



# STEEL FABRICATORS PRODUCT GUIDE

INDUSTRY LEADER IN CONSTRUCTION & INDUSTRIAL FASTENING SOLUTIONS



# MAJOR PROJECTS SUPPLIED

Konnect Fastening Systems is proud to have supplied major projects throughout New Zealand and Australia. Sites have benefited from a wide variety of stock available from one supplier. A dedicated sales representative provides support to site along with the advantages of New Zealand's largest branch network providing availability from Whangarei to Invercargill. Konnect Fastening Systems branded 10ft and 20ft containers are available for use on site to minimise the number of deliveries needed and ensure products are kept in appropriate conditions.



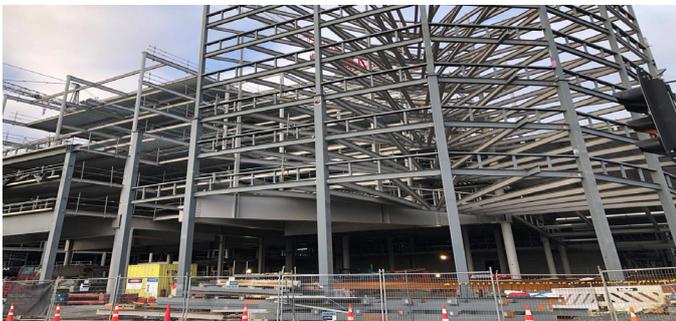
**Tupuārangi, University of Canterbury, Ilam, Christchurch, New Zealand**

Student accommodation facility  
7,696 Square Meters  
8 Storey



**IKEA, Sylvia Park, Mt Wellington, Auckland, New Zealand**

First Ikea store in New Zealand  
34,000 Square Meters  
3 Storey



**Westfield, New Market, Auckland, New Zealand**

Flagship premium shopping experience  
32,500 Square Meters  
5 Storey



**Holiday Inn, Queenstown, Remarkables Park, New Zealand**

4-star hotel  
9,500 Square Meters  
5 Storey Plus Basement

TECHNICAL SUPPORT

## SCNZ - BOLT IMPORT CHARTER

The Bolt Importer Charter scheme is the latest steel construction industry quality assurance programme. This complements the Steel Fabrication Certification programme launched in 2014 and the Structural Steel Distributor Charter launched in 2019. The Bolt Importer Charter ensures that fasteners and anchor bolts supplied to the local steel construction sector are sourced using good procurement practice and represents a mark of excellence for bolt importers in New Zealand.

**Charter Scope**

The Charter covers the sourcing of structural fastener assemblies and threaded anchor rods to the following manufacturing standards:

- Property class 8.8 structural fastener assemblies manufactured to AS/NZS 1252
- Property class 8.8 stud bolts manufactured to DIN 976-1
- Property class 8.8 and 10.9 structural fastener assemblies manufactured to EN 14399-3 HR
- Property class 8 nuts and hardened washers manufactured to AS/NZS 1252 (supplied with property class 8.8 stud bolts)

**Charter Requirements**

The Charter requires bolt importers to operate a Quality Management System (QMS) that complies with the conditions of the scheme as verified by an independent audit.

The importer must appoint an assessor with relevant experience to undertake the audit process. Auditors are required to be either from HERA Certification or accredited to offer QMS certification by an appropriate party i.e. a signatory to the International Accreditation Forum's Multilateral Recognition Agreement (e.g. JAS-ANZ).



# STRUCTURAL ASSEMBLIES

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.

## K0 Class

- 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-M36
- Choice of lengths: from 30mm-800mm
- Long life finish: hot dipped galvanised

## 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:



12X30MHS AK0



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FASTENING SYSTEMS

STRUCTURAL ASSEMBLY  
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HOT DIP GALVANISED

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Part No:



12X30MHS AK0

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
- 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 for installers and inspectors to see when the bolt assembly is tensioned correctly by "squirting" bright orange indicator
- Independently tested from -50-104 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.



