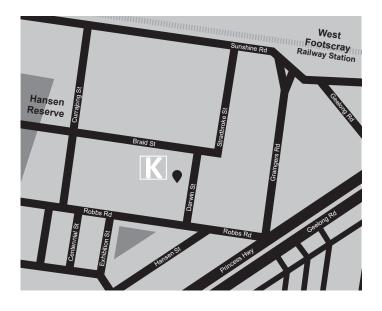


# KEABLES

The Original Bolt and Nut Specialists"

### PRODUCT GUIDE

### **KEABLES** "The Original Bolt and Nut Specialists"



#### **Open Monday - Friday**

7am - 4.30pm (phone sales)

7am – 4.00pm (counter sales and service) Callout service available weekends, holidays and shutdown periods.

11 Braid St, West Footscray VIC 3012 t. +61 3 9321 6400 f. +61 3 9328 1489 sales@keables.com.au info@keables.com.au www.keables.com.au

Published by Hobson Engineering Co. Pty. Ltd. P.O. Box 320 Horsley Park NSW 2175

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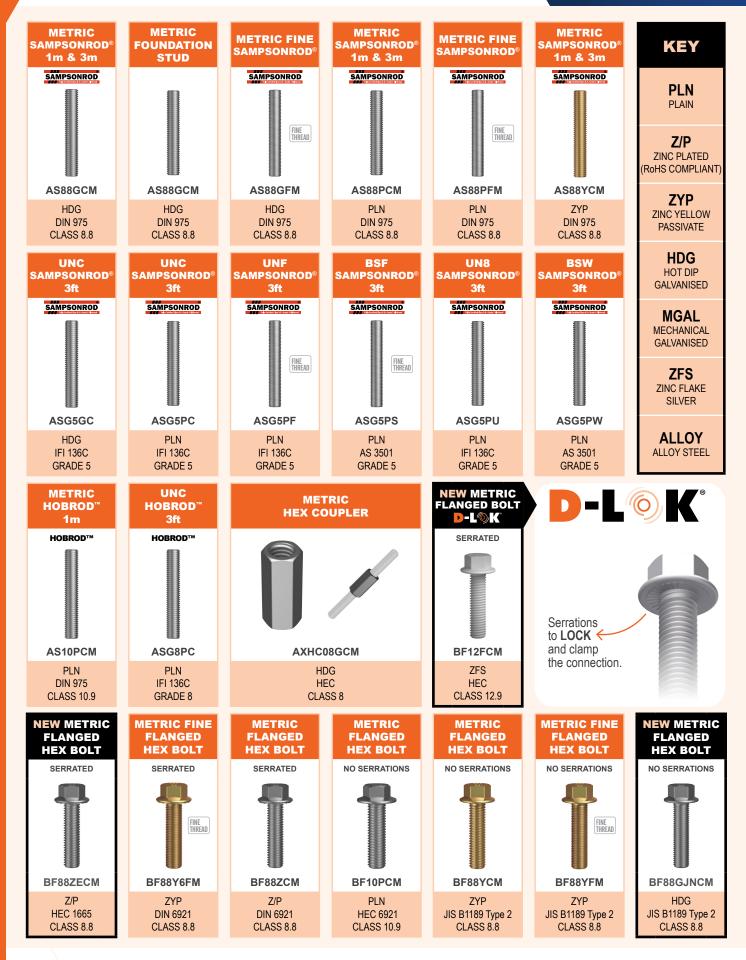


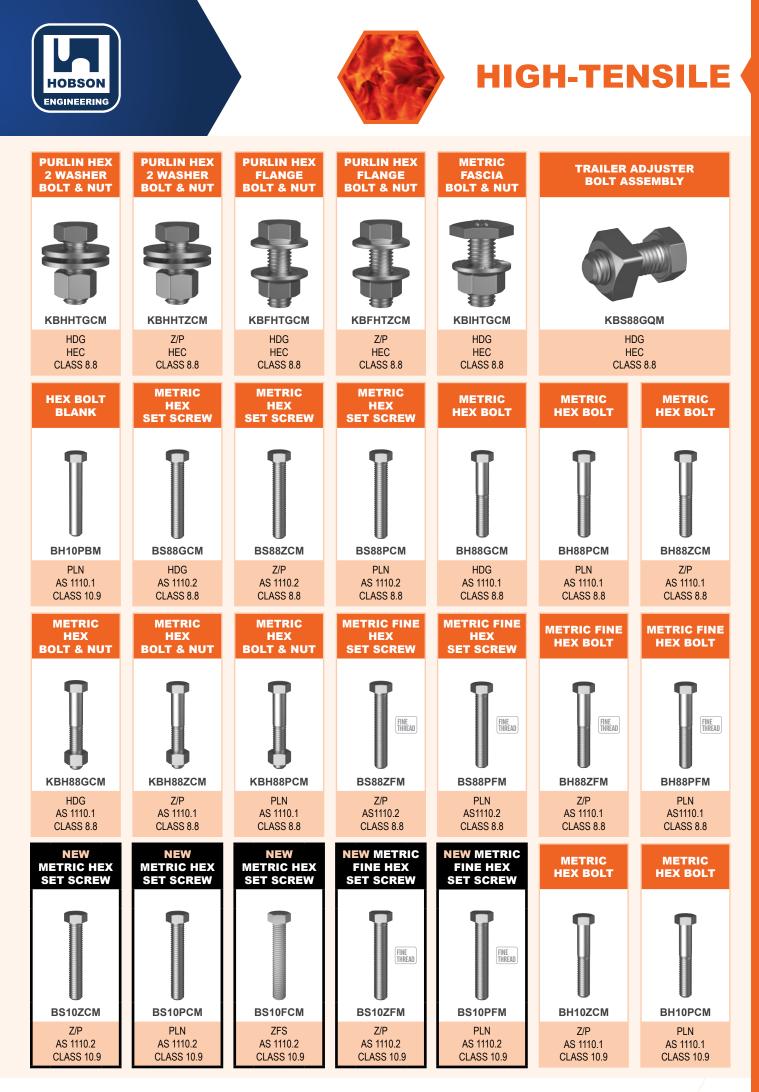
## **HIGH-TENSILE**

REC



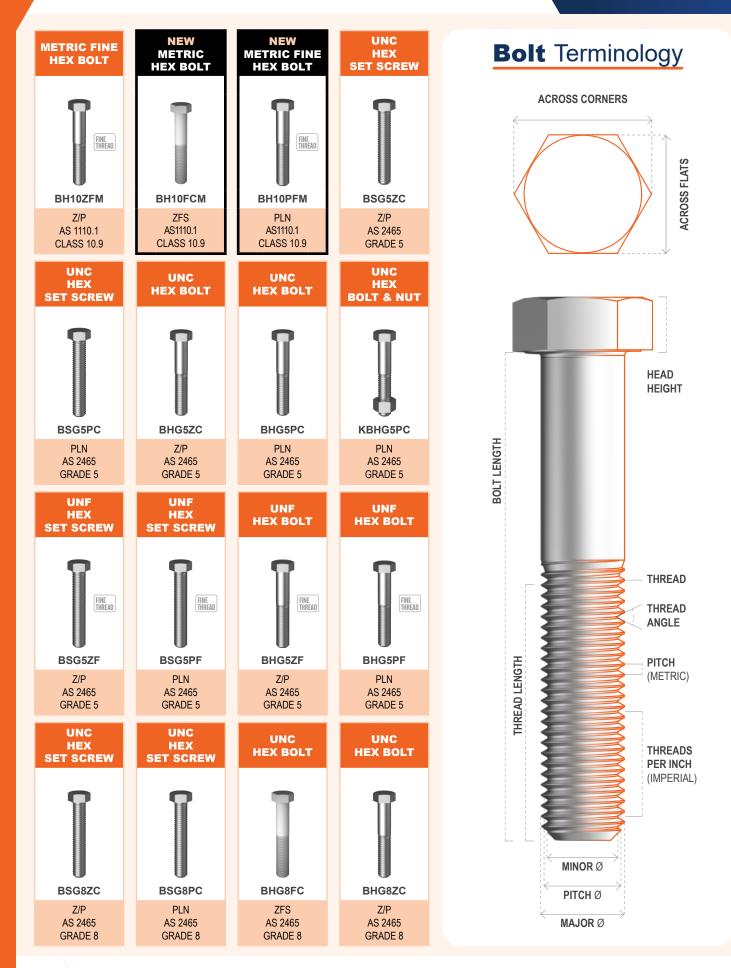








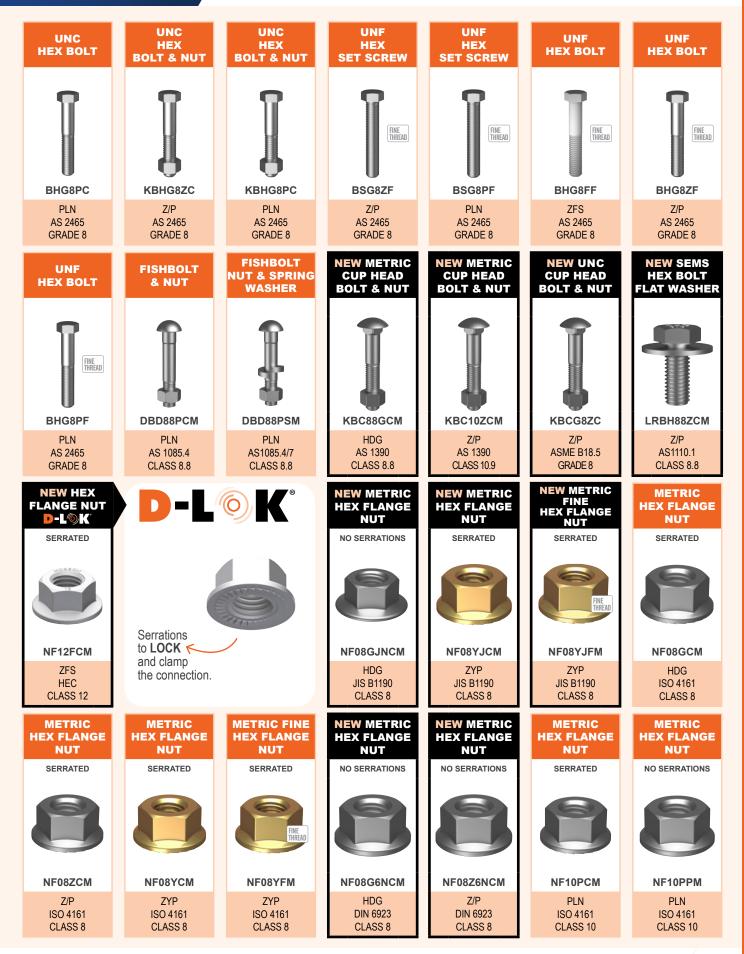








### **HIGH-TENSILE**



**HIGH-TENSILE** 





**HIGH-TENSILE** 





# STRUCTURAL





AS/NZS 1252: 2016 K0 8.8 HR

### **Structural Assembly**

Setting the standard in structural bolting





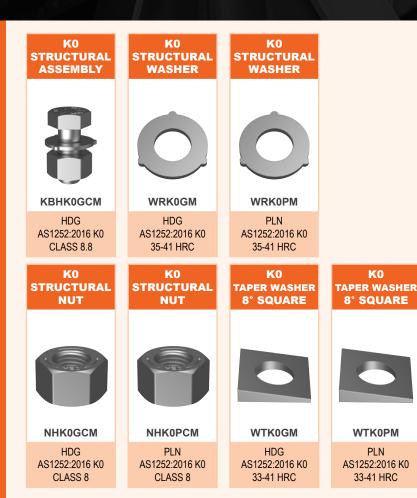


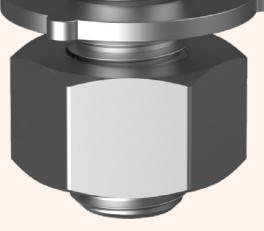
PRODUCT

DOCUMENTATION

K0 RANGE COMPLIES WITH AS/NZS 1252

LABEL





22





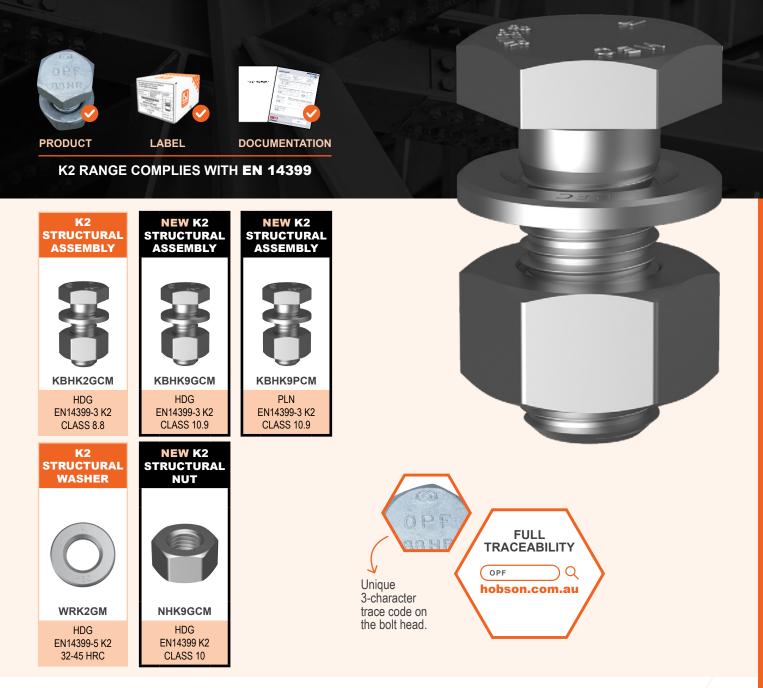


STRUCTURAL

EN 14399-3 K2 8.8 HR

### **Structural** Assembly

Setting the standard in structural bolting







**ASTM A325M TYPE 3 8.8** 

# Structural Assembly

For enhanced weather resistance





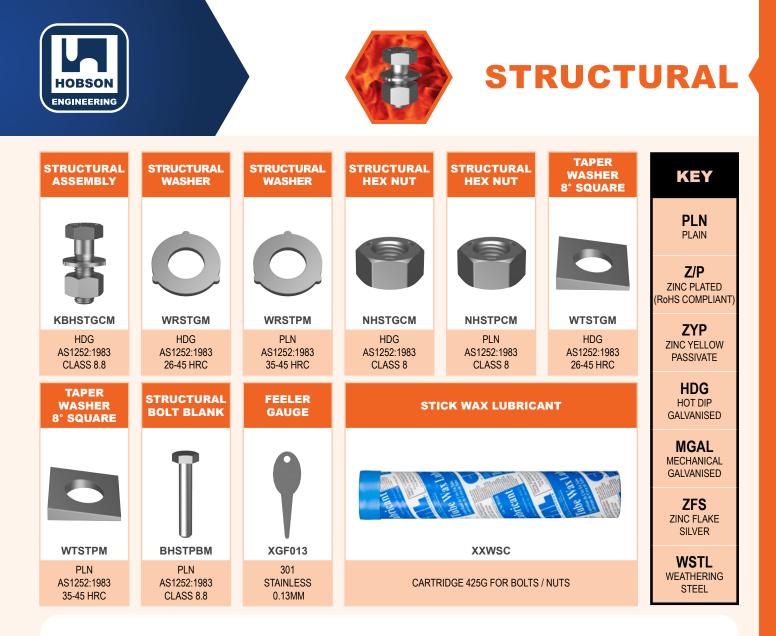


### **Weathering Steel**



Q

**PATINA** forms and matures on the top layer when subjected to alternating wet and dry conditions.



#### Accreditation, Certification and Memberships







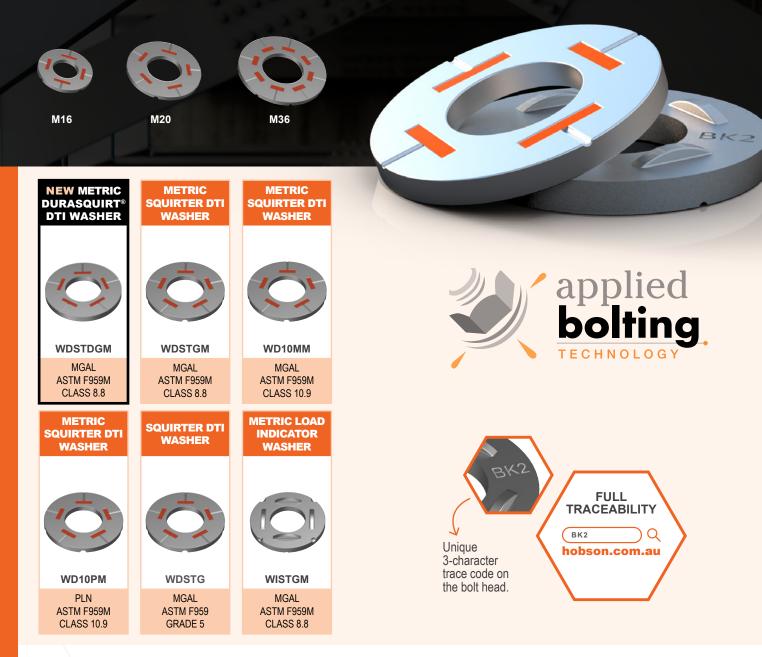
ASTM F959 DIRECT TENSION INDICATOR





Visual confirmation of the bolt tension.

Make bolting simple







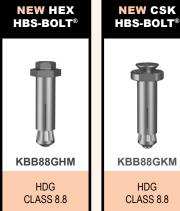
### **STRUCTURAL**

**CLASS 8.8 - BLIND & HOLLOW STEEL CONNECTIONS** 

# R

**One-sided installation** 













3-PART ASSEMBLY M8 | M10 | M12



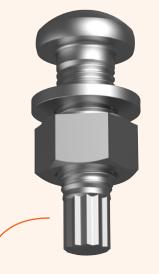


5-PART ASSEMBLY M16 | M20



NEW K0 TCBOLT





2

#### • The Spline

### TCBOLTS are installed with TONE® TCBOLT Shear Wrenches

When the correct pre-load is reached, the outer socket stops rotating. The inner socket then counter-rotates and shears the spline off before the wrench safely ejects the spline. The bolt is now properly installed with the correct tension.

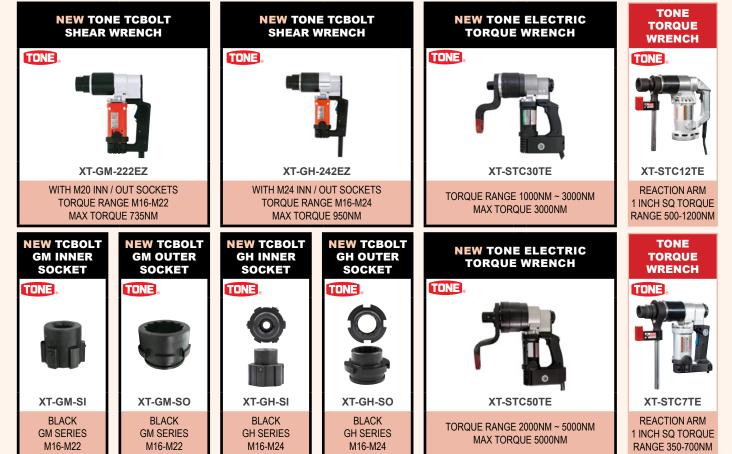






### STRUCTURAL





STRUCTURAL





### Structural Bolting

**Tension methods** 



#### PART-TURN METHOD

#### SQUIRTER DTI METHOD

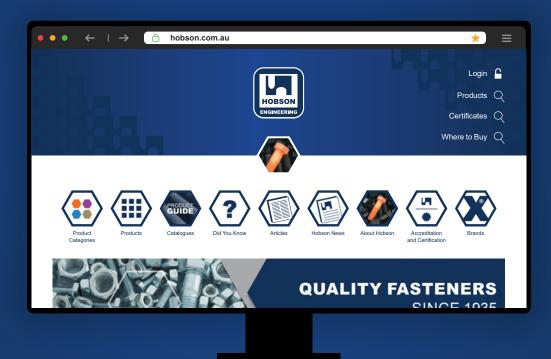
| TENSION INDICATION<br>(INSPECTION) | ROTATION OF NUT<br>RELATIVE TO BOLT | COMPRESSION OF BUMPS,<br>SQUIRT MEDIUM | SPLINE END<br>SHEARED OFF  |
|------------------------------------|-------------------------------------|--|--|
| INSTALLATION TIME                  | 0000                                |  | ΞC   |
| INSTALLERS NEEDED                  |                                     |  | 2  |
| ENSURES<br>MINIMUM TENSION         | 8                                   |  |  |
|                                    |                                     | is offset by <b>major</b>              | nown that on medium to large projects<br>OTI washers and TCBOLTS methods<br>savings in installation, supervision,<br>high-strength joints. |

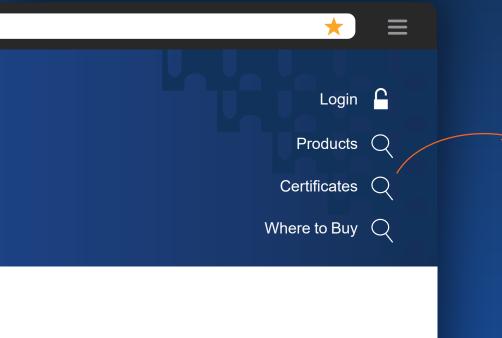
**TCBOLT** 

**METHOD** 



### Quality Assurance **Documentation** Online





Go to hobson.com.au and click on Certificates Q to find the relevant documentation.

Type the unique 3-character Trace Code on the bolt head, or the Trace Number on the label.





