

evolution

www.evofas.com

METAL FRAMING GUIDE

An in-depth look at our
range of fasteners for
use in conjunction with
metal framing systems.

TECHNICAL CONSULTANCY SERVICES

In addition to manufacturing and distributing a wide range of premium quality fasteners, we also offer Technical Consultancy Services to support our products including the design and manufacture of bespoke fasteners.

WE BELIEVE IN FREE

Our expert team of structural, civil, mechanical, and chemical engineers are always on hand to offer FREE assistance and help when specifying or using our products.

QUALITY ASSURANCE AND LABORATORY TESTING

We operate a **UKAS accredited testing laboratory**, uniquely designed to test all aspects of construction fixings and fasteners as well as other tests suited to the aerospace, automotive, oil & gas, and marine industries.



OUR MOST SOUGHT AFTER SERVICES:

TENSILE, SHEAR, FATIGUE AND DEFLECTION TESTING

TORQUE TESTING

FAILURE ANALYSIS (hydrogen embrittlement, stress corrosion etc)

METALOGRAPHY (hardness - vickers/rockwell, HAZ etc)

MICROSCOPY (light, metallographic etc)

CORROSION TESTING (neutral salt spray, cyclic corrosion etc)



Premium quality is something we take very seriously at Evolution and our ISO 9001 certification demonstrates this. We are dedicated to ensuring quality in everything we do, from our products to our Customer Services and Marketing Support.

SPECIFIED

FOR:

- STRUCTURAL FRAMING,
- PURLINS, RAILS AND
- COLD-ROLLED SECTIONS:



INSULATION PRODUCTS:



*Names put in alphabetical order



WE HAVE THE SOLUTION.

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GENERAL FRAMING FIXINGS

GENERAL FRAMING SCREWS FOR FIXING STUDS/JOIST/RUNNERS AND BRACING SECTIONS.

When fastening to any hot- or cold-rolled purlins, rails, or steel components, both the Evolution Fasteners Metal Framing Range and Unwashed Hex Head Range make use of their Super Hard, Super Sharp drill tips to ensure rapid drill times.

STEEL CHANNEL

TEK SCREW

STEEL MEMBER

BMTSLP

METAL FRAMING SCREWS:

CARBON STEEL:

TSPH

FOR LIGHT STEEL (TEK 3 Point)

RANGE FROM: 4.8mm - 16mm/5.5mm - 19mm to 25mm

STEEL THICKNESS	1.2mm	1.6mm	2.0mm	2.5mm	3.0mm	4.0mm
DIA. 4.8mm	1.3kN	1.9kN	2.3kN	3.2kN	4.5kN	5.2kN
DIA. 5.5mm	2.1kN	2.9kN	3.6kN	4.8kN	5.7kN	6.3kN

PULL OUT VALUES FOR STEEL THICKNESS

TSLP

FOR LIGHT STEEL (TEK 2 Point)

RANGE FROM: 4.8mm - 22mm

COMING AUGUST 2023: 6.3mm - 25mm

STEEL THICKNESS	1.2mm	1.6mm	2.0mm	2.5mm
DIA. 4.8mm	1.3kN	1.9kN	2.3kN	3.2kN

PULL OUT VALUES FOR STEEL THICKNESS

TSLP

FOR HEAVY STEEL (TEK 5 Point)

RANGE FROM: 5.5mm - 38mm

STEEL THICKNESS	4.0mm	5.0mm	6.0mm	8.0mm	10.0mm	12.5mm
DIA. 4.8mm	5.8kN	7.1kN	8.8kN	10.7kN	12.9kN	16.3kN

PULL OUT VALUES FOR STEEL THICKNESS

STAINLESS STEEL:

BMTSPH

FOR LIGHT STEEL (TEK 3 Point)

RANGE FROM: 5.5mm - 19mm to 25mm

STEEL THICKNESS	1.2mm	1.6mm	2.0mm	2.5mm	3.0mm	4.0mm
DIA. 5.5mm	1.2kN	1.7kN	2.1kN	3.4kN	4.5kN	6.1kN

PULL OUT VALUES FOR STEEL THICKNESS

BMTSLP

FOR HEAVY STEEL (TEK 5 Point)

