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Specialty Fastening Solutions

KEEP-NUT™ • DEFORM-NUT®
CROWN NUTS • BONDING FASTENERS

A Range of Fasteners for Stone, Solid Surface Materials, Composites and Sandwich Panels

Order online at www.chemical-concepts.com or call 1.800.220.1966

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Chem-Set™

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BONDING FASTENERS

Bonding Fastener Spike

Bonding Fastener Tie

Bonding fasteners are available in a combination of base plate styles, in stud, standoff, and nut configurations.

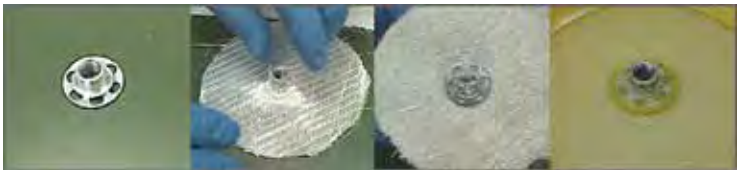
Bonding fasteners are a cost effective, secure, and reliable method of integrating male or female threads into composite, fiberglass, laminate, and carbon fibre applications.

Suitable for surface bonding using adhesive or embedding during the forming process, bonding fasteners are ideal for composites, fibreglass, carbon fibre, molding compounds, plastics, laminated timber, stone, etc.

Available in standard sizes, thread sizes, both imperial and metric, in zinc plated steel and 316 stainless steel Custom base plate, fastener type, thread/body lengths can be produced to order.

A flexible manufacturing process means that specials can be produced to suit your exact requirements

Alternatively bonding fasteners can be embedded



directly during the composite molding process.

1 Prepare the panel surface by cleaning thoroughly with IPA.

2 Ensuring the adhesive is fully mixed, dispense sufficient adhesive for the application.

3 Locate the bonding fastener over the adhesive.

4 Firmly press the bonding fastener into the adhesive until adhesive flows through the holes in the base plate.

5 Following the adhesive manufacturer's instructions, allow sufficient curing time.

6 Once the adhesive is fully cured, the bonding fastener is ready for use.

Commonly used bonding adhesives and materials compatibilty

www.chemical-concepts.com

Adhesive	Composites	Plastic	Wood	Metal	Natural Stone	Engineered Stone	Glass*
LORD 406/19	●	●	⊗	●	⊗	○	○
Chem-Set™ Ultralok 420GB	●	●	⊗	●	⊗	○	○
LORD 310A/B	●	●	●	○	●	○	⊗
Chem-Set™ 633	●	●	●	○	●	○	⊗
Chem-Set™ 605	●	●	⊗	○	⊗	●	○
LORD 7545	●	●	●	⊗	⊗	○	⊗

● Recommended ○ Reasonable ⊗ Not suitable *Primer recommended for optimum bond on glass. Please refer to adhesive manufacturer specifications for guidance.

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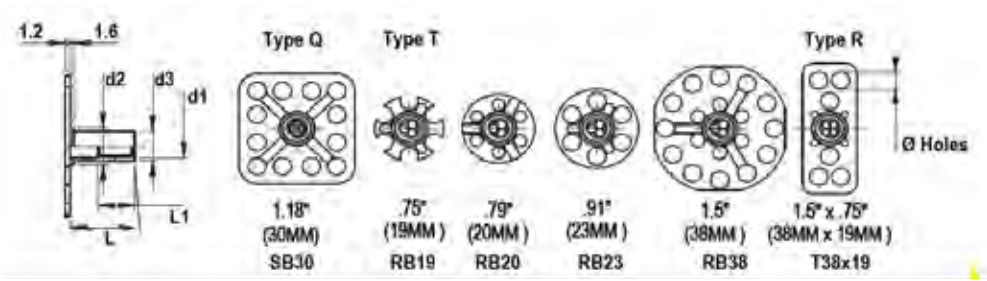
BONDING FASTENER *MALE STUDS*



Part Code Type-Base-Thread-Length	Base Code	d1 Thread	L Standoff Length											
			0.25	0.375	0.5	0.625	0.75	0.875	1	1.25	1.5	2	2.5	3
M1-SB30-10-24x****	SB30	10-24												
M1-RB19-10-24x****	RB19	10-24												
M1-RB20-10-24x****	RB20	10-24												
M1-RB23-10-24x****	RB23	10-24												
M1-RB3-10-24x****	RB38	10-24												
T38x19-10-10-24x****	T38x19	10-24												
M1-SB30-10-32x****	SB30	10-32												
M1-RB19-10-32x****	RB19	10-32												
M1-RB20-10-32x****	RB20	10-32												
M1-RB23-10-32x****	RB23	10-32												
M1-RB38-10-32x****	RB38	10-32												
M1-T38x19-10-32x****	T38x19	10-32												
M1-SB30-1/4-20x****	SB30	1/4-20												
M1-RB19-1/4-20x****	RB19	1/4-20												
M1-RB20-1/4-20x****	RB20	1/4-20												
M1-RB23-1/4-20x****	RB23	1/4-20												
M1-RB38-1/4-20x****	RB38	1/4-20												
M1-T38x19-1/4-20x****	T38x19	1/4-20												
M1-SB30-3/8-16x****	SB30	3/8-16												
M1-RB19-3/8-16x****	RB19	3/8-16												
M1-RB20-3/8-16x****	RB20	3/8-16												
M1-RB23-3/8-16x****	RB23	3/8-16												
M1-RB38-3/8-16x****	RB38	3/8-16												
##	T38x19	3/8-16												

Standard Special order

Prepare the panel surface by cleaning thoroughly with IPA.

