o (mm)	D (mm)	L (mm)	h_{min} (mm)	t_{fix} (mm)	D_c (mm)	T_{inst} (Nm)	
Self Drilling	6-8g	32	8	N/A	5	5	PH3

PERFORMANCE DATA - GYPSUM/PLASTERBOARD

INSTALLATION DETAILS		CAPACITIES IN 10mm THICK GYPSUM / PLASTERBOARD RECOMMENDED LOAD	
Hole/ Drill Diameter	Embedment Depth	Tension (NRukc) KN	Shear (Vruk) KN
(mm)	(mm)		
N/A	6-8g	0.08	0.35

All testing was undertaken in plasterboard with a minimum sample rate (n) of 10.
Recommended Loads have been derived with a minimum factor of safety of 4.
All Shear Values are Single Shear.

For further performance data, including Characteristic, Working Stress, Limit State Design Values and design data please refer to our Web Site www.bremick.com.au



Bremtoggle™ Gravity Toggles are pre assembled fasteners consisting of a fully threaded screw, steel retaining nut and a hinged pressed steel toggle bar. Fastening is achieved by passing the hinged toggle bar through the drilled hole and once inserted the toggle bar rotates parallel to the far face of the base material and tightening of the screw draws the toggle up resulting in a broad, positive interlock to the back face of the base material.

APPLICATIONS

Light duty fastenings to drywall panels, plaster board, timber boards and hollow blocks.

FEATURES

- Fully assembled fastening
- Fast installation
- Maximum holding power in thin boards
- Secure interlocking fastening
- Fully removable
- Fire resistant

SUGGESTED SPECIFICATION

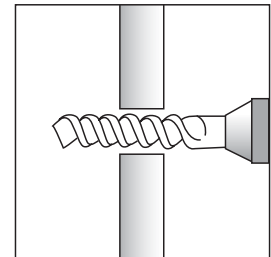
Bremtoggle Gravity Toggle Anchors

The anchors used shall be preassembled gravity toggle anchors consisting of a carbon steel toggle hinged onto a carbon steel zinc plated screw. Installation shall be in accordance with the manufactures recommendations and all anchors shall be sourced form Bremick Pty Ltd.

SETTING INSTRUCTIONS

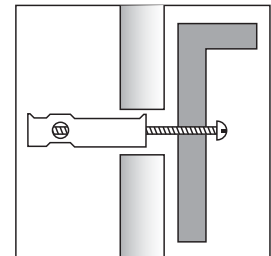
1: Drill

Drill hole through base material to specified diameter.



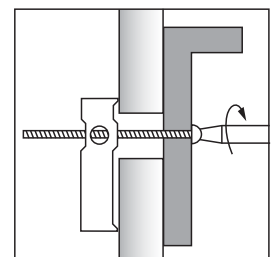
2: Insert

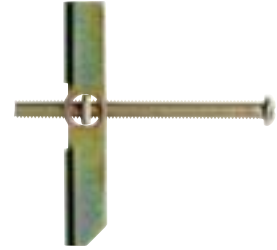
Remove screw and pass through fixture. Reinstall screw into toggle and insert toggle through hole in base material.



3: Set

Allow toggle to fall into place and tighten with a screw driver until specified torque is achieved.



**GRAVITY TOGGLE - WITH SCREW
ZINC PLATED - ROUND HEAD**

Thread Size (mm)	Hole/Drill Diameter (mm)	Anchor Length (mm)	Max. Fastening Thickness (mm)	Std Pack	Product Code
M4	11	50	42	100	TGRMZ040502
M5	14	50	42	100	TGRMZ050502
		75	67	100	TGRMZ050752

INSTALLATION DETAILS

FASTENER DETAILS			INSTALLATION DETAILS					
Anchor/ Drill Diameter	Thread Size	Anchor Length	Grip Range	Minimum Base Material Thickness	Maximum Fixture Thickness	Clearance Hole Diameter (Fixture)	Installation Torque	Phillips Driver
D _o (mm)	D (mm)	L (mm)	min to max (mm)	h _{min} (mm)	t _{fix} (mm)	D _c (mm)	T _{inst} (mm)	
11	M4	50	30	8	42	11	5	PH2
14	M5	50	25	8	42	14	5	PH2
		75	55	8	67	14	5	PH2