RANGE: 5.5mm - 38mm

STEEL THICKNESS	4.0mm	5.0mm	6.0mm	8.0mm	10.0mm	12.5mm
DIA. 5.5mm	6.5kN	7.8kN	10.0kN	11.5kN	12.0kN	12.4kN

PULL OUT VALUES FOR STEEL THICKNESS

UNWASHED HEX HEAD RANGE:

CARBON STEEL:

TSHW

FOR LIGHT STEEL (TEK 3 Point)

RANGE FROM: 4.8mm - 16/25/32mm / 5.5mm - 19mm to 125mm

STEEL THICKNESS	1.2mm	1.6mm	2.0mm	2.5mm	3.0mm	4.0mm
DIA. 4.8mm	1.2kN	1.6kN	2.0kN	3.0kN	3.9kN	4.5kN
DIA. 5.5mm	1.7kN	1.9kN	2.4kN	4.6kN	6.5kN	7.6kN

PULL OUT VALUES FOR STEEL THICKNESS

TSHW

FOR HEAVY STEEL (TEK 5 Point)

RANGE FROM: 32mm to 100mm

STEEL THICKNESS	4.0mm	5.0mm	6.0mm	8.0mm	10.0mm	12.5mm
DIA. 5.5mm	6.5kN	7.8kN	10.0kN	11.5kN	12.0kN	13.4kN

PULL OUT VALUES FOR STEEL THICKNESS

STAINLESS STEEL:

BMHH

FOR LIGHT STEEL (TEK 3 Point)

RANGE FROM: 5.5mm - 25mm to 100mm/6.3mm - 25mm to 50mm

STEEL THICKNESS	1.2mm	1.6mm	2.0mm	2.5mm	3.0mm	4.0mm
DIA. 5.5mm	1.7kN	2.1kN	2.5kN	3.2kN	4.3kN	5.5kN
DIA. 6.3mm	1.9kN	2.4kN	3.2kN	4.0kN	4.9kN	6.5kN

PULL OUT VALUES FOR STEEL THICKNESS

BMHH

FOR HEAVY STEEL (TEK 5 Point)

RANGE FROM: 5.5mm - 38mm to 100mm

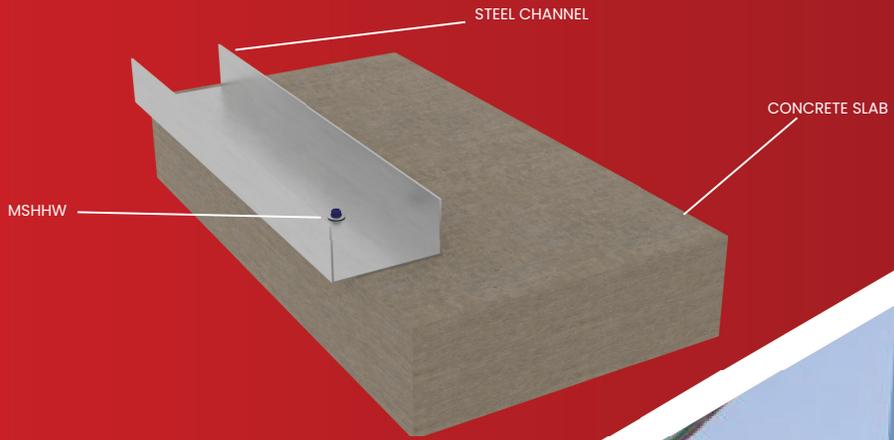
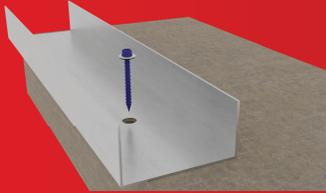
STEEL THICKNESS	4.0mm	5.0mm	6.0mm	8.0mm	10.0mm	12.5mm
DIA. 5.5mm	6.5kN	7.8kN	10.0kN	11.5kN	12.0kN	12.4kN

PULL OUT VALUES FOR STEEL THICKNESS

FIXING TO CONCRETE

CONCRETE SCREW
ANCHOR HEX HEAD

For a variety of applications: hex (washed/Unwashed) and countersunk alternatives available.
The aggressive thread form design ensures excellent gripping strength and consistent tapping.
Used to anchor wood battens, trunking, rails, and other basic components into masonry or concrete.



SELF TAPPING MASONRY SCREW RANGE:

STAINLESS STEEL:



A4 Bi-Metal™ stainless steel construction makes these ideal for mitigation against bi-metallic corrosion in aluminium or copper/ tin substrates.