Ensuring the adhesive is fully mixed, dispense sufficient adhesive for the application.

Locate the bonding fastener over the adhesive.

Firmly press the bonding fastener into the adhesive until adhesive flows through the holes in the base plate.

Following the adhesive manufacturer's instructions, allow sufficient curing time.

Once the adhesive is fully cured, the bonding fastener is ready for use.

Material: Steel Electro Zinc or Stainless Steel

Part number is made up as follows:
M1-(Base Plate)-(Thread)-(Length)

For example:
M1-RB23-1/4-20x0.750" M1-(23mm diameter round base plate)-(1/4-20 thread)-(0.750 stud length)

Commonly used bonding adhesives and materials compatibilty

www.chemical-concepts.com

Adhesive	Composites	Plastic	Wood	Metal	Natural Stone	Engineered Stone	Glass*
LORD 406/19	●	●	⊗	●	⊗	○	○
Chem-Set™ Ultralok 420GB	●	●	⊗	●	⊗	○	○
LORD 310A/B	●	●	●	○	●	○	⊗
Chem-Set™ 633	●	●	●	○	●	○	⊗
Chem-Set™ 605	●	●	⊗	○	⊗	●	○
LORD 7545	●	●	●	⊗	⊗	○	⊗

● Recommended ○ Reasonable ⊗ Not suitable *Primer recommended for optimum bond on glass. Please refer to adhesive manufacturer specifications for guidance.

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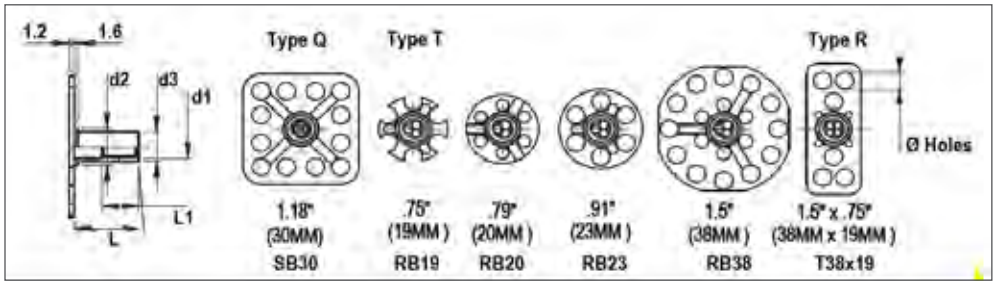
BONDING FASTENER *FEMALE STANDOFFS*



Part Code Type-Base-Thread-Length	Base Code	d1 Thread	L Standoff Length											
			0.25	0.375	0.5	0.625	0.75	0.875	1	1.25	1.5	2	2.5	3
F2CB-SB30-10-24x****	SB30	10-24												
F2CB-RB19-10-24x****	RB19	10-24												
F2CB-RB20-10-24x****	RB20	10-24												
F2CB-RB23-10-24x****	RB23	10-24												
F2CB-RB38-10-24x****	RB38	10-24												
F2CB-T38x19-10-24x****	T38x19	10-24												
F2CB-SB30-10-32x****	SB30	10-32												
F2CB-RB19-10-32x****	RB19	10-32												
F2CB-RB20-10-32x****	RB20	10-32												
F2CB-RB23-10-32x****	RB23	10-32												
F2CB-RB38-10-32x****	RB38	10-32												
F2CB-T38x19-10-32x****	T38x19	10-32												
F2CB-SB30-1/4-20x****	SB30	1/4-20												
F2CB-RB19-1/4-20x****	RB19	1/4-20												
F2CB-RB20-1/4-20x****	RB20	1/4-20												
F2CB-RB23-1/4-20x****	RB23	1/4-20												
F2CB-RB38-1/4-20x****	RB38	1/4-20												
F2CB-T38x19-1/4-20x****	T38x19	1/4-20												
F2CB-SB30-3/8-16x****	SB30	3/8-16												
F2CB-RB19-3/8-16x****	RB19	3/8-16												
F2CB-RB20-3/8-16x****	RB20	3/8-16												
F2CB-RB23-3/8-16x****	RB23	3/8-16												
F2CB-RB38-3/8-16x****	RB38	3/8-16												
F2CB-T38x19-3/8-16x****	T38x19	3/8-16												

Standard Special order

Prepare the panel surface by cleaning thoroughly with IPA.

Ensuring the adhesive is fully mixed, dispense sufficient adhesive for the application.

Locate the bonding fastener over the adhesive.

Firmly press the bonding fastener into the adhesive until adhesive flows through the holes in the base plate.

Following the adhesive manufacturer's instructions, allow sufficient curing time.

Once the adhesive is fully cured, the bonding fastener is ready for use.