PERFORMANCE DATA - GYPSUM/PLASTERBOARD

INSTALLATION DETAILS		CAPACITIES IN 10mm THICK GYPSUM / PLASTERBOARD	
Hole/ Drill Diameter	Embedment Depth	RECOMMENDED LOAD	
(mm)	(mm)	Tension (NR _{ukc}) KN	Shear (VR _{ukc}) KN
11	M4	0.15	0.30
14	M5	0.15	0.35

All testing was undertaken in plasterboard with a minimum sample rate (n) of 10.
Recommended Loads have been derived with a minimum factor of safety of 4.
All Shear Values are Single Shear.

For further performance data, including Characteristic, Working Stress, Limit State Design Values and design data please refer to our Web Site www.bremick.com.au



Bremtoggle™ Spring Toggles are pre assembled fasteners consisting of a fully threaded screw, steel retaining nut and a hinged pressed steel spring actuated toggle bar. Fastening is achieved by passing the closed spring toggle bar through the drilled hole and once inserted the spring is released to open toggle bar behind the base material. Tightening of the screw draws the open toggle bar up against the back face of the base material, resulting in a broad, positive interlocking connection.

Bremtoggle™ Spring Toggles are also available in square and round hook types.

APPLICATIONS

Light duty fastenings to drywall panels, plaster board, timber boards and hollow blocks.

FEATURES

- Fully assembled fastening
- Fast installation
- Maximum holding power in thin boards
- Secure interlocking fastening
- Removable
- Fire resistant
- Available in hook styles

SUGGESTED SPECIFICATION

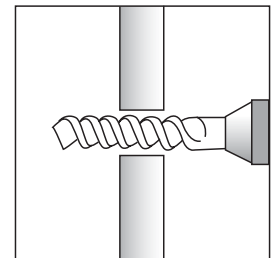
Bremtoggle Spring Toggle Anchors

The anchors used shall be preassembled spring toggle anchors consisting of a carbon steel spring toggle mounted onto a carbon steel zinc plated screw. Installation shall be in accordance with the manufactures recommendations and all anchors shall be sourced from Bremick Pty Ltd.

SETTING INSTRUCTIONS

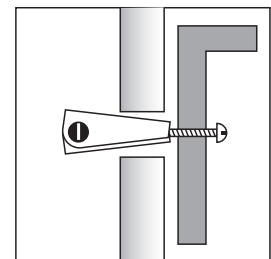
1: Drill

Drill hole through base material to specified diameter.



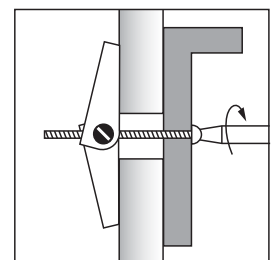
2: Insert

Remove screw and pass through fixture. Reinstall screw into toggle and insert toggle through hole in base material.



3: Set

Allow toggle to spring open and tighten with a screw driver until specified torque is achieved.



**SPRING TOGGLE - WITH SCREW
ZINC PLATED - ROUND HEAD**

Thread Size (mm)	Hole/Drill Diameter (mm)	Anchor Length (mm)	Max. Fastening Thickness (mm)	Std Pack	Product Code
M4	11	50	42	100	TSRMZ040502
M5	14	50	42	100	TSRMZ050502
		75	67	50	TSRMZ050752

**SPRING TOGGLE - WITH SCREW
ZINC PLATED - COUNTERSUNK HEAD**

Thread Size (mm)	Hole/Drill Diameter (mm)	Anchor Length (mm)	Max. Fastening Thickness (mm)	Std Pack	Product Code
M5	14	50	42	100	TSKMZ050502
		75	67	50	TSKMZ050752

**SPRING TOGGLE - WITH SCREW
ZINC PLATED - SQUARE HOOK**

Thread Size (mm)	Hole/Drill Diameter (mm)	Anchor Length (mm)	Max. Fastening Thickness (mm)	Std Pack	Product Code
M5	14	50	42	50	TSHMZ050502

