FRAMECAD®

CATALOG

FRAMECAD Building Components

Fasteners for Steel Framed Construction

For more information, details or a quote, please contact us at: framecad.com/contact-us

FRAMECAD steel framing screws are engineered for speed, durability and performance. Designed to deliver the most advanced end-to-end steel frame building solution.

Cold formed steel framing is one of the fastest growing construction technologies in the world. As the industry grows new technologies are developed to increase the speed and efficiency of cold formed steel, and the application of steel framing to new areas of construction. FRAMECAD, as the world leader in cold formed steel systems is at the forefront of this development.

The FRAMECAD range of steel framing screws covers all aspects of steel framing including frame assembly, frame erection, structural connections, fixing claddings and linings, flooring and roofing.

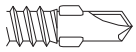
All fasteners are designed with 3 main objectives - speed, durability and performance.

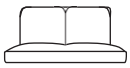
SPEED:	FRAMECAD steel framing screws have been developed to optimize the speed and efficiency of the FRAMECAD Design Build Solution. With FRAMECAD innovations such as the XDrive® high torque drive and DualThread FRAMECAD steel frame assembly is the fastest and most efficient in the industry.
DURABILITY:	Corrosion resistance is a critical consideration in the performance of the total FRAMECAD system. FRAMECAD steel framing screws use industry leading corrosion protection treatments to offer the highest performing protection in their class.
PERFORMANCE:	FRAMECAD steel framing screws are independently tested to show they achieve or exceed industry standards and performance requirements. In addition to this compliance to international standards all FRAMECAD screws undergo strict compatible within the FRAMECAD building system to ensure the system performance is maximized. Manufacturing facilities are ISO 9001 certified. FRAMECAD fasteners are complemented by a range of quality fastening tools recommended by our technicians for use with light gauge steel framing and construction.

Table of Contents

Screw Point, Head, and Drive Types

Each fastener product features a point type and head type (with corresponding driver type) to offer advantages to the given application.

Screw Point Types		
Sharp Point (SP)		Sharp Point screws typically have a hardened sharp point allowing direct penetration into 0.75 and thinner steel. Sharp points are also ideal for all pre-punched steel framing ensuring accurate framing. Various thread designs further specialize screws to perform more efficiently in their specific application.
Drill Point (DP)		Fasteners with a point capable of drilling into medium to heavy gauge steel. Drill Points are classified as #1 through to #5 with a #5 point being capable of penetrating thicker gauge metals. FRAMECAD manufacture fasteners with #2 to #5 points.
Winged Drill Point (WDP)		Cladding-only fastener that is used to attach hard board products such as timber, fiber cement, and composite boards to 12 - 16-gauge steel without the need to pre-drill pilot holes. The wings bore a hole in the board greater in diameter than the thread to ensure the threads do not engage with the board material, allowing the screw to pass through the board without resistance. As the point of the fastener enters the steel the wings break off allowing the threads to tap into the material and secure the board in place.

Head Types		
Flat Head		Low profile head useful for steel framing applications, where the screw must fit flush within the dimple to allow for a smooth finish for cladding or lining materials over the top.
Wafer Head		Typically, a lower profile head, especially designed to suit FRAMECAD frames, as the head fits neatly into the dimple of the frame. The screw fits flush within the dimple to allow for a smooth finish for cladding or lining materials over the top.
Hex Washer Head (HWH)		High torque head for metal-to-metal applications, great for frame-to-frame, frame-to-truss and truss assembly connections.
Hex Washer Head with Neoprene Washer		HWH screws with EPDM washers are a common head type used when fixing roofing and exterior steel cladding. The washer provides a waterproof seal around the fastener and hole.
Scavenger Head		The Scavenger Head offers a secondary ring under the standard bugle head to further reduce paper burrs when installing gypsum plasterboard, effectively reducing paper burrs for a smoother finish.
Countersunk Head (CSK)		Designed to countersink easily into the full range of cladding types to allow the application of a suitable stopping compound for a smooth finish.
Countersunk Ribbed		A larger head to securely hold cladding materials. The aggressive cutting ribs allow the larger head to embed effectively into the board.
Pan Head		The pan head is a deeper and therefore stronger head for more secure structural fixings common in metal-to-metal applications.

