What Are Pentagon-Head Security Screws Used For?

Pentagon-Head Security Screws are used for fixings in public or unsupervised places that must resist casual removal with ordinary tools. They are manufactured to Trade series (pentagon-head security screws), and the choice of size, property class and finish is driven by the load in the joint and the environment it sits in.

Primary duty

Fixings in public or unsupervised places that must resist casual removal with ordinary tools

Governing standard

Trade series (pentagon-head security screws)

Screw size range

3/8-16 to 3/8-16

Category

Screws

Application notes are general engineering guidance. Verify the property class and any approval requirement against your own design calculation.



Pentagon-Head Security Screws are selected when an assembly calls for fixings in public or unsupervised places that must resist casual removal with ordinary tools. This application guide to the Trade series (pentagon-head security screws) type covers concrete end-uses, the specification checklist, correct installation, and where an alternative fastener performs better. Stocked across roughly 3 to 3, they cover light-duty and instrument-scale work.

Typical Applications for Pentagon-Head Security Screws

The most common settings where these are specified:

Public fixtures: Five-point sockets discourage removal with ordinary hand tools.

Transit equipment: Stainless security screws retain panels and signs in exposed locations.

Utility enclosures: Fully threaded 3/8-16 hardware secures a cover with a defined head envelope.

Retail displays: The special drive reduces casual tampering.

Product catalog

Related Security & Tamper-Resistant Screws products



(https://engineeringhardware.com/product/metric-measure-system-tamperproof-m3-self-tapping-screws-steel-flat-head-triangular/)

Security & Tamper-Resistant Screws

Metric Measure System Tamperproof M3 Self-Tapping Screws (Steel) Flat Head Triangular Tri-Lobular Drive Machine Screw
(https://engineeringhardware.com/product/metric-measure-system-tamperproof-m3-self-tapping-screws-steel-flat-head-triangular/)

Carbon Steel · M6-M12; 1/4"-3/4"

US$0.012 – 0.12 MOQ 1,000 pieces



(https://engineeringhardware.com/product/hand-sales-fasteners-ss304-m5-m6-anti-thief-h-groove-drive-self-tapping-security/)

Security & Tamper-Resistant Screws

Hand Sales Fasteners SS304 M5 M6 Anti Thief H Groove Drive Self Tapping Security Screw (https://engineeringhardware.com/product/hand-sales-fasteners-ss304-m5-m6-anti-thief-h-groove-drive-self-tapping-security/)

Pan Head · DIN, GB, Per Customers'desire

US$0.06 – 0.12 MOQ 2,000 pieces



(https://engineeringhardware.com/product/high-strength-materials-customizable-countersunk-plum-blossom-head-anti-theft-self/)

Security & Tamper-Resistant Screws

High-Strength Materials Customizable Countersunk Plum Blossom Head Anti-Theft Self-Tapping Screws (https://engineeringhardware.com/product/high-strength-materials-customizable-countersunk-plum-blossom-head-anti-theft-self/)

Round Head · DIN, GB, ANSI, BSW, JIS, GOST

US$0.12 – 2.40 MOQ 1,000 pieces



(https://engineeringhardware.com/product/iso9001-high-quality-stainless-steel-tamper-proof-button-head-security-screw/)

Security & Tamper-Resistant Screws

ISO9001 High Quality Stainless Steel Tamper Proof Button Head Security Screw (https://engineeringhardware.com/product/iso9001-high-quality-stainless-steel-tamper-proof-button-head-security-screw/)

Round Head · DIN

US$0.036 MOQ 2,000 pieces



(https://engineeringhardware.com/product/stainless-steel-8-12-button-head-torx-security-screws/)

Security & Tamper-Resistant Screws

Stainless Steel #8~#12 Button Head Torx Security Screws
(https://engineeringhardware.com/product/stainless-steel-8-12-button-head-torx-security-screws/)(https://engineeringhardware.com/product/stainless-steel-8-12-button-head-torx-security-screws/)

Hexagon Head · DIN, ANSI

US$0.03 – 0.06MOQ 1,000 pieces



(https://engineeringhardware.com/product/fast-assembly-hex-head-anti-theft-lock-nuts-used-for-public-infrastructure/)

Security & Tamper-Resistant Screws

Fast Assembly Hex Head Anti-Theft Lock Nuts Used for Public Infrastructure (https://engineeringhardware.com/product/fast-assembly-hex-head-anti-theft-lock-nuts-used-for-public-infrastructure/)

Hexagon Head · DIN, ANSI, GB, JIS, GOST, BSW

US$0.012 – 0.06 MOQ 1,000 pieces

View all Security & Tamper-Resistant Screws → (https://engineeringhardware.com/fastener-products/screws/security-tamper-resistant-screws/)

Full product catalog (https://engineeringhardware.com/products/)

How to Specify Pentagon-Head Security Screws for Your Application

Size: Match the nominal size to the mating thread or hole. This product spans 3–3; check the full table below for the exact dimensions of each size.

Drive & head: Pick the drive (socket, cross, slot) and head style for the tool access and seating surface; a recessed drive resists cam-out under power tools.

Environment: For damp, coastal or chemical exposure prefer A4/316 stainless or a suitable coating; indoors, plated steel or A2 is usually sufficient.

Standard: This product is supplied to Trade series (pentagon-head security screws). Quoting the standard on your order guarantees interchangeable dimensions between suppliers.

Installation & Assembly Practice

Match the driver exactly to the recess (PH ≠ PZ; hex key sizes per ISO 2936) and keep the tool axial — side load is the main cause of stripped drives.

