

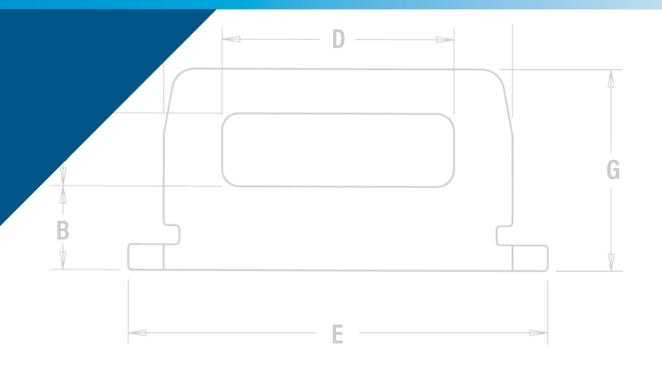
PEM® TY-D® hardware provides secure metal attachment points for mounting wires to electronic chassis.



## **TD**<sup>TM</sup>



# 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.



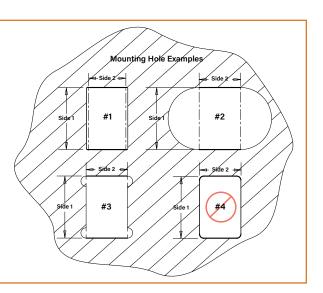


Depending on placement of the fastener within the mounting hole, on the reverse side of the sheet, a slight gap may be noticeable along the nonclinching edges of the fastener after installation. If gap is not acceptable in your application, check with techsupport for a solution.



#### **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.



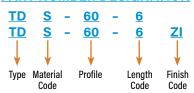
All PEM® products meet our stringent quality standards. If you require additional industry or other specific <u>quality certifications</u>, special procedures and/or part numbers are required. Please contact your local sales office or representative for further information.

Regulatory <u>compliance information</u> 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.

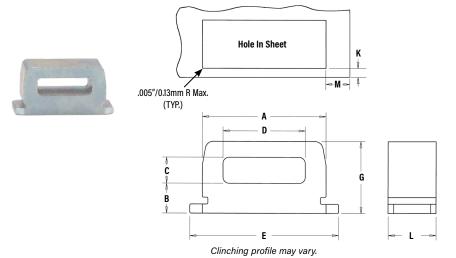


### TDS™ CABLE TIE-MOUNTS

### **PART NUMBER DESIGNATION**







#### All dimensions are in inches.

IED	Type Stainless Steel	Profile <sup>(1)</sup>	Length Code	Length L ±.003	Sheet Thickness	Hole Size In Sheet +.002001	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
F	TDS	40	4	.121	.040050	.250 x .125	.246	.055	.065	.160	.308	.150	.040	.147
n	TDS	60	6	.184	.040070	.312 x .187	.308	.075	.065	.205	.370	.180	.040	.196
	TDS	175	12	.371	.040125	.500 x .375	.496	.130	.095	.360	.562	.285	.040	.262

#### All dimensions are in millimeters.

110	Type Stainless Steel	Profile <sup>(1)</sup>	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
ETR	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
Σ	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.

#### **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.

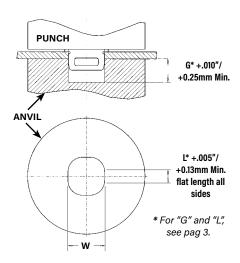
### **Installation Tooling**

All dimensions are in inches.

IED:	Dout	HAEGER®	Part No.	PEMSERTE		
	Part Number	Anvil	Punch	Anvil	Punch	W ±.001
=	TDS-40-4	14-01827-L	H-108-0020L	8006136	8003076	.251
N O	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.

RIC	D	HAEGER®	Part No.	PEMSERTE		
	Part Number	Anvil	Punch	Anvil	Punch	W ±0.03
ΕT	TDS-40-4	14-01827-L	H-108-0020L	8006136	8003076	6.36
Σ	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.

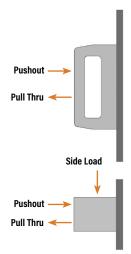
## For Additional HAEGER® and PEMSERTER® Tooling Information / Part Numbers



## PERFORMANCE DATA(1)

		Test Sheet Material									
			Cold-rol	led Steel		5052-H34 Aluminum					
IFIED		Installation (lbs.)	Pushout (lbs.)	Pull Thru (lbs.)	Side Load (lbs.)	Installation (lbs.)	Pushout (lbs.)	Pull Thru (lbs.)	Side Load (lbs.)		
N	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		Test Sheet Material									
			Cold-rol	led Steel		5052-H34 Aluminum					
	Part Number	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.

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