Drive Types		
XDrive®		FRAMECAD® developed the XDrive® specifically for the cold formed steel construction industry. Customers highlighted the need for a more stable, higher torque drive recess which would not 'cam-out' like the Phillips Drive. The benefits were immediate; operator fatigue was reduced and speed of assembly increased significantly.
Square Drive		The Square Drive has been widely adapted for the assembly of cold formed steel in the transportable and low cost modular or social housing. The drive offers the benefit of 'stick fit' and sufficient torque for the lower gauges of steel used in these industries.
Hex Washer Head		A Hex Washer Head (HWH) offers very high torque and is ideal for metal to metal connections. The HWH offers an incredibly stable drive which will hold its connection even when driven at an angle. Due to the size of the head it is not suitable for frame assembly but is ideal during erection for panel to panel connections.
Phillips Drive		The classic 'cross-slot' drive very commonly used in applications with low torque performance requirements such as when fixing gypsum or MGO wall linings - not suitable for high torque requirements of steel frame assembly. The common problem is that the conical side walls deflect torque upwards causing 'camout' - therefore constant downward pressure is required to maintain engagement between driver bit and screw recess during application.
Torx® Plus TTAP® Drive		Torx® Plus TTAP® offers excellent torque and is commonly used in high torque applications in the automotive industry. Specialized torque limiting tools are commonly used due to the very secure connection between driver and screw. Without the use of specialized tools, damage to driver bit or screw head can result.

Screw Measurements

10g	-	18	x	19	,	Flat	,	X#1	,	SP	,	1000hrs	,	Collated
Gauge		Threads per inch (TPI)		Screw Length		Head Type		Drive Type		Point Type		Corrosion Resistance (SST)		Packing Type

e.g. 10g - 18 x 19mm, Flat, X#1, SP, 1000hrs, Collated

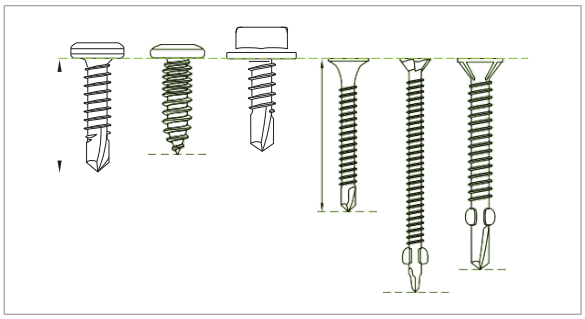
Fastener Length

The fastener length is defined as the total length of penetration. For screws with heads designed to rest on top of the substrate the length is measured from the underside of the head to the end of the point:

- Hexagonal Head Screws (HWH)
- Wafer Head Screws
- Button Head Screws
- Pan Head Screws
- Flat Head Screws

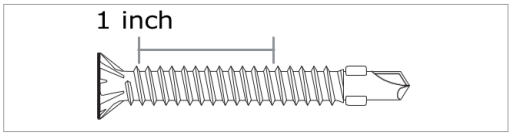
For screws with heads designed to countersink into the substrate the length is measured from the top of the head to the end of the point:

- Bugle Head Screws
- Self-embedding Head Screws
- Countersunk Screws (CSK)



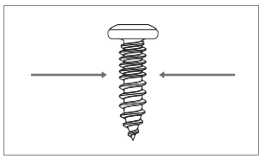
TPI (Threads per inch)

The T.P.I (Threads per inch) is the number of full thread crests that can be counted along a lineal measurement of 1” (25.4 mm) of the fastener thread.



