

HUCK® EXTREME RESILIENCE – AN OVERVIEW



JOINED TO LAST.



KEY BENEFITS

- › Permanent, mechanically locked fastener
 - Installation process automatically provides fastener values
 - No torque or re-torque required
- › Unlike conventional nuts and bolts, they will not work loose, even during extreme vibration
- › Rapid installation with Quick and easy visual inspection
- › Excellent gap closure capability
- › Can be installed onto angled surfaces (5° maximum)
- › Tamperproof

C6L® – THE ORIGINAL HUCK® DESIGN



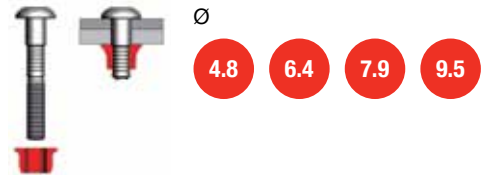
- › **5.8 grade small diameter Lockbolt**
- › **Made to British Standard B7805: Part 1: 1997:** A mark of quality, safety and performance
- › **Wide flange collar available:** Enables installation into non metallic materials
- › **Pin head style:** Brazier, truss, countersunk, specific headstyle for palisade fencing
- › **Collar style:** Standard, flanged, wide flanged and low profile
- › **Materials:** Steel, stainless steel, aluminium



C120L®



- › **8.8 grade small diameter Lockbolt**
- › **High tensile strength version of C6L**
- › **Pin head style:** Brazier, truss, countersunk
- › **Collar style:** Standard, flanged
- › **Material:** Steel



MAGNA-GRIP®



- › **Huge grip range:** Accommodates wide variations in joint thickness – 14.3/23.9 mm. Based on ∅ 6.4 mm. Two different grip lengths available
- › **One pin and one collar cover a wide variety of applications:** Reducing the risk of incorrect fastener installation
- › **Wide grip range minimises fastener inventory**
- › **Flush pinbreak:** No catching on clothes, skin or goods
- › **Pin head style:** Button, truss, countersunk, rivet, broad truss
- › **Collar style:** Standard flange, medium flange, wide flange
- › **Materials:** Steel, aluminium



C50L®



- › **8.8 grade large diameter Lockbolt**
- › **Made to British Standard B7805: Part 2: 1997:** A mark of quality, safety and performance
- › **High tensile friction grip fastener**
- › **Pin head style:** Round, truss, countersunk, thread head
- › **Collar style:** Standard, flanged, low profile
- › **Materials:** Steel, stainless steel, aluminium

Thread head variety available for rail track applications



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12.7 15.9 19.1 22.2
25.4 28.6 31.8 34.9

HUCK-FIT®



- › **10.9 grade large diameter Lockbolt**
- › **High tensile friction grip fastener**
- › **Unique helical lock groove:** Can be used as a Fit up bolt, special tab collar is need to perform this function
- › **Unique helical lock groove:** Holds pins and collar in place prior to installation, Special tab collar is need to perform this function
- › **Can be removed with conventional tools**
- › **Pin head style:** Flanged hexagonal
- › **Collar style:** Flanged hexagonal
- › **Material:** Steel



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12 14 16 20
24 27

HUCK-SPIN® / BOBTAIL®

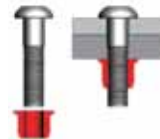


Huck-Spin®



BobTail®

- › **High tensile friction grip fastener**
- › **No pin-tail:** Reduced wastage, low installation noise, no pinbreak: increased corrosion resistance
- › **Semi-automatic tooling installation:** Minimises installation time
- › **Unique helical lock groove:** Holds pins and collar in place prior to installation
- › **Pin head style:** Flanged hexagonal, flanged round
- › **Collar style:** Flanged hexagonal, flanged round
- › **Material:** Steel



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6.4 7.9 9.5 12
14 16 20

HUCKTAINER®



Designed specifically for joining composite board in trailer applications.

