Security & tamper resistant fasteners handbook



What are security & tamper resistant fasteners?

Special headed screws, nuts & bolts which are either permanently fixed or can only be removed using a matching driver tool.

Why do I need them?

Security... The need to safeguard against theft and vandalism is increasingly an essential part of many design specifications.

Safety... Deal with stringent H&S laws, keep the public safe.

Aesthetics... Security fasteners are not only secure and vandal-resistant, but aesthetically pleasing to the eye complementing their surrounding environment.

What are the consequences of not using them?

insurance claims

theft

crime

liability claims

lost revenue

pilferage

terrorism

vandalism

reputation



stamping out the impact of theft globally

Hafren Security Fasteners... specialists in security and tamper-resistant type screws, nuts and bolts

As a leading global supplier of security fasteners and fixings, Hafren Fasteners are committed to servicing the requirements of the tamper-resistant fastener market. This represents customers who rightly expect the very best in terms of quality, design, technology, service and individuality.

Mission

Stamping out the impact of theft globally

Vision

To be the first name in security fasteners; building on, expanding and continually enhancing our already unrivalled brand together with our industry leading service.

















































Security Ratings

Tamper-resistant fastener security ratings explained.

Security fasteners are an essential component for protecting property and in keeping people safe. But what level of security fastener should you specify to protect an assembly from theft/ tampering?

'It all depends on what your application is and how important it is to you that it is protected.'

To help you decide on the right solution for your application we have created this simple security fastener guide.

We have categorised our fasteners into the below 1-5 levels, 1 being the most popular/commonly used, 'Entry Level Security' and 5 being the 'Maximum Security Level' available.

There are serious ramifications for not using the correct level of security fastener, which is why it's so important to get it right. Used correctly security fasteners can:

- Prevent theft and deter vandalism
- Protect the general public from harm
- Create cost savings
- Maintain civil and social order
- Reduce risk of litigation cases



Entry level security

Fasteners offer protection from vandalism and opportunistic crime. Driver tools can be purchased by the general public.



Enhanced security

Fasteners are less common and less recognisable. Driver tooling is non-standard and harder for the general public to buy.



Medium security

Rarer, less well-known products. Supply of driver tooling is controlled, less readily available to buy, enhancing the security of the assembly.



High security

Either 1-way permanent fixings, or rare Hafren patented high security products requiring specialist tooling to remove (only available from Hafren approved distributors).



Maximum security

Highest security available. Products are either 1-way permanent fixings, or require bespoke exclusive, custom made driver tools to remove.



Kinmar[®] Permanent

The ultimate high security patented one-way nut.





Kinmar[®] Removable

(4)

(2) WAY

Unique Hafren segment shaped nut. The ultimate two-way patented security nut – extra resilient to attack.

This patented permanent nut requires a matching driver socket for installation giving you guaranteed torque levels and can be re-torqued if required. Not governed by a shear point and leaving no unplated surfaces, it leaves a clean smart finish.

 Stocked in Case Hardened Steel Zinc Plated (CR-3) and Geomet[®], also stocked in A2 Stainless Steel

 Kinmar® Permanent drive is also stocked in bolt form M8 x 25mm / M8 x 40mm

 Other materials and finishes available to order subject to minimum order quantities





How it works:



Stock Range:

Box Qty 100

	1			1	1
Size					
Material	M5	M6	M8	M10	M12
Zinc Plated					
Geomet®					
A2 Stainless					
Driver Size	KM6P	KM6P	KM8P	KM10P	KM12P

This patented removable nut requires a matching driver socket for installation and removal. This cost effective nut has a smooth aesthetically pleasing design which makes it an extremely versatile nut.

Stocked in Case Hardened Steel
 Zinc Plated (CR-3) and Geomet®,
 also stocked in A2 Stainless Steel

 Kinmar® Removable drive is also stocked in bolt form M8 x 25mm / M8 x 40mm

 Other materials and finishes available to order subject to minimum order quantities





How it works:



Stock Range:

Box Qty 100

Size					
Material	M5	M6	M8	M10	M12
Zinc Plated					
Geomet®					
A2 Stainless					
Driver Size	KM6R	KM6R	KM8R	KM10R	KM12R







TYPE 1:

For bolts

screws

The Nogo™ is a 2-part enclosure offering the highest security for any nut or bolt.

This patented product doesn't require any specialist tools; you simply hammer the cap into the base making access to the enclosed nut or bolt near impossible.

- Has been Home Office approved and has won the Sold Secure
- Hardened Steel Zinc Plated (CR-3)



Stock Range:

Size					
Туре	M5	M6	M8	M10	M12
Type 1					
Type 2					

Power6[™]

with a 'unique' 6-Lobe Pin drive.