For further performance data, including Characteristic, Working Stress, Limit State Design Values and design data please refer to our Web Site www.bremick.com.au



SPRING TOGGLE - WITH SCREW ZINC PLATED - CUP HOOK

Thread Size (mm)	Hole/Drill Diameter (mm)	Anchor Length (mm)	Max. Fastening Thickness (mm)	Std Pack	Product Code
M5	14	50	42	50	TCHMZ050502



SPRING TOGGLE - WITH SCREW ZINC PLATED - ROUND HEAD, COUNTERSUNK HEAD, SQUARE HOOK & CUP HOOK

INSTALLATION DETAILS

FASTENER DETAILS			INSTALLATION DETAILS					
Anchor/ Drill Diameter	Thread Size	Anchor Length	Grip Range	Minimum Base Material Thickness	Maximum Fixture Thickness	Clearance Hole Diameter (Fixture)	Installation Torque	Phillips Driver
D _o (mm)	D (mm)	L (mm)	min to max (mm)	h _{min} (mm)	t _{fix} (mm)	D _c (mm)	T _{inst} (Nm)	
11	M4	50	30	8	42	11	5	PH2
14	M5	50	25	8	42	14	5	PH2
		75	55	8	67	14	5	PH2

PERFORMANCE DATA - GYPSUM/PLASTERBOARD

INSTALLATION DETAILS		CAPACITIES IN 10mm THICK GYPSUM / PLASTERBOARD RECOMMENDED LOAD	
Hole/ Drill Diameter (mm)	Embedment Depth (mm)	Tension (NR _{ukc}) KN	Shear (VR _{ukc}) KN
11	M4	0.15	0.30
14	M5	0.15	0.35

All testing was undertaken in plasterboard with a minimum sample rate (n) of 10.
Recommended Loads have been derived with a minimum factor of safety of 4.
All Shear Values are Single Shear.

For further performance data, including Characteristic, Working Stress, Limit State Design Values and design data please refer to our Web Site www.bremick.com.au



Bremtoggle™ Plastic Toggles are a one piece moulded nylon fastener that are used in conjunction with **6g or 8g timber screws**. The toggle unit features a broad flange head and a flat collapsible sleeve. Fastening is achieved by inserting the toggle into a predrilled hole, inserting and tightening a screw that draws the collapsed sleeve tight against the back face of the base material, resulting in a secure interlocked fastening.

APPLICATIONS

Light duty fastenings to drywall panels, plaster board and thin boards.

FEATURES

- Versatile
- Economic
- Fast installation
- Secure interlocking fastening.
- Removable
- Corrosion resistant

ANCILLARY PRODUCTS

Stainless steel self tapping Gauges 6-8g (*Bremick Stainless steel book refers*)
 Chipboard screws gauges 6-8g and for all other head configurations see *Bremick Screws and Rivets Product Catalogue*

SUGGESTED SPECIFICATION

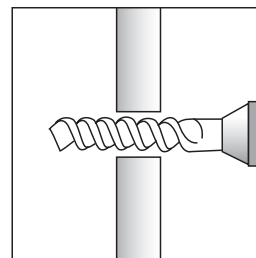
Bremtoggle Plastic Toggle Anchors

The anchors used in gypsum wall boards shall single piece moulded nylon toggles and are to be used in conjunction with 6g self drilling screws. Installation shall be in accordance with the manufactures recommendations and all anchors shall be sourced form Bremick Pty Ltd.

SETTING INSTRUCTIONS

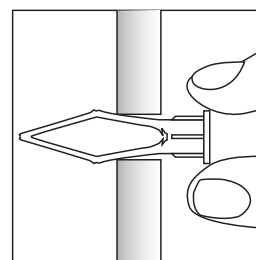
1: Drill

Drill hole through base material to specified 8mm diameter.



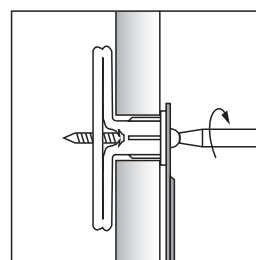
2: Insert

Insert toggle through hole in base material.