### 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

### All standard TCBS from Tension Control Bolts are:

- 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
- Guaranteed tension together with visual inspection
- Used in applications such as: Bridge splice plates, beam-to-colum connections, stadia roof trusses to rail switches & crossings

### Applications:

- Beam to column connections
- Steel trusses, frames and splice plates.
- Road and rail bridges
- High rise buildings, tunnels and infrastructure projects
- Stadia roof trusses



Scan for video



### Proudly supplied to these major projects

- NZICC – Convention Centre
- Westfield Newmarket
- Holiday Inn Frankton (Queenstown)
- Dunedin Public Hospital - Outpatients
- Christchurch Hospital - Waipapa Tower 3
- Pullman Hotel – Auckland Airport
- Site 6
- Madden Street Apartments
- IKEA

Contact your Sales Representative for Assistance with Specification Change

## TENSION CONTROL BOLT INSTALLATION TOOLS

- A range of lightweight electric shear wrenches
- Single person operation
- Less operator fatigue
- High user safety
- No pneumatic or hydraulic equipment required
- Low noise & vibration



# HOLD-DOWN BOLTS (THREADED ROD, NUTS & WASHERS)

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

## Availability

- Variety of tensile strengths available including 10.9 (lead times apply).
- Wide network of trusted suppliers enables sourcing of specific requirements if requested. This includes non-standard diameters.
- Rod can be pre-cut to specific lengths as well as options for partial thread or all thread rod.
- Wide range of nuts & washers to suit appropriate standards.
- Available in black or hot dipped galvanised finish depending on requirements.

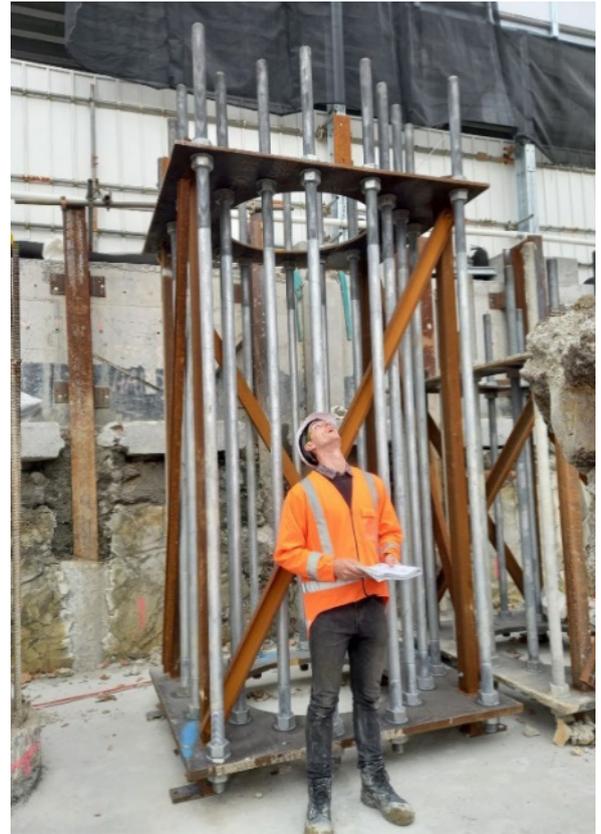
## Stocked Standard Range

- Threaded rod available off the shelf in M10-M48 galvanised 1m-3m
- Galvanised Class 8 nuts available M10-M48
- Galvanised round washers available in M10-M48

## Quality Management Systems

Stringent quality management systems in place to maintain product integrity. 10.9 product supplied with declaration of conformity that covers:

- Packing & traceability requirements
- Review of verification testing reports
- Manufacturing factory systems satisfying ISO 9001:2015



# 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
- Steel framework including: gantries, bridges, stadiums, & transmission towers

## Advantages

- High shear & tensile capacities
- Large grip range

Material	Coating
 Class 8.8	 Hot Dipped Galvanised
Also available in:	
 Contersunk	 Stainless Steel



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

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Hexagon collar for use with open end or ring spanner

## WELD STUDS

Konnect Weld Studs (otherwise known as Shear Studs) are commonly used in commercial construction and heavy industry. Instead of conventionally drilling a hole into an I beam and then installing a stud, a stud is simply welded to the beam through an arc style welder. This process saves time, labour and ultimately money.

The weld studs are supplied with ceramic ferrules and comply to AS/NZS 1554.2:2003

Available in diameters 16,19 and 22. Welded length ranging from 55mm-250mm.