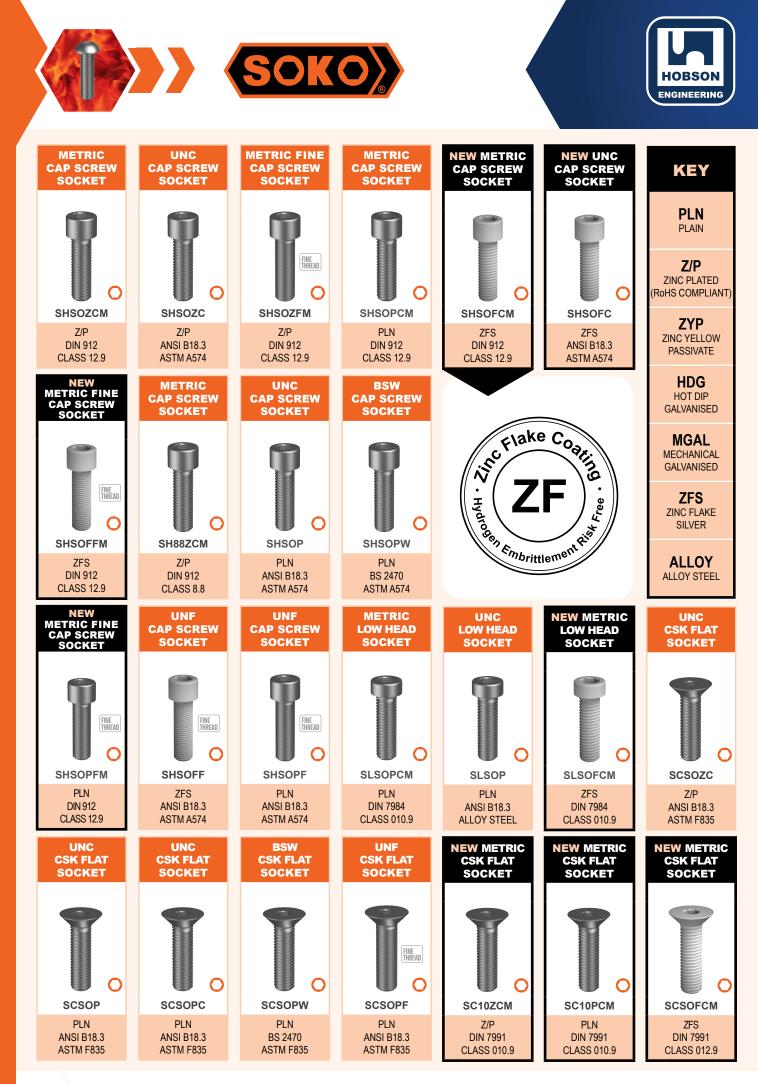










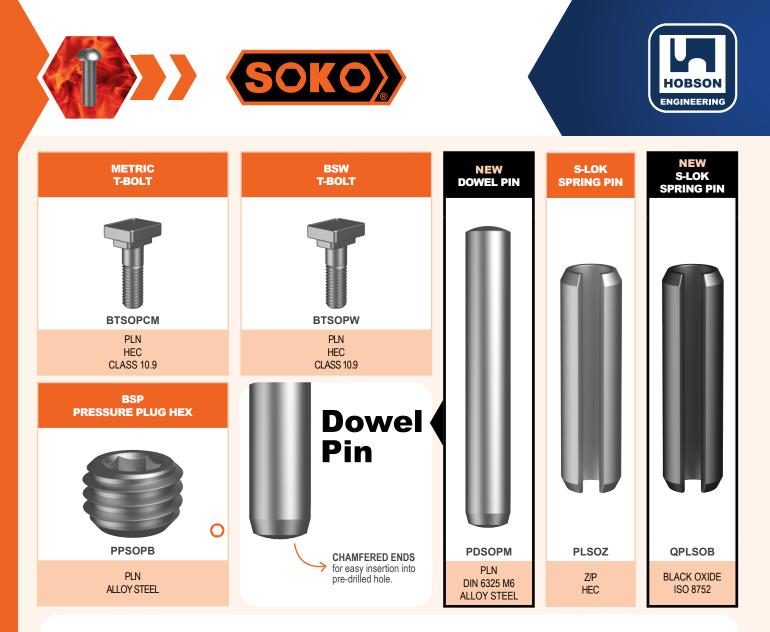








| METRIC                                   | METRIC   | METRIC                                     | METRIC                                    | UNC                                     | UNC                        | UNF           |
|--|--|--|---|---|----------------------------|---------------|
| CSK FLAT                                 | CSK FLAT   | BUTTON HEAD                                | BUTTON HEAD                               | BUTTON HEAD                             | BUTTON HEAD                | BUTTON HEAD   |
| SOCKET                                   | SOCKET   | SOCKET                                     | SOCKET                                    | SOCKET                                  | SOCKET                     | SOCKET        |
| SCSOZCM                                  | SCSOPCM  | SBSOZCM                                    | SBSOPCM                                   | SBSOZC O                                | SBSOP O                    | SBSOPF        |
| Z/P                                      | PLN  | Z/P  | PLN                                       | Z/P                                     | PLN                        | PLN           |
| DIN 7991                                 | DIN 7991   | ISO 7380                                   | ISO 7380                                  | ANSI B18.3                              | ANSI B18.3                 | ANSI B18.3    |
| CLASS 012.9                              | CLASS 012.9                                      | CLASS 012.9                                | CLASS 012.9                               | ASTM F835                               | ASTM F835                  | ASTM F835     |
| NEW METRIC                               | BSW  | METRIC                                     | NEW METRIC                                | METRIC                                  | METRIC                     | METRIC        |
| BUTTON HEAD                              | BUTTON HEAD                                      | BUTTON HEAD                                | BUTTON HEAD                               | BUTTON HEAD                             | PLAIN PNT                  | KNURL CUP PNT |
| SOCKET                                   | SOCKET   | SOCKET                                     | SOCKET                                    | SOCKET                                  | SOCKET                     | SOCKET        |
| SBSOFCM                                  | SBSOPW   | SB10ZCM                                    | SB10PCM                                   | SB88ZCM                                 | SSSPPCM                    | SSSKZCM       |
| ZFS                                      | PLN  | Z/P  | PLN                                       | Z/P                                     | PLN                        | Z/P           |
| ISO 7380                                 | BS 2470  | ISO 7380                                   | ISO 7380                                  | ISO 7380                                | ISO 4029                   | ISO 4029      |
| CLASS 012.9                              | ALLOY STEEL                                      | CLASS 010.9                                | CLASS 010.9                               | CLASS 08.8                              | ALLOY STEEL                | ALLOY STEEL   |
| METRIC                                   | NEW UNC  | METRIC                                     | UNC                                       | UNC                                     | UNC                        | BSW           |
| KNURL CUP PNT                            | KNURL CUP PNT                                    | DOG PNT                                    | PLAIN PNT                                 | KNURL CUP PNT                           | KNURL CUP PNT              | KNURL CUP PNT |
| SOCKET                                   | SOCKET   | SOCKET                                     | SOCKET                                    | SOCKET                                  | SOCKET                     | SOCKET        |
| SSSKPCM                                  | SSSKFCM  | SSSDPCM                                    | SSSPPC O                                  | SSSKP O                                 | SSSKPC                     | SSSKPW O      |
| PLN                                      | ZFS  | PLN  | PLN                                       | PLN                                     | PLN                        | PLN           |
| ISO 4029                                 | ISO 4029   | DIN 915                                    | ANSI B18.3                                | ANSI B18.3                              | ANSI B18.3                 | BS 2470       |
| ALLOY STEEL                              | ALLOY STEEL                                      | ALLOY STEEL                                | ASTM F912                                 | ASTM F912                               | ASTM F912                  | ALLOY STEEL   |
| UNF<br>KNURL CUP PNT<br>SOCKET           | UNF<br>PLAIN PNT<br>SOCKET                       | UNC<br>SHOULDER<br>SOCKET                  | METRIC<br>SHOULDER<br>SOCKET              | BSW<br>SHOULDER<br>SOCKET               | MET<br>HEX                 |               |
| SSSKPF<br>PLN<br>ANSI B18.3<br>ASTM F912 | FINE<br>SSSPPF<br>PLN<br>ANSI B18.3<br>ASTM F912 | SOSOPC<br>PLN<br>ANSI B18.3<br>ALLOY STEEL | SOSOPCM<br>PLN<br>ISO 7379<br>CLASS 012.9 | SOSOPW<br>PLN<br>BS 2470<br>ALLOY STEEL | NH12<br>PL<br>AS11<br>CLAS | N<br>12.1     |



#### Marking symbols for fasteners with reduced loadability



Fasteners with reduced loadability possess material properties according to the appropriate standard. However, geometry inhibits them from achieving full tensile capacity.

Countersunk (Flat), Buttonhead and Low Head Socket cap screw have reduced loadability as the stress area in the head is smaller than that in the threads.

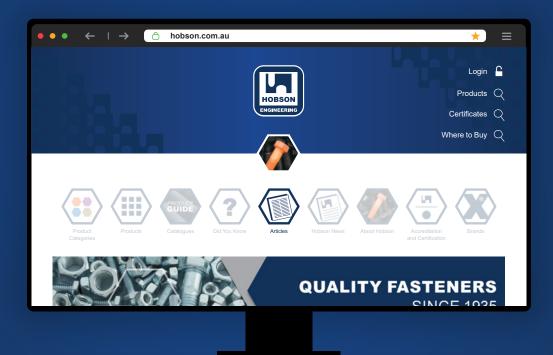
The head markings of fasteners with reduced loadability are prefixed with a '0'.

| Property Class | 8.8  | 10.9  | 12.9  |
|----------------|------|-------|-------|
| Marking        | 08.8 | 010.9 | 012.9 |





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#### Bolts and Set Scre Are they intercl

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HOBSONARTICLES

Reduced Loadability of Countersunk Socket Head Cap

#### Screws

HOBSONARTICLES

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43

## EARTHMOVING





#### GRADE 8 AND 9

# PLOW BOLTS&NUTS

UNC PLOW BOLT UNC PLOW BOLT





GRADE 8

UNC

PLOW BOLT LONG SHOULDER

CBLG9PC

PLN

**GRADE 9** 

Securing the cutting edges of earthmoving blades.

UNC PLOW BOLT RAISED HEAD STEPPED

PLN

GRADE 9





PLN GRADE 9





CNPG8PC

PLN GRADE 8



Cold forged square neck and raised head for greater strength.





**GRADE 8 AND 9** 

# UNF

**METRIC FINE** DOME HEX TRACK BOLT

> FINE THREAD CBTG9DFM CBTG9DF PLN

DOME HEX

TRACK BOLT

PLN

FINE THREAD

Made from high grade alloy steel for increased toughness.



EARTHMOVING





# PETROCHEMICAL





#### **EXCELLENT CORROSION RESISTANCE**

# PETRO CHEMICAL

#### Wide range of coatings for oil, gas and mining



| UN8<br>STUD BOLT<br>& NUT KIT        | UNC<br>STUD BOLT<br>& NUT KIT   | UN8<br>STUD BOLT<br>& NUT KIT        | UNC<br>STUD BOLT<br>& NUT KIT        | UN8<br>STUD BOLT<br>& NUT KIT        | UNC<br>STUD BOLT<br>& NUT KIT        | KEY                                     |
|--------------------------------------|---|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|---|
| •                                    |   |                                      | -                                    | -                                    | •                                    | PLN<br>PLAIN                            |
|                                      | - And |                                      | <b></b>                              | <b></b>                              |                                      | Z/P<br>ZINC PLATED<br>(RoHS COMPLIANT)  |
| KSPB7PU                              | KSPB7YC   | KSPB7YU                              | KSPB7GC                              | KSPB7GU                              | KSPB7BC                              | ZYP                                     |
| PLN<br>ASTM A193/A194<br>Grade B7 2H | ZYP<br>ASTM A193/A194<br>Grade B7 2H  | ZYP<br>ASTM A193/A194<br>Grade B7 2H | HDG<br>ASTM A193/A194<br>Grade B7 2H | HDG<br>ASTM A193/A194<br>Grade B7 2H | XYB<br>ASTM A193/A194<br>Grade B7 2H | ZINC YELLOW<br>PASSIVATE                |
|                                      |   |                                      |                                      |                                      |                                      |   |
| UN8<br>STUD BOLT<br>& NUT KIT        | UNC<br>STUD BOLT  | UN8<br>STUD BOLT                     | UNC<br>STUD BOLT                     | UN8<br>STUD BOLT                     | UN8<br>STUD BOLT                     | HDG<br>HOT DIP<br>GALVANISED            |
| STUD BOLT                            |   |                                      |                                      |                                      |                                      | HOT DIP                                 |
| STUD BOLT                            |   |                                      |                                      |                                      |                                      | HOT DIP<br>GALVANISED                   |
| STUD BOLT                            |   |                                      |                                      |                                      |                                      | HOT DIP<br>GALVANISED<br>CAD<br>CADMIUM |

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UNC

STUD BOLT & NUT KIT





## PETROCHEMICAL



PETROCHEMICAL



hobson.com.au

NP2HPW

PIN

ASTM A194

Grade 2H

NP2HWC

7P XYB

ASTM A194

Grade 2H

NP2HWU

7P XYB

ASTM A194

Grade 2H

PETROCHEMICAL

NPHMPU

PIN

ASTM A194

Grade 2HM

**NPHMPC** 

PI N

ASTM A194

Grade 2HM

NP2HPCM

PI N

ASTM A194M

Grade 2H

NP2HPF

PIN

ASTM A194

Grade 2H





# PETROCHEMICAL

| PETROCHEMICAL COATINGS |                                    |   |                      |                         |   |
|------------------------|------------------------------------|---|----------------------|-------------------------|---|
| lcon/                  | Coating                            | Standard                                | Coating<br>Thickness | Corrosion<br>Resistance | Description   |
| HDG                    | HOT DIP<br>GALVANISED              | ASTM<br>A153/M                          | 53µm                 | HIGH                    | HDG products possess a high level of corrosion resistance and are recommended for long-term outdoor applications.   |
| Z/P                    | ZINC PLATED<br>(ROHS<br>COMPLIANT) | ISO<br>4042                             | 5µm                  | LOW                     | Product is electroplated with zinc which<br>is then passivated with a transparent<br>conversion layer. Z/P products are<br>recommended for indoor and non-corrosive<br>environments.  |
| ZYP                    | ZINC YELLOW<br>PASSIVATE           | ISO<br>4042                             | 5µm                  | LOW                     | Product is electroplated with zinc which is<br>then passivated with an iridescent yellow<br>conversion layer. ZYP products are<br>recommended for indoor and non-corrosive<br>environments.   |
| CAD                    | CADMIUM                            | ASTM<br>B-766                           | 12µm                 | MODERATE                | Cadmium provides moderate corrosion<br>resistance and is suitable for high-<br>temperature and marine applications. It<br>offers good lubricity for even tensioning and<br>is an exceptional bonding surface for paint<br>and other adhesives.  |
|                        | 1PX1                               | PROPRIETARY<br>COATING<br>SPECIFICATION | 10µm                 | MODERATE                | 1PX1 significantly reduces friction coefficent<br>and ensures evenly tensioned fasteners. It<br>provides an excellent undercoat for epoxy<br>paints and has good resistance to acids.   |
| ХҮВ                    | XYLAN BLUE                         | PROPRIETARY<br>COATING<br>SPECIFICATION | 25µm                 | HIGH                    | Xylan Blue significantly reduces friction<br>coefficient and ensures evenly tensioned<br>fasteners. It maintains exceptional corrosion,<br>chemical and weather resistance, and<br>provides an excellent undercoat for epoxy<br>paints. The standard colours are Xylan Blue<br>and Xylan Green. |
| PLN                    | NO COATING                         | -                                       | -                    | -                       | No additional coating applied. Products are supplied lightly-oiled to inhibit rust in the packaging and assist with installation.   |
|                        |                                    |   |                      |                         | TM A320 L7 and ASTM A193 B16.<br>be sourced upon request.   |





# **NORD-LOCK<sup>®</sup>**





### **NO MORE LOOSE BOLTS!**



# Wedge-locking technology

Swedish Engineering







# NORD-LOCK<sup>®</sup> WASHER MATERIAL / TYPE GUIDE

| APPLICATION<br>PARAMETER        | STEEL<br>WASHERS  | STAINLESS<br>STEEL<br>WASHERS   | 254 SMO®<br>WASHERS  | INCONEL®/<br>HASTELLOY®<br>C-276<br>WASHERS  | INCONEL® 718<br>WASHERS   |
|---------------------------------|---|---|--|--|---|
| STEEL TYPE (EN)                 | 1.7182  | 1.4404  | 1.4547   | 2.4819 or equivalent   | 2.4667 or equivalent  |
| EXAMPLES OF<br>APPLICATIONS     | General steel applications  | General stainless<br>steel applications.<br>Non-chlorine/acid<br>environments | General salt water<br>applications,<br>pumps, chloride,<br>heat exchangers,<br>nuclear,<br>desalination, food<br>processing and<br>medical equipment | General acidic<br>environments, process<br>and chemical industry,<br>evaporators, offshore<br>downhole tooling | Applications with<br>high temperatures,<br>gas turbines, turbo<br>charges, incinerators |
| AVAILABLE FOR<br>BOLT SIZES     | M3-M130   | M3-M80  | M3-M39   | M3-M39   | M3-M39  |
| TREATMENT<br>SURFACE<br>COATING | Through<br>hardened<br>Delta Protekt <sup>®</sup><br>base coat<br>(KL100) and top<br>coat (VH302GZ) | Surface hardened  | Surface hardened   | Surface hardened   | Surface hardened  |
| WASHER<br>HARDNESS*             | ≥ 465 HV1   | ≥ 520HV0,05   | ≥ 600HV0,05  | ≥ 520HV0,05  | ≥ 620HV0,05   |
| CORROSION<br>RESISTANCE         | Minimum 1000<br>hours in salt<br>spray test<br>(according to<br>IS09227)                            | PREN 27**   | PREN 45**  | PREN 68**  | PREN 29**   |
| BOLT GRADES                     | Up to 12.9  | Up to A4-80   | Up to A4-80  | -  | -   |
| TEMPERATURE<br>RANGE***         | -50°C to 200°C  | -160°C to 500°C   | -160°C to 500°C  | -160°C to 500°C  | -160°C to 700°C   |

\* In order to ensure the unique mechanical locking function of the Nord-Lock<sup>®</sup> washers, the hardness of the mating surfaces must be lower than the hardness of the Nord-Lock<sup>®</sup> washers (see table above).

\*\* PREN (Pitting Resistance Equivalent Number) = %Cr + <sup>3</sup>, <sup>3</sup>x%Mo + <sup>16</sup>x%N. The table figures are valid for base material. A higher PREN indicates better corrosion resistance.

\*\*\* Temperature recommendations are based on information from tests and the raw material supplier. The locking function is not affected within the specification.







Superbolt<sup>™</sup> tensioners are designed as direct replacements for conventional nuts and bolts. These devices can be threaded onto a new or existing bolt, stud, threaded rod or shaft.

### THE SUPERBOLT<sup>™</sup> PRINCIPLE

The main thread serves to position the tensioner on the bolt or stud against the hardened washer and the loadbearing surface. Once it is positioned, actual tensioning of the bolt or stud is accomplished with simple hand tools by torqueing the jackbolts that encircle the main thread.

The jackbolts transfer the preload evenly into the main thread and, onto the joint. The main thread is tightened in pure tension. The multi-jackbolt tensioners offer you simple and cost-effective tightening for large size bolts.

By tightening the jackbolts, a strong thrust (axial) force is generated. This thrust force is directed against a hardened washer. Jackbolts have a small friction diameter and can create a high thrust force with relatively little torque input.

- 2 The loads are transferred through the nut body which is positioned on the main thread by hand.
- 3 A hardened washer is used to transfer the force while protecting the flange face.
- 4 The thrust (axial) force of jackbolts and the opposite reaction force of the main bolt head create a strong clamping force on the flange.
- 5 The thrust (axial) force from the jackbolt creates an equally strong reaction force in the main bolt.









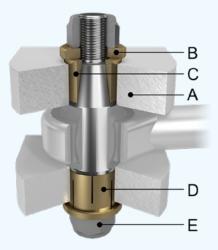


Expander<sup>®</sup> offers an advanced, costeffective solution that permanently prevents pivot wear. With Expander<sup>®</sup>, repairs can be carried out directly in the worn mountings without welding and line-boring.

### THE EXPANDER® SYSTEM

The assembly includes an axle tapered at both ends, two expansion sleeves, two tension washers and two fasteners. When the fasteners are torqued, the tension washers push the expansion sleeves up the tapered part of the pin, locking the system into the lug ears and eliminating movement that causes pivot wear.

The double-sided locking mechanism provides increased stability, security and a backlash-free joint. Installation can be easily done in the field, reducing downtime and cost.

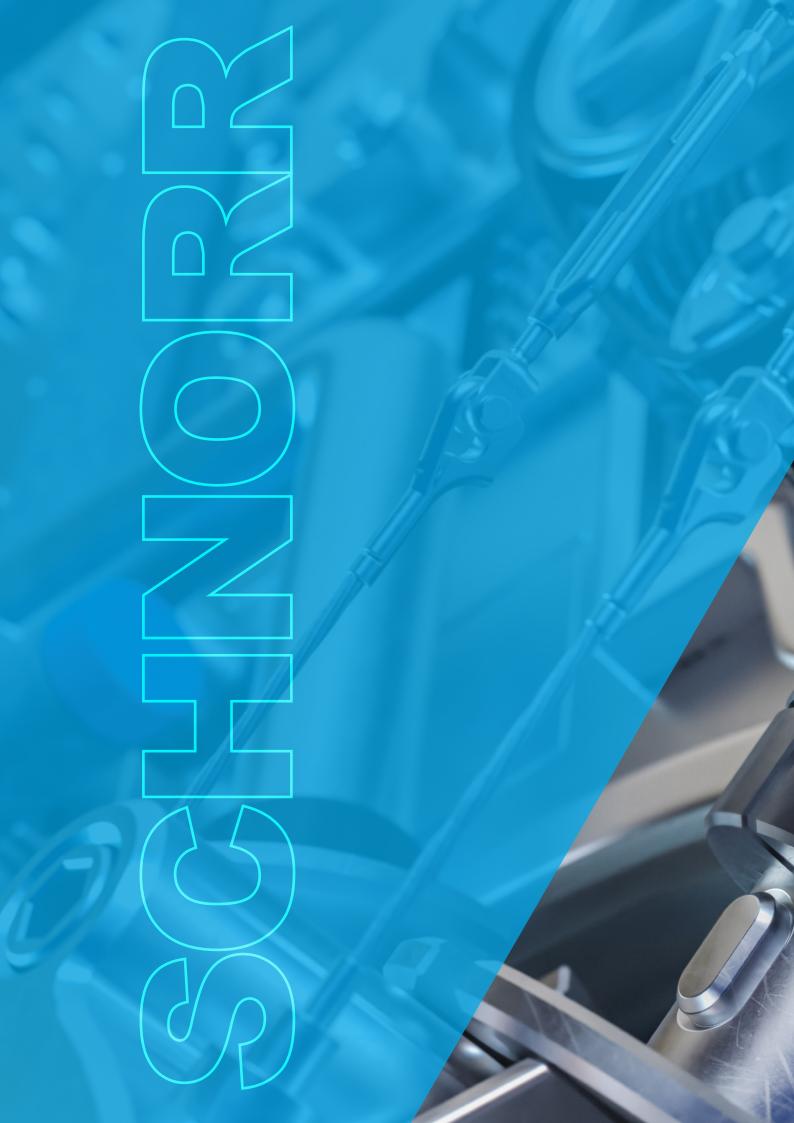


- A Expander<sup>®</sup> System is installed directly into the existing mounting without expensive welding and line-boring.
- **B** Upon tightening the fasteners, the washer presses the slotted expansion sleeve up the tapered ends of the pin.
- **C** The sleeves expand, conform with the wear pattern and lock the system in the lug ears.
- D Once retorqued according to the instructions, the system will lock from both sides and significantly increase stability.
- E Easy to remove and reinstall compared to regular straight pins.

Conventional pins have axial locking only, but the Expander® System consists of both radial and axial locking. This gives a stronger box construction to the whole machine pivot. The sleeves expand over both ends of the tapered axle and lock securely even in worn lug holes. If the hole has been worn oval, the Expander® System fills out the ovality and ensures a secure solution without any preparatory machining.



SUPERBOLT<sup>™</sup> and EXPANDER<sup>®</sup> can be ordered on request.





