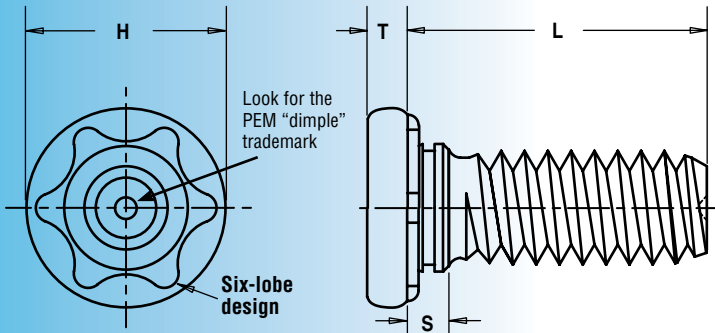


PEM® Six-Lobe Heavy Duty Clinch Studs

PEM® six-lobe heavy duty self-clinching studs are typically used when high torque out and pushout and, if necessary, high tensile/shear strength are required. These studs are easy to install, have a low installed cost, and have consistent performance characteristics.



- ### Available Features and Benefits
- Head strength is adequate to develop full thread strength.
 - Can be used in material as thin as .036" / .91mm.
 - Easy to install. No welding.
 - Can be installed with automated equipment.
 - Installs into panels up to HRB 85 / HB 165.
 - Dog point and/or MATHread/MATpoint features available.⁽¹⁾
 - Thread strength: grade 5 through 8 and property class 9.8 to 10.9
 - RoHS compliant materials and finishes.

All dimensions are in inches.

UNIFIED	Thread Size (2)	Min. Sheet Thickness	Hole Size in Sheet		H ±.010	L Length	S Max.	T ±.005
			Min.	Max.				
	.164-32 (#8-32)	.036	.178	.182	.350	.250 to 2.0	.060	.060
		.060					.095	
	.190-32 (#10-32)	.036	.206	.210	.370		.060	.070
		.060					.095	
	.250-20 (1/4-20)	.036	.272	.276	.470	.312 to 2.5	.060	.090
		.060					.095	
		.090					.135	
	.313-18 (5/16-18)	.060	.333	.337	.600	.500 to 6.0	.095	.110
		.090					.135	
		.120					.180	
	.375-16 (3/8-16)	.090	.400	.404	.690		.135	.130
		.120					.180	
	.500-20 (1/2-20)	.090	.532	.536	.950	1.0 to 6.0	.135	.175
		.120					.180	

All dimensions are in millimeters.

METRIC	Thread Size x Pitch (2)	Min. Sheet Thickness	Hole Size in Sheet		H ±0.25	L Length	S Max.	T ±0.13
			Min.	Max.				
	M4 x 0.7	.91	4.68	4.78	7.75	6 to 55	1.5	1.4
		1.52					2.3	
	M5 x 0.8	.91	5.68	5.78	8.75		1.5	1.75
		1.52					2.3	
	M6 x 1	.91	6.68	6.78	11	8 to 65	1.5	2.1
		1.52					2.3	
		2.29					3.4	
	M8 x 1.25	1.52	8.68	8.78	15.25	15 to 152	2.3	2.8
		2.29					3.4	
		3.05					4.6	
	M10 x 1.5	2.29	10.68	10.78	19.75		3.4	3.5
		3.05					4.6	
	M12 x 1.75	2.29	12.68	12.78	20	25 to 152	3.4	3.8
		3.05					4.6	
	M14 x 2	2.29	14.68	14.78	22	25 to 152	3.4	4.5
		3.05					4.6	

(1) PennEngineering is a licensee for MATHread®/MATpoint® technology, a registered trademark of MATHread Inc.

(2) Part number will be assigned during quote process.

PEM® Six-Lobe Heavy Duty Clinch Studs

Specifications

Threads - External, ANSI B1.1 2A ANSI/ASME B1.13M 6g⁽¹⁾

Fastener Material - Heat-treated carbon steel ⁽²⁾

Standard Finish - Zinc plated 5µm colorless ⁽³⁾

For use in sheet hardness HRB 85 / HB 165 or less

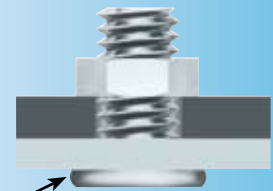
(1) For plated studs, Class 2A/6g, the maximum major and pitch diameter, after plating, may equal basic sizes and be gauged to Class 3A/4h. Per ANSI B1.1, Section 8, Table 3A and ANSI B1.13M, Section 8, paragraph 8.2.

(2) Other materials available upon request.

(3) Other finishes available upon request.

Installation

PEM® six-lobe heavy duty studs are installed by placing them in properly sized holes in the sheet or metal section and squeezing them into place using any parallel acting press. The metal displaced by the head flows smoothly and evenly around the six-lobe anti-rotational feature, and into the annular groove, locking the fastener securely in place.



Stud embeds permanently into sheet. Head strength is adequate to develop full thread strength.

Other Notes

Six-lobe available on special order only. For standard offering of heavy duty clinch stud types and sizes see PEM Bulletin FH.

Products are manufactured in ISO certified facilities and if required can also meet stringent industry specific certifications.

For quotations or questions regarding this product, please contact one of the locations below or your nearest PEM® engineering representative.

For the complete line of PEM® standard self-clinching fasteners and installation equipment, request our catalog or go to www.pemnet.com.



To meet your preferences and needs we offer studs with many different sizes, materials and coatings.

To be sure that you are getting genuine PEM® brand self-clinching studs, look for the "dimple" trademark.

The Trademark for Quality



Specifications subject to change without notice.
Check our website for the most current version of this bulletin.

© 2009 PennEngineering.

PennEngineering®



North America: Danboro, PA USA • E-mail: info@pemnet.com • Tel: +1-215-766-8853 • Fax: +1-215-766-0143 • 800-237-4736 (USA Only)
Europe: Galway, Ireland • E-mail: europe@pemnet.com • Tel: +353-91-751714 • Fax: +353-91-753541
Asia/Pacific: Singapore • E-mail: singapore@pemnet.com • Tel: +65-6-745-0660 • Fax: +65-6-745-2400
Shanghai, China • E-mail: china@pemnet.com • Tel: +86-21-5868-3688 • Fax: +86-21-5868-3988

LCS-2

Visit our PEMNET™ Resource Center at www.pemnet.com