

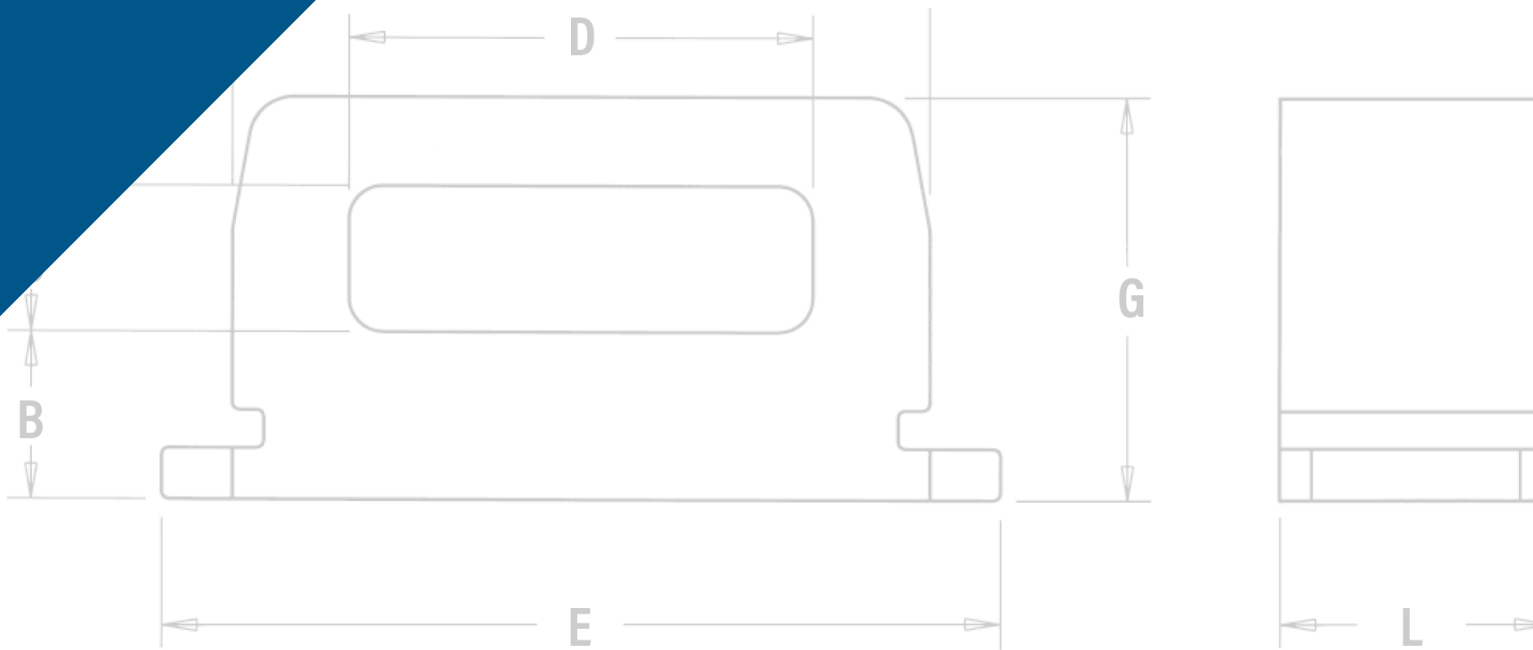


PEM® TY-D® hardware provides
secure metal attachment points for
mounting wires to electronic chassis.



TD™

SELF-CLINCHING TY-D® CABLE TIE-MOUNTS



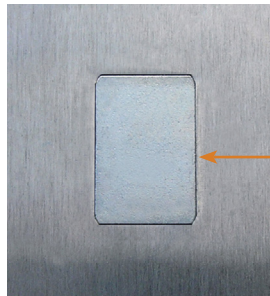
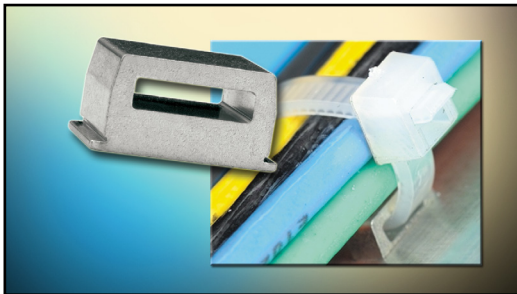
SELF-CLINCHING TY-D® CABLE TIE-MOUNTS

PEM® TY-D® self-clinching tie-mounts provide secure metal attachment points for mounting wires to electronic chassis or enclosures. TY-D® hardware can be a great improvement over traditional mounting methods. They can be placed with assurance at designed locations and angles to remain secure for the life of the assembly.