Material: Steel Electro Zinc or Stainless Steel

Part number is made up as follows:
F2-(Base Plate)-(Thread)-(Collar Length)

For example:
F2-RB23-1/4-20x0.750" F2-(23mm diameter round base plate)-(1/4-20 thread)-(0.750" collar length)

Commonly used bonding adhesives and materials compatibilty

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Adhesive	Composites	Plastic	Wood	Metal	Natural Stone	Engineered Stone	Glass*
LORD 406/19	●	●	⊗	●	⊗	○	○
Chem-Set™ Ultralok 420GB	●	●	⊗	●	⊗	○	○
LORD 310A/B	●	●	●	○	●	○	⊗
Chem-Set™ 633	●	●	●	○	●	○	⊗
Chem-Set™ 605	●	●	⊗	○	⊗	●	○
LORD 7545	●	●	●	⊗	⊗	○	⊗

● Recommended ○ Reasonable ⊗ Not suitable *Primer recommended for optimum bond on glass. Please refer to adhesive manufacturer specifications for guidance.

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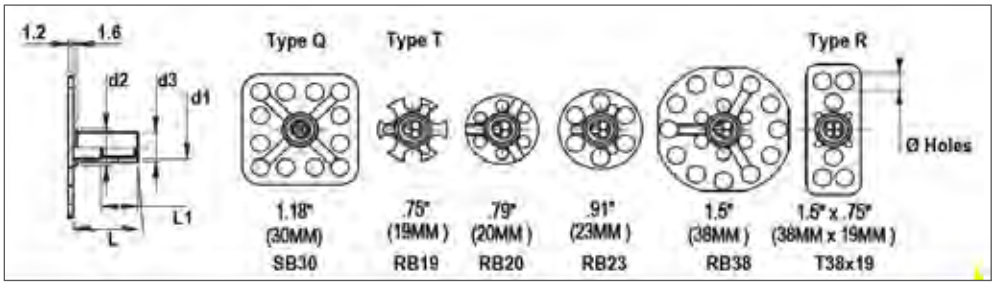
BONDING FASTENER *OPEN BACK STANDOFFS*



Part Code Type-Base-Thread-Length	Base Code	d1 Thread	0.25	0.375	0.5	0.625	0.75	0.875	1	1.25	1.5	2	2.5	3
F1-SB30-10-24x****	SB30	10-24												
F1-RB19-10-24x****	RB19	10-24												
F1-RB20-10-24x****	RB20	10-24												
F1-RB23-10-24x****	RB23	10-24												
F1-RB38-10-24x****	RB38	10-24												
F1-T38x19-10-24x****	T38x19	10-24												
F1-SB30-10-32x****	SB30	10-32												
F1-RB19-10-32x****	RB19	10-32												
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F1-RB38-10-32x****	RB38	10-32												
F1-T38x19-10-32x****	T38x19	10-32												
F1-SB30-1/4-20x****	SB30	1/4-20												
F1-RB19-1/4-20x****	RB19	1/4-20												
F1-RB20-1/4-20x****	RB20	1/4-20												
F1-RB23-1/4-20x****	RB23	1/4-20												
F1-RB38-1/4-20x****	RB38	1/4-20												
F1-T38x19-1/4-20x****	T38x19	1/4-20												
F1-SB30-3/8-16x****	SB30	3/8-16												
F1-RB19-3/8-16x****	RB19	3/8-16												
F1-RB20-3/8-16x****	RB20	3/8-16												
F1-RB23-3/8-16x****	RB23	3/8-16												
F1-RB38-3/8-16x****	RB38	3/8-16												
F1-T38x19-3/8-16x****	T38x19	3/8-16												

Standard Special order

Prepare the panel surface by cleaning thoroughly with IPA.

Ensuring the adhesive is fully mixed, dispense sufficient adhesive for the application.

Locate the bonding fastener over the adhesive.

Firmly press the bonding fastener into the adhesive until adhesive flows through the holes in the base plate.

Following the adhesive manufacturer's instructions, allow sufficient curing time.

Once the adhesive is fully cured, the bonding fastener is ready for use.

Material: Steel Electro Zinc or Stainless Steel

Part number is made up as follows:
F2-(Base Plate)-(Thread)-(Collar Length)

For example:
F2-RB23-1/4-20x0.750" F2-(23mm diameter round base plate)-(1/4-20 thread)-(0.750" collar length)

Commonly used bonding adhesives and materials compatibilty

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Adhesive	Composites	Plastic	Wood	Metal	Natural Stone	Engineered Stone	Glass*
LORD 406/19	●	●	⊗	●	⊗	○	○
Chem-Set™ Ultralok 420GB	●	●	⊗	●	⊗	○	○
LORD 310A/B	●	●	●	○	●	○	⊗
Chem-Set™ 633	●	●	●	○	●	○	⊗
Chem-Set™ 605	●	●	⊗	○	⊗	●	○
LORD 7545	●	●	●	⊗	⊗	○	⊗

● Recommended ○ Reasonable ⊗ Not suitable *Primer recommended for optimum bond on glass. Please refer to adhesive manufacturer specifications for guidance.