Screw Gauge

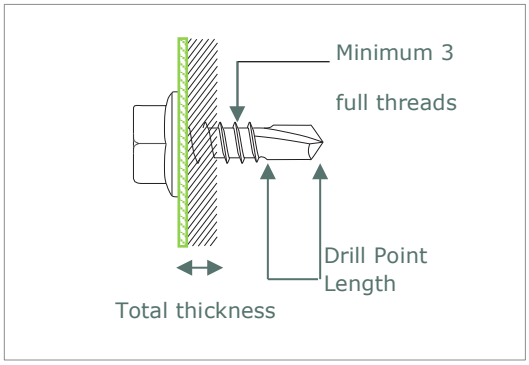
Screw gauge is determined by the basic size of the thread’s outside diameter.



Gauge	Diameter	Inches
6g	3.5mm	9/64”
8g	4.2mm	11/64”
10g	4.8mm	3/16”
12g	5.5mm	7/32”
13g (M6)	6.0mm	15/64”
14g	6.3mm	1/4”
16g	6.8mm	0.268
18g	7.5mm	0.294

Fastening to Metal

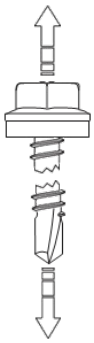
For full connection strengths to be achieved a structural fixing screw must be of sufficient length to ensure at least 3 full threads are protruding through the substrate material. Note that when assessing the correct length of the screw required any gap or space between the two substrates must also be allowed for in the total length of the screw.



Mechanical Properties

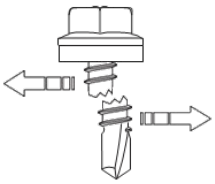
Screws are a crucial part of the FRAMECAD manufacturing system.

FRAMECAD screws are manufactured in high quality facilities to comply with industry standard requirements and ensure consistency in all aspects of their performance. Mechanical performance properties of screws may help when selecting appropriate screws for each application however, the most relevant data is the tested capacity of a screw 'in situ' or when installed as part of the total FRAMECAD system.



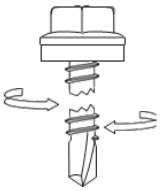
TENSILE STRENGTH

The maximum tension applied load the fastener can support.



SHEAR STRENGTH

The maximum load that can be supported at a right angle to the axis.



TORSIONAL STRENGTH

The maximum torque required to break the screw by twisting.

Note: All performance figures quoted are indicative only based on nominal values expected by industry norms. Please ensure your design is professionally engineered. Contact your FRAMECAD representative for more information.

Screw Coatings

Coatings are applied to screws for three primary reasons:

- Appearance
- To protect against corrosion
- To reduce friction

Choosing a suitable screw coating requires consideration of screw application, environmental conditions and lifetime expectancy. FRAMECAD offers various grades of protective coatings to suit a wide range of applications and environmental conditions.

Corrosion Resistance

Corrosion is typically the key concern in specifying a screw coating. Corrosion can be caused by industrial pollution, moisture (rain or humidity) and salt spray in coastal environments. Fasteners can also be exposed to moisture over their service life in applications such as bathrooms and other wet areas.

Recommended Corrosion Resistance			
Applications	**Coating Class (AS3566.2:2002)**	**Salt Spray Test (ASTM B117)**	**Kesternich Cycles (DIN 50018)**
Interior Linings & Non-Structural Steel Framing		24-96 hrs	0
External Cladding & Structural Steel Framing	3	1000 hrs	15
Exposed Roofing	4	1500 hrs	20
Exposed Roofing Severe Environment	5	2000 hrs	25

Coatings: FRAMECAD E-Coat

FRAMECAD E-coat is the latest generation in coating/corrosion resistance technology and offers many advantages to traditional coatings and which are especially beneficial for cold formed steel frame assembly.