# **SCHNORR®**













### MANAGING MAXIMUM FORCE IN EXTREME CONDITIONS



### Safety Washers:

- » High resistance to vibration
- » Patented technology
- » Extensive range

# **Disc Springs**

- » Space saver with high spring force
- » No setting or fatigue under normal loads
- » Long service life









A4 - 80

# NEPTUNE®

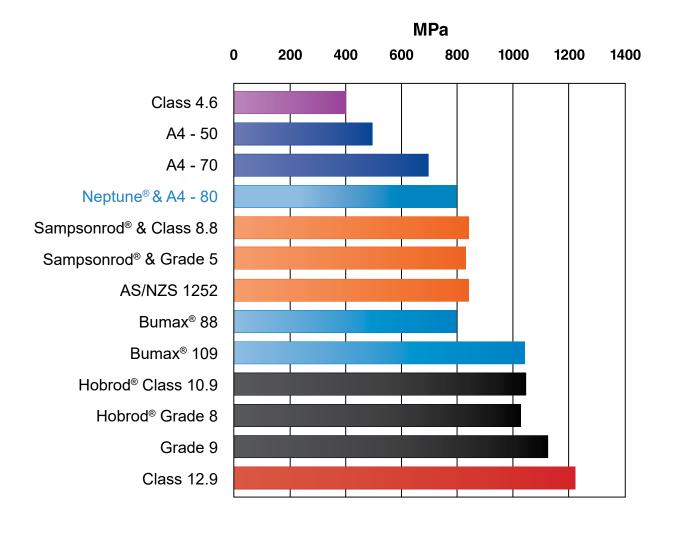
# **High-Tensile Stainless**







# Breaking Strength Comparison









# **BUMAX**®

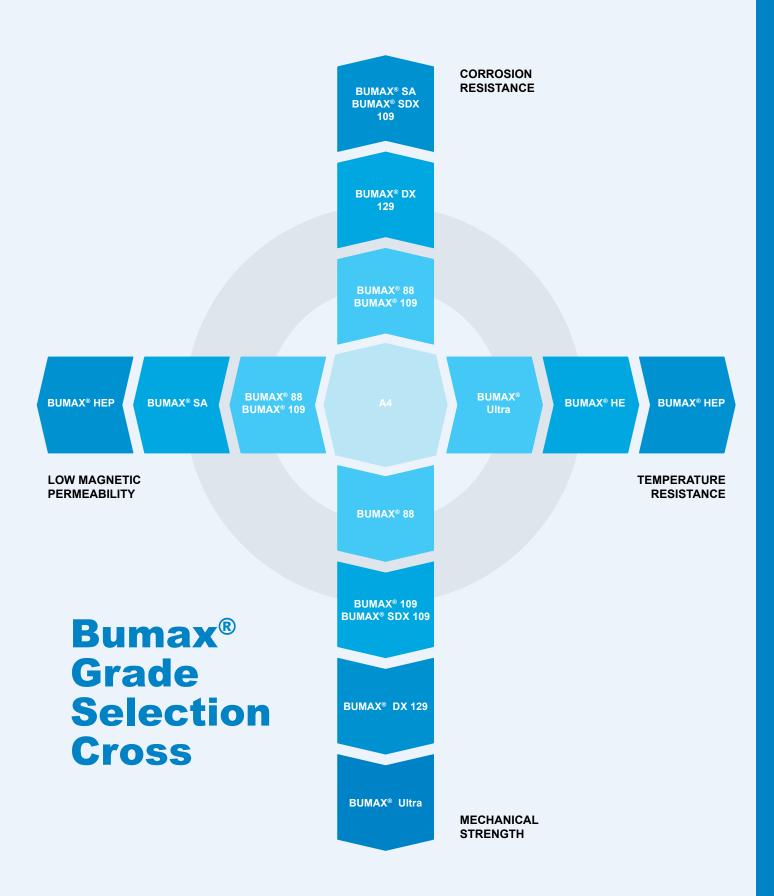




| 1. |                                    | METRIC<br>ALLTHREAD<br>ROD         | METRIC<br>HEX BOLT                | UNC<br>HEX BOLT                     | METRIC<br>HEX SET<br>SCREW         | KEY  |
|--|------------------------------------|------------------------------------|-----------------------------------|-------------------------------------|------------------------------------|--|
| Bun<br>the world's<br>stainless s        | STRONGEST                          | ALB8PCM<br>BUMAX® 88<br>DIN 976    | BHB8PCM<br>BUMAX® 88<br>ISO 4014  | BHB8PC<br>BUMAX® 88<br>ANSI B18.2.1 | BSB8PCM<br>BUMAX® 88<br>ISO 4017   | BUMAX®<br>88<br>EQUIVALENT<br>TO CLASS 8.8         |
| METRIC<br>CAP SCREW<br>SOCKET            | UNC<br>CAP SCREW<br>SOCKET         | METRIC<br>CSK FLAT<br>SOCKET       | METRIC<br>HEX NUT                 | UNC<br>HEX NUT                      | METRIC<br>HEX FLANGE<br>NUT        | TENSILE<br>STRENGTH                                |
| SHB8PCM                                  | SHB8PC                             | SCB8PCM                            | NHB8PCM                           | NHB8PC                              | NFB8PCM                            |  |
| BUMAX® 88<br>ISO 4762                    | BUMAX® 88<br>ANSI B18.3            | BUMAX <sup>®</sup> 88<br>ISO 10642 | BUMAX® 88<br>ISO 4032             | BUMAX® 88<br>DIN 934                | BUMAX® 88<br>ISO 4161              | BUMAX®   |
| METRIC<br>HEX FLANGE<br>LOCK NUT         | METRIC<br>COLLARED HEX<br>LOCK NUT | METRIC<br>FLAT ROUND<br>WASHER     | IMPERIAL<br>FLAT ROUND<br>WASHER  | METRIC<br>FLAT ROUND<br>WASHER      | METRIC<br>MUDGUARD<br>WASHER       | EQUIVALENT<br>TO CLASS 10.9<br>TENSILE             |
| E  | 00                                 |                                    |                                   |                                     | 00                                 | STRENGTH   |
| NLB8FCM                                  | NLB8CCM                            | WRB8PM                             | WRB8P                             | WRB8EM<br>BUMAX® 88                 | WRB8MM                             |  |
| BUMAX <sup>®</sup> 88                    | BUMAX <sup>®</sup> 88              | BUMAX® 88<br>ISO 7089              | BUMAX <sup>®</sup> 88<br>ISO 7089 | ISO 7089<br>GEOMET                  | BUMAX <sup>®</sup> 88<br>ISO 7093  |  |
| METRIC<br>HEX BOLT                       | METRIC<br>HEX SET<br>SCREW         | METRIC<br>SOCKET HEAD<br>CAP SCREW | METRIC<br>HEX NUT                 | METRIC<br>FLAT ROUND<br>WASHER      | METRIC<br>SOCKET HEAD<br>CAP SCREW | BUMAX®   |
| внвэрсм                                  | BSB9PCM                            | SHB9PCM                            | МНВ9РСМ                           | WRB9PM                              | SHX9PCM                            | EQUIVALENT<br>TO CLASS 12.9<br>TENSILE<br>STRENGTH |
| BUMAX <sup>®</sup> 109<br>ISO 4014       | BUMAX <sup>®</sup> 109<br>ISO 4017 | BUMAX <sup>®</sup> 109<br>ISO 4762 | BUMAX® 109<br>ISO 4032            | BUMAX <sup>®</sup> 109<br>ISO 7089  | BUMAX® DX 129<br>ISO 4762          |  |
|  |                                    |                                    |                                   |                                     |                                    |  |











# Quality Fasteners

# TRADE PAX



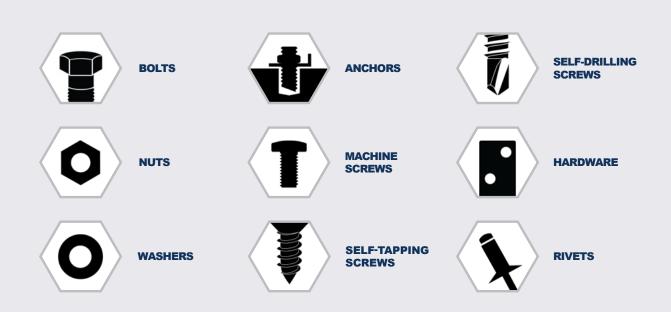


# TRADE PAX

All of your favourite fasteners are now available in handy hang packs.



# Product types available in **TRADE PAX™**





# Find all our **TRADE PAX**<sup>™</sup> online





Go to **hobson.com.au** and click on **TRADE PAX**<sup>™</sup> to find the complete range of products in a handy hang pack.



Find additional technical information, relevant documents and more!







# STAINLESS HARDWARE



# **STAINLESS** HARDWARE

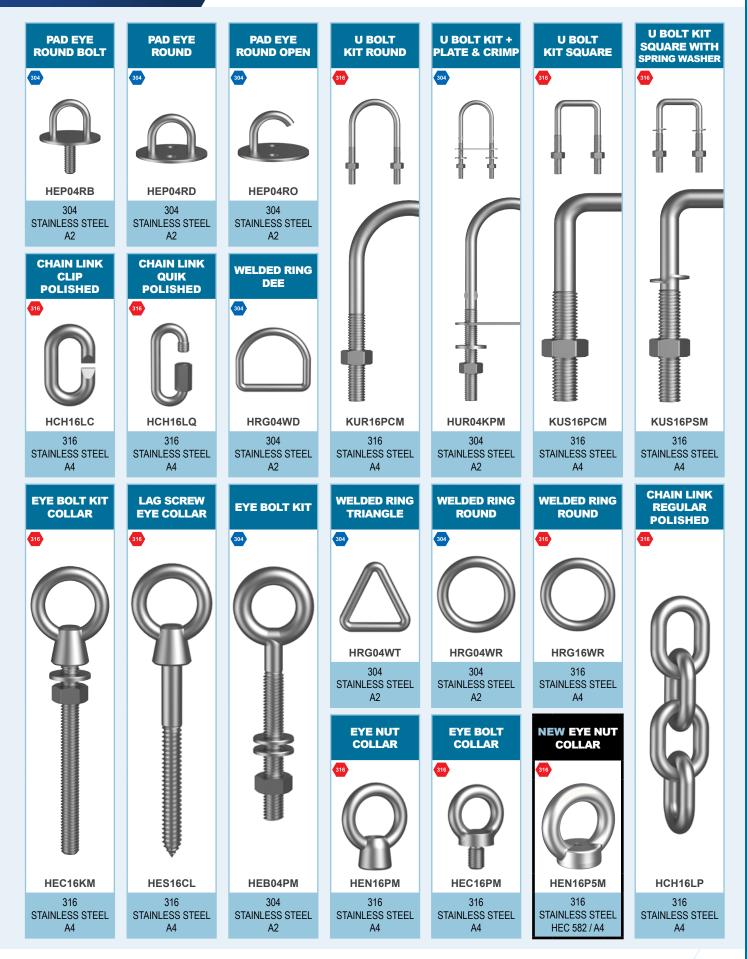


| D SHACKLE<br>STANDARD                   | D SHACKLE<br>CAPTIVE PIN                         | D SHACKLE<br>LONG                               | D SHACKLE<br>LIGHTWEIGHT                | D SHACKLE<br>INTERNAL<br>HEX PIN | D SHACKLE<br>WIDE MOUTH      | D SHACKLE<br>BOW                              |
|---|--|---|---|----------------------------------|------------------------------|---|
| HSH16DSM<br>316                         | HSH16CPM<br>316                                  | HSH16LGM<br>316                                 | HSH04LWM<br>304                         | HSH16HPM<br>316                  | HSH16WMM<br>316              | HSH16BWM<br>316                               |
| STAINLESS STEEL<br>A4<br>SHACKLE        | STAINLESS STEEL<br>A4<br>D SHACKLE<br>DOUBLE BAR | STAINLESS STEEL<br>A4<br>SHACKLE<br>REPLACEMENT | STAINLESS STEEL<br>A2<br>SWIVEL         | STAINLESS STEEL<br>A4            | STAINLESS STEEL<br>A4        | STAINLESS STEEL<br>A4<br>SWIVEL<br>EYE + SNAP |
| TWISTED                                 | HSH16DBM   | PIN<br>PIN<br>PIN<br>PIN<br>PIN<br>PIN          | EYE + SNAP                              | EYE + EYE                        | JAW + JAW                    | SHACKLE                                       |
| 316<br>STAINLESS STEEL<br>A4            | 316<br>STAINLESS STEEL<br>A4                     | 316<br>STAINLESS STEEL<br>A4                    | 316<br>STAINLESS STEEL<br>A4            | 316<br>STAINLESS STEEL<br>A4     | 316<br>STAINLESS STEEL<br>A4 | 316<br>STAINLESS STEEL<br>A4                  |
| SWIVEL<br>JAW + SNAP<br>SHACKLE         | S HOOK   | SNAP HOOK<br>CAST                               | SPRING<br>HOOK<br>ASYMMETRIC            | SNAP HOOK<br>SAFETY<br>LATCH     | SNAP HOOK<br>RIGID EYE       | SPRING<br>HOOK                                |
| HSW16JK                                 | ННК045   | ННК16СР   | HHK16SA                                 | HHK16CL                          | HHK16CR                      | HHK16SP                                       |
| 316<br>STAINLESS STEEL<br>A4            | 304<br>STAINLESS STEEL<br>A2                     | 316<br>STAINLESS STEEL<br>A4                    | 316<br>STAINLESS STEEL<br>A4            | 316<br>STAINLESS STEEL<br>A4     | 316<br>STAINLESS STEEL<br>A4 | 316<br>STAINLESS STEEL<br>A4                  |
| SPRING<br>HOOK EYE                      | SPRING HOOK<br>EYE & NUT                         | PELICAN<br>HOOK                                 | PAD EYE<br>DIAMOND                      | PAD EYE<br>OVAL                  | PAD EYE<br>OBLONG            | PAD EYE<br>OBLONG<br>& RING                   |
|   | <b>30</b>  |   |   |                                  |                              | 304   |
| HHK16SE<br>316<br>STAINLESS STEEL<br>A4 | 316<br>STAINLESS STEEL<br>A4                     | 316<br>STAINLESS STEEL<br>A4                    | HEP04DI<br>304<br>STAINLESS STEEL<br>A2 | 304<br>STAINLESS STEEL<br>A2     | 304<br>STAINLESS STEEL<br>A2 | 304<br>STAINLESS STEEL<br>A2                  |





# STAINLESS HARDWARE

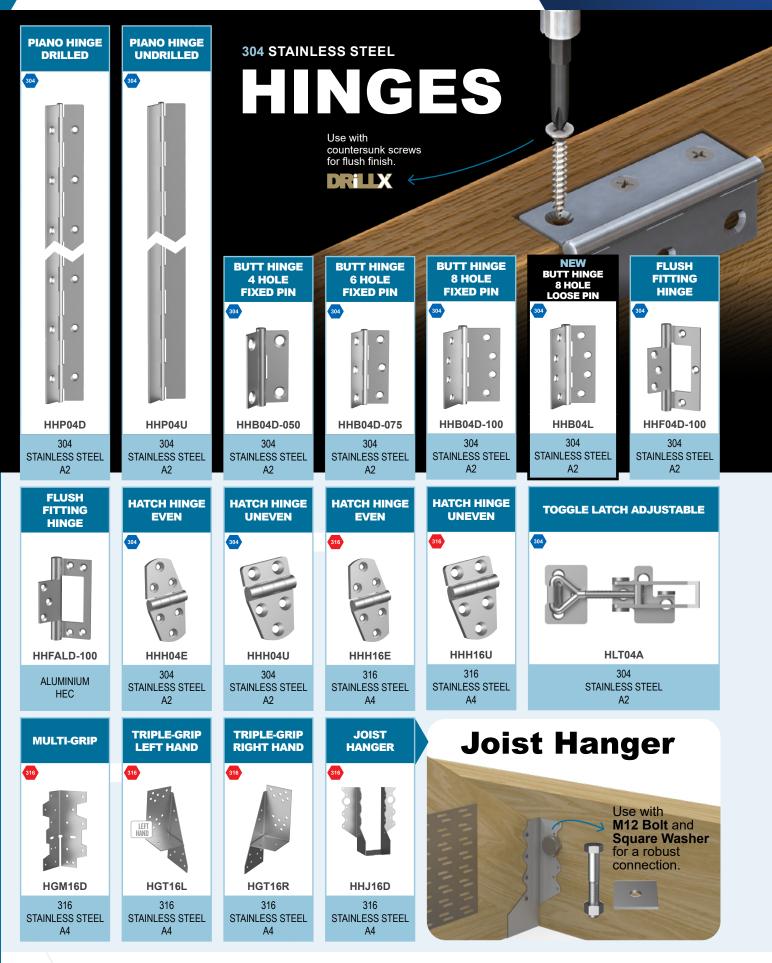


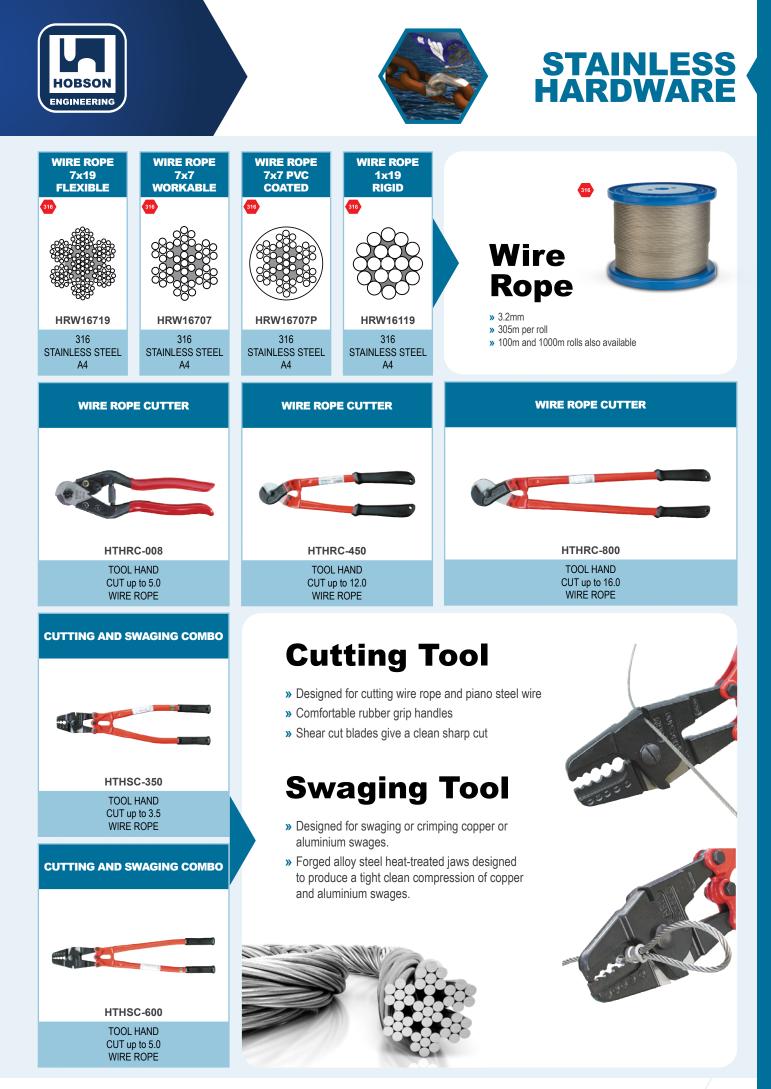
**STAINLESS HARDWARE** 















## 304 & 316 STAINLESS STEEL

# BALUSTRADE

# Imagine. Create. Transform.

Check out our wide range of Balustrade Solutions at **hobson.com.au** 





| CROSS<br>CONNECTOR                     | BLACK BUSH SPLIT TYPE                        | BEVELLED WASHER                        | KEY                               |
|--|--|--|-----------------------------------|
| 30                                     |  |  | CHR<br>CHROME<br>PLATE            |
|  |  |  | BRASS<br>BRASS                    |
| HXCC04<br>304<br>STAINLESS STEEL<br>A2 | HXNBB<br>NYLON                               | HXWBBC<br>CHROME<br>BRASS<br>HEC       | MGAL<br>MECHANICAL<br>GALVANISED  |
| WIRE ROPE<br>SHELF<br>SUPPORT CLIP     | ROUND BALL<br>INTERNAL THREADED              | ROUND BALL                             | ALUM<br>ALUMINIUM                 |
|  | 30   | 510                                    | NY UV<br>NYLON BLACK<br>UV STABLE |
|  |  |  | SS<br>STAINLESS<br>STEEL          |
| HXSS16<br>316<br>STAINLESS STEEL<br>A4 | HXRB16TM<br>316<br>STAINLESS STEEL<br>A4     | HXRB16<br>316<br>STAINLESS STEEL<br>A4 | STEEL<br>STEEL                    |
|  |  |  |                                   |
| RETAINING<br>CLIP                      | SADDLE EYE STRAP                             | WIRE ROPE<br>GRIP                      | RIGGING<br>SCREW<br>SPANNER       |
| GLIP                                   |  | GRIP                                   | SCREW                             |
| CLIP                                   |  | GRIP                                   | SCREW                             |
| CLIP                                   | SOLUTION OF THE DOAST<br>AND STAINLESS STEEL | GRIP                                   | SCREW                             |

**STAINLESS HARDWARE** 





NEW RIGGING SCREW HOOK + JAW

# Terminal<br/>Swages,Rigging<br/>ScrewsLTurnbuckles

STAINLESS BALUSTRAI

DE

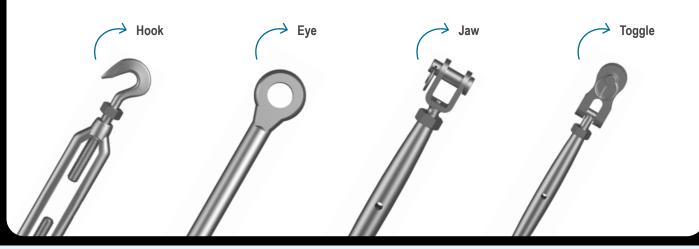


A4





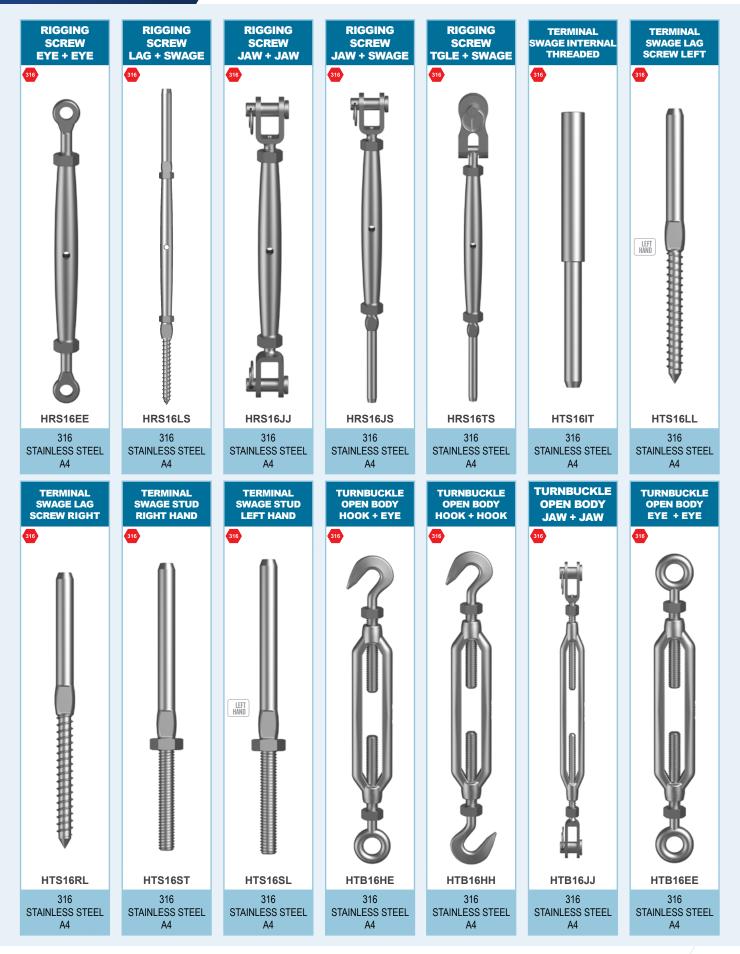








# STAINLESS BALUSTRADE

















| NEW<br>FLANGED<br>HEX BOLT            | METRIC<br>HEX COACH<br>SCREW          | UNC<br>DOME<br>HEX NUT                 | METRIC<br>DOME<br>HEX NUT                        | UNF<br>DOME<br>HEX NUT                 | METRIC<br>DOME 2PC<br>HEX NUT         | BSW<br>DOME 2PC<br>HEX NUT                 |
|---------------------------------------|---------------------------------------|--|--|--|---------------------------------------|--|
|                                       |                                       |  |  | FINE                                   |                                       |  |
| BF04P6CM                              | BH16PLM                               | ND04P                                  | ND04PCM  | ND04PF                                 | ND04WCM                               | ND04WW                                     |
| 304<br>STAINLESS STEEL<br>DIN 6921/A2 | 316<br>STAINLESS STEEL<br>DIN 571 /A4 | 304<br>STAINLESS STEEL<br>HEC /A2      | 304<br>STAINLESS STEEL<br>DIN 1587 /A2           | 304<br>STAINLESS STEEL<br>HEC / A2     | 304<br>STAINLESS STEEL<br>HEC /A2     | 304<br>STAINLESS STEEL<br>HEC /A2          |
| METRIC<br>DOME<br>HEX NUT             | METRIC<br>SHEAR NUT                   | METRIC HEX<br>FLANGE NUT               | UNC HEX<br>FLANGE NUT                            | METRIC HEX<br>FLANGE NUT               | METRIC<br>WELD<br>HEX NUT             | UNC<br>HEX NUT                             |
|                                       |                                       |  |  |  |                                       |  |
| ND16PCM                               | NS04PCM                               | NF04PCM                                | NF16PC   | NF16PCM                                | NH04WCM                               | NH04P                                      |
| 316<br>STAINLESS STEEL<br>DIN 1587/A4 | 304<br>STAINLESS STEEL<br>HEC / A2    | 304<br>STAINLESS STEEL<br>ISO 4161 /A2 | 316<br>STAINLESS STEEL<br>IFI-145 / B18 2.2 / A4 | 316<br>STAINLESS STEEL<br>ISO 4161 /A4 | 304<br>STAINLESS STEEL<br>DIN 929 /A2 | 304<br>STAINLESS STEEL<br>ANSI B18.2.2 /A2 |
|                                       |                                       |  |  |  |                                       |  |
| METRIC<br>HEX NUT                     | UNF<br>HEX NUT                        | METRIC FINE<br>HEX NUT                 | BSW<br>HEX NUT                                   | UNC<br>HEX NUT                         | METRIC<br>HEX NUT                     | METRIC<br>LEFT HAND<br>HEX NUT             |
|                                       |                                       |  |  |  |                                       | LEFT HAND                                  |
| HEX NUT                               | HEX NUT                               | HEX NUT                                | HEX NUT  | HEX NUT                                | HEX NUT                               | LEFT HAND<br>HEX NUT                       |
| HEX NUT                               | HEX NUT                               | HEX NUT                                | HEX NUT  | HEX NUT                                | HEX NUT                               | LEFT HAND<br>HEX NUT                       |
| HEX NUT                               | HEX NUT                               | HEX NUT                                | HEX NUT  | HEX NUT                                | HEX NUT                               | LEFT HAND<br>HEX NUT                       |
| HEX NUT                               | HEX NUT                               | HEX NUT                                | HEX NUT  | HEX NUT                                | HEX NUT                               | LEFT HAND<br>HEX NUT                       |
| HEX NUT                               | HEX NUT                               | HEX NUT                                | HEX NUT  | HEX NUT                                | HEX NUT                               | LEFT HAND<br>HEX NUT                       |
| HEX NUT                               | HEX NUT                               | HEX NUT                                | HEX NUT  | HEX NUT                                | HEX NUT                               | LEFT HAND<br>HEX NUT                       |
| HEX NUT                               | HEX NUT                               | HEX NUT                                | HEX NUT  | HEX NUT                                | HEX NUT                               | LEFT HAND<br>HEX NUT                       |