Thread forming screws (sometimes known as 'Self threading'). Features a tri-lobular thread body that has a triangular cross-section rather than a circular one.

The tri-lobular thread eliminates the need for nuts and pre-tapped holes, reducing labour costs & installation time.

- Stocked in Geomet® 500 B Coated Case Hardened Steel
- Tri-lobular thread resists loosening caused by vibration
- Ideal for fencing and the automotive industry.





Unique Power6[™] Tooling (Not compatible with standard 6-Lobe Pin tooling)



drive. For improved security.



Not standard 6-Lobe Pin.



Stock Range:

Box Qty 100

Length			
Gauge	35mm	45mm	DRIVER SIZE
M8			P6-40

Other sizes available to order



Car Park Security

Kinmar® Removable is an ideal choice for car park applications especially on features including barriers and entry security. It can only be removed with the product specific driver tooling.









Playground Anti-theft

Available in two types bolts & screws Kinmar® Permanent is an ultra-high security one-way fixing. Once fitted it cannot easily be removed.

If, however you do need to remove the assembly for planned maintenance, then we would suggest the Kinmar® Removable as the most practical high security







5-Lobe Pin

A favourite for high torque



Successor to the Resistorx, the 5-Lobe Pin has 5 lobes instead of 6, providing a higher level of security.

- Stocked in A4-70 Stainless Steel Available in A2 Stainless Steel
- Stocked in Button Head and Countersunk Head. Self Tapper and Machine Screws.
- Made to measure specials available



5-Lobe Pin for extra security



Not standard 6-Lobe Pin drive



Stock Range:

Countersunk / Button Head | AB Type Self Tapping Screws Box Qtv 100

5 Lobe Pin Tooling

Length		1/2"	3/4"	1"	11/2"	2"	DRIVER
Gauge		13mm	19mm	25mm	38mm	50mm	SIZE
6	3.5mm						F15
8	4.2mm						F20
10	4.8mm						F25

Countersunk / Button Head | Metric Machine Screws

Length Gauge	6 mm	8 mm	10 mm	12 mm	16 mm	20 mm	25 mm	30 mm	40 mm	50 mm	DRIVER SIZE
M3			_	_							F10
M4											F20
M5		_									F25
M6										_	F30
M8								_		_	F40

Head Styles

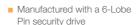
- Countersunk only
- Button Head only
- Countersunk & Button Head

Barrel Nut

Ensures maximum security when clamping two materials together.



These Barrel Nuts (also known as Interscrews) are internally threaded parts that are ideal for clamping two pieces of material together when used with machine screws. Ideal for playground equipment, ironmongery and signage to name a few.







Stock Range:

Button Head

Box Qty 100

Button Head

Length Gauge	10mm	12mm	16mm	20mm	25mm	30mm	DRIVER SIZE
M4							T20
M5							T25
M6							T30
M8							T40
M10							T45

Countersunk

Box Qty 100

Length	12mm	16mm	20mm	25mm	DRIVER SIZE
M4	V				T20
M5		_			T25
M6		_			T30
M8			_		T40
M10				_	T45

Box Qty 100

Solok



This security drive ensures that each and every customer has their own unique 'one-of-a-kind' drive socket.

As there are millions of variations to the Solok™ drive socket, your driver key will be specific to you, therefore enhancing the level of security. Every new user gets a Solok™ code to which their screws and tools are made, meaning even somebody else's Solok™ tools will not fit screws made to your code.

- Engineered to keep other driver bits out
- Full range of Self Tapping and Metric Machine Screws available made to your unique drive code
- Manufactured in Carbon Steel and Stainless Steel
- Available to order in various finishes and other thread types - subject to minimum order quantities

Countersunk Self Tapper Countersunk Machine Screw Button Head Self Tapper Button Head Machine Screw

How it works:



Sizes available to order:

Varying minimum order quantities (MOQ) and tooling charges apply.

Countersunk or Button Head | Self Tapping Screws | From 4 x 3/4" (2.9 x 9.5mm) to 14 x 2" (6.3 x 50mm) MOQ 2500

Countersunk or Button Head | Machine Screws | From M3 x 6mm to M16 x 100mm M0Q (M3 to M6 2500), (M8 2000), (M10 1500), (M12 1000)





A simple conical collar which renders a standard hexagon nut or bolt tamper resistant.

The Armour Ring™ can be applied to any British or DIN standard hexagon nuts or bolts using a standard hammer or Armour Ring™ installation tool. It leaves a smooth clean finish which is often favoured by Health & Safety executives and isn't governed by a torque level like some one-way fasteners.



