



# STEEL FABRICATORS PRODUCT GUIDE

REVISION 4.0

**FAST | SAFE | SECURE | SIMPLE**



[KONNECTFASTENINGSYSTEMS.COM.AU](http://KONNECTFASTENINGSYSTEMS.COM.AU)

1300 KONNECT (566 632)

# MAJOR PROJECT SPECIFICATION

Supporting major construction initiatives with reliable and high-quality solutions.



## Cross River Rail (CRR) Brisbane, Queensland

A new 10.2 kilometre rail line from Dutton Park to Bowen Hills

## Sydney Football Stadium Redevelopment Moore Park, New South Wales

Redeveloped into a 40,000 to 45,000 seat stadium with improved sightlines & a roof that covers all patrons



## Westfield New Market Auckland, New Zealand

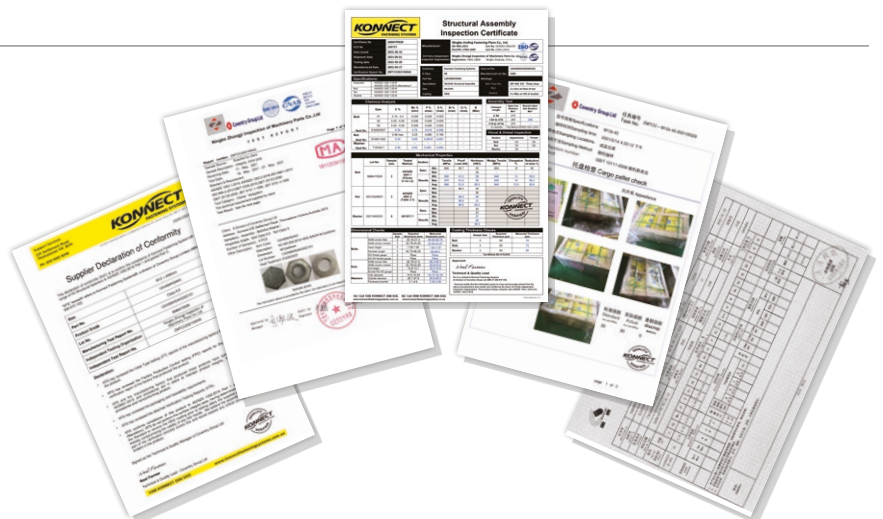
32,500sqm GFA (Gross Floor Area)  
5 levels with 3,000 person capacity

Photo Credit – Sydney Football Stadium - <https://www.infrastructure.nsw.gov.au/projects-nsw/sydney-football-stadium-redevelopment/>  
Special thanks to Cross River Rail for allowing Konnect Fastening Systems™ to photograph the construction site.

## TECHNICAL SUPPORT

# QUALITY ASSURANCE

- Tested to latest International & AS/NZS standards
- Verification testing completed by independent ILAC accredited laboratories





# K0 CLASS

High strength class 8.8 HR bolted assemblies compliant to the latest standard AS/NZS 1252:2016 (PARTS 1 & 2) K0 8.8 for improved reliability, performance and certification.

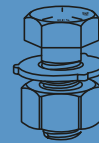
- Compulsory verification testing guidelines supported by detailed certification
- HR bolt assemblies directly align with the design provisions of AS4100 for ductility
- Unique batch head markings for identification
- Large range of diameters: M12 to M36
- Choice of lengths: from 30mm to 800mm
- Long life finish: hot dipped galvanised
- Stock available from warehouse

## Applications

- Steel frame buildings & warehouses
- Structural steel connections
- Road & rail bridges
- Platforms & walkways
- Shelters & canopies

## Technical information

- For detailed technical information & performance reports contact your local representative or refer to the Konnect Fastening Systems® website



**KONNECT**  
FASTENING SYSTEMS

STRUCTURAL ASSEMBLY  
AS/NZS 1252:2016 / CLASS 8.8  
HOT DIP GALVANISED

## M12 x 30mm (K0)

PO No: 13245678  
Heat No: 13245678

Qty: 50 SETS  
Weight: 12.8 kgs

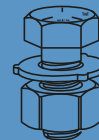
Lot No:



Part No:



12X30MHSK0



**KONNECT**  
FASTENING SYSTEMS

STRUCTURAL ASSEMBLY  
AS/NZS 1252:2016 / CLASS 8.8  
HOT DIP GALVANISED

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PO No: 13245678  
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Lot No:



Part No:



12X30MHSK0

Aust. 1300 KONNECT KONNECT FASTENING SYSTEMS N.Z. - 0508 KONNECT

# DURASQUIRT® DTI WASHER

Durasquirt® with direct tension indicators (DTI's) for fast and accurate installation of bolted assemblies compliant to AS/NZS 1252:2016.