3: Set

Insert a 6g or 8g screw through the fixture and into the toggle. Using a suitable screw driver tighten.





PLASTIC FASTENS MATERIALS UP TO 12mm THICK

Anchor Type	Hole/Drill Diameter (mm)	Screw Gauges	Grip Range (mm)	Std Pack	Product Code
NYLON	8	6-8g	5 to 10	100	TPTMP101202

INSTALLATION DETAILS

FASTENER DETAILS			INSTALLATION DETAILS				
Anchor/ Drill Diameter	Screw Gauge	Anchor Length	Minimum Base Material Thickness	Maximum Fixture Thickness	Clearance Hole Diameter (Fixture)	Installation Torque	Phillips Driver
D_o (mm)	D (mm)	L (mm)	h_{min} (mm)	t_{fix} (mm)	D_c (mm)	T_{inst} (Nm)	
8	6 to 8g	5 to 10	5	10	N/A	5	N/A

PERFORMANCE DATA - GYPSUM/PLASTERBOARD

INSTALLATION DETAILS		CAPACITIES IN 10mm THICK GYPSUM / PLASTERBOARD RECOMMENDED LOAD		
Hole/ Drill Diameter	Embedment Depth	Tension (NRukc) KN	Shear (Vruk) KN	
(mm)	(mm)			
8	6-8g	0.10	0.23	

All testing was undertaken in plasterboard with a minimum sample rate (n) of 10.
Recommended Loads have been derived with a minimum factor of safety of 4.
All Shear Values are Single Shear.

For further performance data, including Characteristic, Working Stress, Limit State Design Values and design data please refer to our Web Site www.bremick.com.au

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Bremtoggle™ Plastic Hollow Wall Toggles are a one piece moulded nylon fastener that are used in conjunction with **6g or 8g timber screws**. The toggle unit features a broad flange head and a winged collapsible sleeve. Fastening is achieved by closing the wings then inserting the toggle into a predrilled hole, inserting and tightening a screw that draws the wings of the sleeve tight against the back face of the base material, resulting in a secure interlocked fastening.

APPLICATIONS

Light duty fastenings to drywall panels, plaster board and thin boards.

FEATURES

- Versatile
- Economic
- Fast installation
- Secure interlocking fastening.
- Removable
- Corrosion resistant

ANCILLARY PRODUCTS

Stainless steel self tapping Gauges 6-8g (*Bremick Stainless steel book refers*)
Chipboard screws gauges 6-8g and for all other head configurations see *Bremick Screws and Rivets Product Catalogue*

SUGGESTED SPECIFICATION

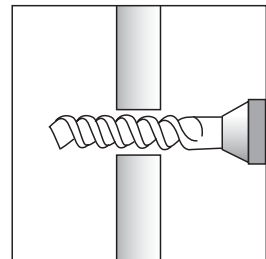
Bremtoggle Plastic Hollow Wall Toggle Anchors

The anchors used in gypsum wall boards shall single piece moulded nylon toggles and are to be used in conjunction with 6g self drilling screws. Installation shall be in accordance with the manufactures recommendations and all anchors shall be sourced form Bremick Pty Ltd.

SETTING INSTRUCTIONS

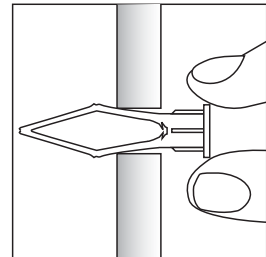
1: Drill

Drill hole through base material to specified 8mm diameter.



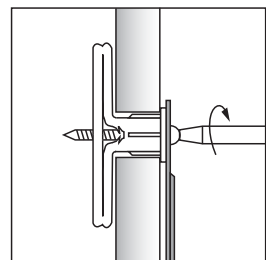
2: Insert

Insert toggle through hole in base material.



3: Set

Insert a 6g or 8g screw through the fixture and into the toggle. Using a suitable screw driver tighten.