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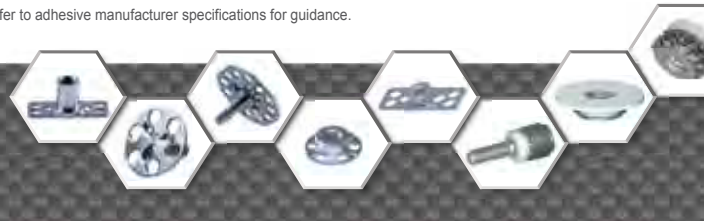
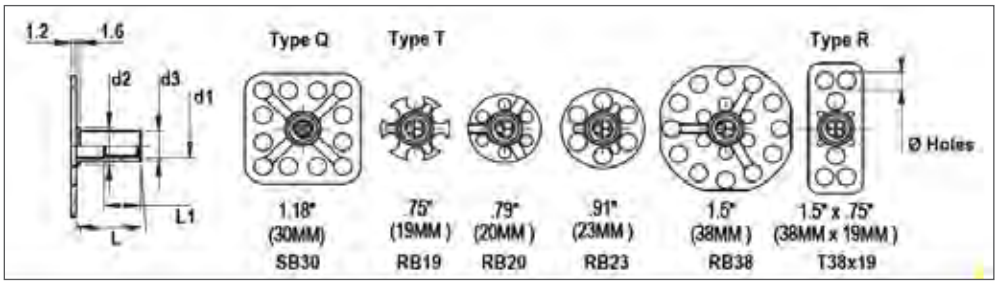


BONDING FASTENER *NUTS*



Part Code Type-Base-Thread-Length	Base Code	d1 Thread	L Standoff Length											
			0.25	0.375	0.5	0.625	0.75	0.875	1	1.25	1.5	2	2.5	3
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F1-RB20-10-24x****	RB20	10-24												
F1-RB23-10-24x****	RB23	10-24												
F1-RB38-10-24x****	RB38	10-24												
F1-T38x19-10-24x****	T38x19	10-24												
F1-SB30-10-32x****	SB30	10-32												
F1-RB19-10-32x****	RB19	10-32												
F1-RB20-10-32x****	RB20	10-32												
F1-RB23-10-32x****	RB23	10-32												
F1-RB38-10-32x****	RB38	10-32												
F1-T38x19-10-32x****	T38x19	10-32												
F1-SB30-1/4-20x****	SB30	1/4-20												
F1-RB19-1/4-20x****	RB19	1/4-20												
F1-RB20-1/4-20x****	RB20	1/4-20												
F1-RB23-1/4-20x****	RB23	1/4-20												
F1-RB38-1/4-20x****	RB38	1/4-20												
F1-T38x19-1/4-20x****	T38x19	1/4-20												
F1-SB30-3/8-16x****	SB30	3/8-16												
F1-RB19-3/8-16x****	RB19	3/8-16												
F1-RB20-3/8-16x****	RB20	3/8-16												
F1-RB23-3/8-16x****	RB23	3/8-16												
F1-RB38-3/8-16x****	RB38	3/8-16												
F1-T38x19-3/8-16x****	T38x19	3/8-16												

Standard Special order

Prepare the panel surface by cleaning thoroughly with IPA.

Ensuring the adhesive is fully mixed, dispense sufficient adhesive for the application.

Locate the bonding fastener over the adhesive.

Firmly press the bonding fastener into the adhesive until adhesive flows through the holes in the base plate.

Following the adhesive manufacturer's instructions, allow sufficient curing time.

Once the adhesive is fully cured, the bonding fastener is ready for use.

Material: Steel Electro Zinc or Stainless Steel

Part number is made up as follows:
F1-(Base Plate)-(Thread)

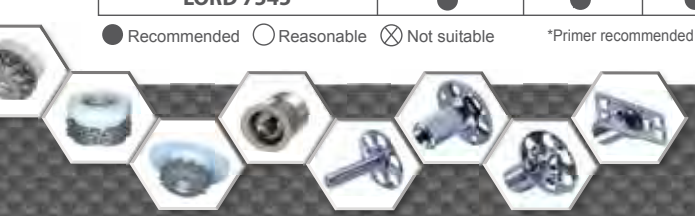
For example:
F2-RB23-1/4-20 F2-(23mm diameter round base plate)-(1/4-20 thread)

Commonly used bonding adhesives and materials compatibilty

www.chemical-concepts.com

Adhesive	Composites	Plastic	Wood	Metal	Natural Stone	Engineered Stone	Glass*
LORD 406/19	●	●	⊗	●	⊗	○	○
Chem-Set™ Ultralok 420GB	●	●	⊗	●	⊗	○	○
LORD 310A/B	●	●	●	○	●	○	⊗
Chem-Set™ 633	●	●	●	○	●	○	⊗
Chem-Set™ 605	●	●	⊗	○	⊗	●	○
LORD 7545	●	●	●	⊗	⊗	○	⊗

● Recommended ○ Reasonable ⊗ Not suitable *Primer recommended for optimum bond on glass. Please refer to adhesive manufacturer specifications for guidance.



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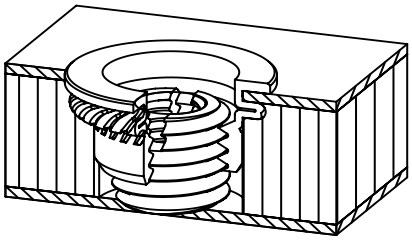
THE INSERT SYSTEM FOR SANDWICH PANELS



Deform-Nut® is a patented threaded insert system that combines mechanical anchoring and structural adhesive to provide strong load-bearing threads in sandwich panel materials (with a honeycomb or composite internal structure).

Expensive or complex solutions such as resin potting or bonding of bushes and tie rods can be avoided.

Furthermore, Deform-Nut allows you to use the same type of product in a wide range of sandwich panel materials and thicknesses, is easy and quick to install and doesn't require any further processes or finishing after installation.