## Instant visual inspection for correct tension & stop point

- Complete indication occurs after minimum tension has been achieved
- Simple to use & easy for installers & inspectors to see when the required tension is achieved
- Not affected by poor torque tension correlation factors such as weathering, poor lubrication & damaged threads
- A durable squirt indication that lasts on the connection
- A clear visual indication when the bolt assembly is tensioned correctly by "squirting" bright orange indicator
- Independently tested from -50 to 104 degrees celsius
- Engineered to withstand the elements from wind, heavy rain & extreme temperatures
- To prove how much DuraSquirt® DTI Washers can withstand, it was run through an automated dishwasher for 1 year. Despite the daily punishment of heated turbulent water & detergent, the squirt media was still visible

## Technical information

For detailed technical information and performance reports contact your local representative or refer to the Konnect Fastening Systems® website



Scan for video



## Applications

- Structural steel connections with AS/NZS 1252:2016 and AS/NZS 1252:1996/83 - assemblies

# TENSION CONTROL BOLTED CONNECTIONS

Extreme Class 10.9 Tension control bolt systems for faster installation with superior strength and safety. Lowest cost method to install friction grip, preloaded bolts. Higher project productivity compared to conventional methods.



Scan for video



## Installation advantages

- Visual inspection
- Consistent tension
- Single operator installation (reducing labour costs)
- Non impacting electric shear wrenches (no HAVS{Hand-Arm Vibration Syndrome})
- No air compressors or hoses required
- Calibrated torque wrenches are not required
- Reduces installer fatigue

## Applications

- Lowest cost method of properly installing high strength preloaded bolting assemblies
- Property Class 10.9/10
- Manufactured in accordance with EN 14399-10
- CE Marked in accordance with EN 14399-1
- Available in M12, M16, M20, M22, M24, M27, M30 & M36 in various lengths
- Supplied with Superior corrosion protection Greenkote (Anti-corrosion protection)
- Advanced thermal diffusion coating of Zn-Al polymetallic composition
- Ability to paint over the product
- Delivering exceptional protection against corrosion & provides superior adhesion, coating uniformity, hard wearing & eliminates hydrogen embrittlement issues in high strength fasteners
- Can not be easily separated by physical or environmental forces
- Guaranteed tension together with visual inspection
- Used in applications such as: Bridge splice plates, beam-to-column connections, stadia roof trusses to rail switches & crossings



# TENSION CONTROL BOLT INSTALLATION TOOLS

- Lightweight electric shear wrench
- Single person operation
- Less operator fatigue
- High user safety
- No pneumatic or hydraulic equipment required
- Low noise & vibration





# HOLD-DOWN BOLTS

For structural and non-structural connections of steel columns and frames to precast concrete footings.

## Individual or multiple bolt options with steel plate assemblies

- Black or hot dipped galvanised finish
- Metric bolt diameters from M12 to M30 (other diameters available but lead times may apply)
- Total bolt lengths from 300mm to 800mm (other lengths available but lead times may apply)
- Choice of bolt thread lengths from 100mm to 200mm





Featured above in the photograph are 'plain finish' hold-down bolts.

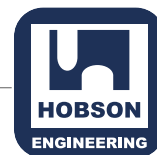
## HBS BOLTS

One-sided installation for fixing steel to hollow sections or where there is limited access.

### Applications

- For fixing steel to hollow steel sections
- For use with square, rectangle, & circular hollow sections
- High shear & tensile capacities
- Large grip range
- One sided installation
- Steel framework including: gantries, bridges, stadiums, & transmission towers

Material	Coating
 Class 8.8	 Hot Dipped Galvanised



Mechanical Properties					
Part Prefix.	Nominal Size	Characteristic Load		Working Load	
		Tensile	Shear	Tensile	Shear
		kN	kN	kN	kN
KBB88GHM08	M8	24.3	26.1	6	7
KBB88GHM10	M10	44.8	45.6	10	12
KBB88GHM12	M12	51.6	58.3	13	15
KBB88GHM16	M16	89.1	105.3	23	28
KBB88GHM20	M20	128.9	161.4	34	43

### Technical information

For detailed technical information & performance reports contact your local representative or refer to the Konnect Fastening Systems® website.