CARBON STEEL:



Load Data in Un-cracked C30/37 Concrete Substrates

Parameter	Symbol	Tensile (N)		Shear (V)		Unit
Nominal diameter	d_{nom}	4.8	6.3	4.8	6.3	mm
Minimum embedment depth	h_{nom}	25.0	25.0	25.0	25.0	mm
Ultimate load	$N_{Rd,m}$ or $V_{Rd,m}$	3,700	3,900	5,100	7,700	N
Characteristic resistance	N_{Rk} or V_{Rk}	2,600	2,900	4,200	6,300	N
Design resistance	N_{Rd} or V_{Rd}	1,300	1,450	2,800	4,200	N
Recommended load	N_{rec} or V_{rec}	960	1,070	1,560	2,330	N

FOR MORE INFO CONTACT US HERE:

sales@evofas.com
technical@evofas.com
T:0141 647 5100

INSULATION

FIXING INSULATION TO STEEL

LARGE WASHER WITH STAINLESS COUNTERSUNK HEAD SCREW

LIGHT GAUGE STEEL

IS W/SPR

Ideal for fixing insulation to steel or timber purlins.

Compatible with a wide range of washers and stress plates. The self drilling point and coarse thread allows optimum performance in steel and timber substrates.



SELF-DRILLING INSULATION SCREWS:

CARBON STEEL:

IS 

RANGE FROM: 4.8mm - 60mm to 300mm

STEEL THICKNESS →	0.6mm	1.2mm	2.5mm
DIA. 4.8mm	0.85kN	2.25kN	5.38 kN

PULL OUT VALUES FOR STEEL THICKNESS

CE UK CA

STAINLESS STEEL:

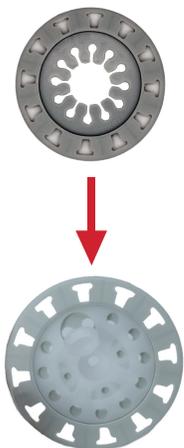
A4IS 

RANGE FROM: 4.8mm - 45mm to 300mm

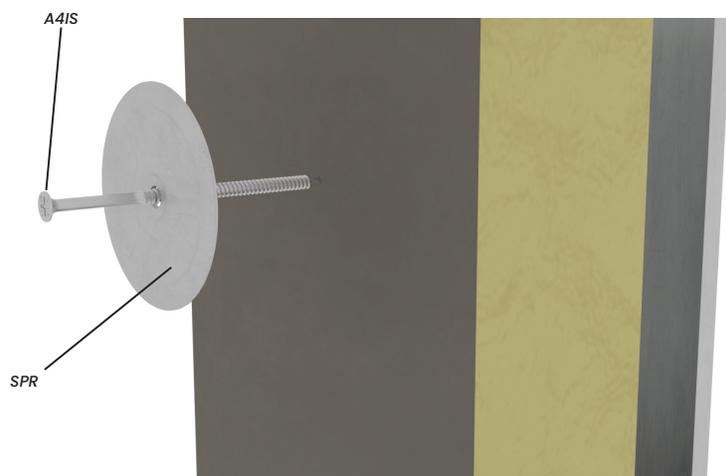
STEEL THICKNESS →	0.6mm	1.2mm	2.5mm
DIA. 4.8mm	780	2,070	4,710

PULL OUT VALUES FOR STEEL THICKNESS

CE UK CA



The washer head is 60mm in diameter and with its integrated sealing cap provides additional cold bridging protection.



FIXING SHEATHING BOARDS AND TIMBER TO STEEL

4.2mm/4.8mm/5.5mm
DIAMETER WAFER/CSK RIBBED
HEAD WING TIPPED SCREW

SHEATHING BOARD

LIGHT GAUGE STEEL

INSULATION

The metric thread with wings is designed to ream out the timber/board, to allow the fastener to achieve maximum R.P.M without burning out.