Deform-Nut can be used in any composite material panel, resins, carbon fibre, light alloy, and more.

The 3 stage system comprises:

- A special rivet nut style fastener which is riveted in to the top skin of the panel using conventional rivet nut hand or air tooling
- Structural adhesive is then injected into base of the rivet nut
- A separate adjusting nut is then screwed into the rivet nut until it bottoms out on the bottom skin, displacing the adhesive into the surrounding structure to increase load strength

1. Drill the correct hole from one side of the panel (blind hole)
2. Insert the rivet nut in the hole
3. Using rivet nut setting tool, pull up the rivet nut to to attach it to the top skin of the sandwich panel
4. Inject structural adhesive
5. Insert and screw down the threaded adjusting insert until it reaches the bottom skin of the sandwich panel
6. Fastener is ready for use (time to full strength is dependant on structural adhesive properties)

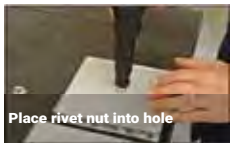

Stone sandwich panel
5mm Marble
15mm Aluminium honeycomb

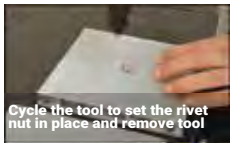

Drilling a blind hole from the Aluminium honeycomb side


Blind hole done
Blow out any debris

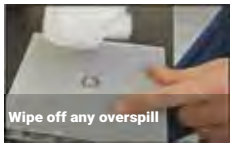

Normal rivet nut tooling is used for stage 1 installation

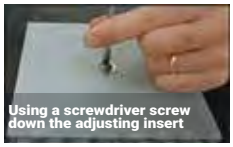

Screw the rivet nut onto the tool mandrel


Place rivet nut into hole


Cycle the tool to set the rivet nut in place and remove tool


Inject structural adhesive two-part LORD 409/19 methacrylate for example


Wipe off any overspill

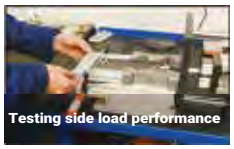

Using a screwdriver screw down the adjusting insert


Adjusting insert in place
Fastener is ready for use

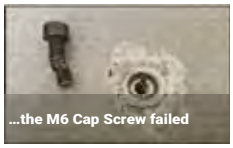

After adhesive has reached full strength we test the pull-out

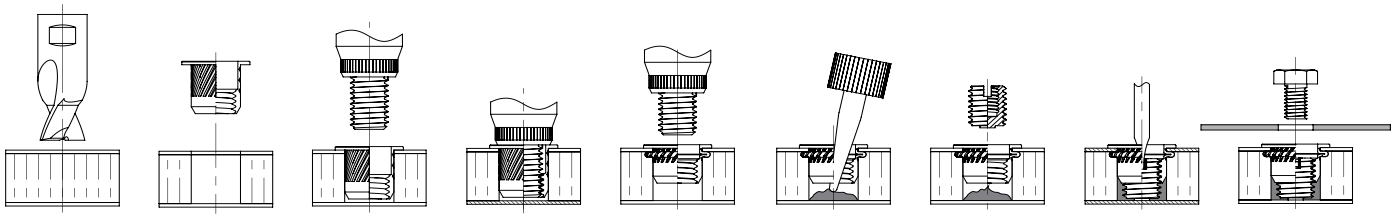

Tensile test rig set up for M6 Deform-Nut


Failure of the honeycomb occurred at 210Kg


Testing side load performance


At a single point shear loading force of 584.5Kg...


...the M6 Cap Screw failed



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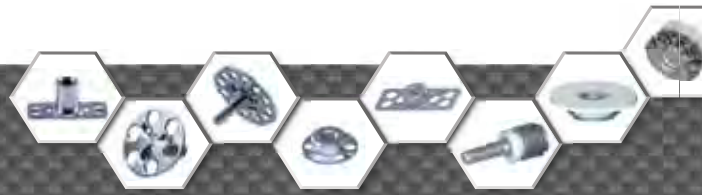