Hexagon collar for use with open end or ring spanner



## WEATHERING STEEL ASSEMBLIES

High strength low alloy steel components with improved resistance to atmospheric corrosion compared to standard carbon steels. Weathering steel is a long life, low maintenance alternative to hot dipped galvanising that forms a protective rust prohibiting coating over time.

### Applications

- Outdoor sculptures
- Exterior façades
- Bridges & large steel structures
- No painting required
- Stable, rust like appearance
- High copper, nickel & chromium material content
- Goods supplied to project orders. Lead times apply

Submit your project enquiry to your local Konnect Fastening Systems® representative.



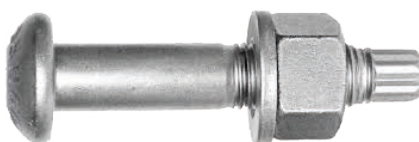
## TCB WEATHERING ASSEMBLIES

Weathering steel refers to the chemical composition of these steels allowing them to exhibit increased resistance to atmospheric corrosion. Though occasionally used in high rise buildings & sculptures, Weathering Steel TCBs are most commonly specified in the bridge market.



### Applications

- Weather resistant assemblies in accordance with EN 1090-2:2018 section 5.6.6
- High strength structural bolting assemblies for preloading
- Property class 10.9/10
- Manufactured in accordance with EN 14399-10
- CE marked in accordance with EN 14399-1
- Available in M24 & M30 in multiple lengths
- Requirement for maintenance reduced
- Steel surface is allowed to rust in order to form the protective coating





# BOLTED CONNECTIONS AND ASSEMBLIES

Threaded bolt assemblies for structural and non-structural connections to steel and concrete.

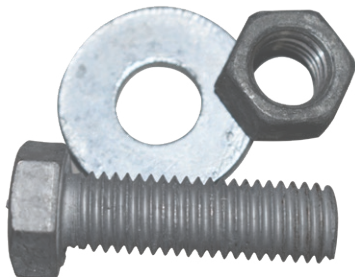
## Fastening system solutions include

- High tensile and standard strength steel assemblies
- Choice of zinc, hot dipped galvanised and stainless steel finishes
- A wide range of metric and imperial diameters and lengths
- Complete bolt, nut and washer assemblies
- Threaded rods and accessories



## Threaded rod

Mild steel and high tensile threaded rod available in metric or imperial and in a range of sizes & finishes.



## Nuts, bolts & washers

Range of high & low tensile nuts, bolts & washers. Available in a range of finishes, types and sizes; suitable for various applications.

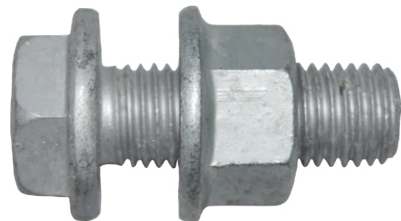
## Applications

- Structural girders & beam connections
- Steel purlins and roof trusses
- Suspended services and tray systems
- Fixing structural columns to concrete
- Rigging, bracing and framework
- Equipment chassis



## Structural assemblies

Fully certified structural assemblies to meet your construction requirements. Available in diameters from 12mm to 36mm in a variety of lengths, with test certificates available.



## Purlin bolts

High and low tensile purlin assemblies for fastening steel purlins. Available in diameters from 12mm to 16mm and in a length of 30mm.



# R-KEX II WITH CHEM STUDS

RAWLPLUG®

Premium pure epoxy resin approved for use in cracked and non-cracked concrete.

- Approved for use with threaded rods for use in cracked & non-cracked concrete (EAD 330499-01-0601), design life up to 100 years
- The strongest resin in the epoxy resin class
- Suitable for use in dry & wet substrates including flooded holes (use category I1 & I2)
- Seismic category C1, C2
- Installation direction D3 (downward & horizontal & upwards installation)
- Minimal shrinkage provides option of use in diamond-drilled holes & oversized holes
- Very high chemical resistance – suitable for applications exposed to influence of various agents (industrial or marine environment)
- Extended working time ensures easy installation of metal components (up to 30 min. in 20°C)
- Available in 385ml and 600ml

## Applications

- Safety barriers
- Formwork support systems
- Structural steelwork
- Street lamps
- Curtain walling
- Racking systems
- Balustrading
- Barriers
- Cladding restraints
- Masonry support
- Heavy machinery
- Platforms

## Base materials

Approved for use in:

- Cracked concrete C20/25-C50/60
- Non-cracked concrete C20/25-C50/60

## Approvals & reports

- ETA-21/0244
- UKTA-22/6132



C1 - C2

# R-KER-II HYBRID RESIN WITH CHEM STUDS

RAWLPLUG®

High strength and versatile application in cracked and non-cracked concrete with threaded rods.