**STAINLESS FASTENERS** 



| UNF<br>THIN HEX<br>LOCK NUT                        | METRIC<br>HEX NUT                                   | NEW HEX<br>FLANGE NUT<br>NYLOC                      | NYI   | LOC  | UNC<br>HEX NUT<br>NYLOC  | METRIC<br>HEX NUT<br>NYLOC                 |
|--|---|---|---|--|--|--|
| EINE   |   |   | The special prevents loo by vibration.        | sening caused                                  |  |  |
| NL16PF   | NH16LCM   | NF04PNNCM   |   |  | NN04P  | NN04PCM                                    |
| 316<br>STAINLESS STEEL<br>ANSI B18.2.2/A4          | 1PX1 MOLY / 316<br>STAINLESS STEEL<br>DIN 934 / A4  | 304<br>STAINLESS STEEL<br>DIN 6926 / A2             |   |  | 304<br>STAINLESS STEEL<br>IFI-100/107 / A2                                   | 304<br>STAINLESS STEEL<br>DIN 985 / A2     |
| UNF<br>HEX NUT<br>NYLOC                            | BSW<br>HEX NUT<br>NYLOC                             | UNC THIN<br>HEX NUT<br>NYLOC                        | UNF THIN<br>HEX NUT<br>NYLOC                  | UNC<br>HEX NUT<br>NYLOC                        | METRIC<br>HEX NUT<br>NYLOC   | UNF<br>HEX NUT<br>NYLOC                    |
| C C C C C C C C C C C C C C C C C C C              | <b>P</b>  |   | FIFE  | 9  | 9  | EINE AD                                    |
| NN04PF   | NN04PW  | NN04TC  | NN04TF  | NN16P  | NN16PCM  | NN16PF                                     |
| 304<br>STAINLESS STEEL<br>HEC /A2                  | 304<br>STAINLESS STEEL<br>HEC /A2                   | 304<br>STAINLESS STEEL<br>HEC / A2                  | 304<br>STAINLESS STEEL<br>HEC /A2             | 316<br>STAINLESS STEEL<br>IFI-100/107 /A4      | 316<br>STAINLESS STEEL<br>DIN 985/A4   | 316<br>STAINLESS STEEL<br>HEC /A4          |
| BSW<br>HEX NUT<br><b>NYLOC</b>                     | METRIC<br>HEX NUT<br>HOBLOCH <sup>TM</sup>          | METRIC FINE<br>HEX NUT<br>HOBLOCH <sup>TM</sup>     | BSW<br>HEX NUT<br>HOBLOCH™                    | METRIC<br>SQUARE NUT                           | UNC<br>WING NUT  | METRIC<br>WING NUT                         |
| <b>(</b>   |   | INFEAD  |   |  |  |  |
| NN16PW   | NN04HCM   | NN04HFM   | NN04HW  | NQ16PCM  | NW04P  | NW04PCM                                    |
| 316<br>STAINLESS STEEL<br>HEC /A4                  | 304<br>STAINLESS STEEL<br>DIN980 TYPE M/A2          | 304<br>STAINLESS STEEL<br>HEC / A2                  | 304<br>STAINLESS STEEL<br>HEC/A2              | 316<br>STAINLESS STEEL<br>DIN 557 /A4          | 304<br>STAINLESS STEEL<br>ANSI B18.17 /A2                                    | 304<br>STAINLESS STEEL<br>ANSI B18.17 / A2 |
| UNC<br>WING NUT                                    | METRIC<br>WING NUT                                  | BSW<br>WING NUT                                     | NEW<br>SLAB TYPE<br>TEE NUT                   | NEW METRIC<br>SLAB TYPE<br>TEE NUT             | Tee I  | Nut  |
|  |   |   | 304   |  | Large base flang<br>for soft materials<br>eliminates the ne<br>for a washer. |  |
| NW16P<br>316<br>STAINLESS STEEL<br>ANSI B18.17 /A4 | NW16PCM<br>316<br>STAINLESS STEEL<br>ANSI B18.17/A4 | NW16PW<br>316<br>STAINLESS STEEL<br>ANSI B18.17 /A4 | NT04PSC<br>304<br>STAINLESS STEEL<br>HEC / A2 | NT04PSCM<br>304<br>STAINLESS STEEL<br>HEC / A2 |  |  |







# **NTTLOC** Anti-vibration solution





#### Machine Screw Head types

SG04PCM

304

STAINLESS STEEL

DIN 916/A2

O

O

SH04P

304

STAINLESS STEEL

ANSIB18.3/1960/A2

O

SH04PCM

304

STAINLESS STEEL

DIN 912/A2

C

SH04POCM

304

STAINLESS STEEL

ISO 14579/A2

O

SG04P

304

STAINLESS STEEL

ANSI B18.3/A2



C

SC16PCM

316

STAINLESS STEEL

ISO 10642 / A4

С

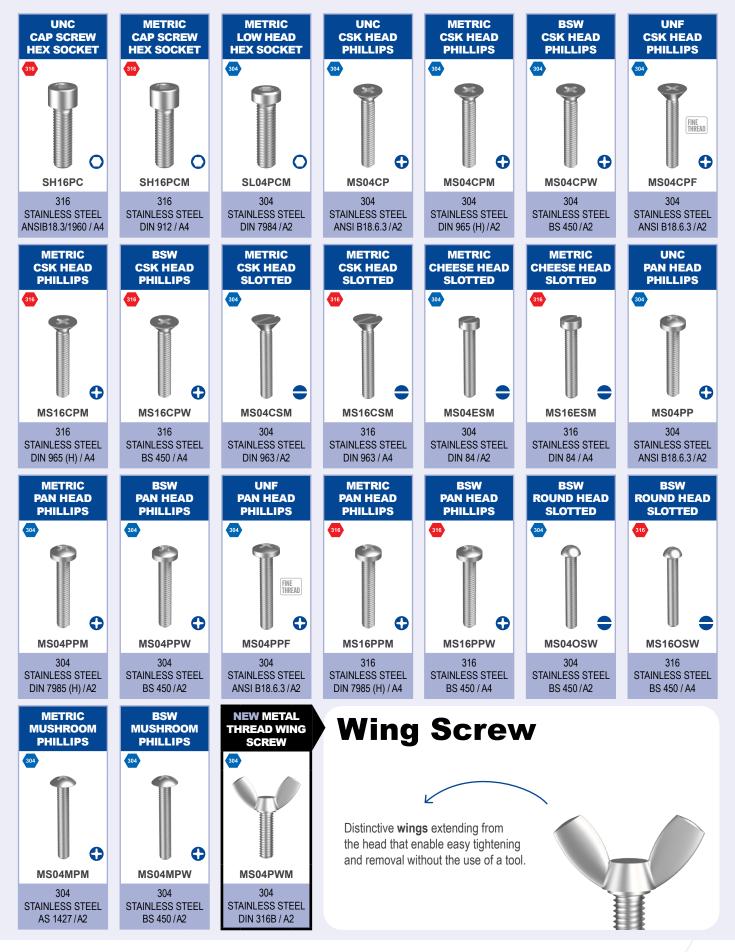
SC16PCM24

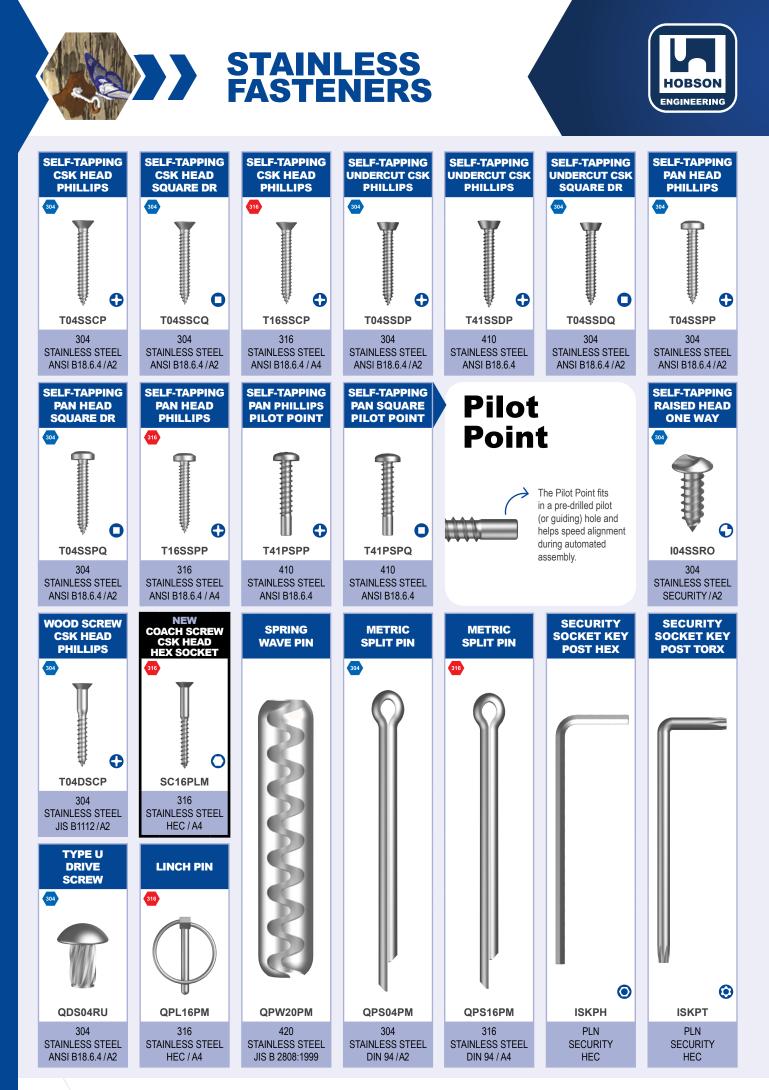
316 STAINLESS STEEL

DIN 7991/A4















## Security Screw Solutions

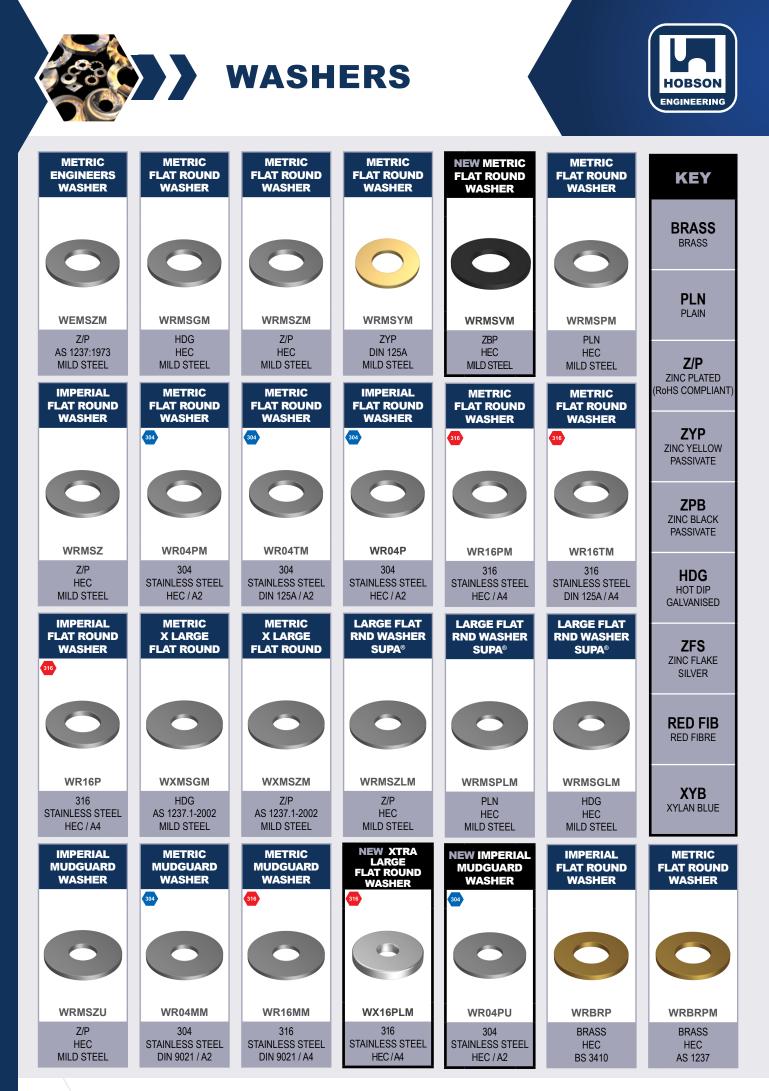


**STAINLESS FASTENERS** 





# WASHERS



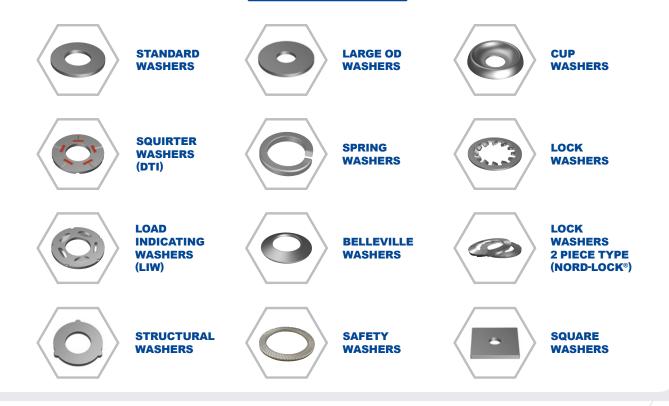




#### WASHERS

| METRIC<br>SPRING<br>FLAT SECTION   | IMPERIAL<br>SPRING<br>FLAT SECTION      | IMPERIAL<br>SPRING<br>FLAT SECTION      | METRIC<br>SPRING<br>FLAT SECTION      | METRIC<br>SPRING<br>FLAT SECTION | METRIC<br>SPRING<br>FLAT SECTION | METRIC<br>SPRING<br>FLAT SECTION |
|------------------------------------|---|---|---------------------------------------|----------------------------------|----------------------------------|----------------------------------|
| C                                  | O                                       | C                                       | C                                     | C                                | 0                                | C                                |
| WR04SM                             | WR04S0                                  | WR16S                                   | WR16SM                                | WRMSGSM                          | WRMSZSM                          | WRMSYSM                          |
| 304<br>STAINLESS STEEL<br>HEC 127B | 304<br>STAINLESS STEEL<br>ANSI B18.21.1 | 316<br>STAINLESS STEEL<br>ANSI B18.21.1 | 316<br>STAINLESS STEEL<br>HEC 127B/A4 | HDG<br>HEC 127B<br>SPRING STEEL  | Z/P<br>HEC 127B<br>SPRING STEEL  | ZYP<br>HEC 127B<br>SPRING STEEL  |
|                                    |   |   |                                       |                                  |                                  |                                  |
| IMPERIAL<br>SPRING<br>FLAT SECTION | METRIC<br>SPRING<br>SQ SECTION          | METRIC<br>SPRING<br>SQ SECTION          | IMPERIAL<br>SPRING<br>SQ SECTION      | IMPERIAL<br>SPRING<br>SQ SECTION | Sprin<br>Wash                    | -                                |
| SPRING                             | SPRING                                  | SPRING                                  | SPRING                                | SPRING                           |                                  |                                  |

#### Washer types





#### For more washers check out:















**TRADE PAX**<sup>™</sup>

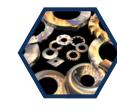












#### WASHERS

| METRIC<br>SQUARE<br>WASHER   | METRIC<br>SQUARE<br>WASHER  | METRIC<br>SQUARE<br>WASHER<br>HARDENED                                 | Hard<br>Wash                                       |  | METRIC<br>FLAT ROUND<br>WASHER<br>HARDENED                             | NEW METRIC<br>FLAT ROUND<br>WASHER<br>HARDENED                       |
|--|---|--|--|--|--|--|
| •  | •   | •  | Hardness<br>35-41 HRC                              |  | 0  | 0  |
| WSMSPM   | WSMSZM  | WSHTGM   |  |  | WRHTGM   | WRV3FM   |
| PLN<br>HEC<br>MILD STEEL   | Z/P<br>HEC<br>MILD STEEL  | HDG<br>HEC<br>35-41 HRC  | 0  |  | HDG<br>AS1237<br>35-41 HRC   | ZFS<br>ISO 7089<br>300 HV  |
| METRIC<br>FLAT ROUND<br>SAMPSON <sup>™</sup><br>SAMPSON <sup>™</sup> | METRIC<br>FLAT ROUND<br>SAMPSON <sup>™</sup><br>SAMPSON <sup>™</sup>    | IMPERIAL<br>FLAT ROUND<br>SAMPSON <sup>™</sup><br>SAMPSON <sup>™</sup> | NEW IMPERIAL<br>FLAT ROUND<br>SAMPSON™<br>SAMPSON™ | IMPERIAL<br>FLAT ROUND<br>SAMPSON <sup>™</sup><br>SAMPSON <sup>™</sup> | IMPERIAL<br>FLAT ROUND<br>SAMPSON <sup>™</sup><br>SAMPSON <sup>™</sup> | METRIC<br>FLAT ROUND<br>SAMPSON <sup>™</sup><br>SAMPSON <sup>™</sup> |
| 0  | 0   | 0  | 0  | $\bigcirc$   | 0  | 0  |
| WR43PM   | WR43ZM  | WR43P  | WR43Z  | WR43Y  | WR43B  | WR43FM   |
| PLN<br>HEC<br>38-45 HRC  | Z/P<br>ASTM F436M<br>38-45 HRC  | PLN<br>ASTM F436<br>38-45 HRC  | Z/P<br>ASTM F436<br>38-45 HRC                      | ZYP<br>ASTM F436<br>38-45 HRC  | XYB<br>ASTM F436<br>38-45 HRC  | ZFS<br>ASTM F436M<br>38-45 HRC                                       |
| IMPERIAL<br>FLAT ROUND<br>H9 IMPACT <sup>™</sup>                     | IMPERIAL<br>FLAT ROUND<br>H9 IMPACT <sup>®</sup><br>IMPACT <sup>®</sup> | IMP  | ACT™   | FISHBOLT<br>SPRING<br>WASHER   | NEW METRIC<br>SECURITY<br>MESH CLIP                                    | METRIC<br>SECURITY<br>MESH CLIP                                      |
| 0  | $\bigcirc$  | Hardness<br>43-49 HRC  |  | P  |  |  |
| WRH9P<br>PLN   | WRH9Y<br>ZYP  |  |  | DWRHTPSM   | HWC16PM<br>316   | HWCMSGM<br>HDG   |
| HEC<br>43-49 HRC   | HEC<br>43-49 HRC  |  |  | PLN<br>AS 1085.7   | STAINLESS STEEL<br>HEC/A4  | HEC<br>MILD STEEL  |
| VOLUTE<br>SPRING<br>WASHER   | SKID PLATE<br>CUP WASHER  | NEW SQUARE<br>WASHER<br>XBolt  | NEW SQUARE<br>WASHER<br>XBolt                      | Squa<br>XBo  | re Wa<br>t   | sher   |
| Ø  |   | •  | •  | holes allow the  | s their oversized<br>m to fit over the                                 |  |
| WV16PM<br>316<br>STAINLESS STEEL<br>AS 2837/A4                       | WR04KM<br>304<br>STAINLESS STEEL<br>HEC/A2                              | WSMSGX<br>HDG<br>HEC<br>MILD STEEL                                     | WSMSYX<br>ZYP<br>HEC<br>MILD STEEL                 | larger <b>XBolt</b> ® th   | nreads.  |  |