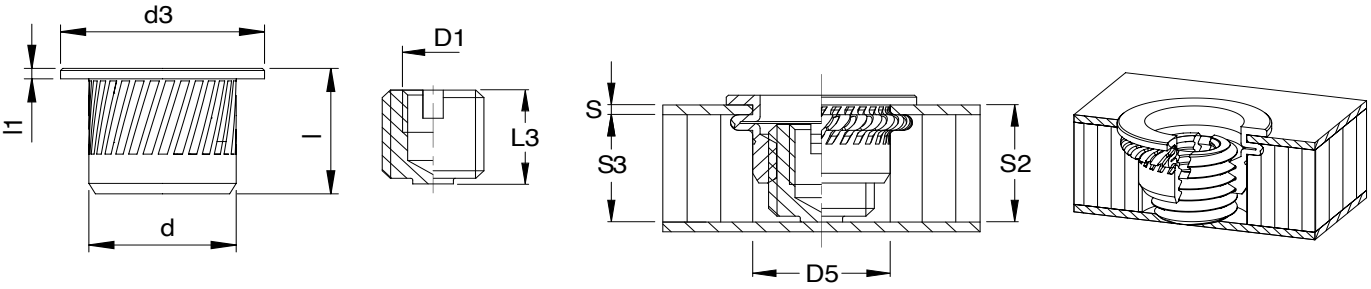

Dimensional

Part Code	D1 6H	S Skin Thickness	S2 * min.	S2 * max	L3	L	D	D3	L1	D5 +0.15 -0.00
TC/DM10XZI-M6/10X	M6	0.5 - 2.0	9.5	13.0	10	10.5	13	18	1	13
TC/DM10XZI-M6/12.5X			12	15.5	12.5					
TC/DM10XZI-M6/15X			14.5	18.0	15					
TC/DM10XZI-M6/17.5X			17.0	20.5	17.5					
TC/DM10XZI-M6/20X			19.5	23.0	20					
TC/DM10XZI-M6/22.5X			22.0	25.5	22.5					
TC/AM10XZI-M6/20X	M6	0.5 - 3.5	20	28	20	21			1.5	13
TC/AM10XZI-M6/22.5X			22	30	22.5					
TC/BM10XZI-M6/20X	M6	3.0 - 6.0	22,5	34	20	23.5	13	16	1.5	13
TC/BM10XZI-M6/22.5X			25	36	22.5					
TC/DM12XZI-M8/15X	M8	0.5 - 2.0	17.5	20	15	18.5	15	18	1.5	15
TC/DM12XZI-M8/20X			20	25	20					
TC/AM12XZI-M8/25X	M8	0.5 - 3.5	25	35	25	25	15	18	2	15
TC/BM12XZI-M8/25X	M8	3.0 - 6.5	28	40	25	28	15	18	2	15

Standard Special order

* S2 dimension variable depending on S dimension and adjusting insert set-up.

Material

Rivet Nut: 303 Stainless Steel
Adjusting Insert: 303 Stainless Steel

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KEEP-NUT® INSERTS

Keep-Nut® is a press-in threaded insert that utilises a mechanical anchoring feature, to provide permanent threads in panels made of marble, granite or other stones, as well as composites, carbon, Corian®, HPL, glass and others solid surface materials.

Keep-Nut is manufactured in stainless steel and consists of a threaded bush, a set of toothed spring washers (crowns), and a plastic ring holding the parts together. Available in different lengths, with or without flange, to fit several different panel thicknesses, Keep-Nut can be installed quickly since the user simply needs to drill the material with the correct hole diameter and press-in the insert. Keep-Nut can also be customised with different versions and sizes, to meet specific customer requirements.

The Keep-Nut insert is specifically developed to fasten ventilated façades, wall-coverings, décor and interiors, furniture, kitchen and sanitary elements, as well as a variety of other applications.

Keep-Nut inserts have several advantages compared to other fasteners for stone and solid materials. The preparation needed is just a cylindrical hole – an undercut hole is not required – which means that standard tools can be used. In addition, assembly by pressure is quick and easy and does not require use of any additional resins or adhesives. Keep-Nut inserts can be used for hidden assemblies without any protruding parts, facilitating the handling and installation of a variety of materials.

In use, the crowns are engaged by axial force, acting radially against the hole wall, effectively permanently locking the insert in place. In addition, the internal thread does not run completely through the bush, which prevents extraction as a result of the use of an excessively long screw.

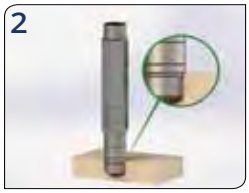
Keep-Nut is a trademark of SPECIALINSERT S.r.l., Corian is a trademark of E. I. du Pont de Nemours and Company.

Comparison of results from tests carried out on a range of materials.

Material	Keep-Nut Type	Average pull-out load on a single insert (lb)*
Granite 20mm—.79"	SPE-IM4S/**/H8.5	1080
Marble 20mm—.79"	SPE-IM4S/**/H8.5	848
Travertine 20mm—.7"	SPE-IM4S/**/H8.5	496
Fibre cement *(high density)* 12mm—.47"	SPE-IM4S/**/H8.5	606
Fibre cement *(high density)* 10mm—.39"	SPE-IM4S/**/H8.5	526
Fibre cement *(high density)* 8mm—.31"	SPE-IM2S/**/H6	275
HPL 12mm—.47"	SPE-IM4S/**/H8.5	1192
HPL 10mm—.39"	SPE-IM4S/**/H8.5	1347
HPL 8mm—.39"	SPE-IM2S/**/H6	595
Corian 12mm—.47"	SPE-IM4S/**/H8.5	1067
Corian 10mm—.39"	SPE-IM2S/**/H6	650
Agglomerate stone 15mm—.59"	SPE-IM4S/**/H8.5	672
Tempered glass 5mm—.19"	SPE-IM1S/**/H5	165

* Tests were carried out under laboratory conditions. Pull-out figures are indicative only and are offered for guidance purposes. It is recommended that you undertake your own tests in the actual application panel material.

Prepare hole in base material to correct specification.



Verify hole diameter using Go/No-Go gauge. Check hole depth against reference line on Go side of gauge.

To ensure correct installation it is recommended that a threaded mandrel is used. Fully screw on the insert and drive into the hole.

Unscrew the mandrel and the insert is installed and ready for use.