**PLASTIC HOLLOW WALL
WALL THICKNESS 5 TO 10mm**

Anchor Type	Hole/Drill Diameter (mm)	Screw Gauges	Grip Range (mm)	Std Pack	Product Code
NYLON	8	6-8	5 to 10	100	TPTMP080102



**PLASTIC HOLLOW WALL
WALL THICKNESS 8 TO 12mm**

Anchor Type	Hole/Drill Diameter (mm)	Screw Gauges	Grip Range (mm)	Std Pack	Product Code
NYLON	8	6-8	8 to 12	100	TPTMP080122



**PLASTIC HOLLOW WALL
WALL THICKNESS 12 TO 18mm**

Anchor Type	Hole/Drill Diameter (mm)	Screw Gauges	Grip Range (mm)	Std Pack	Product Code
NYLON	8	6-8	12 to 18	100	TPTMP080162

For further performance data, including Characteristic, Working Stress, Limit State Design Values and design data please refer to our Web Site www.bremick.com.au

NYLON FOR USE WITH BREMICK SCREWS



INSTALLATION DETAILS

FASTENER DETAILS			INSTALLATION DETAILS				
Anchor/ Drill Diameter	Screw Gauge	Anchor Length	Minimum Base Material Thickness	Maximum Fixture Thickness	Clearance Hole Diameter (Fixture)	Installation Torque	Phillips Driver
D _o (mm)	D (mm)	L (mm)	h _{min} (mm)	t _{fix} (mm)	D _c (mm)	T _{inst} (Nm)	
8	6-8g	5 to 10	5	10	8	5	N/A
		8 to 12	8	12	8	5	N/A
		12 to 18	12	18	8	5	N/A

PERFORMANCE DATA - GYPSUM/PLASTERBOARD

INSTALLATION DETAILS		CAPACITIES IN 10mm THICK GYPSUM / PLASTERBOARD	
Hole/ Drill Diameter	Embedment Depth	RECOMMENDED LOAD	
(mm)	(mm)	Tension (NRukc) KN	Shear (Vrukck) KN
8	6-8g	0.12	0.25

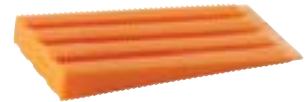
All testing was undertaken in plasterboard with a minimum sample rate (n) of 10.
Recommended Loads have been derived with a minimum factor of safety of 4.
All Shear Values are Single Shear.

DRY WALL &
CAVITY ANCHORS

For further performance data, including Characteristic, Working Stress, Limit State Design Values and design data please refer to our Web Site www.bremick.com.au

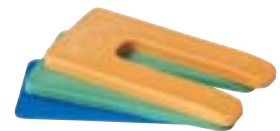


ADJUSTING WEDGE PLASTIC- SERATED



Size (mm)	Length (mm)	Width (mm)	Height (mm)	Std Pack	Product Code
6	40	20	6	100	ADW06020040
9	60	30	9	35	ADW09030060
18	85	40	18	35	ADW18040085
27	115	50	27	12	ADW27050115
36	160	60	36	6	ADW36060160

FRAME PACKER SHIMS PLASTIC - COLOUR CODED



Size (mm)	Length (mm)	Width (mm)	Height (mm)	Slot Width (mm)	Colour	Std Pack	Product Code
1.5	75	36	1.5	12	BLUE	200	SHIMB150752
3.2	75	36	3.2	12	GREEN	200	SHIMG320752
5.0	75	36	5.0	12	ORANGE	200	SHIMO500752
6.4	75	36	6.4	12	GREY	200	SHIMG640752
10	75	36	10	12	BLACK	100	SHIMLX10752
1.5	90	36	1.5	12	BLUE	100	SHIMB150902
3.2	90	36	3.2	12	GREEN	100	SHIMG320902
5.0	90	36	5.0	12	ORANGE	100	SHIMO500902
6.4	90	36	6.4	12	GREY	100	SHIMG640902
10	90	36	10	12	BLACK	100	SHIMLX10902

For further performance data, including Characteristic, Working Stress, Limit State Design Values and design data please refer to our Web Site www.bremick.com.au

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