FRAMECAD E-Coat Advantages:

- A 'low build' and smooth ceramic coating which ensures the drive recess and threads are not clogged allowing screws to be driven more easily.
- Secondary protective coating of Zinc to act as a sacrificial coating if exposed to moisture.
- Meets or exceeds testing requirements: Salt Spray Test (SST) = 1000hrs & Kesternich Test =15 Cycles.
- Scratch and chip resistant increasing service life as the protective coating is much less likely to be damaged during installation.
- Environmentally friendly manufacturing and coating process.

Corrosion Resistance Test Methods	
ASTM B117 Salt Spray Test (SST)	The most common test method to classify the corrosion resistance of platings and finishes. Items to be tested are placed in a fog chamber at 35oC with a salt spray atmosphere of 5% sodium chloride. The results are expressed in hours of exposure without evidence of corrosion of the protected substrate. All FRAMECAD coatings are tested in accordance to ASTM B117 “Practice for operating Salt Spray (fog) Apparatus”
Kesternich Test	A test to classify the corrosion resistance of items which involves repeated cycles of saturation and drying. Items are exposed to a repeated cycle of 18 to 28 degrees and 75% humidity for 16 hours, and then a sulfur dioxide atmosphere at 40 degrees and 100% humidity for 8 hours. The results are measured in the number of cycles completed without evidence of corrosion of the protected substrate. Testing in accordance to DIN 50018 standard.

Environmental Categories

MILD URBAN/RURAL (ISO CATEGORY 1-2)

Away from all above environments and corrosive fall-out within 2 kms.

LIGHT INDUSTRIAL/URBAN (ISO CATEGORY 2-3)

This environment is widespread in industrial/urban areas, away from all environments listed below, and typically 500m from heavy industrial fall-out, or where small industries lead to moderate level of fall-out from small stacks etc.

INDUSTRIAL (ISO CATEGORY 3)

Characterized by fall-out from adjoining severe industrial environments or where small industries lead to significant industrial fall-out. Generally, includes other service buildings located near heavy industrial plants, including out-buildings of the plant itself.

MODERATE MARINE (ISO CATEGORY 3)

Generally, between 300m and 1000m from marine surf, although topography and/or strong prevailing winds may extend this distance. Characterized by noticeable airborne salt spray, but not visible haze and salt smell.

SEVERE INDUSTRIAL (ISO CATEGORY 4)

Characterized by fall-out and emissions from stacks, sulphur and acid smells. Includes only plant buildings themselves and any building immediately under stacks, and buildings with high internal humidity/corrosion from internal operations.

SEVERE MARINE (ISO CATEGORY 4)

Generally, between 100m from the beach front and approximately 300m inland. High wind areas may extend this area. Characterized by strong salt smell, haze, salt smearing and salt build-up in unwashed areas of structures. Generally, a noticeable deterioration of building materials.

VERY SEVERE INDUSTRIAL (ISO CATEGORY 5)

Characterized by heavy fall-out and emissions from stacks, and strong sulphur and acid smells. Generally, very high rates of corrosion in most buildings structures evident.

VERY SEVERE MARINE (ISO CATEGORY 5)

Includes offshore areas and up to 100m from the high waterline of areas with breaking surf (site inspection required).

Examples of Environmental Categories

Image	Category
	Light Industrial/Urban (ISO Category 2-3)
	Severe Marine (ISO Category 4)
	Very Severe Industrial (ISO Category 5)

XDrive® Framer

Application

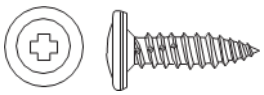
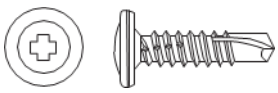
- Assembly of steel frame walls, joists and trusses.
- Sharp Point: For pre-punched, TCT 0.75 – 0.95 mm steel (22 – 20 gauge)
- Drill Point: For pre-punched as well as non-punched, TCT 0.95 to 1.95 mm steel (20–16 gauge)