Example assembly

Advantages

- Simple hole preparation
- Quick installation
- No need for resins or adhesives
- Radial force is produced only while the insert is under tensile load. The crowns spread the load into the parent material, allowing large loads to be carried
- Thread stops before end of insert, avoiding extraction as a result of the use of an excessively long bolt

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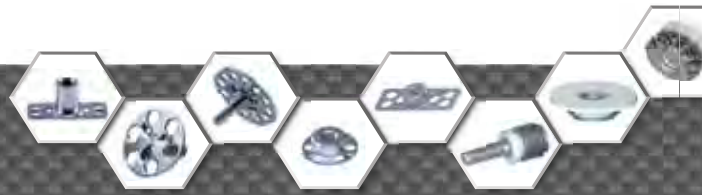
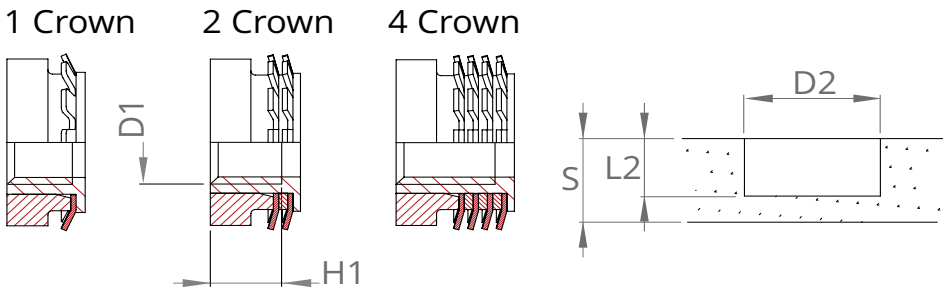
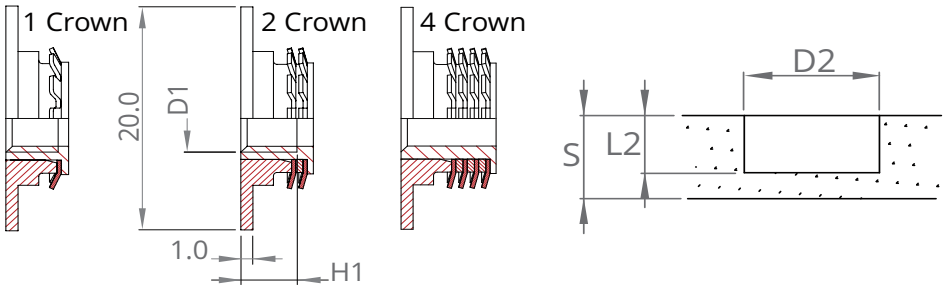




Dimensional

Code	Thread Sizes	Min. Surface Thickness S**	Drill Hole Diameter d2	Drill Hole Depth l2	Internal Thread Depth h1	Number of Crowns	Average Assembly Press-In Force	Average Pull-Out Strength
SPE-IM1S/**/H5	M4 M5 M6 10/24 10/32 1/4-20	8.0 mm 0.31”	11.8 mm***	5.5 mm 0.22”	4.5 mm 0.18”	1	0.2 kN* 45 lbs*	0.9 kN* 202 lbs*
SPE-IM2S/**/H6	M4 M5 M6 10/24 10/32 1/4-20	8.5 mm 0.33”	11.8 mm***	6.5 mm 0.26”	5.5 mm 0.22”	2	0.4 kN* 89 lbs*	2.5 kN* 562 lbs*
SPE-IM4S/**/H8.5	M4 M5 M6 10/24 10/32 1/4-20	11.0 mm 0.43”	11.8 mm***	9.0 mm 0.36”	7.5 mm 0.30”	4	1.0 kN* 225 lbs*	3.5 kN* 787 lbs*
SPE-IM4S/**/H14.5	M4 M5 M6 10/24 10/32 1/4-20	17.5 mm 0.69”	11.8 mm***	15.5 mm 0.61”	14.0 mm 0.55”	4	1.0 kN* 225 lbs*	4.2 kN* 944 lbs*

*Figures are indicative only and are offered for guidance purposes
**Minimum material thickness is related to parent material characteristics.
***11.8 mm Diameter Bits are required for the Keep-Nut™.
Contact Chemical Concepts to determnine which type of 11.8 mm bit you need for your application.
It is recommended that you undertake your own tests in the actual application panel material.



Dimensional

Code	Thread Sizes	Min. Surface Thickness S**	Drill Hole Diameter d2	Drill Hole Depth l2	Internal Thread Depth h1	Number of Crowns	Average Assembly Press-In Force	Average Pull-Out Strength
SPE-IM1T/**/H5	M4 M5 M6 10/24 10/32 1/4-20	7.0 mm 0.28”	11.8 mm***	4.5 mm 0.18”	4.5 mm 0.18”	1	0.2 kN* 45 lbs*	0.5 kN* 112 lbs*
SPE-IM2T/**/H6	M4 M5 M6 10/24 10/32 1/4-20	7.5 mm 0.30”	11.8 mm***	5.5 mm 0.22”	5.5 mm 0.22”	2	0.4 kN* 89 lbs*	1.7 kN* 382 lbs*
SPE-IM4T/**/H8.5	M4 M5 M6 10/24 10/32 1/4-20	10.0 mm 0.40”	11.8 mm***	8.0 mm 0.32”	7.5 mm 0.30”	4	1.0 kN* 225 lbs*	2.9 kN* 652 lbs*

*Figures are indicative only and are offered for guidance purposes
**Minimum material thickness is related to parent material characteristics.
***11.8 mm Diameter Bits are required for the Keep-Nut™.
Contact Chemical Concepts to determnine which type of 11.8 mm bit you need for your application.
It is recommended that you undertake your own tests in the actual application panel material.