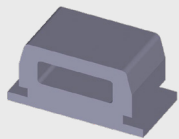
- Installs quickly and permanently without screws
- Eliminates the use of adhesives that typically fail over time and temperature cycling
- Will not protrude on the reverse side, panel remains flush
- Fasteners ensure wire placement in desired location



TDS™ cable tie-mounts allow users to easily slide ties through the hardware's "eye" for fast cable mounting.



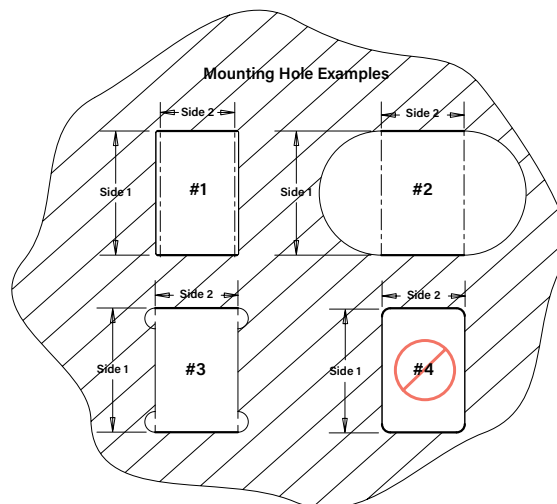
Depending on placement of the fastener within the mounting hole, on the reverse side of the sheet, a slight gap may be noticeable along the non-clinching edges of the fastener after installation. If gap is not acceptable in your application, check with [techsupport](#) for a solution.



Fastener drawings and models are available at www.pemnet.com

MOUNTING HOLE EXAMPLES

The mounting hole is defined by two dimensions. The two thick lines shown must be straight for the entire length defined by "Side 2" and must be separated by the distance shown as "Side 1" (Side 1 and Side 2 are the two dimensions given for the mounting hole on pages 3 and 4). The illustration shows three examples (#1, #2, and #3) of how it can be achieved. Example #4 in the lower right side will not work.



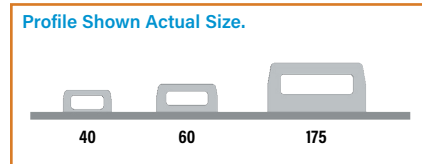
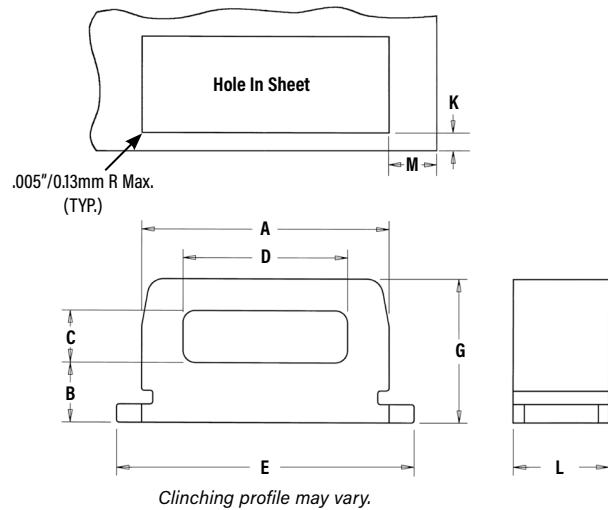
All PEM® products meet our stringent quality standards. If you require additional industry or other specific [quality certifications](#), special procedures and/or part numbers are required. Please contact your local sales office or representative for further information.

Regulatory [compliance information](#) is available in Technical Support section of our website. Specifications subject to change without notice. See our website for the most current version of this bulletin.

TDS™ CABLE TIE-MOUNTS

PART NUMBER DESIGNATION

TD	S	- 60	- 6	
TD	S	- 60	- 6	ZI
Type	Material Code	Profile	Length Code	Finish Code



All dimensions are in inches.