Features and Benefits

- Sharp Point aligns pre-punched holes during frame assembly for a high quality accurate finish.
- Drill Point is designed for easy penetration into heavier gauge steel for quick and easy assembly.
- XDrive® recess delivers increased stability and higher torque making it significantly easier to drive, reducing worker fatigue and increasing productivity.
- XDrive® incorporates a larger surface area of engagement, reducing stress on driver bits resulting in fewer breakages.
- Low profile flat head sits perfectly flush with the steel frame edge, providing a smooth, flat finishing surface for easy and accurate installation of cladding and lining.
- Under head serrations slow the rotation of the head to reduce the possibility of strip out, they also provide pressure under head to reduce vibrational loosening during transportation.
- E-Coat offers a high level of corrosion resistance and durability.
- Compatible with Superdrive® collated screw system to increase the efficiency in frame assembly.

Specifications

Coating: FRAMECAD E-Coat: SST: 1000hrs in accordance with ASTM B117
E-Coat: AS3566.2 2002: Class 3 **Installation**:RPM 1,800 2,500 **Compliance**:ISO 9001 ISO14001

Product	Item Code	Size	Description	Carton Qty
XDrive® Framer SP 	***Suitable for pre-punched steel frames up to 0.95mm thick.***			
	001236	10g x 19mm	XDrive Framer SP, 1000hrs, Loose	8,000
	002962 **	10g x 19mm	XDrive Framer SP, 1000hrs, Collated	4,000
XDrive® Framer DP 	***Suitable for steel frames between 0.95mm and 1.95mm thick.***			
	001877	10g x 19mm	XDrive Framer DP, 1000hrs, Loose	8,000
	002964 **	10g x 19mm	XDrive Framer DP, 1000hrs, Collated	4,000

'' indicates a supply lead time may be applicable.**
Unmarked items may be in stock at FRAMECAD warehouse near you. Please contact your account manager for info.

Fast Framer

Application

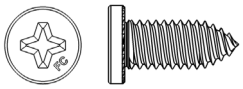
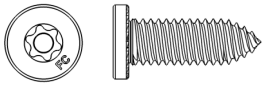
- Specialised fastener for transportable buildings, modular buildings, or prefabricated steel framing that will be transported long distances.
- Sharp Point (SP) ideal for pre-punched steel framing 0.55mm to 1.15mm
- Drill Point (DP) ideal for metal 0.95mm to 1.95mm, no pre-punched holes required.
- Sharp Point (SP) aligns pre-punched holes during frame assembly creating exceptionally accurate framing and stronger connections.
- Drill Point (DP) enables drilling into medium to heavy gauge steel. No pre-punched holes are required.
- Asymmetric thread cross-section provides superior resistance to vibrational loosening during transport by extruding thin metal for maximum thread engagement.
- Twin Helix Thread provides double thread engagement, increased stability and quicker installation.
- Undercut head with serration ensures maximum strength engagement with substrate.

Features and Benefits

- Sharp Point (SP) aligns pre-punched holes during frame assembly creating exceptionally accurate framing and stronger connections.
- Asymmetric thread cross-section provides superior resistance to vibrational loosening during transport by extruding thin metal for maximum thread engagement.
- Twin Helix Thread provides double thread engagement, increased stability and quicker installation.
- Undercut head with serration ensures maximum strength engagement with substrate.

Specifications

Coating: FRAMECAD E-Coat: SST: 1000hrs in accordance with ASTM B117
E-Coat: AS3566.2 2002: Class 3 **Installation**: RPM 1,800 - 2,500
Compliance: ISO 9002 ISO14001

Product	Item Code	Size	Description	Carton Qty
Fast Framer SP 	*Suitable for steel frames 0.55mm to 1.55mm*			
	313430	M6 x 14mm	Fast Framer SP, Ph#3, 1000hrs, Loose, + 10 Driver bits	5,000
Fast Framer SP 	*Suitable for steel frames 0.55mm to 1.55mm*			
	308333	M6 x 17mm	Fast Framer SP, TTAP, 1000hrs, Loose, + 5 Driver bits	5,000

Dualthread Framer

Application

Fabrication of steel wall framing, roof trusses and floor joists.