TYPE IM_S no flange

Material & Finish

Bush: Stainleds Steel
Crown: Stainless Steel
Body: Plastic

Part Number Examples

Part number is made up as follows:
SPE (Type code)-(Thread)-(Height)

For example:

SPE-IM2S/1.4-20/H6

SPE-(IM 2 Crown S Version) 1/4-20 Thread) (6mm Height)

TYPE IM_T with flange

Material & Finish

Bush: Stainleds Steel
Crown: Stainless Steel
Body: Plastic

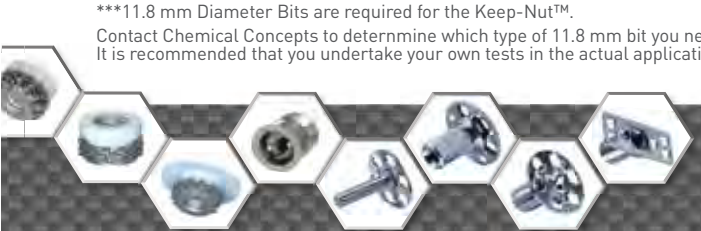
Part Number Examples

Part number is made up as follows:
SPE (Type code)-(Thread)-(Height)

For example:

SPE-IM2T/1.4-20/H6

SPE-(IM 2 Crown T Version) 1/4-20 Thread) (6mm Height)



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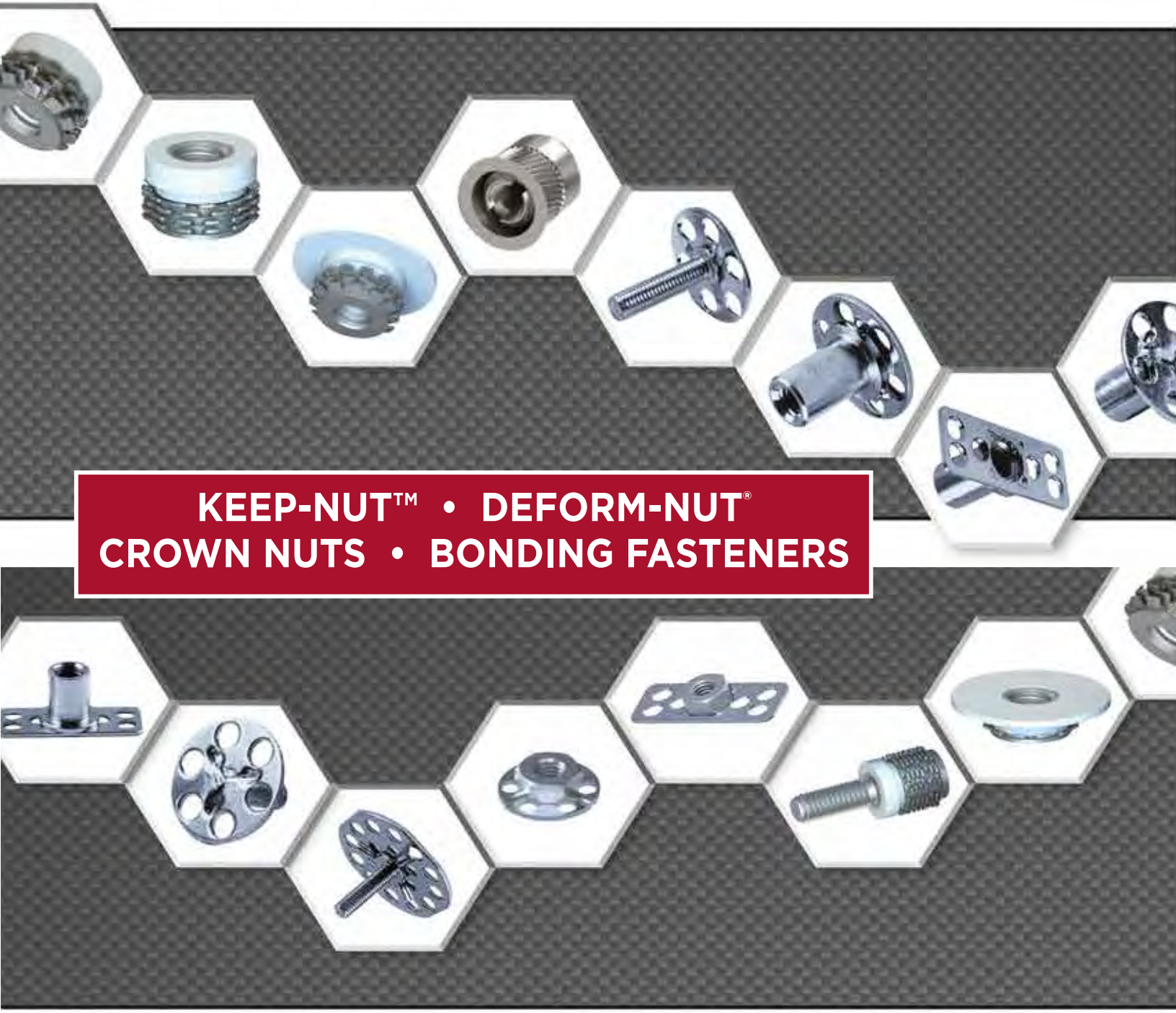

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