- › **Will not crush or damage the composite board**
- › **Integral seal around pin head prevents moisture ingress**
- › **Low profile on both sides when installed:** No catching on clothes, skin or goods. Not as grip sensitive as some competitor products
- › **Pin head style:** Standard low profile, encapsulated in plastic
- › **Sleeve style:** Wide bearing, medium bearing, clearance
- › **Material:** Steel



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9.5

HUCK® STRUCTURAL BLIND FASTENERS



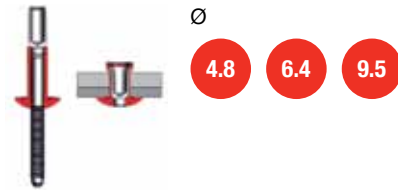
KEY BENEFITS

- › Internal locking mechanism retains the pin
 - Structural fastener after installation
 - Higher strength than a standard open end blind fastener
- › Ideal for use where access is limited on one side of the application
- › Preassembled fastener – Insert one part in the hole and install
- › A variety of installation tooling options available

MAGNA-LOK®



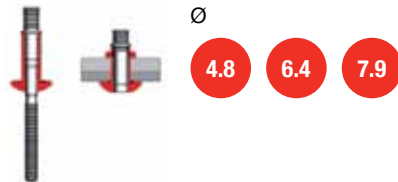
- › **Wide grip range:** Accommodates large variations in joint thickness
- › **Structural fastener:** High shear & tensile strength
- › **Excellent gap closure capability**
- › **Outstanding hole filling on the blind side:** Excellent joint tightness and very resistant to water ingress
- › **Flush pinbreak:** No catching on clothes, skin or goods. Quick and easy visual inspection
- › **Internal pin locking mechanism:** Secure within the rivet body and protected from corrosion
- › **Headstyles:** Domed, truss, countersunk
- › **Materials:** Steel, stainless steel, aluminium



MAGNA-BULB®



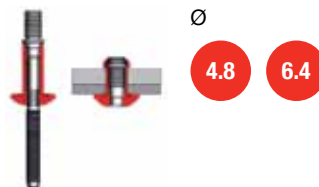
- › **Extra large blind side footprint:** Ideal for lower strength or thin sheet joint materials
- › **Structural fastener:** Very high shear strength and high tensile strength
- › **Flush pinbreak:** No catching on clothes, skin or goods. Quick and easy visual inspection
- › **Internal pin locking mechanism:** Secure within the rivet body and protected from corrosion
- › **Headstyles:** Domed
- › **Material:** Steel



HUCKLOK®



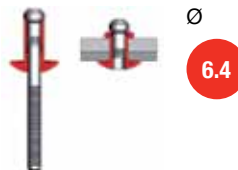
- › **Combines the wide grip range of the Magna-Lok® and the high shear strength of the Magna-Bulb®**
- › **Wide grip range:** Accommodates large variations in joint thickness
- › **Structural fastener:** High shear & tensile strength
- › **Large blind side footprint:** Ideal for lower strength or thin sheet joint materials
- › **Flush pinbreak:** No catching on clothes, skin or goods. Quick and easy visual inspection
- › **Internal pin locking mechanism:** Secure within the rivet body and protected from corrosion, plus additional blind side pin locking for increased fatigue life
- › **Headstyles:** Domed
- › **Material:** Steel



AUTO-BULB®



- › **Purpose design blind side shape for easy hole location:** Ideal for automated assembly
- › **Large blind side footprint:** Ideal for lower strength or thin sheet joint materials
- › **Good blind side clearance:** Less space required on the blind side prior to installation
- › **High pin retention:** Prevents possibility of noise or vibration in dynamic assemblies
- › **Recessed pinbreak:** No catching on clothes, skin or goods
- › **Structural fastener:** High shear & tensile strength
- › **Headstyles:** Domed
- › **Material:** Steel



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6.4

BOM®



- › **Very high strength/diameter ratio:** Can be used in demanding structural applications as an alternative to threaded fasteners or welding
- › **Very high joint tightness when compared to conventional blind fasteners**
- › **Very resistant to tampering, extremely hard to remove**
- › **Excellent gap closure capability**
- › **Large blind side footprint:** Ideal for lower strength or thin sheet joint materials
- › **Headstyles:** Domed
- › **Material:** Steel



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4.8

6.4

7.9

9.5

12.7

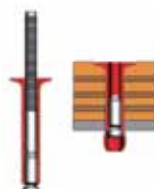
15.9

19.1

FLOORTIGHT® – THE FLOORING SPECIALIST FASTENER



- › **Self countersinking head:** Ideal for use on timber flooring and phenolic faced plywood
- › **Superior strength to conventional flooring screws:** Reduces the number of fasteners required and number of drilled holes
- › **3 Clamp strengths available to suit your joint. No crushing or pulling through the board**
- › **Recessed pinbreak:** No catching on clothes, skin or goods
- › **Wide grip range:** Accommodates a large variation in joint thicknesses
- › **Headstyles:** Standard flange and wide flange
- › **Material:** Steel