## 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 facades
- Bridges & large steel structures

### Advantages

- 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 STEEL ASSEMBLIES

Weathering Steel TCBs are most commonly specified and used in the bridge market.



### All Standard Weathering Steel TCBs are:

- 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
- Reduce maintenance requirements
- Steel surface is allowed to rust in order to form the protective coating



# BOLTED CONNECTIONS

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

## Fastening System Solutions Include

- Low & high tensile steel assemblies
- Choice of zinc, hot dipped galvanised & stainless steel finishes
- A wide range of metric & imperial diameters & lengths
- Complete bolt, nut & washer assemblies
- Threaded rods & accessories

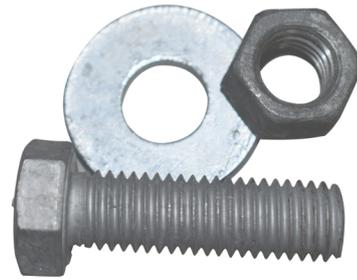
## Applications

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



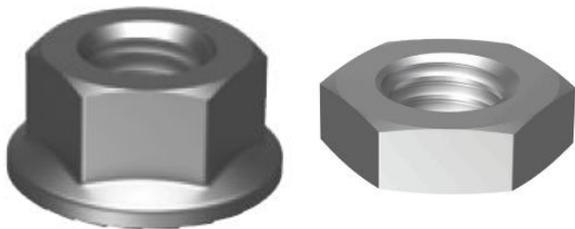
## Threaded Rod

Mild steel & high tensile threaded rod available in metric or imperial. Available in a range of sizes (M10-M48) & finishes (galvanised, stainless steel & zinc plated).



## Nuts, Bolts, Set Screws and Washers

Range of low & high tensile nuts, bolts & washers. Available in a range of finishes (galvanised, stainless steel & zinc plated), types & sizes; suitable for various applications.



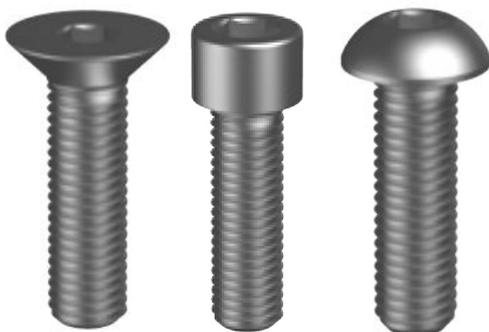
## Nuts

Variety of specialized nuts available including flange nuts, nyloc nuts, dome nuts & lock nuts.



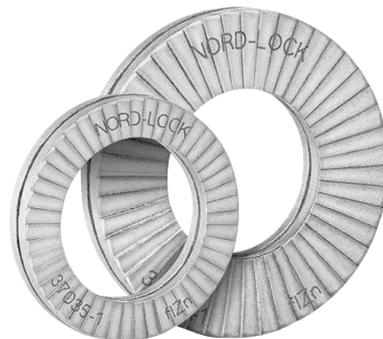
## Purlin Bolts

Low & high tensile purlin assemblies for fastening steel purlins. Available in M12x35 & M16 in 35mm & 45mm.



## Socket Screws

Wide range of socket screws available with range of heads including button, countersunk & cap. Available in plain, zinc & stainless steel.



## Nord-Lock®

Range of Nord-Lock® branded wedge-locking products that secure bolted joints, even when exposed to severe vibration & dynamic loads.

# R-KEM II POLYESTER



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
- 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

### Approved for use in

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

### Approvals & Reports

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



# R-KEX II PURE EPOXY



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 & 600ml

### 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



# R-KER-II HYBRID RESIN



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 & 400ml

### 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-HLX-ZF CONCRETE SCREW ANCHOR

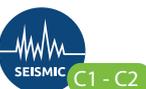


Self-tapping, hex with flange concrete screw anchor.