#### Build Anything



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# NYLON









#### **RESISTANCE CHART**

| Material /<br>Substances                       | PA6<br>6.6 / 66<br>Polyamide Nylon | PC<br>Polycarbonate | <b>PVDF</b><br>Polyvinylidene<br>Fluoride | <b>PP</b><br>Polypropylene | POM<br>Acetal | <b>PE - LD</b><br>Polyethylene<br>Low-density | <b>PE - HD</b><br>Polyethylene<br>High-density |
|--|------------------------------------|---------------------|---|----------------------------|---------------|---|--|
| Cold water                                     |                                    |                     |   |                            |               |   |  |
| Hot water                                      |                                    |                     |   |                            |               |   |  |
| Diluted acid                                   |                                    |                     |   |                            |               |   |  |
| Concentrated acid                              |                                    |                     |   |                            |               |   |  |
| Oxidised acid                                  |                                    |                     |   |                            |               |   |  |
| Hydrofluoric acids                             |                                    |                     |   |                            |               |   |  |
| Diluted potassium                              |                                    |                     |   |                            |               |   |  |
| Concentrated<br>potassium                      |                                    |                     |   |                            |               |   |  |
| Inorganic bases                                |                                    |                     |   |                            |               |   |  |
| Dry halogen                                    |                                    |                     |   |                            |               |   |  |
| Hydrocarbons                                   |                                    |                     |   |                            |               |   |  |
| Hydrocarbons<br>(chlorinated)                  |                                    |                     |   |                            |               |   |  |
| Alcohols                                       |                                    |                     |   |                            |               |   |  |
| Ester  |                                    |                     |   |                            |               |   |  |
| Ketone   |                                    |                     |   |                            |               |   |  |
| Ether  |                                    |                     |   |                            |               |   |  |
| Aldehyde                                       |                                    |                     |   |                            |               |   |  |
| Amino acids                                    |                                    |                     |   |                            |               |   |  |
| Organic acids                                  |                                    |                     |   |                            |               |   |  |
| Aromatic<br>hydrocarbons                       |                                    |                     |   |                            |               |   |  |
| Petrol   |                                    |                     |   |                            |               |   |  |
| Mineral oils                                   |                                    |                     |   |                            |               |   |  |
| Greases and oils                               |                                    |                     |   |                            |               |   |  |
| Hydrocarbons<br>(non-saturated<br>chlorinates) |                                    |                     |   |                            |               |   |  |
| Oil of turpentine                              |                                    |                     |   |                            |               |   |  |
| Humidity absorption<br>% to ASTM d 570         | 1.3 - 1.9                          | 0.1 - 0.2           | 0.03                                      | 0.01 - 0.03                | 0.22 - 0.25   | < 0.01  | < 0.01   |





| METRIC<br>SOCKET HEAD<br>CAP SCREW | UNC<br>ALLTHREAD<br>ROD     | METRIC<br>ALLTHREAD<br>ROD  | UNC<br>HEX NUT                    | METRIC<br>HEX NUT                   | UNC<br>WING NUT             | KEY                                       |
|------------------------------------|-----------------------------|-----------------------------|-----------------------------------|-------------------------------------|-----------------------------|---|
|                                    |                             |                             |                                   |                                     |                             | NYLN<br>NYLON NATURAL                     |
|                                    |                             |                             |                                   |                                     |                             | PE UV<br>POLYETHYLENE<br>BLK UV RESISTANT |
| SH66PCM<br>NYLN                    | AN66PC<br>NYLN              | AN66PCM<br>NYLN             | NH66P<br>NYLN                     | NH66PCM<br>NYLN                     | NW66PC<br>NYLN              | NY UV<br>NYLON BLACK                      |
| DIN 912                            | HEC                         | DIN 975                     | HEC                               | DIN 934                             | HEC                         |   |
| METRIC<br>WING NUT                 | UNC<br>DOME HEX<br>NUT      | UNC<br>DOME<br>HEX NUT      | METRIC<br>DOME<br>HEX NUT         | METRIC<br>DOME<br>HEX NUT           | METRIC<br>HEX FLANGE<br>NUT | SPACER<br>ROUND                           |
|                                    |                             |                             |                                   |                                     |                             |   |
|                                    |                             |                             |                                   |                                     |                             |   |
|                                    | NIDCOD                      |                             |                                   |                                     | NECODOM                     | ODCOD                                     |
| NW66PCM<br>NYLN<br>DIN 315         | ND66P<br>NYLN<br>HEC        | ND66PC<br>NYLN<br>HEC       | ND66PCM<br>NYLN<br>DIN 1587       | ND66PAM<br>NYLN<br>Form A           | NF66PCM<br>NYLN<br>HEC      | NYLN<br>HEC                               |
| METRIC                             | METRIC                      | _                           | METRIC                            | IMPERIAL                            | METRIC                      | METRIC                                    |
| SCREW<br>INSULATOR                 | ANTI-LOSS<br>WASHER         | METRIC<br>CUP WASHER        | HUBO™<br>WASHER                   | FLAT ROUND<br>WASHER                | FLAT ROUND<br>WASHER        | FLAT ROUND<br>WASHER                      |
|                                    |                             |                             |                                   |                                     |                             |   |
| $(\mathcal{O})$                    | $\bigcirc$                  |                             | $\bigcirc$                        | $\bigcirc$                          | $\bigcirc$                  | $\bigcirc$                                |
|                                    |                             |                             |                                   |                                     |                             |   |
| NYLN                               | NYLN<br>FLAT ROUND          | WR66PCM<br>NYLN             | NYLN<br>LOCKING                   | WR66P<br>NYLN                       | WR66PM<br>NYLN              | NYLN                                      |
| HEC                                | + TAPER                     | HEC                         | + SEALING                         | HEC                                 | HEC                         | DIN 125                                   |
| METRIC<br>MUDGUARD<br>WASHER       | METRIC<br>HOLDING<br>WASHER | METRIC<br>BUSHING<br>WASHER | METRIC FLAT<br>ADHESIVE<br>WASHER | Adhe                                |                             |   |
|                                    |                             |                             |                                   | Wash                                | ler                         |   |
|                                    |                             |                             |                                   |                                     |                             |   |
|                                    |                             |                             |                                   | Adhesive secure<br>the washer's pos |                             |   |
| WR66PMM<br>NYLN                    | WR66POM                     | WB66PSM<br>NYLN             | WR66PDM                           | and keeps it from moving around.    |                             |   |
| DIN 9021                           | HEC                         | WITH SHOULDER               | HEC                               |                                     |                             |   |







NYLON 66 BLACK UV STABLE WITH





Improves resistance to UV and external weathering







V

## MATERIAL HANDLING





#### NEW

# Lifting Eyes

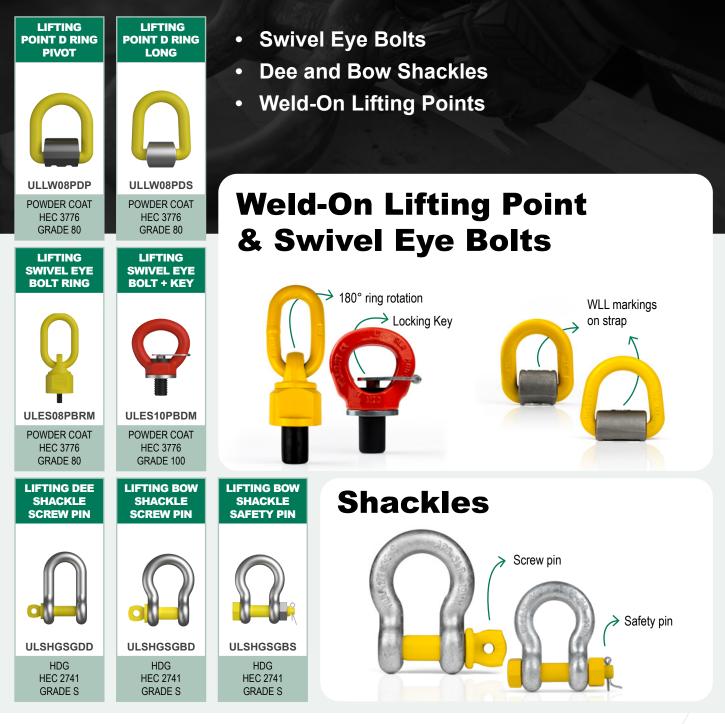






## new Lifting















NEW

## Load Restraint

RATCHET TIE ERGO HOOK / KEEPER <u>50MM</u>



URREPEHK050 POLYESTER L.C. 2500kg AS 4380

RATCHET TIE DOWN HOOK / KEEPER 50MM



URRTPEHK050 POLYESTER

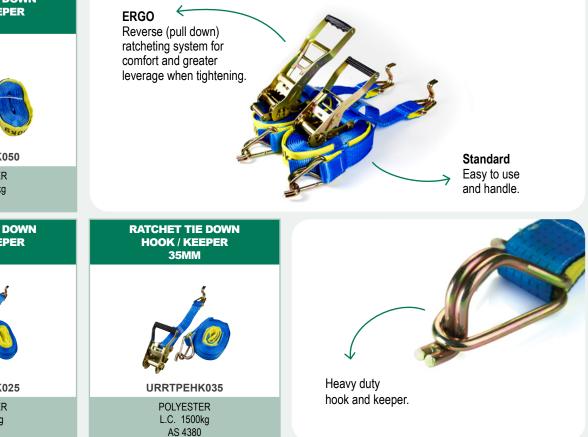
L.C. 2500kg AS 4380

RATCHET TIE DOWN HOOK / KEEPER 25MM



L.C. 750kg AS 4380 Complies with AS/NZS 4380.

#### **Ratchet Tie Down**







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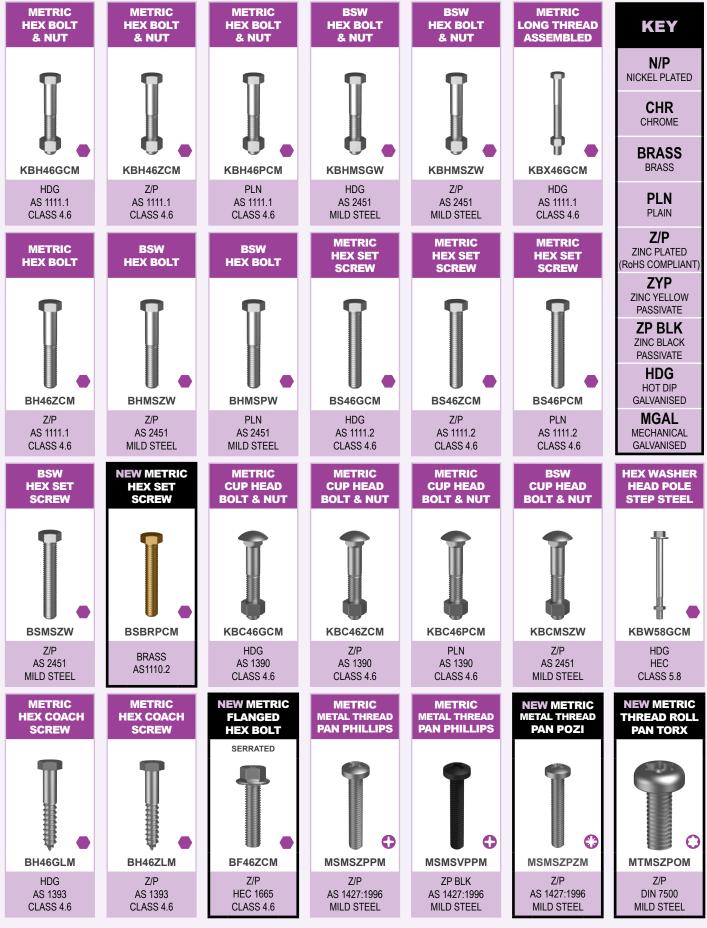
HEC

1.6

 $\mathbf{0}^{*}$ 

\$





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| HEX WASHER<br>HEAD POLE<br>STEP TIMBER | METRIC<br>METAL THREAD<br>PAN COMBI           | METRIC<br>METAL THREAD<br>PAN SLOTTED | METRIC<br>METAL THREAD<br>CSK PHILLIPS        | METRIC<br>METAL THREAD<br>CSK SLOTTED  | Bras:<br>FEATURES OF  |                                    |
|--|---|---------------------------------------|---|--|---|------------------------------------|
|  | MSMSZPCM<br>Z/P<br>AS 1427:1996<br>MILD STEEL | MSBRPPS<br>BRASS<br>AS 1427:1996      | MSMSZCPM<br>Z/P<br>AS 1427:1996<br>MILD STEEL | MSBRPCS<br>BRASS<br>AS 1427:1996   | <ul> <li>» Durability</li> <li>» Can withstand<br/>temperatures</li> <li>» Malleable</li> <li>» Corrosion resi</li> <li>» Non-sparking</li> <li>» Non-magnetic</li> <li>» Fire resistance</li> <li>» High electrical</li> </ul> | stance                             |
|  |   |                                       |   | BSW<br>HEX NUT   | BSW<br>HEX NUT  | BSW<br>HEX NUT                     |
| BW58GLM                                | NH05GCM                                       | NH05ZCM                               | NH05PCM                                       | NHMSGW   | NHMSZW  | NHMSPW                             |
| HDG<br>HEC<br>CLASS 5.8                | HDG<br>AS 1112.3<br>CLASS 5                   | Z/P<br>AS 1112.3<br>CLASS 5           | PLN<br>AS 1112.3<br>CLASS 5                   | HDG<br>AS 2451   | Z/P<br>AS 2451  | PLN<br>AS 2451                     |
| METRIC<br>LEFT HAND<br>HEX NUT         | NEW METRIC<br>LEFT HAND<br>HEX NUT            | Left                                  |   | Nut  | ACME 6 TPI<br>HEX NUT   | ACME 6 TPI<br>LEFT HAND<br>HEX NUT |
| NH05PDM<br>PLN<br>AS 1112.3<br>CLASS 5 | NH05ZDM<br>Z/P<br>AS 1112.3<br>CLASS 5        |                                       | with rota                                     | applications<br>ary parts to<br>act rotation.                                | NHMSPA<br>PLN<br>HEC<br>CLASS 5   | NHMSPB<br>PLN<br>HEC<br>CLASS 5    |
| METRIC<br>HEX NUT                      | UNC<br>HEX NUT                                | BSW<br>HEX NUT                        | NEW METRIC<br>HEX NUT                         | Zinc<br>Passi  | Black<br>ivate  |                                    |
| 9                                      |   |                                       |   | Acts as a barrier<br>the steel from co<br>Can be used for<br>and appliances. | rrosion.  |                                    |
| NHBRPCM                                | NHBRPC  | NHBRPW                                |   |  |   |                                    |
| BRASS<br>AS 1112.3                     | BRASS<br>HEC                                  | BRASS<br>AS 2451                      | ZP BLK<br>AS 1112.3<br>CLASS 5                |  |   |                                    |

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#### CLASS 4.6

## PURLIN BOLTS

| PURLIN       | PURLIN       | PURLIN       |
|--------------|--------------|--------------|
| HEX FLANGE   | HEX FLANGE   | HEX BOLT NUT |
| BOLT & NUT   | BOLT & NUT   | & 2 WASHERS  |
| KBFMSGCM     | KBFMSZCM     | KBHMSZCM     |
| HDG          | Z/P          | Z/P          |
| HEC          | HEC          | HEC          |
| CLASS 4.6    | CLASS 4.6    | CLASS 4.6    |
|              |              |              |
| FASCIA       | FASCIA       | PURLIN       |
| HEX BOLT NUT | HEX BOLT NUT | SHOULDER HEX |
| & WASHER     | & WASHER     | BOLT & NUT   |
| HEX BOLT NUT | HEX BOLT NUT | SHOULDER HEX |

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| METRIC<br>THIN HEX<br>LOCK NUT                | NEW UNF<br>HEX THIN<br>LOCK NUT           | NEW METRIC<br>HEX THIN<br>LOCK NUT  | METRIC<br>HEX NUT<br>NYLOC          | METRIC<br>HEX NUT<br>NYLOC         | NYI  | <b>10C</b>                     |
|---|---|-------------------------------------|-------------------------------------|------------------------------------|--|--------------------------------|
|   | FINE                                      |                                     |                                     |                                    | The special ny prevents loose caused by vibr                             | ning                           |
| NL05GCM                                       | NLG2ZF                                    | NLBRNCM                             | NN06GCM                             | NN06ZCM                            |  |                                |
| HDG<br>AS 1112.4<br>use with CLASS 5          | Z/P<br>ANSI B18.2.2<br>GRADE 2            | N/P<br>ISO 4035<br>BRASS            | MGAL<br>DIN 985<br>CLASS 6          | Z/P<br>DIN985<br>CLASS 6           |  |                                |
| METRIC FINE<br>HEX NUT<br>NYLOC               | METRIC<br>HEX NUT<br>NYLOC                | METRIC FINE<br>HEX NUT<br>NYLOC     | BSW<br>HEX NUT<br><b>NYLOC</b>      | BSW<br>HEX NUT<br><b>NYLOC</b>     | UNC<br>HEX NUT<br><b>NYLOC</b>   | UNF<br>HEX NUT<br><b>NYLOC</b> |
| EINEAD  | 9   | EINE                                |                                     |                                    | <b>P</b>   | FINE                           |
| NN06ZFM                                       | NN06YCM                                   | NN06YFM                             | NNG2GW                              | NNG2ZW                             | NNG2ZC   | NNG2ZF                         |
| Z/P<br>DIN985<br>CLASS 6                      | ZYP<br>DIN 985<br>CLASS 6                 | ZYP<br>DIN 985<br>CLASS 6           | MGAL<br>IFI-100NE<br>GRADE 2        | Z/P<br>IFI-100NE<br>GRADE 2        | Z/P<br>IFI-100NE<br>GRADE 2  | Z/P<br>IFI-100NE<br>GRADE 2    |
| METRIC<br>HEX THIN NUT<br><b>NYLOC</b>        | UNC<br>HEX THIN NUT<br>NYLOC              | UNF<br>HEX THIN NUT<br><b>NYLOC</b> | METRIC<br>SQUARE NUT                | METRIC FINE<br>HEX SLOTTED<br>NUT  | NEW METRIC<br>HEX SLOTTED<br>NUT   | NEW UNF<br>HEX SLOTTED<br>NUT  |
|   | <b>e</b>                                  | FIRE                                |                                     | FINEAD                             |  | FINE                           |
| NN05ZTCM                                      | NNG2ZTC                                   | NNG2ZTF                             | NQ05GCM                             | NO05ZFM                            | NO05PCM  | NOG2ZF                         |
| Z/P<br>ISO 10511<br>CLASS 04                  | Z/P<br>ASME B18.16.6<br>GRADE 2           | Z/P<br>ASME B18.16.6<br>GRADE 2     | HDG<br>DIN 557<br>CLASS 5           | Z/P<br>DIN 935<br>CLASS 5          | PLN<br>DIN 935<br>CLASS 5  | Z/P<br>ASME B18.2.2<br>GRADE 2 |
| NEW METRIC<br>HEX<br>K-LOCK NUT               | K-Loo<br>Nut                              | ck                                  | NEW<br>TEE NUT<br>4 PRONG           | UNC<br>TEE NUT<br>4 PRONG          | Tee M<br>4 Pro   |                                |
| <b>NK05ZECM</b><br>Z/P<br>DIN 934K<br>CLASS 5 | Free<br>spinning<br>tooth-lock<br>washer. |                                     | NTMSZCM<br>Z/P<br>HEC<br>MILD STEEL | NTMSZC<br>Z/P<br>HEC<br>MILD STEEL | Prongs to sto<br>the tee nut<br>twisting and<br>moving in<br>the timber. |                                |

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| NEW<br>METRIC<br>WING NUT                 | NEW<br>METRIC<br>WING NUT             | Wing Nut  | METRIC<br>DOME<br>HEX NUT  | METRIC<br>DOME<br>HEX NUT     | METRIC<br>SHEAR NUT   |
|---|---------------------------------------|---|----------------------------|-------------------------------|-----------------------|
| 6   |                                       |   |                            |                               |                       |
| NWMSMCM                                   | NWMSZCM                               | Easy to tighten<br>or remove without              | ND05GCM                    | ND05CCM                       | NS05GCM               |
| MGAL<br>UNI 5448<br>MILD STEEL            | Z/P<br>UNI 5448<br>MILD STEEL         | the use of a tool.                                | HDG<br>DIN 1587<br>CLASS 5 | CHROME<br>DIN 1587<br>CLASS 5 | HDG<br>HEC<br>CLASS 5 |
| NEW SEMS<br>SPRING & FLAT<br>PAN PHILLIPS | NEW SEMS<br>SPRING & FLAT<br>PAN TORX | SEMS<br>(Abbreviation of asSEMblieS               |                            |                               |                       |
| <b>R</b>                                  | <b>P</b>                              | — a screw and washer assembly)<br>DOUBLE WASHER A | ASSEMBLY SCREW             | s S                           | 5                     |
| LSMSMSZPPM                                | LSMSMSZPOM                            | » Saves time                                      |                            | 1                             | 4                     |
| Z/P<br>JISB 11882017<br>MILD STEEL        | Z/P<br>JISB 11882017<br>MILD STEEL    | » Easy installation                               |                            |                               |                       |

#### Spanner Selection Chart - Metric



| BOLT<br>SIZE | METRIC SPANNER SIZE (MM)     |          |                            |         |           |  |  |  |
|--------------|------------------------------|----------|----------------------------|---------|-----------|--|--|--|
| METRIC       | AS1110<br>AS1111<br>ISO 4014 | AS1252.1 | DIN931<br>DIN933<br>DIN934 | DIN6921 | JIS B1189 |  |  |  |
| M4           | 7                            | -        | 7                          | -       | -         |  |  |  |
| M5           | 8                            | -        | 8                          | 8       | 7         |  |  |  |
| M6           | 10                           | -        | 10                         | 10      | 8         |  |  |  |
| M7           | 11                           | -        | 11                         | 11      | -         |  |  |  |
| M8           | 13                           | -        | 13                         | 13      | 10        |  |  |  |
| M10          | 16                           | -        | 17                         | 15      | 13        |  |  |  |
| M12          | 18                           | 21       | 19                         | 16      | 15        |  |  |  |
| M14          | 21                           | -        | 22                         | 18      | 18        |  |  |  |
| M16          | 24                           | 27       | 24                         | 21      | 21        |  |  |  |
| M18          | 27                           | -        | 27                         | -       | -         |  |  |  |
| M20          | 30                           | 32       | 30                         | 27      | -         |  |  |  |
| M22          | 34                           | 36       | 32                         | -       | -         |  |  |  |
| M24          | 36                           | 41       | 36                         | -       | -         |  |  |  |
| M27          | 41                           | 46       | 41                         | -       | -         |  |  |  |
| M30          | 46                           | 50       | 46                         | -       | -         |  |  |  |
| M33          | 50                           | -        | 50                         | -       | -         |  |  |  |
| M36          | 55                           | 60       | 55                         | -       | -         |  |  |  |