TIMBER TEK FASTENER:

STAINLESS STEEL:

CARBON STEEL:

BMWD
FOR LIGHT STEEL (TEK 3 Point)

RANGE FROM: 4.8mm - 38mm/5.5mm - 50mm to 120mm

STEEL THICKNESS	1.2mm	1.6mm	2.0mm	2.5mm	3.0mm	4.0mm
DIA. 4.8mm	1.9kN	2.7kN	3.5kN	4.5kN	5.0kN	6.3kN
DIA. 5.5mm	2.0kN	2.4kN	3.6kN	4.3kN	5.1kN	6.7kN

PULL OUT VALUES FOR STEEL THICKNESS

TSTF
FOR LIGHT STEEL

RANGE FROM: 4.2mm - 38mm/4.8mm - 38mm to 45mm/5.5mm - 38mm to 235mm

STEEL THICKNESS	1.2mm	1.6mm	2.0mm	2.5mm	3.0mm	4.0mm
DIA. 4.2mm	1,000N	1,200N	1,900N	3,500N	3,900N	4,800N
DIA. 4.8mm	1,100N	1,500N	2,500N	3,600N	3,900N	4,400N
DIA. 5.5mm	1,200N	2,300N	3,000N	4,000N	4,600N	5,700N

PULL OUT VALUES FOR STEEL THICKNESS

A4WD
FOR LIGHT STEEL

RANGE FROM: 4.8mm - 38mm/ 5.5mm - 62mm

STEEL THICKNESS	1.2mm	1.6mm	2.0mm	2.5mm	3.0mm	4.0mm
DIA. 4.8mm	1.7kN	2.5kN	3.3kN	4.6kN	5.1kN	6.1kN
DIA. 5.5mm	1.8kN	2.2kN	2.5kN	3.4kN	4.3kN	6.2kN

PULL OUT VALUES FOR STEEL THICKNESS

TSTF
FOR HEAVY STEEL

RANGE FROM: 4.2mm to 180mm

STEEL THICKNESS	4.0mm	5.0mm	6.0mm	8.0mm	10.0mm	12.5mm
DIA. 5.5mm	4,200N	9,800N	10,400N	11,700N	12,500N	13,800N

PULL OUT VALUES FOR STEEL THICKNESS

BMWD
FOR HEAVY STEEL

RANGE FROM: 65mm to 135mm

STEEL THICKNESS	4.0mm	5.0mm	6.0mm	8.0mm	10.0mm	12.5mm
DIA. 5.5mm	4.5kN	5.9kN	7.3kN	8.9kN	10.7kN	11.9kN

PULL OUT VALUES FOR STEEL THICKNESS

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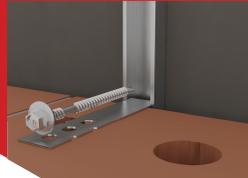
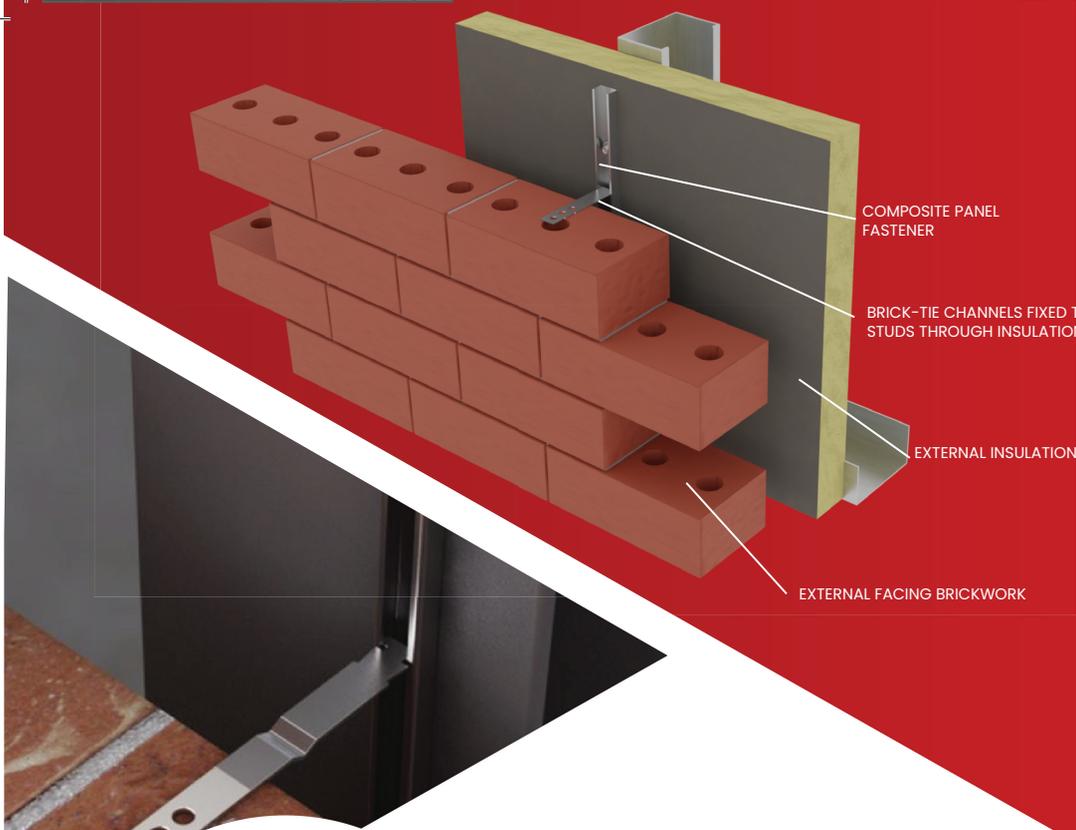
BMWD

