



PennEngineering
Corporate Headquarters – Danboro, PA
 5190 Old Easton Rd.
 Danboro, PA 18916
Phone: 215-766-8853
Toll-Free Phone: 1-800-237-4736 (U.S. only)
Email: info@pemnet.com
Website: www.pemnet.com

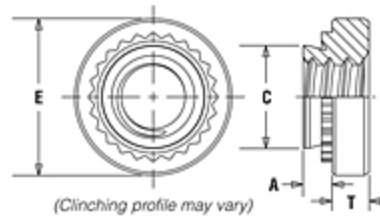
Part # SH-M10-1X, Type SH™ Hard Panel Nuts - Metric

- Installs into thin, harder, high strength steel materials (high strength steel sheets at 975MPA maximum ultimate tensile)
- Allows overall weight reduction for all vehicles
- Provides lower installed cost
- Unplated threads may be oversized sized as permitted by thread standards to accept minimum plating thickness of .00020"/.0051 mm

Compare to other thin sheet fastening devices:

- Addresses environmental concerns
- Smaller outer diameter
- Lighter weight
- Flush on reverse side of panel
- Close to edge of panel

[+ more](#)

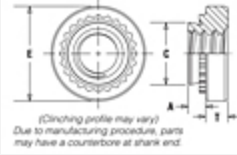


*(Clinching profile may vary)
 Due to manufacturing procedure, parts
 may have a counterbore at shank end.*

Specifications

Thread Size x Pitch

M10 x 1.5

Thread Code	M10
Shank Code	1
	2.21 mm
A (Shank) Max.	
Min. Sheet Thickness¹	2.29 mm
Hole Size in Sheet + 0.08	14 mm
C Max.	13.97 mm
E ± 0.25	17.35 mm
T ± 0.25	7.48 mm
Min. Dist. Hole C/L to Edge	13.5 mm
For Use in Sheet Hardness²	HRC 30 / HB 277 or Less
Thread Specification	Internal, ASME B1.13M, 6H B1.1, 2B / ASME
Fastener Material	Hardened Alloy Steel
Standard Finish³	No Finish (with Preventative Rust Oil)
Optional Finish	Consult technical support for recommended optional finishes.
CAD Supplier	PennEngineering® (PEM®)

¹ For maximum performance, we recommend that you use the maximum shank length for your sheet thickness.

² HRC - Hardness Rockwell "C" Scale. HB - Hardness Brinell.

³ Unplated threads are sized to accept a basic go gauge after .00025 in plating.