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### MILD STEEL PINS



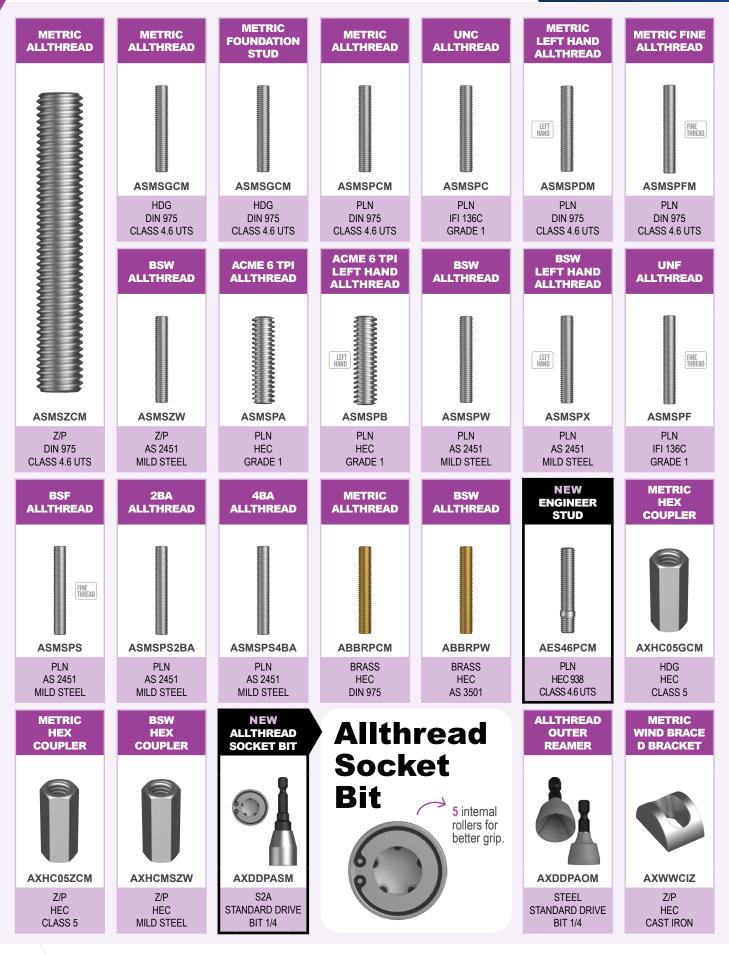




# LOW-TENSILE











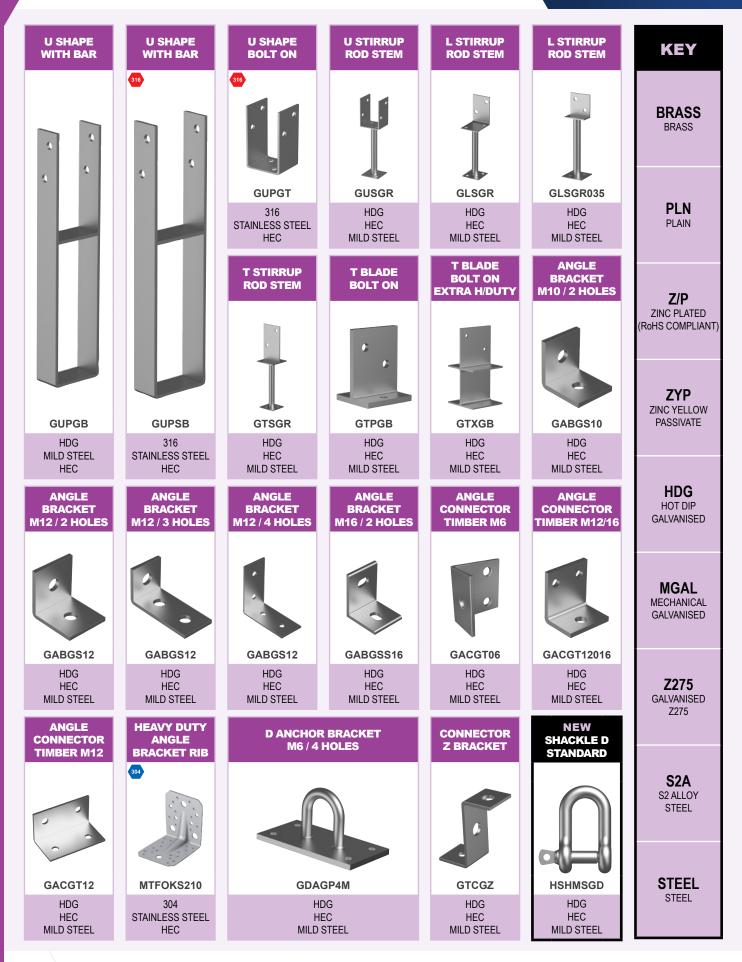
### LOW-TENSILE

| CUTTER<br>112                       | ALLTHREAD<br>CUTTER<br>M10/M12                           | BSW U BOLT<br>KIT SQ NYLOC<br>+ WASHER   | METRIC U BOLT<br>KIT SQ +<br>SPRING WASHER  | METRIC<br>U BOLT<br>KIT SQUARE  | METRIC<br>U BOLT<br>KIT SQUARE   |
|-------------------------------------|--|--|---|---|--|
| 3-M                                 | XTBD-M<br>BLACK<br>HEC                                   | KUSMSGN<br>HDG<br>HEC  | KUSMSGSM<br>HDG<br>HEC  | KUSMSGCM<br>HDG<br>HEC  | KUSMSZCM<br>Z/P<br>HEC   |
| UDED                                | REPLACEMENT DIE  | MILD STEEL   | MILD STEEL  | MILD STEEL  | MILD STEEL   |
| U BOLT<br>KIT ROUND                 | KIT ROUND<br>+ WASHER                                    | U BOLT<br>KIT ROUND  | FOUNDATION<br>L-BOLT  | EYE BOLT KIT<br>LARGE   | FORGED<br>EYE BOLT KIT   |
| KURMSGW                             | KURMSGWM   | KURMSZW  | LB48GCM   | KELMSZW   | KEFMSGCM   |
| HDG<br>HEC<br>MILD STEEL            | HDG<br>HEC<br>MILD STEEL                                 | Z/P<br>HEC<br>MILD STEEL   | HDG<br>HEC<br>CLASS 4.8   | Z/P<br>HEC<br>MILD STEEL  | HDG<br>ISO 898-1<br>CLASS 4.6  |
| BSW<br>EYE BOLT KIT                 | METRIC<br>STARTER BAR<br>L BOLT                          | 1/4" BSW<br>HOOK BOLT<br>KIT   | TURNBUCKLE<br>EYE & EYE   | TURNBUCKLE<br>HOOK & EYE  | TURNBUCKLE<br>STUB ENDS  |
| KENMSZW<br>Z/P<br>HEC<br>MILD STEEL | LBMSGCM<br>HDG<br>HEC<br>MILD STEEL                      | KHBMSZW<br>Z/P<br>HEC<br>MILD STEEL  |   |   |  |
| HEAVY<br>EYE SCREW                  | HEAVY<br>HOOK SCREW                                      | BSW<br>LAG SCREW   |   |   |  |
| 9                                   | ?  |  |   |   |  |
| Z/P<br>HEC                          | Z/P<br>HEC   | Z/P<br>HEC   | HDG<br>HEC  | HDG<br>HEC  | HTBMSGS<br>HDG<br>HEC<br>MILD STEEL  |
| 3                                   | 12<br>12<br>12<br>12<br>12<br>12<br>12<br>12<br>12<br>12 | CUTTER<br>12CUTTER<br>MIOM1212CUTTER<br>MIOM1210Image: constraint of the c | CUTTER<br>MIDAM12CUTTER<br>MIDAM12KIT SQ NYLOC<br>+ WASHERJOEDXTBD-M<br>MELACK<br>HEC<br>REPLACEMENT DIEIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII | CUTTER<br>12CUTTER<br>MIDM12KIT SQ NYLOC<br>+ WASHERKIT SQ -<br>SPRING WASHERImage: constraint of the system of the sys | CUTTER<br>12CUTTER<br>MIDM12KT SQ AYLOC<br>*WASHERKT SQ.*<br>SPRING WASHERU BOLT<br>KIT SQ.AREMXTBD-M<br>M<br>MDDKUSMSGN<br>HC<br>HC<br>HC<br>RELACK<br>HEC<br>RELACK<br>HEC<br>RELACK<br>HEC<br>RELACK<br>KUSMSGNMG<br>HC<br>MDS<br>HC<br>MDSTEELMG<br>KUSMSGN<br>KUSMSGN<br>HDG<br>HC<br>MDSTEELMG<br>KUSMSGN<br>HDG<br>HC<br>MDSTEELMG<br>KUSMSGN<br>HDG<br>MDSTEELBSW<br>V BOLT<br>KTROUNDMETRON<br>RELACK<br>HC<br>RELACK<br>KURMSGWMG<br>HC<br>MLD STEELMETRON<br>HC<br>MLD STEELMETRON<br>HC<br>MLD STEELMETRON<br>HC<br>MLD STEELBSW<br>KURMSGW<br>HC<br>MLD STEELMETRON<br>HC<br>HC<br>MLD STEELMETRON<br>HC<br>HC<br>HC<br>MLD STEELMETRON<br>HC<br>HC<br>HC<br>HC<br>MLD STEELMETRON<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>MLD STEELMETRON<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br>HC<br> |

LOW-TENSILE











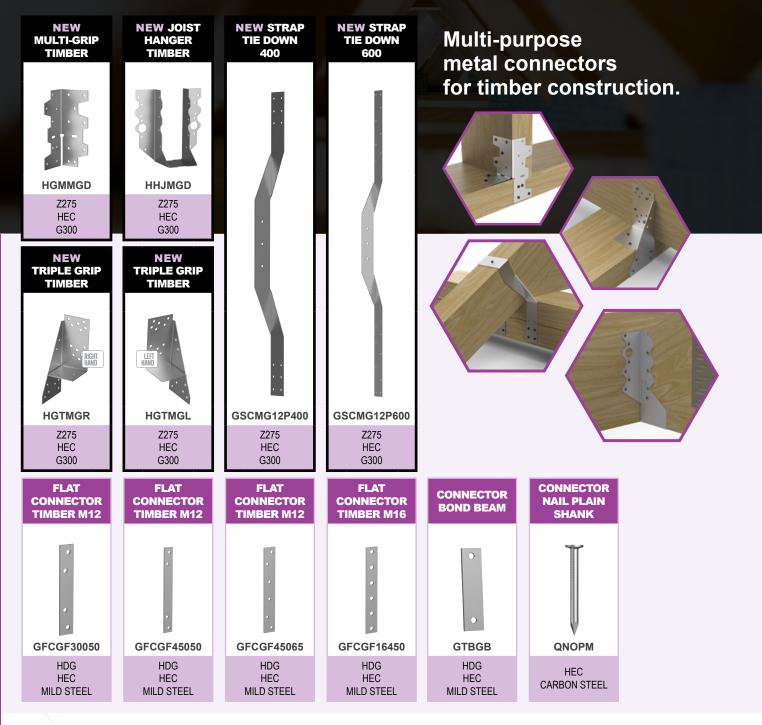
| COATINGS COMPARISON |   |                |                      |                         |   |  |  |  |
|---------------------|---|----------------|----------------------|-------------------------|---|--|--|--|
| lcon                | /Coating                                    | Standard       | Coating<br>Thickness | Corrosion<br>Resistance | Description   |  |  |  |
| HDG                 | HOT DIP<br>GALVANISED                       | AS/NZS<br>1214 | 50µm                 | HIGH                    | HDG products are used where a high<br>level of corrosion resistance is required.<br>HDG products are recommended for long-term<br>outdoor applications.   |  |  |  |
| MGAL                | MECHANICALLY<br>GALVANISED                  | ISO<br>12683   | 50µm                 | HIGH                    | MGAL provides better abrasion resistance<br>than HDG and does not introduce any risk<br>of hydrogen embrittlement. MGAL products<br>provide similar corrosion resistance to HDG.                                      |  |  |  |
| ZFS                 | ZINC FLAKE<br>SILVER                        | ISO<br>10683   | 10µm                 | HIGH                    | ZFS provides high corrosion resistance without<br>introducing any risk of hydrogen embrittlement.<br>Thin coating thickness allows external thread to<br>be mated with standard internal thread<br>(no over-tapping). |  |  |  |
| Z275                | HOT DIP<br>GALVANISED<br>(NON-<br>THREADED) | AS/NZS<br>1397 | 40µm                 | HIGH                    | Z275 is the coating class for non-threaded HDG products. Z275 is the nominal requirement for steel straps, and tie downs used for framing structures.   |  |  |  |
| Z/P                 | ZINC PLATED<br>(ROHS<br>COMPLIANT)          | ISO<br>4042    | 5µm                  | LOW                     | Product is electroplated with zinc which<br>is then passivated with a transparent<br>conversion layer. Z/P products are<br>recommended for indoor and noncorrosive<br>environments.                                   |  |  |  |
| ZYP                 | ZINC YELLOW<br>PASSIVATE                    | ISO<br>4042    | 5µm                  | LOW                     | Product is electroplated with zinc which<br>is then passivated with an iridescent yellow<br>conversion layer. ZYP products are<br>recommended for indoor and non-corrosive<br>environments.                           |  |  |  |
| PLN                 | PLAIN<br>(NO COATING)                       | -              | -                    | -                       | No additional coating applied.<br>Products are supplied lightly oiled to<br>inhibit rust in the packaging and assist<br>with installation.  |  |  |  |





#### G300 ROLL FORMED STRUCTURAL STEEL

### Timber Connectors





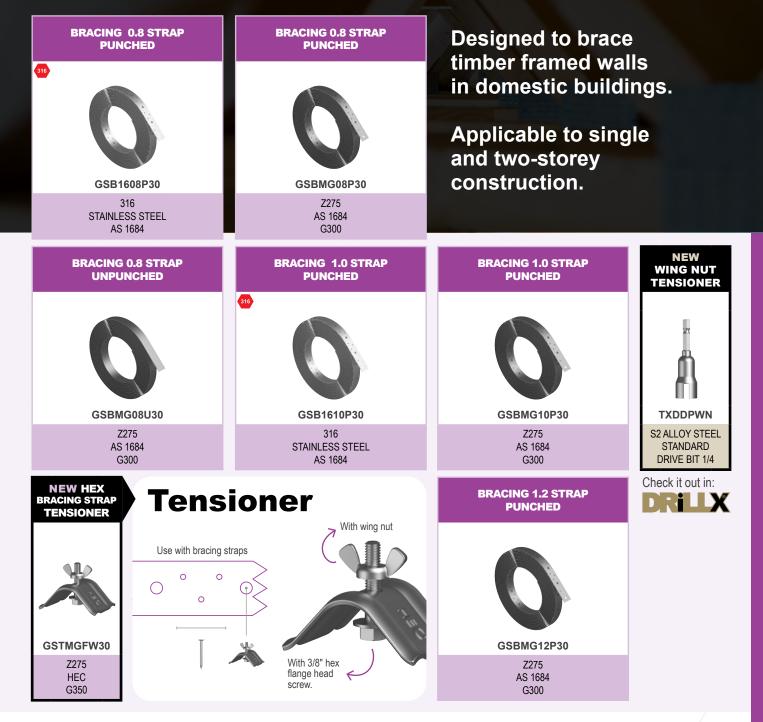


G300 ROLL FORMED STRUCTURAL STEEL

## Bracing Straps



Use with nail and tensioner.



LOW-TENSILE











### Injection system and capsule

Swiss Engineering 500

Volatile Organic Compounds FREE

MIT

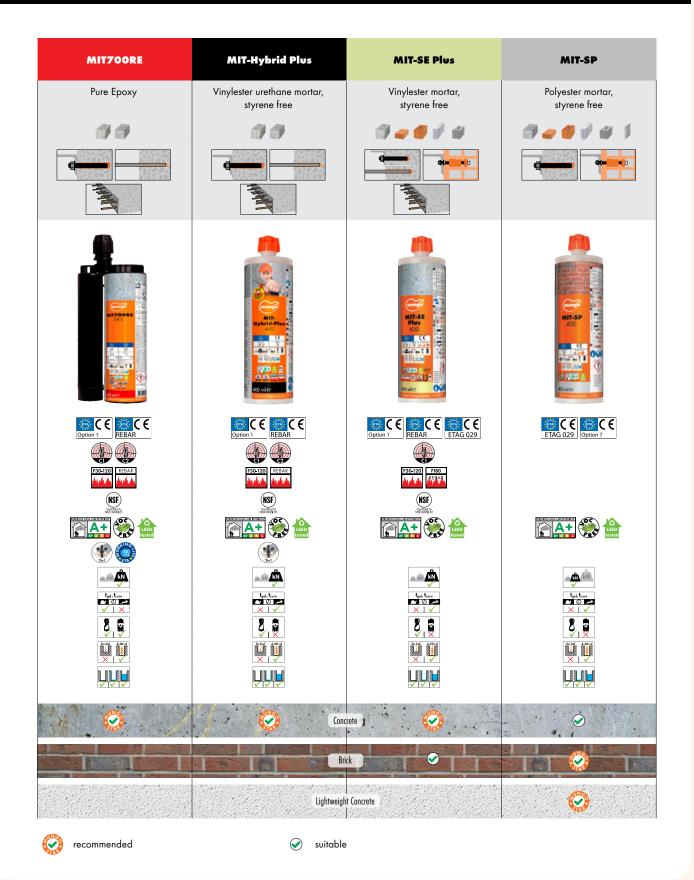
Leadership in Energy and Environmental Design TEST REPORT

| MIT-700RE<br>PURE EPOXY   | MIT-HYBRID PLUS<br>VINYLESTER URETHANE  | MIT-SE PLUS<br>VINYLESTER                               | MVA RESIN<br>CAPSULE |
|---|---|---|----------------------|
| Slow Curing   | For cracked and non-cracked concrete    | For cracked and non-cracked concrete                    |                      |
|   |   |   |                      |
| MUCMT7001710161   | MUCMTHYP1710097                         | MUCMTSEP1710017   |                      |
| 585 ML CARTRIDGE  | MORTAR STYRENE FREE<br>400 ML CARTRIDGE | MORTAR STYRENE FREE<br>300 ML                           | AVA                  |
| MIT-SE PLUS   | MIT-SP                                  | MIT-SP  |                      |
| VINYLESTER  | POLYESTER                               | POLYESTER   |                      |
| VINYLESTER         Fast Curing       Image: Constraint of the second |   |   |                      |
| Fast Curing   | POLYESTER                               | POLYESTER   |                      |
| Fast Curing   | POLYESTER                               | POLYESTER<br>Fast Curing<br>For non-cracked<br>concrete | мисмиа               |