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7.9

MAGNA-TITE® – THE ROOFING SPECIALIST FASTENER



- › **Polymer watertight seal:** Ideal for roofing or similar applications
- › **Extra large blind side footprint:** Ideal for lower strength or thin sheet joint materials
- › **Low clamp load:** Perfect for use in thin sheet material, composites and plastics
- › **Wide grip range:** Accommodates a large variation in joint thicknesses
- › **Flush pinbreak:** No catching on clothes, skin or goods. Quick and easy visual inspection
- › **Headstyles:** Domed, Low Profile, Shavable, 100° Oval
- › **Material:** Aluminium



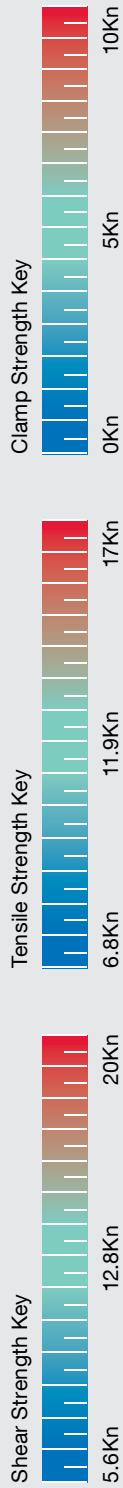
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4.8

6.4

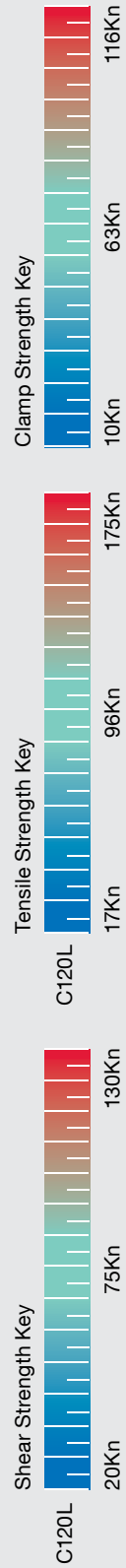
Lock bolts Ø 4.8 to 9.5 mm	Based on Ø 6.4 mm Material: steel				Material			Ø					
	Material Grade	Shear Strength	Tensile Strength	Clamp Strength	Steel	Stainless steel	Alumi-num	4.8	6.4	7.9	9.5	Icons	
C6L	5.8	Green	Brown	Brown	•	•	•	•	•	•	•	•	•
C120L	8.8	Red	Red	Red	•			•	•	•	•		•
Magna-Grip®		Blue	Brown	Green	•		•	•	•	•	•	•	•
Huck-Spin® (small Ø)	5.8/8.8/10.9	Green	Blue	Olive	•			•	•	•	•	•	•

› Key for Ø 4.8 to 9.5 mm



Lock bolts Ø 12 to 28.6 mm	Based on Ø 16 mm Material: steel				Material			Ø								
	Material Grade	Shear Strength	Tensile Strength	Clamp Strength	Steel	Stainless steel	Alumi-num	12/12.7	14	15.9/16	19.1	20	22.2	25.4	28.6	Icons
C50L	8.8	Brown	Brown	Brown	•	•	•	•	•	•	•	•	•	•	•	•
Huck-Fit®	10.9	Red	Red	Red	•			•	•			•				•
Huck-Spin® (large Ø)	10.9	Red	Red	Red	•			•	•			•				•

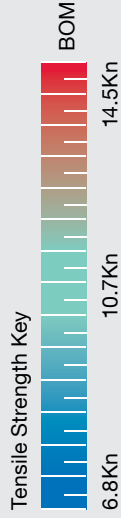
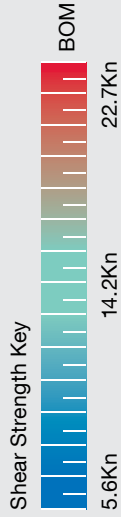
› Key for Ø 12 to 28.6 mm