- Has been Home Office approved
- Stocked in Steel Zinc Plated (CR-3) and 303 S31 Stainless Steel



How it works:



Stock Range:

Box Qtv 100

Size						
Material	M6	M8	M10	M12	M16	M20
Zinc Plated						
Stainless Steel						









Shear Nuts





The Shear System is a high security permanent fastener.

Both the Shear Nut and the Shear Bolt have a hexagon part which shears off at a predetermined torque. Installed using standard hex socket or spanner. Once installed, the Shear Nut leaves a tamper resistant cone.

Shear Nuts stocked in; Zinc Plated (CR-3) Steel Galvanised Steel A2 Stainless Steel A4 Stainless Steel







Stock Range:

Size									
Material	M4	M5	M6	M8	M10	M12	M16	M20	M24
Zinc Plated Steel									
Galvanised									
A2 Stainless Steel									
A4 Stainless Steel									

Shear Bolts



The Shear System is a high security permanent fastener.

Both the Shear Bolt and the Shear Nut have a hexagon part which shears off at a predetermined torque. Installed using standard hex socket or spanner. Once installed, the Shear Bolt leaves a tamper resistant head.

Shear Bolts can also be manufactured to order in most common materials and finishes



How it works:



Stock Range:

Button Head | A2 Stainless Steel

Box Qty 50

Length									Shear	Torque
Gauge	16mm	25mm	30mm	40mm	50mm	60mm	80mm	A/F	Lb/ft	nm
M6								10mm	5-9	7-14
M8								14mm	10-15	14-20
M10								17mm	23-28	31-38
M12								19mm	38-44	52-60

Box Qty 100



Self Drilling Screws manufactured with a 6-Lobe Pin drive.





High security removable nut with a unique 'Scroll' drive.



Drilling tips provide fast and easy application eliminating the need to pre-drill. Installed and removed using 6-Lobe Pin tooling.

Stocked in Delta Protekt® Coated Steel



6-Lobe Pin Tooling





Stock Range:

Countersunk Head

Gauge	Length	1/2" 13mm	³ / ₄ "	1" 25mm	1 ¹ / ₂ " 38mm	2" 50mm	DRIVER SIZE
8	4.2mm						T20
10	4.8mm						T25
12	5.5mm						T27

Pan Head

Box Qty 100

Box Qty 100

Gauge	Length	1/ ₂ " 13mm	³ / ₄ "	1" 25mm	1 ¹ / ₂ " 38mm	2" 50mm	DRIVER SIZE
8	4.2mm						T20
10	4.8mm						T25
12	5.5mm						T27

Drill Point Information:

Gauge (Point size)	\Box	8 (2)	10 (3)	12 (3)
Material thickness Mild steel up to (m	nm)	1 + 2	2 + 2	2 + 3

All sizes shown are without min and max tolerances and are guide sizes.

The rounded design of this nut gives no sharp angles to provide grip for normal hand tools. It can only be installed and removed using the matching Scroll™ driver socket.

Patented Scroll™ design is interesting and pleasing to the eye.

- Stocked in 303 S31 Stainless Steel
- Scroll[™] drive available to order in bolt form
- The smallest and largest security nut available from stock – M3 to M30

How it works:



Stock Range:

Box Qty 50

Size											
Material	МЗ	M4	M5	M6	M8	M10	M12	M16	M20	M24	M30
Stainless Steel											





6-Lobe Pin













Anchors

application for heavy duty security.





Popular aesthetically pleasing drive for any two-way application.

Security Anchors save time and money when fixing applications that require a firm hold. They are suitable for fixing to a wide range of base materials such as brick, concrete, stone and masonry. Available in both permanent and removable options... for a hold that stays.



1. Countersunk A2 6-Lobe Pin



2. Button Head A2 6-Lobe Pin Sleeve Anchor



3. Kinmar® Permanent Steel Zinc Plated Sleeve Anchor



4. Kinmar® Removable Steel Zinc Plated Sleeve Anchor

Stock Range:

Box Qty 50

Style		Anchor	Option	
Size	1	2	3	4
M6 x 45mm			•	
M6 x 50mm	_			
M8 x 50mm			•	
M8 x 55mm	_			
M8 x 60mm			•	
M8 x 70mm				.
M8 x 75mm				
M8 x 80mm				
M8 x 90mm			•	
M10 x 60mm	=			
M10 x 65mm				
M10 x 70mm			_	
M10 x 80mm			•	
M10 x 95mm			•	

Please note these Anchors are not intended for heavy duty structural applications.