#### MIT Compatibility of Mungo Injection Technology



hobson.com.au (121





Swiss Engineering

## Chemical

### **Sleeves and accessories**









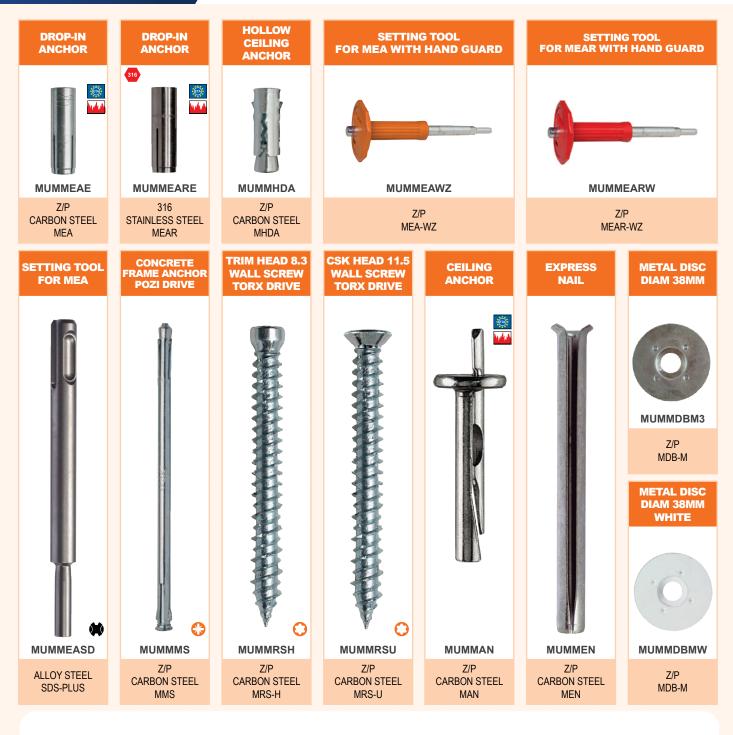














- ETA -

European Technical Assessment Directly compatible with AS 5216



- Fire Rated -

Assessment of Resistance Under Fire Exposure



- Category C1 and/or C2 -

Seismic Load Approval Performance



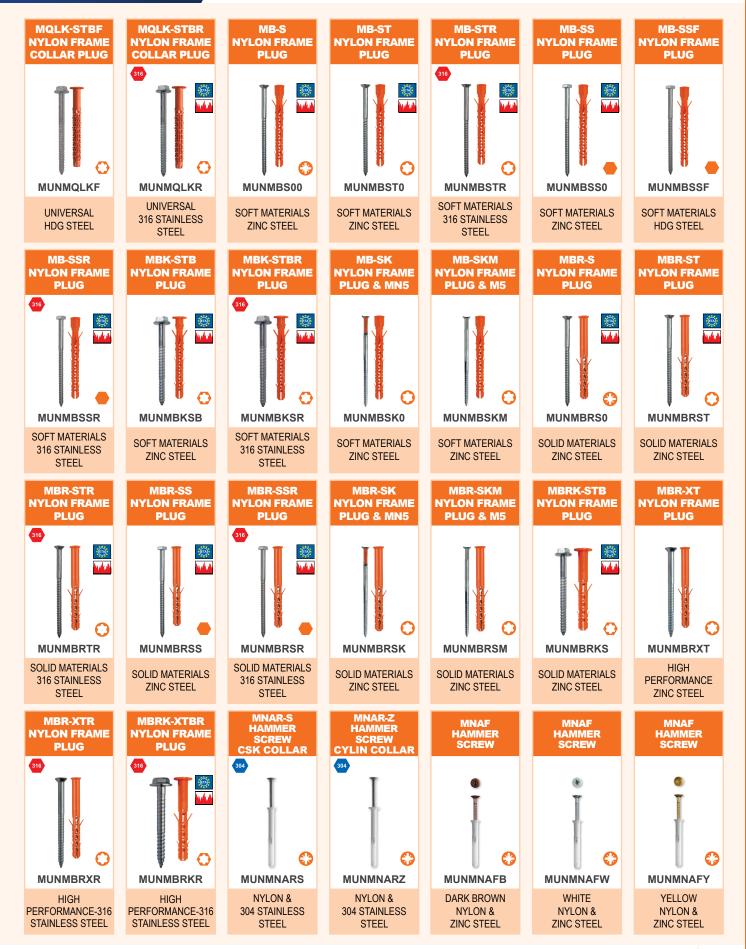


## Lightweight + Swiss Engineering Anchors

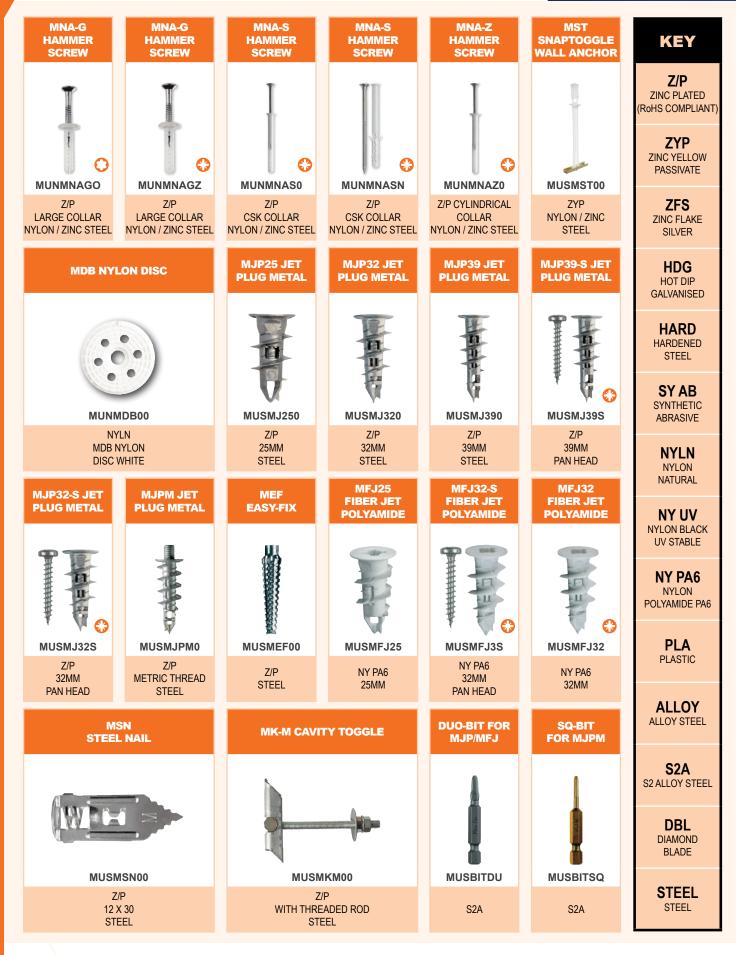
















## Insulation Swiss Engineering Fixings & Case

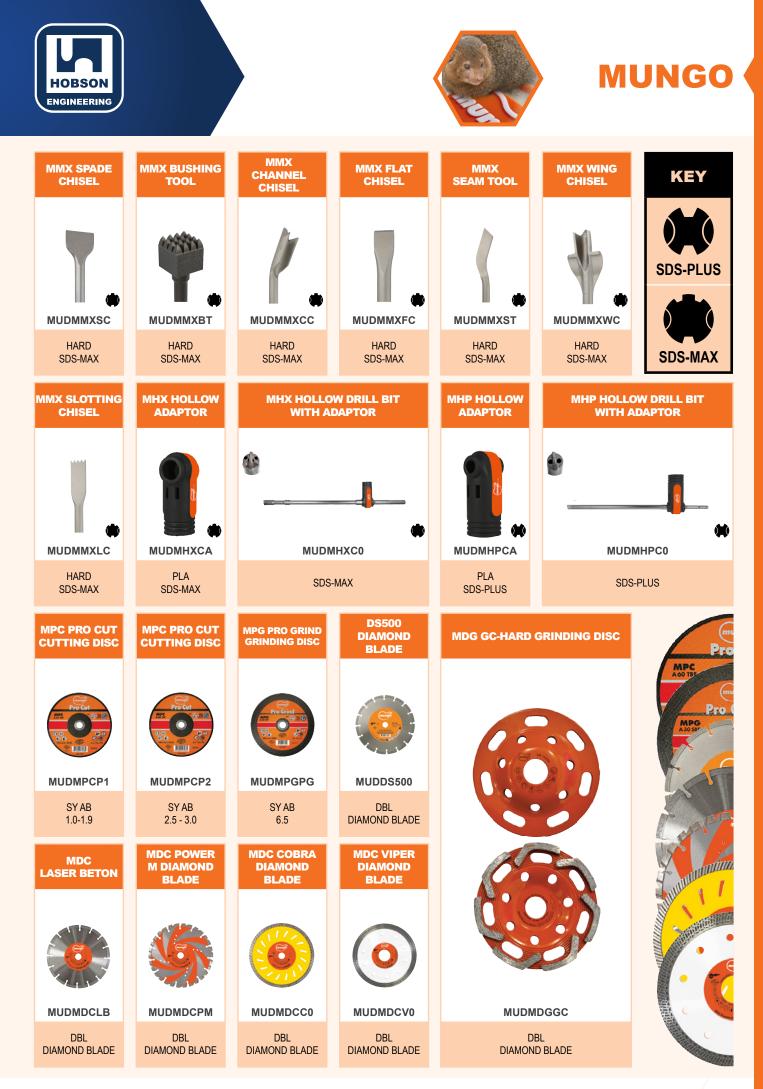






## Dril Bits & Abrasives







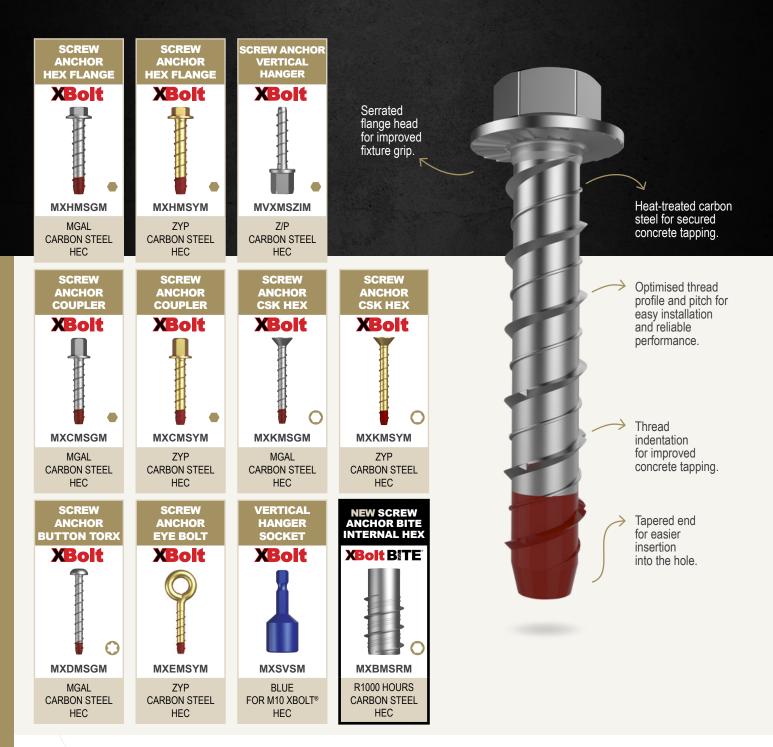






## **XBOIt**

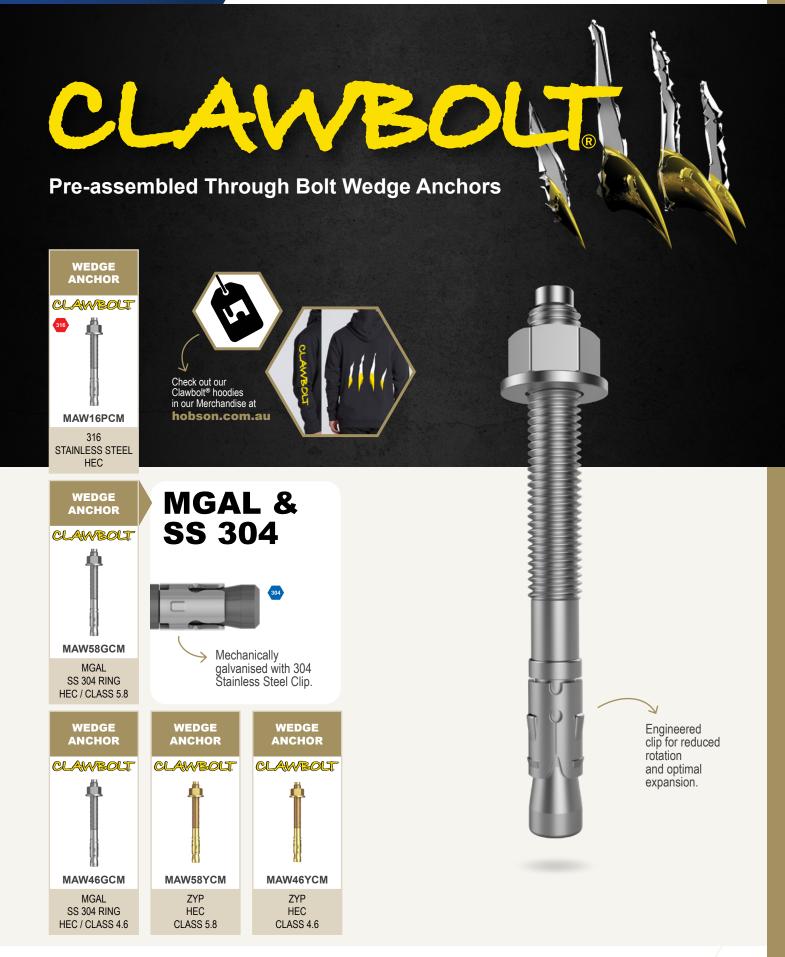
### Wide range of concrete Screw Anchors















## TY9aBolt®

### **Fully-assembled Sleeve Anchors**

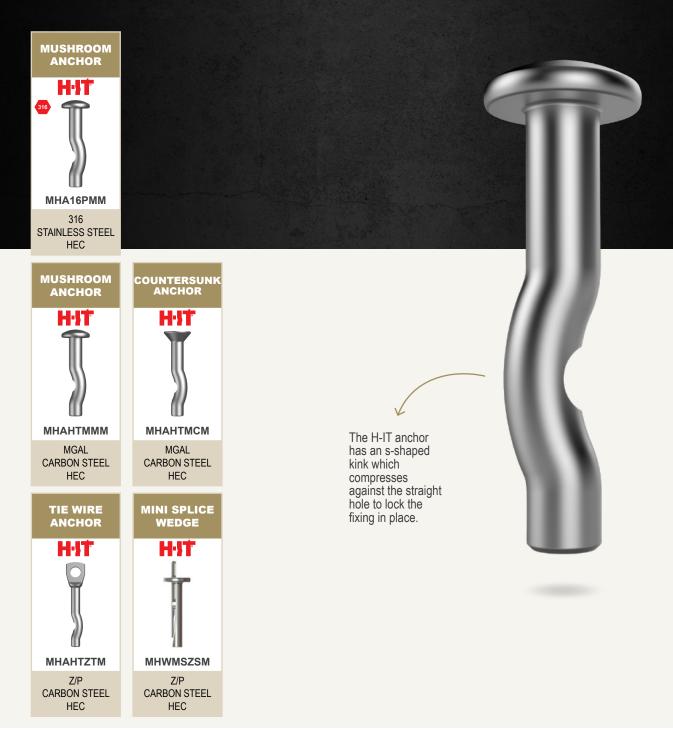








### **Pre-expanded Mechanical Anchors**

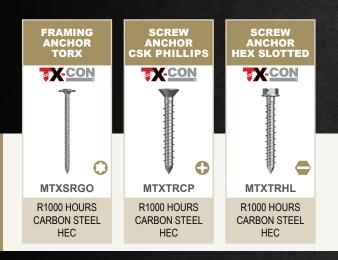








### **Concrete and Timber applications**





### **Universal Light Duty Screw Anchor**

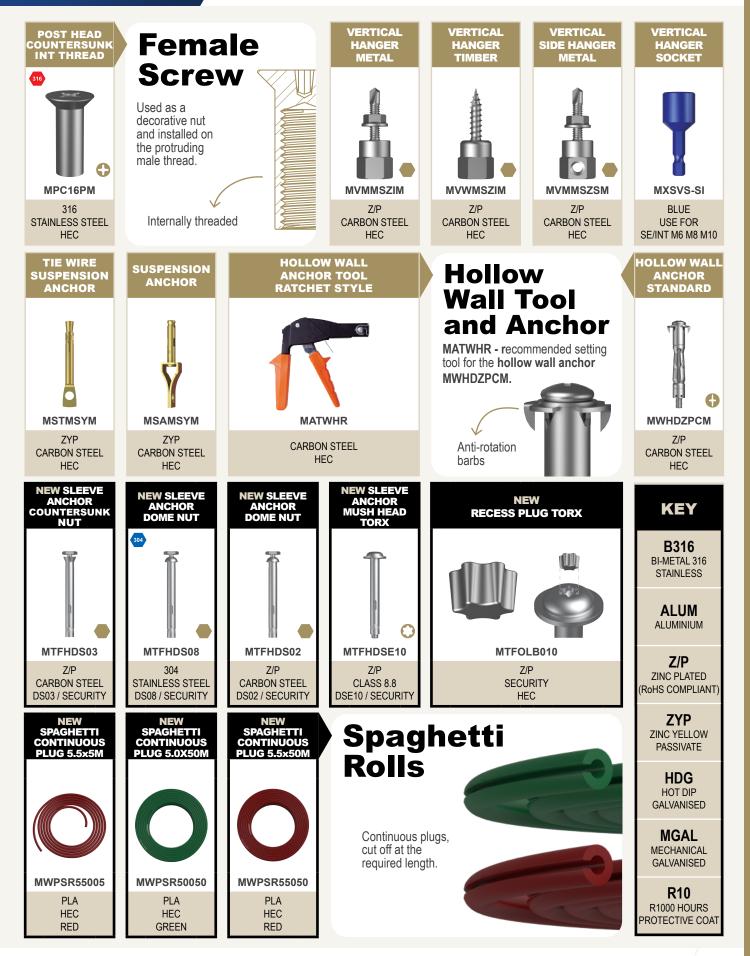


Special thread design prevents spinning and stripping.

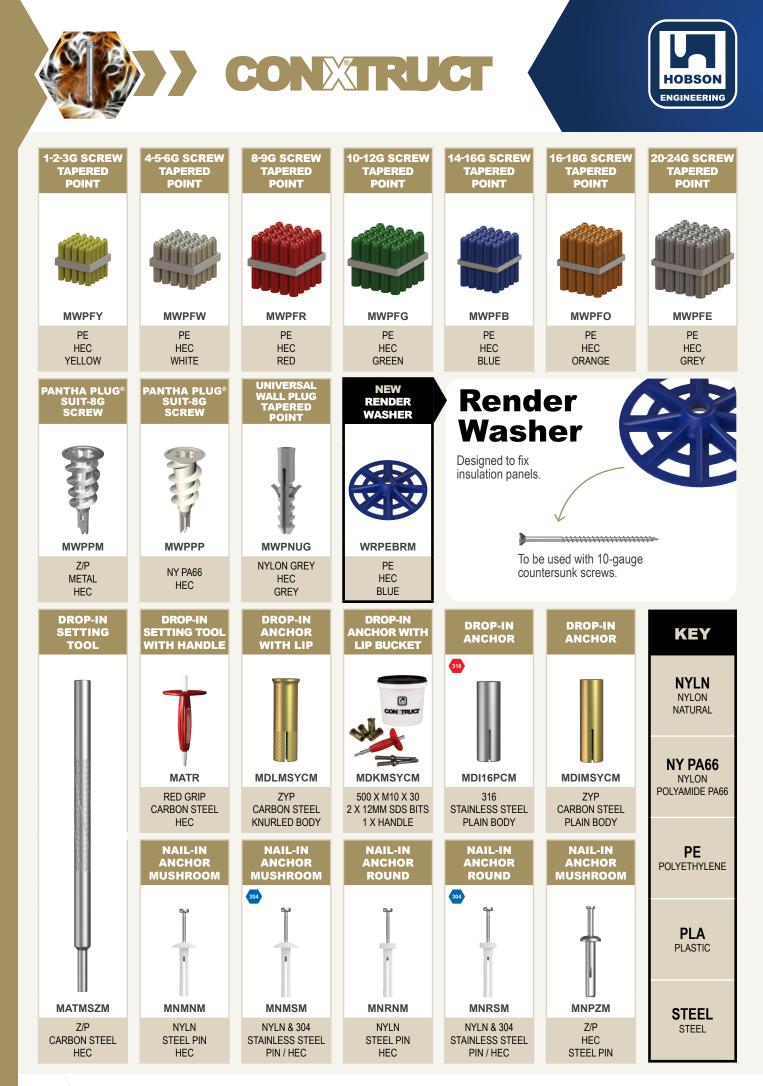








**CONXTRUCT®** 





NEW PACKING SHIMS WINDOW 1.0 - 10.0 X 75

MPWAL075

ALUMINIUM

HEC





## Packing Shims

NEW PACKING SHIMS WINDOW 1.0 - 10.0 X 90

MPWAL090

ALUMINIUM

HEC

NEW PACKING SHIMS WINDOW 1.0 - 10.0 X 140

MPWAL140

ALUMINIUM

HEC

Available in carton and/or bucket

The easy solution for packing, levelling or spacing.



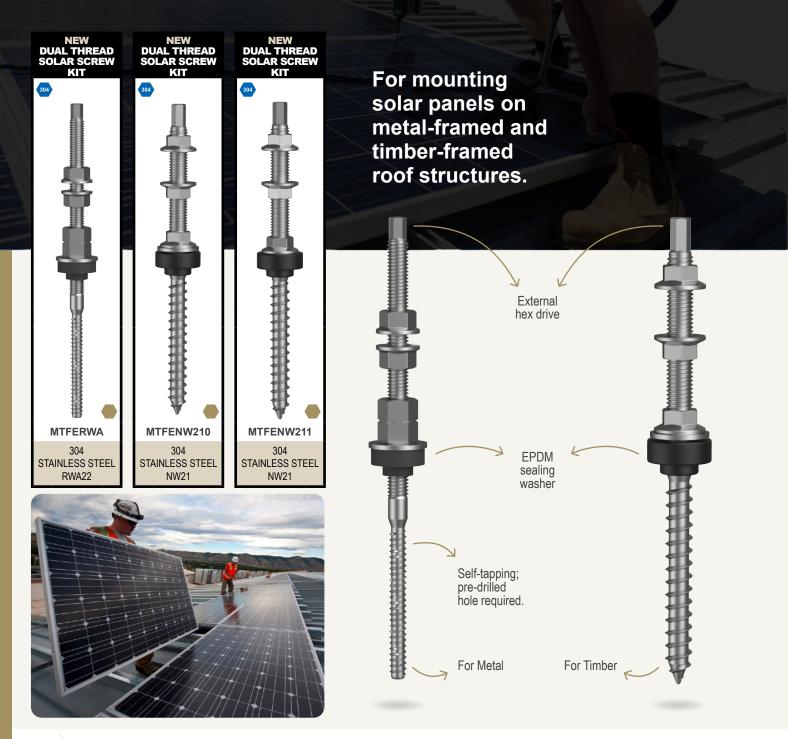
**CONXTRUCT®** 





### DUAL THREAD KITS SUPPLIED ASSEMBLED

## Solar Screws







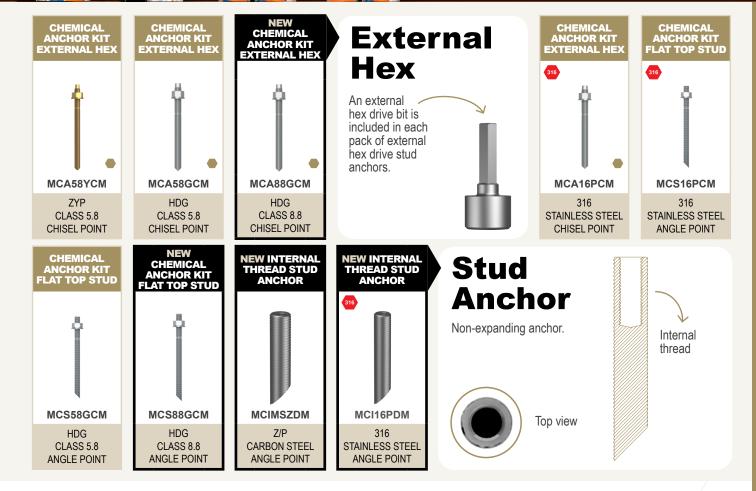


## **Chemical Anchors**

Supplied with a nut and washer

#### MUNGO

Suitable for chemical injection system.







AS 5216 COMPLIANT

## XBolt PRO

**Professional Screw Anchor range** 



### AS 5216 COMPLIANT

## CLAWBOLT PRO

### Professional Wedge Anchor range





**AS 5216 COMPLIANT** 

## 

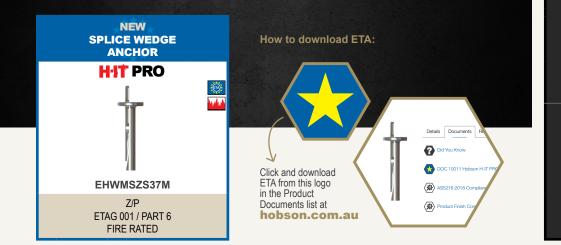
**Professional Drop-In Anchor range** 



#### **AS 5216 COMPLIANT**



#### **Professional Splice Wedge Anchor**



ETA - ETA -

European Technical Assessment Directly compatible with AS 5216



- Fire Rated -

Assessment of Resistance Under Fire Exposure



- Category C1 and/or C2 -

Seismic Load Approval Performance









## METAL











**DRILLX**®





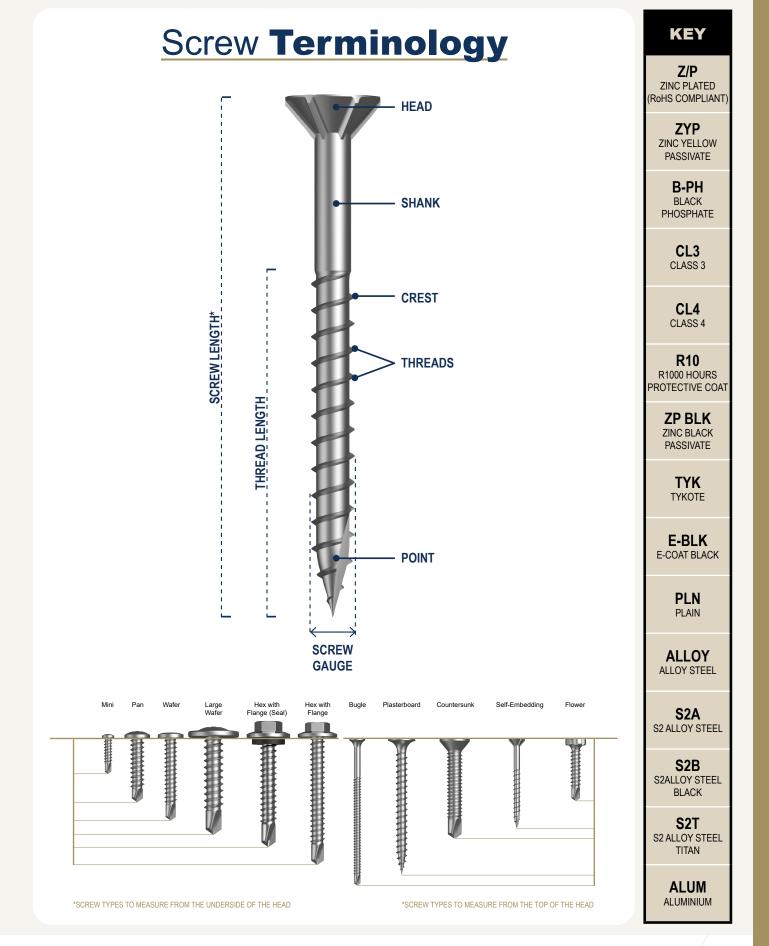
### METAL







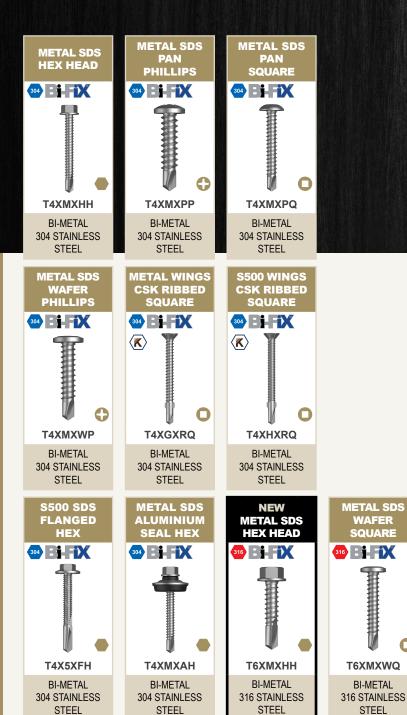












Corrosion-resistant 304 or 316 Stainless Steel.

High-carbon steel heat-treated to give the ability to self-drill.\*

\*Point colour for illustration purposes only.

A bi-metallic screw is comprised of two metal types. The point is manufactured from high-carbon steel that is heat-treated to give it the ability to self-drill. The head section is made from a corrosion-resistant stainless steel (304 or 316). The two metals are 'fused' to form a screw that offers excellent self-drilling properties, combined with exceptional corrosion resistance.

Ο













CLASS 4

AS3566

vmaX<sup>®</sup> feature a universal drilling point and are suitable for fastening roof sheeting to thin metal battens, timber trusses and steel purlins up to 1.9mm thick.





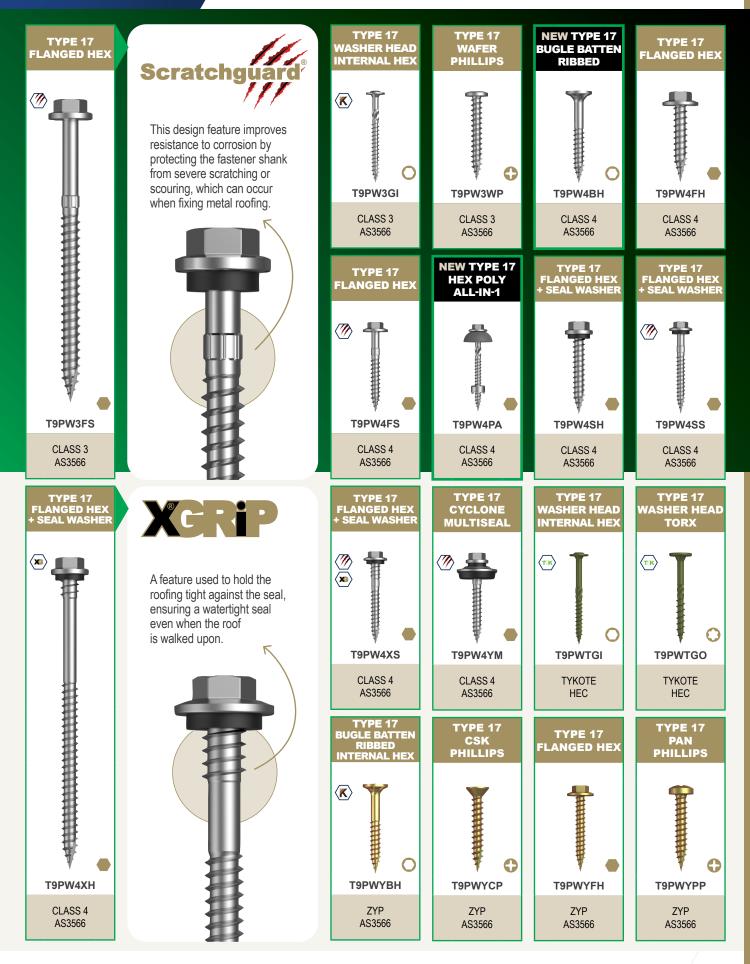
## TIMBER







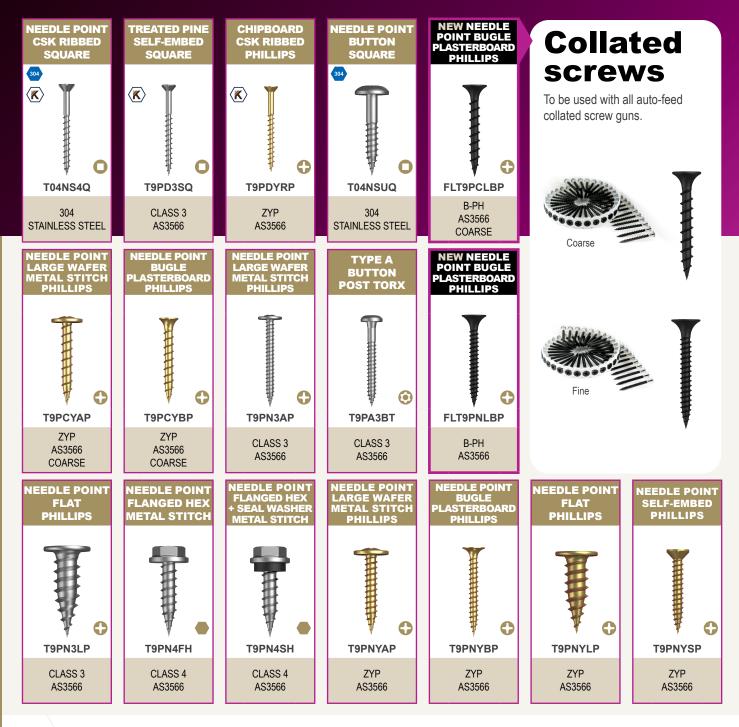








## MULTI-USE





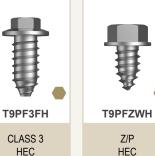
NEW





# Framing Screws





METAL SDS FLAT PHILLIPS

**T9PMKNP** E-COAT

BLACK

AS3566

PHILLIPS

0



Extended thread to the tip of the point allows easy start and alignment.