Structural Blind Fasteners	Based on Ø 6.4 mm Material: steel		Material						Ø										
	Shear Strength	Tensile Strength	Steel	Stainless steel	Aluminum	4.8	6.4	7.9	9.5	12.7	22.2	15.9	19.1	Wrench	Lock	Double	Fit up Function	Internal Pin Lock	Flooring Fastener
			•	•	•	•	•	•	•	•	•	•	•						
Magna-Lok®	Light Blue	Light Blue	•	•	•	•	•	•	•					•	•				
HuckLok®	Orange	Light Blue	•			•	•	•						•	•	• Double			
Magna-Bulb®	Brown	Light Blue	•			•	•	•							•				
Auto-Bulb®	Light Green	Dark Blue	•				•								•				•
BOM®	Red	Red	•			•	•	•	•	•	•	•	•						
FloorTight®	*	*	•					•						•					•
Magna-Tite®	**	**				•	•	•						•					•

* Only available with Ø 7.9 mm. ** Only available in aluminum.

Key for Ø 6.4 mm



Icon Key

- Excellent Gap Closure
- Flush Pinbreak
- Pintail-less
- Includes Watertight Polymer
- Large Blindside Footprint
- Hole Seeking Tip
- Wide Grip Range
- Can be removed with a conventional tool
- Fit up Function
- Internal Pin Lock
- Flooring Fastener

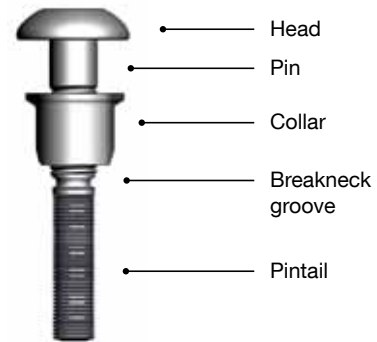
FUNCTIONALITY

› Clamping force or Pre-Load

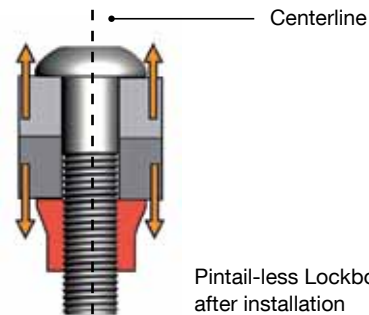
In the initial stages of the installation process, the tool engages and pulls on the pintail. The joint is pulled together before the conical shaped cavity of the nose assembly is forced down the collar. This progressively locks (swages) it into the grooves of the harder pin. The pin and swaged collar combine to form the installed fastener. The squeezing action reduces the diameter of the collar, increasing its length. This in turn stretches the pin, generating a clamp force over the joint.

› **Shear strength of Lockbolts** vary according to the material strength and minimal diameter of the fastener. By increasing the diameter or the grade of material, the shear strength of the fastener can be increased.

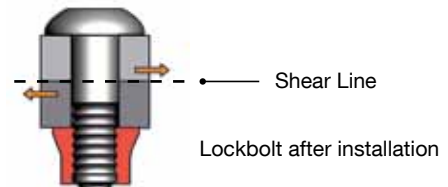
› **The tensile strength of Lockbolts** is dependent on the shear resistance of the collar material and the number of grooves it fills.



Tensile

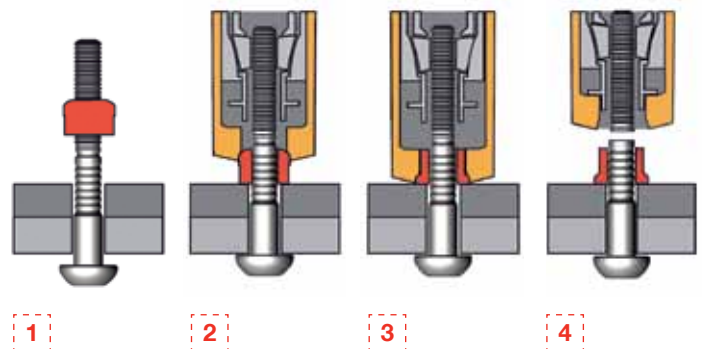


Shear



INSTALLATION SEQUENCE

- 1 Pin placed into prepared hole
– Collar placed over pin
- 2 Tool is placed over the fastener pintail and activated
– Pin head pulled against material
– Anvil pushes collar against joint
– Initial clamp generated
- 3 Tool swages collar, increasing clamp
- 4 Pintail breaks, installation complete