- Approved for use in cracked & non-cracked concrete (EAD 330499-01-0601), design life up to 100 years
- Suitable for use in dry or wet substrates & water filled holes
- For faster curing winter version of the resin can be used
- No need for hole cleaning when using Dustless drill bit
- Special nozzle with longer mixer for more comfortable & precise application
- Suitable for multiple use. Partly used product can be reused after fitting new nozzle
- Very high load capacity
- Tests in fire conditions confirm the fire resistance up to R120
- Available in 300ml and 400ml

## Applications

- Curtain walling
- Balustrading
- Handrails
- Canopies
- Cable conduits & trays
- Fencing & gates manufacturing & installation
- Pipework/ductwork supports
- Platforms
- Pipelines systems
- Passenger lifts
- Safety barriers
- Formwork support systems
- Structural steelwork
- Street lamps
- Racking systems
- Barriers

## Base materials

Approved for use in:

- Cracked concrete C20/25-C50/60
- Non-cracked concrete C20/25-C50/60

## Approvals & reports

- ETA-21/0242
- UKTA-22/6130





# R-KEM II WITH THREADED RODS FOR CONCRETE

RAWLPLUG®

Universal polyester (styrene free) resin - European approval for 15 substrates.

- Approved for use in non-cracked concrete (EAD 330499-01-0601), working life up to 100 years
- Available in a winter version with faster curing time
- It can be used from -20°C.
- Three colors - standard, stone & gray
- The most convenient bonded anchor for general purpose use
- Quick, secure & simple installation
- Product with wide spectrum of use in the medium load capacity area
- Ideal for applications where mechanical anchors are not suitable
- Easy dosage thanks to patented self-opening system & use of manual or electric gun
- Option of use standard manual silicone gun
- Available in 300ml and 410ml

## Applications

- Consoles
- Staircases
- Gates
- High racking
- Canopies
- Sanitary appliances
- Steel constructions
- Railings
- Handrails
- Ladders
- Cable trays

## Base materials

Approved for use in:

- Non-cracked concrete C20/25-C50/60

Also suitable for use in:

- Natural Stone (after site testing)

## Approvals & reports

- ETA-21/0243
- UKTA-22/6131



## MECHANICAL ANCHORING SYSTEMS – ETA RATED

# R-LX-HF-ZP / ZF CONCRETE SCREW ANCHOR

RAWLPLUG®

Self-tapping, hex with flange concrete screw anchor.

- Time-efficient through-fixing installation with streamlined procedure - simply drill & drive
- Completely removable with possibility of reuse
- Oversize head for fixtures with elongated holes
- High performance in uncracked & cracked concrete
- Excellent product for temporary fixing
- Suitable for standard & reduced embedment depth
- Unique design with patented threadform ensures high performance for relatively small hole diameter
- Non-expansion functioning ensures low risk of damage to base material & makes R-LX ideal for installation near edges & adjacent anchors
- Different head types for any application

## Applications

- Through-fixing
- Temporary anchorages
- Formwork support systems
- Balustrading & handrails
- Fencing & gates (manufacturing & installation)
- Racking systems
- Public seating
- Scaffolding

Zinc Flake



Zinc Plated



## Approvals & reports

- ETA 17/0783.
- UKTA-22/6346



## R-HPTII-ZF THROUGH BOLT

Zinc flake throughbolt anchor with corrosion-resistant coating for cracked and uncracked concrete.

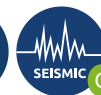
- New generation of throughbolt with unique corrosion-resistant coating
- High performance in cracked & non-cracked concrete confirmed by ETA Option 1
- Highest quality ensures maximum load capability
- For applications requiring fire resistance up to 120 minutes
- Fire resistant
- Suitable for reduced embedment to avoid contact with reinforcement
- Embedment depth markings help to ensure precise installation of the anchor
- Design of R-HPTII allows drilling & installing directly through the fixture & helps to reduce installation time
- Anchors can be used in earthquake risk zones - seismic category C1 & C2

### Applications

- Cladding restraints
- Consoles
- Barriers
- Structural steel
- Curtain walling
- Handrails
- Heavy Plant
- Balustrading
- Passenger lifts
- Facades, Racking systems
- Platforms
- Fencing & gates (manufacturing & installation)

### Approvals & Reports

- ETA 17/0184
- UKTA-22/6202



C1 - C2

## R-HPTII-A4 THROUGH BOLT

Stainless steel throughbolt anchor for cracked and non-cracked concrete.