### ALL-IN-1

#### **Polycarb Assemblies**

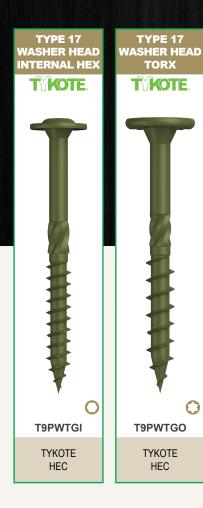








## 

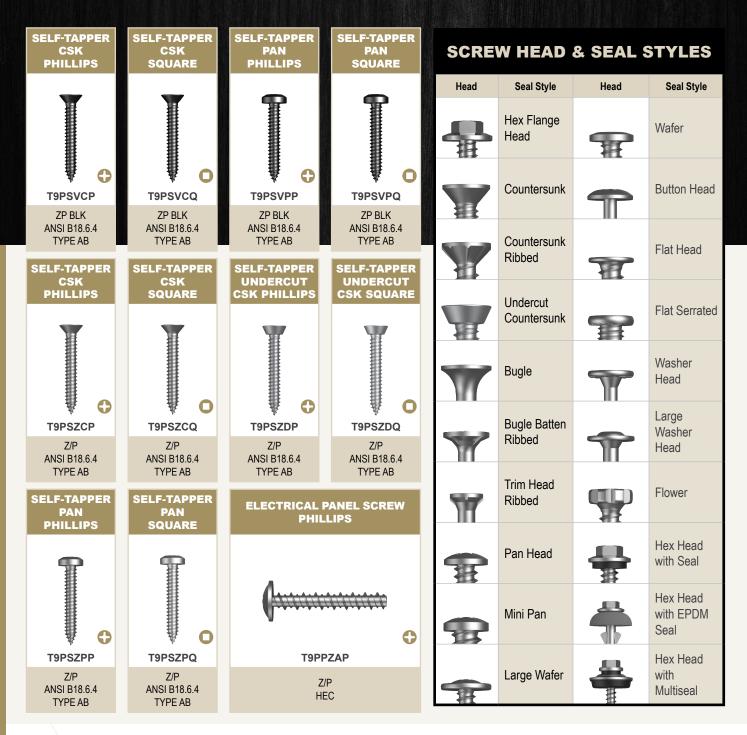


A high-performance coating specially formulated for resisting treated pine chemicals.





### Self-Tapping Screws



160 hobson.com.au



METAL SDS BUGLE BATTEN

RIBBED INTERNAL HEX

DECK

Т9РМ3ВН

С





### DECK® MASTER

METAL WINGS

CSK RIBBED SQUARE

DECK

T9PG3RQ

0

METAL SDS BUGLE BATTEN RIBBED SQUARE

DECK

T9PM3BQ

O

BRANDS Find the NEW Deck Master range in our Brands section at hobson.com.au

S500 WINGS

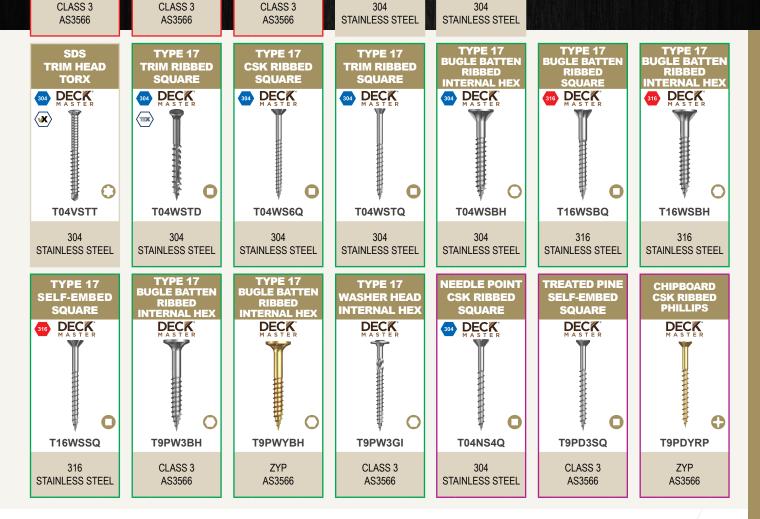
CSK RIBBED

T4XHXRQ

 $\langle \mathbf{x} \rangle$ 

0

A range of screws that suit all decking applications in any environment.



SDS WINGS

CSK RIBBED SQUARE

T4XGXRQ

 $\langle \mathbf{x} \rangle$ 





# Colorbond

Hobson Screws, Rivets and Cyclone Washers with painted heads in the Colorbond<sup>®</sup> range of colours.



#### **Painted Heads**

T<u>9PM4FH1016016</u> PLAIN HEAD To find a rivet or screw in any of the colours below, simply replace the **9P** in the part number with the colour **Code** in the table.

#### TDWM4FH1016016 DOVER WHITE HEAD







| COLORBOND <sup>®</sup> COLOUR MATRIX |                            |                 |              |  |                    |  |  |
|--------------------------------------|----------------------------|-----------------|--------------|--|--------------------|--|--|
| Code                                 | Colour Name                | Colour          | Code         | Colour Name  | Colour             |  |  |
| DW                                   | Dover White™               |                 | NS           | Night Sky <sup>®</sup>   | NZ EBONY           |  |  |
| SM                                   | Surfmist <sup>®</sup>      | NZ TITANIA      | IS           | Ironstone®   |                    |  |  |
| EH                                   | Evening Haze <sup>®</sup>  |                 | DO           | Deep Ocean <sup>®</sup>  | NZ STORM BLUE      |  |  |
| СС                                   | Classic Cream™             | NZ SMOOTH CREAM | CG           | Cottage Green <sup>®</sup>                                     | NZ PERMANENT GREEN |  |  |
| PA                                   | Paperbark®                 |                 | PE           | Pale Eucalypt <sup>®</sup>                                     | NZ MIST GREEN      |  |  |
| со                                   | Cove®                      |                 | TE           | Terrain <sup>®</sup>   |                    |  |  |
| DU                                   | Dune <sup>®</sup>          |                 | MR           | Manor Red <sup>®</sup>   | NZ SCORIA          |  |  |
| SO                                   | Southerly®                 |                 | $\checkmark$ | ↓ <b>Discontinued Colours</b><br>Screws painted upon request ↓ |                    |  |  |
| SG                                   | Shale Grey™                | NZ GULL GREY    | BU           | Bushland <sup>®</sup>  |                    |  |  |
| BG                                   | Bluegum®                   |                 | WI           | Wilderness®  | NZ RIVERGUM        |  |  |
| WN                                   | Windspray®                 | NZ SMOKEY       | LO           | Loft <sup>®</sup>  |                    |  |  |
| MA                                   | Mangrove®                  |                 | HE           | Headland <sup>®</sup>  | NZ MAPLE           |  |  |
| GU                                   | Gully®                     |                 | SA           | Sandbank <sup>®</sup>  | NZ STRAW           |  |  |
| JA                                   | Jasper <sup>®</sup>        | NZ SORRELL      | РТ           | Pale Terracotta™   |                    |  |  |
| WA                                   | Wallaby®                   |                 | BR           | Blue Ridge <sup>®</sup>  | NZ PACIFIC BLUE    |  |  |
| BA                                   | Basalt <sup>®</sup>        |                 | PL           | Plantation <sup>®</sup>  |                    |  |  |
| WG                                   | Woodland Grey <sup>®</sup> | NZ THUNDER GREY | PR           | Primrose™  |                    |  |  |
| МО                                   | Monument®                  |                 | ST           | Stone®   | NZ RIVERSAND       |  |  |

NZ colours available on request.

\*Colours are representative only.

Colorbond® is a registered trademark of BlueScope Steel Limited.



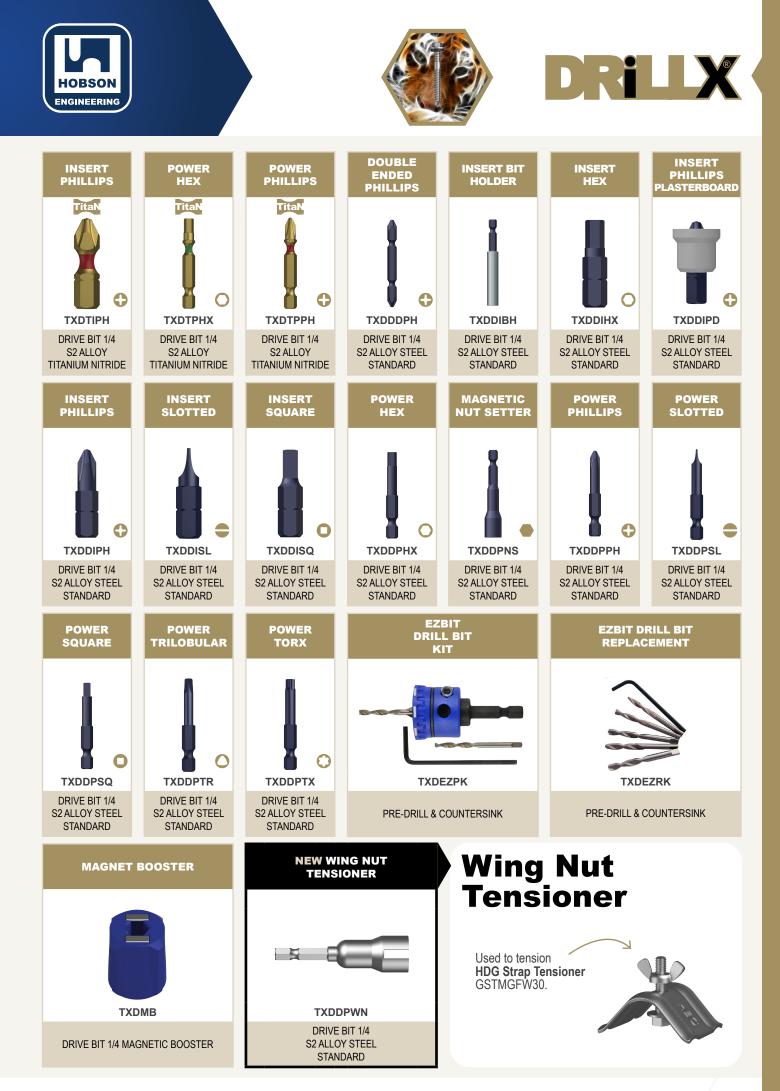






Find security socket bits in STAINLESS FASTENERS category.











#### Dome and countersunk rivets



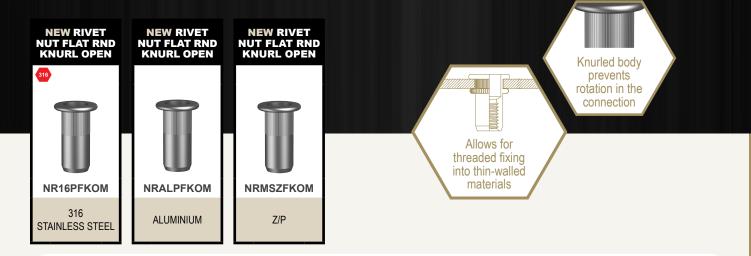




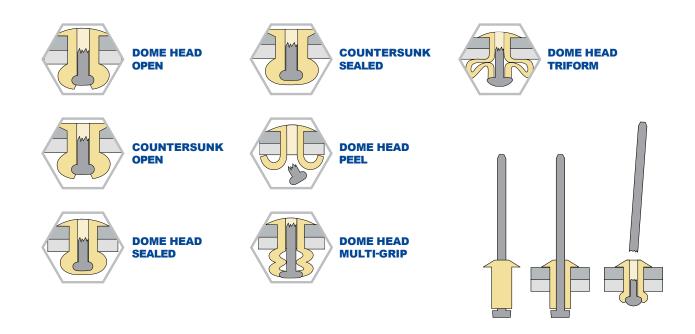


NEW

### Rivet Nuts



#### Rivet Head Types

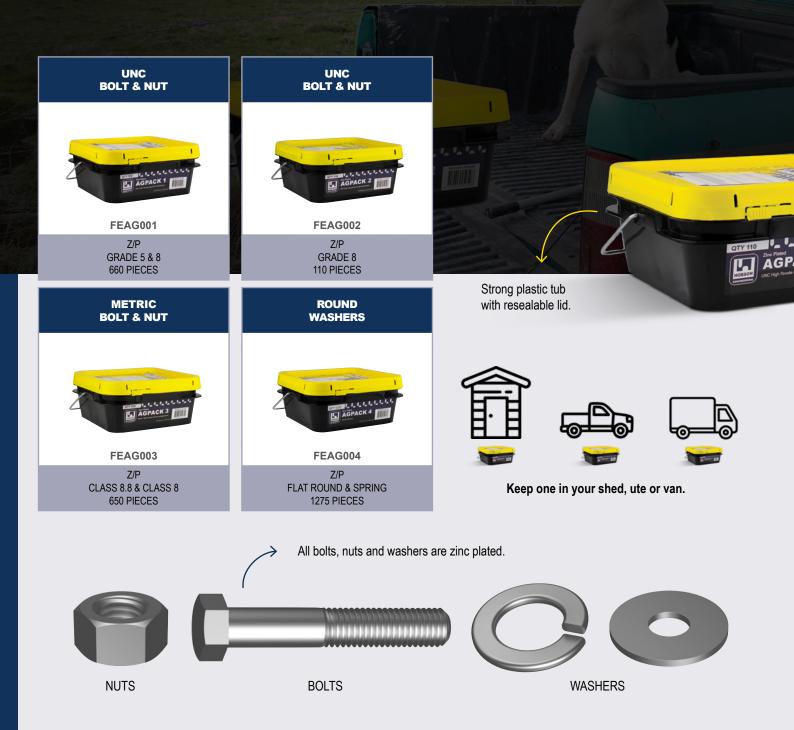






#### **BOLT, NUT AND WASHER KITS**

### AGPACKS





FEFK016

Z/P

3/4-2 INCH

FEFK019

Z/P & PLN

M5

12-25MM

FEFK020

Z/P

M6

12-40MM

FEFK021

Z/P

M8

16-50MM

FEFK023

Z/P

M12

25-65MM

FEFK022

Z/P

M10

16-65MM





HOBSON

### Merchandising & more



HOBSON ENGINEERING

|                              | APPLIED<br>BOLTING®           | <b>H9</b>               |
|------------------------------|-------------------------------|-------------------------|
|                              | BI-FIX®                       |                         |
|                              | BUMAX®                        | <b>X</b>                |
|                              | CLAWBOLT®                     | mungo                   |
| PRO                          | CLAWBOLT®<br>PRO              |                         |
|                              | CONXTRUCT®                    | $\langle \circ \rangle$ |
|                              | CONXTRUCT <sup>®</sup><br>Pro | N                       |
| $\langle \mathbf{K} \rangle$ | DECK<br>Master®               |                         |
|                              | D-LOK®                        | S                       |
|                              | DRILLX®                       | $\bigcirc$              |
| HIT                          | H-IT®                         |                         |
| HIT                          | H-IT® PRO                     | O                       |

| Н9 ІМРАСТ"    |          | TDX®                  |
|---------------|----------|-----------------------|
| IMPAX®        |          | TITAN™                |
| JMAX™         |          | TONE®                 |
| MUNGO®        |          | TRADE PAX™            |
| NEPTUNE®      | X        | TX-CON®               |
| NORD-LOCK®    |          | TYGABOLT <sup>®</sup> |
| NYLOC®        |          | TYKOTE®               |
| RIVX®         |          | VMAX®                 |
| SAMPSONROD®   | <b>W</b> | WALLKATT <sup>®</sup> |
| SCHNORR®      |          | XBOLT®                |
| SCRATCHGUARD® | PRO      | XBOLT® PRO            |
| SOKO®         |          | XGRIP®                |

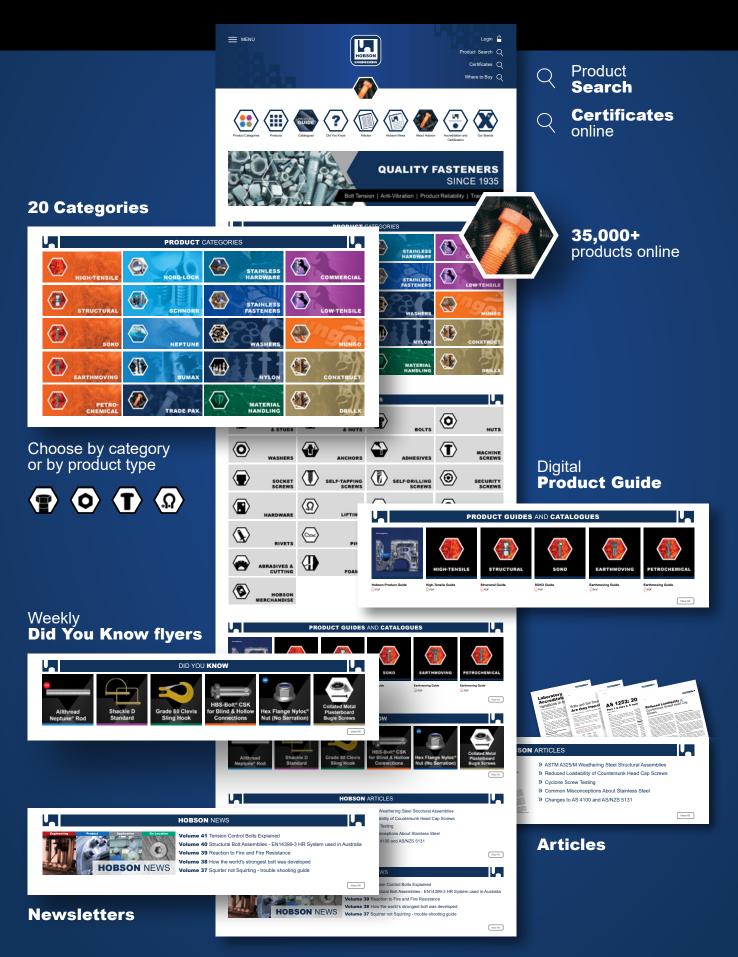






#### Visit our **NEW** website!

#### hobson.com.au







#### HISTORY

Founded in 1948 by Sam Keable and Bob Graham, Keables is a leading specialist distributor of bolts, nuts, screws, washers and other fastening products. Bob's son Ian Graham and Sam's son Ian Keable, cemented the partnership and successfully managed the business for 40 years.

Ian Graham skilfully guided the transition to the third generation of Graham family involvement when his sons, Mark and Campbell Graham, purchased the business in 2000. Working closely together, Mark and Campbell strive to continue the proud Keables tradition.

#### **KNOWLEDGE AND RANGE**

The Keables name is synonymous with fasteners and together with our motto "Anything with a Thread" serves to ensure access to the widest range of fasteners on the Australian market. Our fastener knowledge is legendary. No one can beat us when it comes to expertise and experience.

Keables depth of stock and breadth of range is second to none. Our fully stocked range includes bolts, nuts, screws, washers, allthread, rivets, studs, masonry anchors, couplers, eyebolts, u bolts, stainless product, nylon product, turnbuckles, pins, nails, chain, shackles, wire rope and accessories, taps, dies, drills, hand tools and more. Keables stocks all sizes, materials, finishes and threadforms – threads include Metric, UNC, UNF, BSW, BSF, BA, and SAE.

#### SUPPLIERS

- Australian standard fastener manufacturers and importers
- Local specialised manufacturers, eg CNC machining, specialised & precision repetition engineering & laser cutting
- Overseas distributors of DIN and ISO specification fasteners
- Overseas manufacturers of standard and specialised fasteners
- Exotic and high integrity material fastener manufacturers

#### MORE THAN JUST BOLTS AND NUTS

Complementing the range of fasteners it distributes, Keables has chosen to stock a select range of engineers hand tools, primarily in the cutting, drilling, tapping and tightening areas of engineering requirements.





Fasteners of any size, quantity or finish. Materials include mild steel, high tensile, stainless, brass, aluminium & nylon to name a few. Servicing industries from the mainstream to the unique. The situation may be one of extreme corrosion, unusually high stress, excessive vibration, cyclic loading or temperature extremes – we have the knowledge & fasteners to get it right.

#### BOLTS

Black Brass Bright BSW, UNC & UNF Coach Elevator Eve Fascia Fine Pitch Fish Foundation Hex **High Tensile** J Hook & U Nylon Plow Purlin Roofina Stainless Steel Structural Stud Unilok (incl. P.C.10.9)

#### SOCKET PRODUCTS

Buttonhead Screws Cap Screws Conelock Nuts Countersunk Screws Dowell Pins Hex Wrenches Pressure Plugs Set Screws (Grub) Shaft Collars Shoulder Screws Spring Pins

#### ENGINEERS

Drills Cutting Tools Hand Tools Loctite Tap & Dies etc.

#### NUTS

ASTM A194 Black Brass Bright Cold Formed Cone Type Coupler Eye Fine Pitch Flange G4, G8, G8M Hex Lock Nyloc **Nvlon** Precision Pressed Root Speed Stainless Tee 2H Weld Wing

#### ALL THREAD

B7 Brass High Tensile/ Imperial & Metric Plain Z.P. & HDG Sampsonrod Stainless Steel

#### ALLIED <u>PRODU</u>CTS

Circlips CMI Pressings Nails Make-a-Key Silver Steel Turnbuckles Wallmates Windbrace Brackets Wire Rope & Fittings

#### SCREWS

Batten Chipboard Coach Deck Fine Pitch Grub Hex Metal Thread Nylon Plasterboard Plastite Security Self Tapping Taptite Teks Thread Cutting Thumb Type 17 Types 23 & 25 Wood

#### STUDS

ASTM A193 & A320 B16, B7M, B8 B8M, B7, L7, L7M Engineers

#### WASHERS

Aluminium Belleville Bevel Black Brass Bright Cup Disc-Lock DTI - Squirter Fibre Hardened Nord-Lock Nylon Schnorr Shakeproof Shim Spacing Spring Square Stainless Structural

#### SET SCREWS

Black Brass Bright Hex High Tensile Nylon Square Head CHCP Stainless

#### RIVETS

Blind Nutserts Semi tubular Solid Tinmens

#### STAINLESS

304, 316 & 321 400 Series SAF 2205 SAF 2507 PINS Cotter Dowel Hump-Back Roll Split Spring Taper

#### MASONRY ANCHORS

Chemsets Drop-in Anchors Dynabolts Dynasets Loxins Sleeve Anchors Through Bolts Trubolts

#### **SPIKES**

Chair Deck Dog Dump

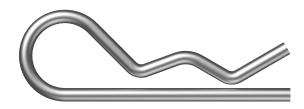
PLATING

Black Oxide, Brass, Cad, Chrome, Copper, Galvanizing, Molybond, Nickel, Nylon Patch, Tin, Xylan, Zinc, Passivate or Chromate finished

#### SPECIALS

To your individual requirements Off Standard Threaded Fasteners & Components, Special and General Repetition Engineering





#### SPECIALS

Keables is widely recognised for our ability to supply "Specials" (non-standard product) in any size and from any material, at competitive prices with guaranteed delivery dates.

#### "Specials" can be supplied at short notice in any quantity and to client specifications which may include requirements such as:

- Full certification and test reports
- Specialised protective finishes
- Inspections by customer appointees
- Packing for overseas destinations

In addition to the various chromate conversions of zinc plating—bright (clear), yellow, black, olive-drab, gold etc specialised protective finishes can include processes such as:

- Molybdenum disulphide
- Xylan (P.T.F.E.)
- Mechanical cadmium or zinc
- Chemical blackening
- Hot dipped galvanising
- Nylon patch

#### QUALITY

Keables keeps abreast of the latest trends in quality management, and maintains a comprehensive library of up to date information on Australian and overseas standards relating to bolts, nuts, screws, washers etc, in fact, for any fastener related product.

#### STANDARDS

For standard fasteners, Keables-supplied product always complies with the relevant local or international standard, specified by the customer at the time of ordering. These include:

- AS
- DIN
- ISO
- ASME
- ASTM
- ANSI fastener standards

#### CERTIFICATION

In addition, or in the case of non-standard fasteners, in lieu of, Keables will supply certification for any product we supply, provided our customer requests this at the time of ordering. Certification can include the following;

- mechanical properties
- chemical composition
- BS EN 10204 Type 3.1 certificates
- letters of conformity
- batch testing



#### ANYTHING WITH A THREAD

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**KEABLES** "The Original Bolt and Nut Specialists"

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