FIXING BRICK TIE CHANNELS TO STEEL

5.5mm DIAMETER STAINLESS HEX HEADSCREW WITH/WITHOUT EPDM SEALING WASHER

The Self-drilling high-thread composite panel fasteners are used to attach the steel to the channel and the insulation.

Once the channel is put in place, wall ties can be placed anywhere along the length of the channel and are built into the bed joints of the outer leaf of brickwork.



COMPOSITE PANEL FASTENER RANGE:

FIXING BRICK TIE CHANNEL VIA 50mm INSULATION TO 12mm - 3.5mm STEEL THICKNESS.

LIGHT STEEL

CARBON STEEL:

TSBWHT FOR LIGHT STEEL (TEK 3 Point) WITH 12mm WASHER

RANGE FROM: 5.5mm - 135mm to 185mm

STEEL THICKNESS	1.2mm	1.6mm	2.0mm	2.5mm	3.0mm	4.0mm
DIA. 5.5mm	1.7kN	2.1kN	2.7kN	4.6kN	4.8kN	5.5kN

TSBWHT FOR LIGHT STEEL (TEK 3 Point) WITH 16mm WASHER

RANGE FROM: 5.5mm - 80mm to 200mm

TSBWHT FOR LIGHT STEEL (TEK 3 Point) WITH 19mm WASHER

RANGE FROM: 5.5mm - 80mm to 300mm

STEEL THICKNESS	1.2mm	1.6mm	2.0mm	2.5mm	3.0mm	4.0mm
DIA. 5.5mm	1,659N	1,006N	2,885N	4,225N	5,740N	6,360N

STAINLESS STEEL:

BMHT12 FOR LIGHT STEEL (TEK 3 Point) WITH 12mm WASHER

RANGE FROM: 5.5mm - 105mm to 185mm

BMTSBWHT WITH 16mm WASHER

RANGE FROM: 5.5mm - 80mm to 225mm

A2BMHT FOR LIGHT STEEL WITH NO WASHER

RANGE FROM: 5.5mm - 125mm to 185mm

STEEL THICKNESS	1.2mm	1.6mm	2.0mm	2.5mm	3.0mm	4.0mm
DIA. 5.5mm	1.7kN	2.1kN	2.5kN	3.3kN	4.1kN	5.4kN

A4BMHT WITH 16mm WASHER

RANGE FROM: 5.5mm - 105mm to 150mm

A4BMHT WITH 19mm WASHER

RANGE FROM: 5.5mm - 150mm to 185mm

STEEL THICKNESS	1.2mm	1.6mm	2.0mm	2.5mm	3.0mm	4.0mm
DIA. 5.5mm	1.8kN	2.0kN	2.4kN	3.3kN	4.4kN	6.1kN

COMPOSITE PANEL FASTENER RANGE:

FIXING BRICK TIE CHANNEL VIA 50mm INSULATION TO 4.0mm - 12.5mm STEEL THICKNESS.