UNIFIED	Type	Profile ⁽¹⁾	Length Code	Length L ±.003	Sheet Thickness	Hole Size In Sheet +.002 -.001	A ±.003	B ±.006	C ±.006	D ±.006	E ±.006	Height G ±.006	Min. Hole Edge To Sheet Edge K	Min. Hole Edge To Sheet Edge M
	Stainless Steel													
	TDS	40	4	.121	.040 - .050	.250 x .125	.246	.055	.065	.160	.308	.150	.040	.147
	TDS	60	6	.184	.040 - .070	.312 x .187	.308	.075	.065	.205	.370	.180	.040	.196
	TDS	175	12	.371	.040 - .125	.500 x .375	.496	.130	.095	.360	.562	.285	.040	.262

All dimensions are in millimeters.

METRIC	Type	Profile ⁽¹⁾	Length Code	Length L ±0.08	Sheet Thickness	Hole Size In Sheet +0.05 -0.03	A ±0.08	B ±0.15	C ±0.15	D ±0.15	E ±0.15	Height G ±0.15	Min. Hole Edge To Sheet Edge K	Min. Hole Edge To Sheet Edge M
	Stainless Steel													
	TDS	40	4	3.07	1.02 - 1.27	6.35 x 3.18	6.25	1.4	1.65	4.06	7.82	3.81	1.02	3.73
	TDS	60	6	4.67	1.02 - 1.78	7.93 x 4.75	7.82	1.91	1.65	5.21	9.4	4.57	1.02	4.98
	TDS	175	12	9.42	1.02 - 3.18	12.7 x 9.53	12.6	3.3	2.4	9.14	14.28	7.24	1.02	6.65

(1) Reference to typical load rating (in pounds) for appropriate size nylon cable tie.

MATERIAL AND FINISH SPECIFICATIONS

Material: 17-4 Stainless Steel

Standard Finish: Passivated and/or tested per ASTM A380

Optional Finish: ZI - Zinc plated 8µm, Colorless, over Nickel Strike ⁽²⁾ ⁽³⁾

For use in Sheet Hardness: HRB 70 / HB 125 or Less ⁽⁴⁾

(2) See PEM [Technical Support](#) section of our web site for related plating standards and specifications.

(3) When applied to stainless steel base metal a nickel strike is used under the zinc for improved adhesion

(4) HRB - Hardness Rockwell "B" Scale. HB - Hardness Brinell.

SELF-CLINCHING TY-D® CABLE TIE-MOUNTS

INSTALLATION

1. Punch a properly sized rectangular mounting hole in the sheet. Do not perform any secondary operations such as deburring.
2. Place the fastener through the mounting hole (preferably the punch side) and into the anvil.
3. With the installation punch and anvil surfaces parallel, apply a squeezing force until the bottom of the fastener becomes flush with the sheet.

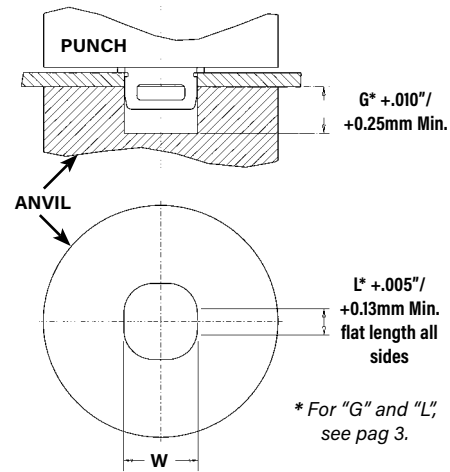
Installation Tooling

All dimensions are in inches.

UNIFIED	Part Number	HAEGER® Part No.		PEMSERTER® Part No.		W ±.001
		Anvil	Punch	Anvil	Punch	
	TDS-40-4	14-01827-L	H-108-0020L	8006136	8003076	.251
	TDS-60-6	14-01828-L	H-108-0020L	8006137	8003076	.313
	TDS-175-12	14-01829-L	H-108-0020L	8006138	8003076	.501

All dimensions are in millimeters.

METRIC	Part Number	HAEGER® Part No.		PEMSERTER® Part No.		W ±0.03
		Anvil	Punch	Anvil	Punch	
	TDS-40-4	14-01827-L	H-108-0020L	8006136	8003076	6.36
	TDS-60-6	14-01828-L	H-108-0020L	8006137	8003076	7.95
	TDS-175-12	14-01829-L	H-108-0020L	8006138	8003076	12.73



NOTE: The punch must be large enough to cover the entire base of the fastener to ensure proper installation.