In tapped holes, engage a thread length of at least 1× the nominal diameter in steel, 2× in aluminum.

Set power tools to a torque that seats the head without embedding it into the mating surface.

Common Selection Mistakes with Pentagon-Head Security Screws

Under-sizing the drive for the installation torque — a small recess at high torque strips before the screw is seated.

Using a countersunk head in thin sheet where the countersink removes most of the load-bearing material.

Specifying stainless in high-strength duty: A2-70 is roughly class 7 steel, not a 10.9 substitute.

Where Pentagon-Head Security Screws Are Not the Right Choice

Not for high-preload structural joints (use a property-class bolt and nut), and not in thin sheet where a self-drilling or self-tapping type suits better.

Custom manufacturing · Made to drawing

Need a pentagon-head security screws outside the standard range?

Where the standard stops, the drawing takes over: fine pitches, left-hand threads, partial threading, and property classes above the catalogued grade where material and heat treatment allow. Made by cold heading or warm forging.

Minimum order from 2,000 pieces; samples within 7 days of drawing approval.

Custom screw manufacturing (https://engineeringhardware.com/custom/screws/)

Send a drawing (https://engineeringhardware.com/custom/screws/#rfq)

Technical Drawing

Customize the parameters below — every spec field is editable, and the drawing redraws to match the values you choose. Changing the size will snap the other fields to that size's standard values; you can then override any individual value.

Dimensioned line drawing of 3/8-16 Pentagon-Head Security Screws to Trade series (pentagon-head security screws). Side view and top view, drawn to the dimensions in the table below and redrawn for any size selected.

Sends the selected values to the quote form below.

Request a Quote

The form below follows the current technical drawing configuration. Change the drawing values above and the request details update automatically.

Dimensions & Specifications (Trade series (pentagon-head security screws))

Thread size	Length options (in)	Head width (in)	Head height (in)	Drive socket (in)
3/8-16	3/4 / 1 / 1-1/2	7/8	5/16	13/16 five-point

Video: What Are Pentagon-Head Security Screws Used For? in use



► Watch video: https://www.youtube.com/watch?v=P_fIOj7oCRs

Third-party video, selected automatically for this topic. It is not produced by Engineering Hardware and is not a specification source — use the tables on this page for dimensional data.

Inside the plant

Manufactured in our own plant

This part is cold-formed, threaded, heat-treated and finished in-house. The stages below are where its class and finish are actually decided.



01

Cold heading

Wire rod is drawn to size and cold-formed into blanks. Forming rather than cutting keeps the grain flow continuous around the head, which is where a bolt is most likely to fail.

Head dimensions and under-head radius checked at set-up and per shift.



02

Thread rolling

Threads are rolled between hardened dies rather than cut. Rolled threads are stronger in fatigue than cut threads and hold pitch and flank angle far more consistently across a batch.

Go / no-go ring gauges to ISO 965 tolerance class 6g.



03

Heat treatment

Quench-and-temper brings carbon and alloy steel to the property class ordered — 8.8, 10.9 or 12.9 — with the furnace charge tracked so a finished lot can be traced back to it.

Core hardness and tensile tested per lot to ISO 898-1.



04

Surface treatment

Zinc, zinc-nickel, hot-dip galvanizing, black oxide, phosphate and Dacromet, selected against the service environment rather than against the price list.

Coating thickness and neutral salt spray hours to ISO 9227.

Frequently Asked Questions

Are Pentagon-Head Security Screws made to a recognized standard?

Yes — they are manufactured to Trade series (pentagon-head security screws), so dimensions are interchangeable between suppliers when you quote the standard on your order.

What are Pentagon-Head Security Screws used for?

Fixings in public or unsupervised places that must resist casual removal with ordinary tools. They are supplied to Trade series (pentagon-head security screws).

Which industries use Pentagon-Head Security Screws?

They are commonly specified in transit equipment, utility enclosures and retail displays, among other sectors.

How do I choose the right size of Pentagon-Head Security Screws?

Match the nominal size to the mating thread or hole. This product is available from 3 to 3; the full dimension table on this page lists each size.

Can I get a quote for Pentagon-Head Security Screws in the size and material I need?

Yes. Use the technical drawing and quote form on this page to set the size and options, then send the exact configuration to our team for pricing and lead time.

Related Pages

Product page: Pentagon-Head Security Screws — specifications & sizes (https://engineeringhardware.com/fastener/pentagon-head-security-screws/)

Pentagon-Head Security Screws Specification Guides

- **A4 stainless Pentagon-Head Security Screws (https://engineeringhardware.com/guide/material/a4-stainless-steel-pentagon-head-security-screws/)**

Related Fastener Applications

- **4IP Internal Service Screws for Mobile Devices applications (https://engineeringhardware.com/applications/4ip-internal-service-screws-for-mobile-devices/)**
- **Ball-Ended Thrust Screws applications (https://engineeringhardware.com/applications/ball-ended-thrust-screws/)**
- **Bicycle General Threaded Fasteners applications (https://engineeringhardware.com/applications/bicycle-general-threaded-fasteners/)**
- **Bicycle Spoke Nipples applications (https://engineeringhardware.com/applications/bicycle-spoke-nipples/)**
- **Button Head Socket Cap Screws, UNC applications (https://engineeringhardware.com/applications/asme-b18-3-3a-unc-button-head-socket-cap-screw/)**
- **Button Head Socket Screws applications (https://engineeringhardware.com/applications/button-head-socket-screws/)**