HEAVY STEEL

CARBON STEEL:

TSBWHT FOR HEAVY STEEL WITH 16mm/19mm WASHER

RANGE FROM: 5.5mm - 85mm to 260mm

STEEL THICKNESS	4.0mm	5.0mm	6.0mm	8.0mm	10.0mm	12.5mm
DIA. 5.5mm	6,000N	8,200N	9,600N	12,400N	14,500N	17,500N

STAINLESS STEEL:

BMTSBWHT FOR HEAVY STEEL WITH 16mm WASHER

RANGE FROM: 5.5mm - 105mm to 150mm

BMTSBWHT FOR HEAVY STEEL WITH 19mm WASHER

RANGE FROM: 5.5mm - 185mm to 245mm

STEEL THICKNESS	4.0mm	5.0mm	6.0mm	8.0mm	10.0mm	12.5mm
DIA. 5.5mm	6.4kN	7.7kN	10.1kN	11.4kN	12.3kN	12.8kN

FIXING PLASTERBOARD TO STEEL

3.5mm/4.8mm
DIAMETER BUGLE/WAFER/
CSK RIBBED HEAD/
CSK RIBBED HEAD
WING TIPPED SCREW

PLASTERBOARD

STEEL CHANNEL

PLASTERBOARD
FIXING

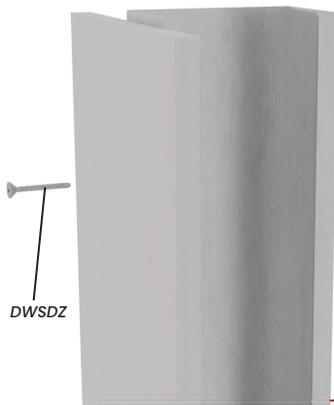
When fixing plasterboard to steel, there are various options depending on the material build up, corrosion level, thickness of steel.

Each option is outlined further in our accompanying board fixing guide.



BUGLE HEAD SELF-DRILL DRYWALL RANGE:

CARBON STEEL:



FIXING
PLASTERBOARD
TO HEAVIER GAUGE
METAL SECTION
(UP TO 2.5mm)

DWSDZ

RANGE FROM: 3.5mm - 25mm to 50mm/4.2mm - 65mm to 75mm/4.8mm - 60mm to 80mm

STEEL THICKNESS	1.2mm	1.6mm	2.5mm
DIA. 3.5mm	1.5kN	2.0kN	4.0kN
DIA. 4.2mm	1.7kN	2.2kN	4.5kN
DIA. 4.8mm	1.8kN	2.2kN	4.8kN

PULL OUT VALUES FOR STEEL THICKNESS

TIMBER TEK FASTENER RANGE:

STAINLESS STEEL:

CARBON STEEL:

BMWD FOR LIGHT STEEL

RANGE FROM: 4.8mm - 38mm/5.5mm - 50mm to 120mm

STEEL THICKNESS	1.2mm	1.6mm	2.0mm	2.5mm	3.0mm	4.0mm
DIA. 4.8mm	1.9kN	2.7kN	3.5kN	4.5kN	5.0kN	6.3kN
DIA. 5.5mm	2.0kN	2.4kN	3.6kN	4.3kN	5.1kN	6.7kN

PULL OUT VALUES FOR STEEL THICKNESS

TSTF FOR LIGHT STEEL

RANGE FROM: 4.2mm - 38mm/4.8mm - 38mm to 45mm/5.5mm - 38mm to 235mm

STEEL THICKNESS	1.2mm	1.6mm	2.0mm	2.5mm	3.0mm	4.0mm
DIA. 4.2mm	1,000N	1,200N	1,900N	3,500N	3,900N	4,800N
DIA. 4.8mm	1,100N	1,500N	2,500N	3,600N	3,900N	4,400N
DIA. 5.5mm	1,200N	2,300N	3,000N	4,000N	4,600N	5,700N

PULL OUT VALUES FOR STEEL THICKNESS

BMWD FOR HEAVY STEEL

RANGE FROM: 5.5mm - 65mm to 135mm

STEEL THICKNESS	4.0mm	5.0mm	6.0mm	8.0mm	10.0mm	12.5mm
DIA. 5.5mm	4.5kN	5.9kN	7.3kN	8.9kN	10.7kN	11.9kN

PULL OUT VALUES FOR STEEL THICKNESS

TSTF FOR HEAVY STEEL

RANGE FROM: 5.5mm - 42mm to 180mm

STEEL THICKNESS	4.0mm	5.0mm	6.0mm	8.0mm	10.0mm	12.5mm
DIA. 5.5mm	4,200N	9,800N	10,400N	11,700N	12,500N	13,800N

PULL OUT VALUES FOR STEEL THICKNESS



BESPOKE POSTERS

PLUS MUCH MORE!