Sharp Point (SP) suitable for pre-holes metal 0.55mm to .95mm Light Gauge Steel Frames.

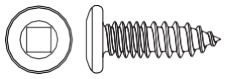
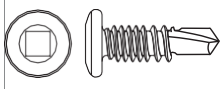
Drill Point (DP) suitable for no pre-hole metal 0.95mm to 1.2mm Light Gauge Steel Frames.

Features and Benefits

- Square drive recess delivers increased driving stability and higher torque, reducing operator fatigue.
- Sharp Point aligns pre-punched holes during frame assembly creating accurate frames.
- Dual Thread configuration results in a tight connection suitable for transportable buildings.
- Wafer head sits flush with dimple providing a smooth surface for cladding and lining.
- Undercut head with serration: Absorbs material extruded by the screw and increases the underhead contact area to increase resistance to stripping.
- Square drive enables screw to stick to driver bit allowing for single hand operation.

Specifications

Coating: FRAMECAD E-Coat: SST: 1000hrs in accordance with ASTM B117
Installation: RPM 1,800 - 2,500
Compliance: ISO 9001

Product	Item Code	Size	Description	Carton Qty
Dualthread Framer SP 	*Suitable for pre-punched steel frames up to 0.95mm thick.*			
	002589-5000	10g x 16mm	Dualthread Framer SP, Sq#2, 1000hrs, Loose	5000
	308237	10g x 16mm	Dualthread Framer SP, Sq#2 48hrs, Loose	5000
Product	**Item Code**	**Size**	**Description**	**Carton Qty**
Dualthread Framer DP 	*Suitable for steel frames steel frames and trusses, self-drilling, for steel 0.75-1.15mm thick.*			
	312149	12g x 19mm	Dualthread Framer DP, Sq#2, 1000hrs, Loose, 5x Driver Bits	5,000 or 2,500
	Suitable for steel frames steel frames and trusses, self-drilling, for steel 0.75-0.95mm thick.			
	003012	10g x 19mm	DualThread Framer DP, SQ#2, 1000hrs	5,000

'' indicates a supply lead time may be applicable.**
Unmarked items may be in stock at FRAMECAD warehouse near you. Please contact your account manager for info.

HWH FrameFix DP

Application

Metal to metal connections for joining frames and trusses, connecting frames to steel floors or adding strength to connectors.

Suitable metal 0.75mm (22 gauge) to 2.0mm (14 gauge).

Note: 12-gauge screws are recommended for steel thicknesses 1.5mm and greater.

Features and Benefits

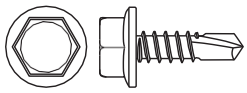
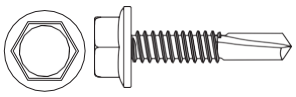
- Hex Washer Head provides a high torque which is ideal for metal to metal applications.
- The Hex Washer Head provides additional screw strength and holding capacity.
- Drill Point (DP) enables drilling into medium to heavy gauge steel. No pre-punched holes are required.
- Used in conjunction with FRAMECAD Certified Connectors, to provide additional structure support and strength.

Specifications

Coating:

- **FRAMECAD E-Coat:** SST: 1000hrs in accordance with ASTM B117
- **FRAMECAD Galv.:** 2000hrs in accordance with ASTM B117 (for Roofing Screws)

Installation: RPM 1,800 - 2,500
Compliance: ISO 9001, SAE J78

Product	Item Code	Size	Description	Carton Qty
HWH FrameFix DP 	*Ideal for panel to panel fixing during frame erection and for fixing connectors. Also used to fix framing to hot rolled steel structures or concrete. Suitable for steel thicknesses up to 8mm.*			
	307387	10g x 19mm	Hex Head FrameFix DP, 1000hrs, Loose	5,000
	002409 **	12g x 25mm	Hex Head FrameFix DP, 1000hrs, Loose	5,000
HWH FrameFix DP #5 	*Metal to metal screw for fixing Light Gauge Steel to heavy gauge steel*			
	002251	12g x 32mm	Hex Head FrameFix DP#5, 1000hrs, Loose	2,500

'' indicates a supply lead time may be applicable.**
Unmarked items may be in stock at FRAMECAD warehouse near you. Please contact your account manager for info.