This drive system, sometimes known as Snake Eye® or Pig Nose is designed for low to medium torque applications. It has 2 holes drilled into the head which requires a unique 2-pin matching driver to install and remove it.

- Full range of Self Tapping and Metric Machine Screws stocked in A2 Stainless Steel
- Other styles of fasteners available in the 2-Hole drive system: Barrel Nuts, Male & Female Bolts, Grub Screws, Glass Screws, Large Disc Head Screws.



Pan Head A2 Self Tapper

Countersunk A2 Machine



Pan Head A2 Machine Screw

Raised Countersunk 2-Hole Tooling A2 Machine Screw

Stock Range:

Countersunk / Pan Head | AB Type Self Tapping Screws

Box Qty 100

L	ength	3/8"	1/2"	5/8"	3/4"	1"	11/4"	11/2"	2"	21/2"	3"	DRIVER
Gauge	•	9.5mm	13mm	16mm	19mm	25mm	32mm	38mm	50mm	63mm	75mm	SIZE
4	2.9mm			_			_					TH3
6	3.5mm											TH4
8	4.2mm											TH5
10	4.8mm	_										TH6
12	5.5mm											TH7
14	6.3mm											TH8

Countersunk / Raised Countersunk / Pan Head Metric Machine Screws

Box Qtv 100

Length Gauge	6 mm	8 mm	10 mm	12 mm	16 mm	20 mm	25 mm	30 mm	35 mm	40 mm	45 mm	50 mm	60 mm	DRIVER SIZE
M3		▼				_	_	▼	_					TH3
M3.5				*			*	*		*		*		TH4
M4		_							_					TH5
M5		_							_				_	TH6
M6														TH8
M8						To ord	er only	/						N8
M10						To ord	er only	/						N14

Head Styles

- Countersunk only
- ★ Raised Countersunk only
- Pan Head only
 Countersunk & Pan Head















Unique one-way pozidrive security system.





Clutch Head

4



The original one-way security drive.

This drive system only operates in a clock- wise motion leaving a permanent finish. Ideal for easy and fast application using standard pozi screwdrivers.

- Stocked in Case Hardened Steel Zinc Plated (CR-3)
- Available in Twinthread Woodscrews
- Other materials, finishes and thread types can be manufactured to order subject to minimum order quantities



How it works:







Stock Range:

Countersunk | Zinc Plated Twinthread Woodscrews

Box Qty 200

	Length	3/4"	1"	1 ¹ / ₄ "	11/2"	2"	21/2"	3"	DRIVER
Gauge		19mm	25mm	32mm	38mm	50mm	63mm	75mm	SIZE
6	3.5mm								PZ2
8	4.2mm								PZ2
10	4.8mm								PZ2
12	5.5mm								PZ3

The special ridged design of this drive means that it can only operate in a clockwise motion. Installed using standard slotted screwdriver - no specialist tools required.

Stocked in; Case Hardened Steel
 Zinc Plated (CR-3) Woodscrews
 A2 Stainless Steel Self Tapping Screws
 A2 Stainless Steel Metric Machine Screws

Countersunk Zinc Plated Woodscrew





Removal tool available for Stainless Steel only

Stock Range:

Countersunk | Zinc Plated Woodscrews

Box Qty 200

l	ength	3/4"	1"	11/4"	11/2"	2"	21/2"	3"
Gauge		19mm	25mm	32mm	38mm	50mm	63mm	75mm
6	3.5mm							
8	4.2mm							
10	4.8mm							
12	5.5mm							

Countersunk / Round Head A2 Stainless Steel Self Tapping Screws

Box Qty 100

	Length	1/2"	3/4"	1"	11/4"	11/2"	2"
Gauge		13mm	19mm	25mm	32mm	38mm	50mm
6	3.5mm	_					
8	4.2mm						
10	4.8mm	_	_				
14	6.3mm	_	_	_		_	_

Round Head A2 Stainless Steel Metric Machine Screws

Box Qty 100

Length	8	10	12	16	20	25	30	35	40	45	50	60
Gauge	mm											
M4	_	_	_	_	_	_	_	_	_	_		
M5		_	_	_	_	_	_	_	_	_	_	
M6			_		_	_	_		_		_	
M8			_		_		_		_		_	_

Head Styles

■ Round Head only

Countersunk & Round Head

Pin Hex





Hexagon socket screws manufactured with an internal pin.

This drive prevents removal with standard hexagon tools. Suitable for of the most difficult to remove without the matching driver.