BRANDED PACKAGING

evolution

DIRECT DELIVERIES*

BRANDED PACKAGING

NOW AVAILABLE!

In addition to manufacturing and distributing a wide range of premium quality fasteners, we also offer Technical Consultancy Services to support our products including the design and manufacture of packaging and boxes for your company.

- Testing and certification by our UKAS accredited laboratory
- Own brand available
- Specialist design / bespoke fasteners
- Credit terms (Subject to status)
- Volume discount can be provided



DUAL BRANDING POS

MANUFACTURED BY:

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WE HAVE THE SOLUTION.

+ SENIOR DISTRIBUTOR PREMIUM FASTENERS

PREMIUM TEK SCREWS AND CONSTRUCTION FASTENERS.

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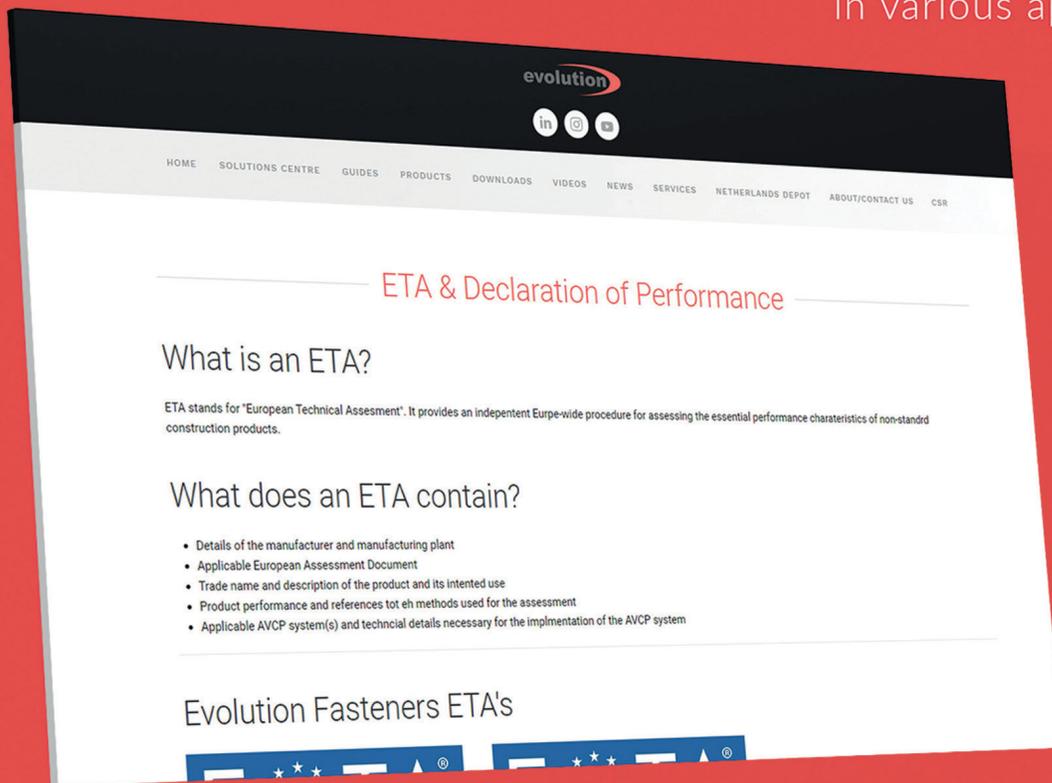
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EVOLVE TRAINING CENTER

Your comprehensive online resource for detailed information about our wide range of fasteners.



Our platform is meticulously designed to provide in-depth knowledge, technical specifications, and the unique advantages of using Evolution Fasteners in various applications.



We are proud to highlight our commitment to the European market by featuring our products that have received the European Technical Assessment (ETA) approval.



FOR FURTHER INFORMATION, PLEASE DON'T HESITATE TO CONTACT OUR TECHNICAL DEPARTMENT, WHERE OUR IN-HOUSE ENGINEERS CAN GO INTO FURTHER DETAIL WITH FREE HELP AND ADVICE:

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MORE INFORMATION IN OUR 2024 PRODUCT GUIDE



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