HUCK® STRUCTURAL BLIND FASTENERS

FUNCTIONALITY

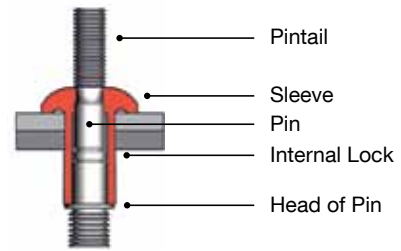
› The **shear strength of structural blind fasteners** is generated by the combined resistance against failure of the pin and sleeve. This takes place along the joint's shear line between fastened plates.

› The **tensile strength of structural blind fasteners** differs to that of Lockbolts, as they form a blind side positive lock either by **bulbing** or **expanding** of the sleeve. The sleeve, assisted by the permanently secured pin, therefore resists failure along its centre line.

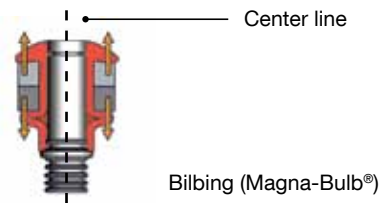
Bulbing – the sleeve of the fastener is compressed, causing it to fold outwards to form a bulb. This forms itself tightly against the joint material. Once the pin is permanently locked into place the pintail will break off, completing the installation.

Expanding – pulling on the pintail causes the head of the pin to draw into the sleeve. This expansion causes a foot print to form against the joint material.

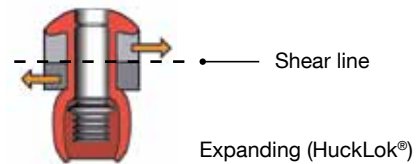
› **Note:** The pre-load of blind rivets is generally not published, as it varies widely depending on the application



Tensile

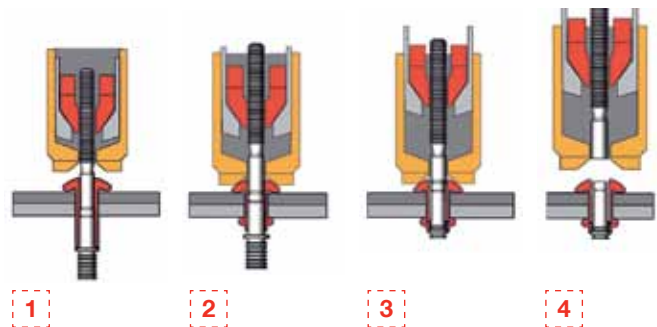


Shear



INSTALLATION SEQUENCE

- 1 Pin placed into prepared hole
– Tool is placed over the fastener pintail
- 2 Tool activated
– Deforming of blind side begins
- 3 Joint tightened
– Internal locking mechanism formed
- 4 Pintail breaks, installation complete



Many different types of HUCK® installation tooling systems are available. Some of the most popular tools are shown below, but this is just a small part of our range. Discuss your requirements with our **dedicated Systems Engineering Team** to find the optimum solution to suit your need.

The basic tooling requirements to install HUCK® fasteners:

Installation Tool – Either pneumatic or hydraulic

Nose Assembly – To match with the fastener and tool

Powerig® – To supply power to hydraulic tools

Additional Hose Set – Sometimes required to connect hydraulic tools to the Powerig

PNEUMATIC INSTALLATION TOOLS

› 202V



Pneudraulic installation tool with vacuum pintail collection bottle. Installs 4.8 and 6.4 mm structural blind rivets.

› 2025LB



Pneudraulic compact powerful installation tool with pintail bottle. Installs Ø 4.8 and 6.4 mm small Lockbolts and structural blind rivets.

HYDRAULIC INSTALLATION TOOLS

› HK432



3 phase electric, portable design. The Powerig can be used with all hydraulic installation tools.

› 2628



Hydraulic installation tool. Installs Ø 14, 15.9, 16 and 19.1 mm large Lockbolts and 15.9 and 19.1 mm BOM® structural blind rivets.

› 2503



Hydraulic installation with extra long stroke. Ideal for installing Ø 9.5 mm Magna-Lok® and Ø 7.9 mm Floortight. Will also install Ø 7.9 and 9.5 mm Lockbolts and Structural blind rivets.