INSTALLATION NOTES

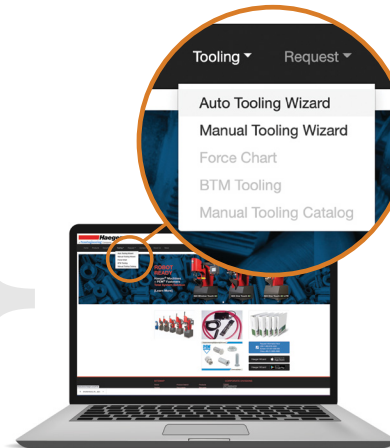
- For best results we recommend using a HAEGER® or PEMSERTER® machine for installation of PEM® self-clinching fasteners. Please e-mail installationmachineinfo@pemnet.com for more information.
- Visit the Animation Library on our website to view the installation process [for this product](#).

For Additional HAEGER® and PEMSERTER® Tooling Information / Part Numbers

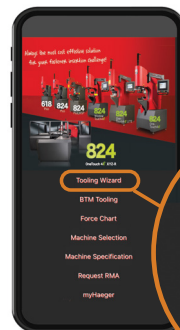


HAEGER® MANUAL TOOLING CATALOG

HAEGER® AUTO TOOLING CATALOG



Go to haeger.com to access the Auto and Manual Tooling Wizards



Or download the HAEGER WIZZARD Phone App

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Tooling Wizard
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PEMSERTER® MANUAL TOOLING CATALOG

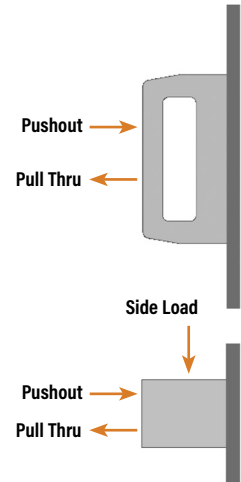
PEMSERTER® AUTO TOOLING CATALOG



PERFORMANCE DATA⁽¹⁾

UNIFIED	Part Number	Test Sheet Material							
		Cold-rolled Steel				5052-H34 Aluminum			
		Installation (lbs.)	Pushout (lbs.)	Pull Thru (lbs.)	Side Load (lbs.)	Installation (lbs.)	Pushout (lbs.)	Pull Thru (lbs.)	Side Load (lbs.)
	TDS-40-4	1800	175	100	90	1000	90	100	90
	TDS-60-6	2500	260	160	100	1500	140	160	100
	TDS-175-12	4000	350	175	140	3000	235	175	140

METRIC	Part Number	Test Sheet Material							
		Cold-rolled Steel				5052-H34 Aluminum			
		Installation (kN)	Pushout (N)	Pull Thru (N)	Side Load (N)	Installation (kN)	Pushout (N)	Pull Thru (N)	Side Load (N)
	TDS-40-4	8	780	445	400	4.5	400	445	400
	TDS-60-6	11	1160	712	445	6.7	620	712	445
	TDS-175-12	17.7	1560	780	620	13.3	1040	780	620



(1) Published installation forces are for general reference. Actual set-up and confirmation of complete installation should be made by observing proper seating of fastener as described in the installation steps. Other performance values reported are averages when all proper installation parameters and procedures are followed. Variations in mounting hole size, sheet material, and installation procedure may affect performance. Performance testing this product in your application is recommended. We will be happy to provide technical assistance and/or samples for this purpose.

All PEM® products meet our stringent quality standards. If you require additional industry or other specific [quality certifications](#), special procedures and/or part numbers are required. Please contact your local sales office or representative for further information.

Regulatory [compliance information](#) is available in Technical Support section of our website. Specifications subject to change without notice. See our website for the most current version of this bulletin.

PennEngineering®



North America: Danboro, Pennsylvania USA ▪ E-mail: info@pemnet.com ▪ Tel: +1-215-766-8853 ▪ 800-237-4736 (USA)

Europe: Galway, Ireland ▪ E-mail: europa@pemnet.com ▪ Tel: +353-91-751714

Asia/Pacific: Singapore ▪ E-mail: singapore@pemnet.com ▪ Tel: +65-6-745-0660

Shanghai, China ▪ E-mail: china@pemnet.com ▪ Tel: +86-21-5868-3688

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