FRAMECAD Flathead

Application

Metal to metal screw ideal for fixing strap bracing and connectors.

Used as an additional screw in panel connections when the software indicates that more than 2 screws are required.

Used to fix connectors to walls where the super flat 1mm head ensures cladding and lining can be installed without the chance of cracking.

Features and Benefits

Fully tested and certified for use with the FRAMECAD System to provide the connection strengths required to perform to calculated load requirements.

Low profile 1mm thick head ensures flush bearing surface for lining substrates.

Drill Point (DP) enables drilling into medium to heavy gauge steel.

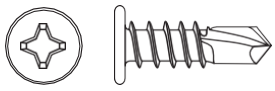
Used in conjunction with FRAMECAD Certified Connectors, to provide additional support and strength.

Specifications

Coating: FRAMECAD E-Coat: SST: 1000hrs in accordance with ASTM B117

Installation: RPM 1,800 - 2,500

Compliance: ISO 9001

Product	Item Code	Size	Description	Carton Qty
FRAMECAD Flathead	*Ideal for connecting metal strapping or bracing and adding additional strength to connectors.*			
	001539	10g x 16mm	FRAMECAD Flathead DP, 1000hrs, Loose	10,000

Driver Bits

The below is a list of driver bits purchasable for driving FRAMECAD fasteners.

For screw head type	Driver	Product Description	Code
	Square #2	Driver Bit - SQ#2 x 50mm	001552
		Driver Bit - SQ#2 x 153mm	003156
	XDrive® #1	Driver Bit - X#1 x 25mm	002792
		Driver Bit - X#1 x 50mm	001441
		Driver Bit - X#1 x 153mm	002793
	Phillips #2	Driver Bit - Ph#2 x 50mm	001549
		Driver Bit - Ph#2 x 153mm	001380
	Phillips #3	Driver Bit - Ph#3 x 50mm Blunt	002959
	Torx® TTAP®	Driver Bit - Torx TTAP T25 x 50mm	308981
	Hex 5/16”	Driver Bit - Hex Socket 5/16” x 65mm with Magnet	307162
		Driver Bit - Hex Socket 5/16” x 150mm with Magnet	001554

Manual Stud Punch and Grommets

FRAMECAD Manual Stud Punch

The FRAMECAD Stud Punch Standard will punch 34 mm round holes in up to 20 gauge (0.95mm) steel studs for wiring or conduit requirements.

- Self-clearing mechanism to discharge waste.
- Self-centering on standard width studs.
- Thickness Capacity: Up to 0.95mm (20 Gauge)
- Stud Width Capacity: 63.5mm (2 1/2”) +
- Hole Diameter: 34.1mm
- Weight: 3.2kg

FRAMECAD Grommets

FRAMECAD Grommet can be installed quickly and easily to protect cables and pipes from the sharp edges of cut service holes in steel studs and framing.

The ‘wings’ of the grommet are designed to hold water pipes in place to reduce water ‘hammer’ from plumbing.

Benefits

- Suitable for both machine- and hand-punched holes of various types.
- Temperature resistant plastic ensures lasting durability for plumbing and electrical cabling.
- Easily split to allow installation around existing pipes and cables.

Product	Item Code	Description	Unit
FRAMECAD Grommets	001254-250	Grommet 34mm Universal - Green, 500/bag (4 bags /carton)	2,000 / carton

This document is current as of August 1, 2025 and supersedes all previous versions.

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