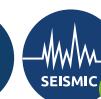
- Stainless steel anchor for the highest corrosion resistance
- Suitable for installation in corrosive environments category C1, C2, C3, C4 & C5
- High performance in cracked and non-cracked concrete confirmed by ETA Option 1
- Highest quality ensures maximum load capability
- Fire resistance up to 120 minutes
- Suitable for reduced embedment to avoid contact with reinforcement
- Embedment depth markings help to ensure precise installation of the anchor
- Design of R-HPTII allows drilling & installing directly through the fixture & helps to reduce installation time
- Anchors can be used in earthquake risk zones - seismic category C1 & C2

### Applications

- Cladding restraints
- Barriers
- Structural steel
- Curtain walling
- Handrails
- Heavy plant
- Balustrading
- Passenger lifts
- Facades
- Fencing & gates (manufacturing & installation)
- Masonry support
- Platforms
- Public seating
- Racking systems

### Approvals & Reports

- ETA 17/0185
- UKTA-22/6203



C1 - C2



## THROUGHBOLT STUD ANCHOR

Independently tested, heavy duty, torque controlled through fixture anchor for permanent anchoring in solid concrete.

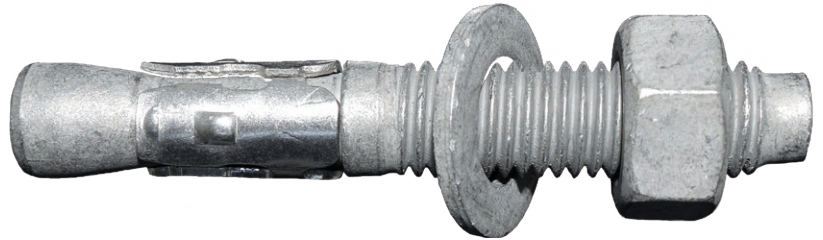
- Available in zinc plated, galvanised and G316 stainless finishes
- Full bolt diameter expansion anchor for superior load performance
- Anchor design generates high shear & tensile load capacity
- Anti-rotation expansion sleeve grips the hole for correct installation
- Choice of lengths to suit different fixture thickness
- Diameters: from 12mm to 20mm
- Lengths: from 80mm to 200mm

### Applications

- Barriers & building facades
- Handrails & balustrades
- Machinery tie down
- Seating & racking
- Structural steelwork & fixture plates
- Overhead anchoring
- Scaffolding & platforms
- Panels & cladding
- Safety barriers

### Technical information

For detailed technical information & performance reports contact your local representative or refer to the Konnect Fastening Systems® website



**You may also need:** Rotary Drilling Machines | Carbide Drill Bits | Hole Cleaning Pump and Brushes | Drill Driver | Impact Driver

## THREADED STUDS

- Chisel point stud with nut & washer
- Available in 316 Stainless Steel, of Class 5.8 Steel in either Galvanised & Zinc finish
- Depth mark for correct embedment
- External hex driver included
- Sizes: M12 - M24 | lengths: 160mm - 300mm



## CONCRETE SCREW ANCHOR

Self tapping screw type anchor for use in solid concrete applications.

- Available in zinc plated and galvanised finishes
- Suitable for medium to heavy loads
- Suitable for small anchor spacing and edge distance applications
- Quick and easy to install
- Fully removable

### Applications

- Handrails and balustrades
- Formwork and support fastening
- Mechanical, electrical and pipe bracket fastening
- Bottom plate fixing into concrete slabs
- Pallet racking

### Technical information

For detailed technical information & performance reports contact your local representative or refer to the Konnect Fastening Systems® website



Industry leader in construction & industrial fastening solutions



## COMMERCIAL CONSTRUCTION



## CIVIL INFRASTRUCTURE



## RESIDENTIAL CONSTRUCTION

Fasteners | Power Tools | Construction Anchoring | Sealants | Adhesives | Caulking | Concrete Lifting Systems | Drilling | Chemicals & Lubricants | Petrochemical | Storage | Construction Supplies | Power Tool Accessories | Safety Equipment



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