- Full range of AB Self Tapping and Metric Machine Screws stocked in A2 Stainless Steel
- Other styles of fasteners in the Pin Hex drive system: Socket Cap Screws, Grub Screws and Barrel Nuts



Button Head A2 Self Tapper

Countersunk A2 Machine



A2 Machine Screw

medium torque applications and is one

Pin Hex Tooling **Stock Range:**

Countersunk / Button Head AB Type Self Tapping Screws

A2 Machine Screw

Raised Countersunk

	r	ength	3/8"	1/2"	5/8"	3/4"	1"	11/4"	11/2"	2"	21/2"	3"	DRIVER
	Gauge		9.5mm	13mm	16mm	19mm	25mm	32mm	38mm	50mm	63mm	75mm	SIZE
	6	3.5mm											2mm
	8	4.2mm	_										2.5mm
	10	4.8mm											3mm
ĺ	12	5.5mm											4mm
	14	6.3mm											4mm

Countersunk / Raised Countersunk / Button Head Metric Machine Screws

Box Qty 100

Length Gauge	6 mm	8 mm	10 mm	12 mm	16 mm	20 mm	25 mm	30 mm	35 mm	40 mm	45 mm	50 mm	60 mm	80 mm	100 mm	120 mm	DRIVER SIZE
M3																	2mm
M3.5				*		*	*	*		*		*	*				H30
M4	_																2.5mm
M5		▼															3mm
M6		▼															4mm
M8											▼						5mm
M10					_										_		6mm
M12									_					_	_	_	8mm

Head Styles

- ▼ Countersunk only
- * Raised Countersunk only
- Button Head only Countersunk & Button Head

6-Lobe Pin

6-Lobe recess manufactured with an internal pin.





Popular security drive for high torque applications. Quickly and easily installed and removed using matching tooling.

- Full range of AB Self Tapping and Metric Machine Screws stocked in A2 Stainless Steel
- Other styles of fasteners in the 6-Lobe Pin drive system
 - Barrel Nuts
 - Grub Screws
 - Concrete Tapping Screws
 - Tri-Lobular Metal Thread Screw/Taptite
 - Plastic Tapping Screws



Button Head A2 Self Tapper



Countersunk A2 Machine

Countersunk

Button Head A2 Machine Screw



A2 Machine Screw

Stock Range:

Countersunk / Button Head AB Type Self Tapping Screws Box Qty 100

	\L	ength.	3/8"	1/2"	5/8"	3/4"	1"	11/4"	11/2"	13/4"	2"	21/2"	3"	4"	DRIVER
G	auge		9.5mm	13mm	16mm	19mm	25mm	32mm	38mm	44mm	50mm	63mm	75mm	100mm	SIZE
	4	2.9mm			_		_								T10
	6	3.5mm	_					_							T10/T15
	8	4.2mm								_		_			T15/T20
	10	4.8mm	_									_	_	_	T25
	12	5.5mm				_									T27
	14	6.3mm													T30

Countersunk / Raised Countersunk / Button Head Metric Machine Screws

Box Qty 100

Leng Gauge	th	6 mm	8 mm	10 mm	12 mm	16 mm	20 mm	25 mm	30 mm	35 mm	40 mm	45 mm	50 mm	55 mm	60 mm	65 mm	70 mm	75 mm	80 mm	100 mm	DRIVER SIZE
M3									_												T10
M3.5					*		*	*	*	*	*		*					*			T10
M4										_					_		▼				T20
M5										_									▼		T25
M6												_									T30
M8				_	_					_								_		_	T40
M10						_	_		_							_	_			_	T45

Head Styles

- Countersunk only
- ★ Raised Countersunk only
- Button Head only
- Countersunk & Button Head

Specials (1) (2) (3) (4) (5)

We are able to offer a bespoke made to measure range of security fasteners.

With all types of specials, minimum order quantities and varying lead times apply depending on your size and material requirements. We have listed some available thread types, materials and finishes, but you may be looking for something totally different and unique. If so, send us your drawings and samples and we'll get you a quote.

Materials
A2 Stainless Steel
A4 Stainless Steel
Carbon Steel
Aluminium
■ Brass
A1 303

Plating Polished Zinc & Yellow Zinc Plated ■ Chrome Plated ■ Galvanised/Geomet® Black Passivated Brass Plated Nickel Plated

Thread Types

•	Self Drilling Screws
•	Self Tapping Screws: - AB Type - B Type
•	Machine Screws: Metric Imperial British Standard
	Woodscrews: - Single Thread - Twinthread - Hi-Lo thread
•	Thread forming Screws: Tri-Lobal Paint Clearing Plastic Forming
	Dog Point Screws







Hafren security fasteners

hafrenfasteners.com

f y in



available from your fastener distributor