› HSSFT-M16UK



Hydraulic installation tool, compact swage forward design. Installs Ø 14 and 16 mm Huck-Spin® Lockbolts.

› 2480L



Compact hydraulic installation tool; high speed and high durability. Ideal for high volume production to install Ø 4.8 and 6.4 mm small Lockbolts and structural blind rivets.

BOBTAIL® – THE NEXT STEP IN LOCKBOLT EVOLUTION



Tool

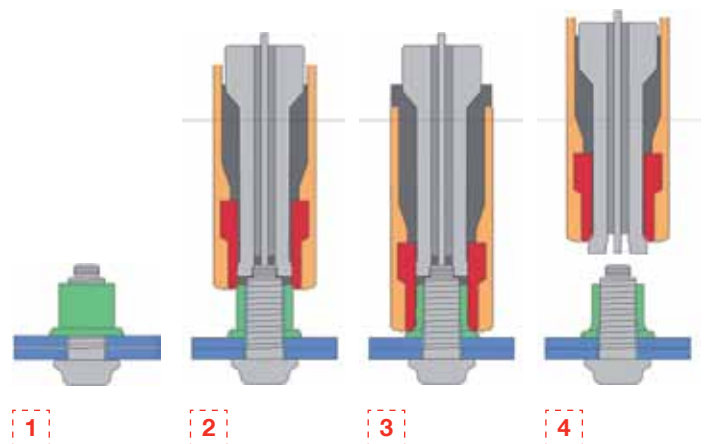


BENEFITS

- › **No pin-tail or pin-break**
 - Reduced material wastage
 - Low installation noise
 - Increased corrosion resistance
- › **Newly designed, compact, semi-automatic tooling**
 - Fastener installs in only 2 seconds, up to twice as fast as any other large diameter LockBolt on the market.
 - Consistent, high quality installation – 25 years experience or a novice makes no difference to the quality of the installation.
 - Smooth, shock free installation sequence – eliminates jolts to the operators arms and hands.
- › **Unique helical lock groove (Ø 12 – 20 mm only)**
 - Holds pin and collar in place prior to installation
- › **Combined with all the benefits of using a HUCK® LockBolt**
 - Permanent, mechanically locked fastener: Installation process automatically provides fastener values
No torque or re-torque required.
 - Unlike conventional nuts and bolts, they will not work loose, even during extreme vibration.
 - Easy visual inspection ensures correct installation.

INSTALLATION SEQUENCE

- 1**
 - Pin placed into prepared hole
 - Collar spun onto pin
- 2**
 - Tool is applied to the annular pull grooves and activated
 - Pullers in nose assembly draw the pin into the tool
 - Anvil pushes collar against joint
 - Initial clamp generated
- 3**
 - Tool swages collar, increasing clamp
- 4**
 - Swaging of collar complete
 - Tool ejects the fastener and releases the puller
 - Installation complete





› Electrical engineering



› Energy technology



› Automotive



› Medical technology



› Transportation



› Construction industry



› Precision engineering



› Aviation and aerospace



› Hydraulics and industry



› Mechanical engineering

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KVT-Fastening AG

Dietikon/Zürich | Switzerland
info-CH@kvt-fastening.com
www.kvt-fastening.ch

KVT-Fastening GmbH

Illerrieden | Germany
info-DE@kvt-fastening.com
www.kvt-fastening.de

KVT-Fastening GmbH

Asten/Linz | Austria
info-AT@kvt-fastening.com
www.kvt-fastening.at

KVT-Fastening Sp. z o.o.

Warsaw | Poland
info-PL@kvt-fastening.com
www.kvt-fastening.pl

KVT-Fastening S.R.L.

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info-RO@kvt-fastening.com
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KVT-Fastening spol. s.r.o.

Bratislava | Slovakia
info-SK@kvt-fastening.com
www.kvt-fastening.sk

KVT-Tehnika pritrjevanja d.o.o.

Ljubljana | Slovenia
info-SI@kvt-fastening.com
www.kvt-fastening.si

KVT-Fastening s.r.o.

Brno | Czech Republic
info-CZ@kvt-fastening.com
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KVT-Fastening Kft.

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info-HU@kvt-fastening.com
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