- The new thread geometry with additional cutting teeth ensures quick & easy installation, also in reinforced concrete C20/25-C50/60
- Fire resistance R30-R120
- R-HLX concrete screws can be used in earthquake-prone zones-seismic category C1 & C2
- Protected with zinc, aluminium flake coating-corrosion class C1-C4.
- Possibility of installation near the edge of concrete & at short distances from adjacent screws
- Polish production guarantees the highest precision of workmanship & it's repeatability
- Possibility of disassembly & repeated use after verifying thread wear with a tester
- The highest parameters in cracked & non-cracked concrete C20/25-C50/60 confirmed in the ETA
- Induction hardening ensures high surface hardness & high core impact strength

### Approvals & Reports

- ETA 17/0783
- UKTA-22/6346



## R-HPTII-ZF THROUGH BOLT

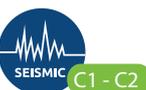


Zinc flake throughbolt anchor with corrosion-resistant coating for cracked and non-cracked concrete.

- 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

### Approvals & Reports

- ETA 17/0184
- UKTA-22/6202



## R-HPTIII-A4 THROUGH BOLT

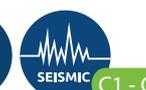


Stainless steel throughbolt anchor for cracked and non-cracked concrete.

- Stainless steel anchor for the highest corrosion resistance
- Suitable for installation in corrosive environments category C1, C2, C3, C4 & C5
- High performance in cracked & 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

### Approvals & Reports

- ETA-21/1082
- UKTA-22/6203



## THROUGHBOLT STUD ANCHOR

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

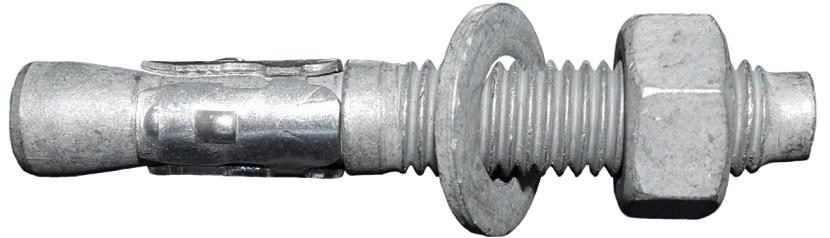
- Available in zinc plated, galvanised & G316 stainless finishes
- Full bolt diameter expansion anchor for superior load performance
- Anchor design generates high shear & tensile load capacity
- Anti-rotation expansion sleeve grips the hole for correct installation
- Choice of lengths to suit different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



## THREADED STUDS

- Chisel point stud with nut & washer
- Available in 5.8 and 8.8 hot dip galvanised or 316 stainless steel
- 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 & galvanised finishes
- Suitable for medium to heavy loads
- Suitable for small anchor spacing & edge distance applications
- Quick & easy to install
- Fully removable

### Applications

- Handrails & balustrades
- Formwork & support fastening
- Mechanical, Electrical & Pipe bracket fastening
- Bottom plate fixing into concrete slabs
- Pallet racking



## METAL PIN ANCHOR

- Suitable for fastening to concrete, blocks, brick & stone
- Easy installation by hammer
- Non-removable

Sizes: M5 & M6 | Lengths: 25mm-50mm



**You may also need:** Rotary Hammer Drill | Masonry Drill Bits | Hole Cleaning Pump and Brushes | Drill Driver | Impact Wrench

## PACKING SHIMS

Designed for packing underneath concrete precast or tilt-up panels in the industrial, commercial and civil construction industries, for levelling and packing objects with a high load mass. Colour coded by thickness for ease of selection.

Packing shims available in 98x87mm & 150mmx100mm. Thickness from 1mm up to 20mm.



## POWER TOOLS, HAND TOOLS & ACCESSORIES

Full range of Power Tools, Hand Tools & accessories available from market leading brands including:

- Torque Wrenches
- Drill Drivers
- Grinders
- Magnetic Drills
- Core Drills
- Pliers & Wrenches
- Measuring Tapes & Rulers



## PPE

Range of PPE available including:

- Glove Range
- Safety Glasses
- Ear Plugs
- Welding Aprons



## CONSUMABLES

### Abrasives

- Cutting Discs
- Grinding Wheels
- Fibre Discs
- Flap Discs

### Drills and Sockets

- Impact Sockets
- SDS Drill Bits
- Annular Cutters (Euroboor)

### Consumables

- Upside Down Marking Paint Fluorescent (dazzle)
- Sprays & Lubricants
- Rags



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CONSTRUCTION**



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