

# SpotFast® Fasteners

*high hardness for proper installation into stainless steel sheets*

**NEW!**  
Available For  
Installation Into  
Stainless Steel

The PEM® SpotFast® self-clinching fastener from PennEngineering creates a permanent, flush joining of two sheets of metal. The fastener installs smooth with the top sheet, and flush or sub-flush with the bottom sheet. Squeezing the fastener into place causes a cold-flow of panel material into the fastener's two separate clinch profiles. This fastener is capable of joining two dissimilar metals, including unequal thicknesses. Rotational by design, the use of a single fastener can also act as a hardened pivot point if so desired.



*Sheets as thin as .005"/0.13mm may be attached to thicker sheets using a PEM® SpotFast™ fastener. The thin sheet must be panel 1 and the "L" dimension must be equal to or less than the combined panel thicknesses. For more information, please contact our Applications Engineering Department.*

*SpotFast fastener used as a single flush-mounted pivot point. Top panel can rotate if desired.*

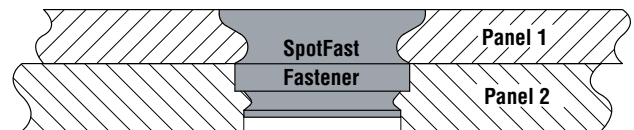


*Patent pending.*

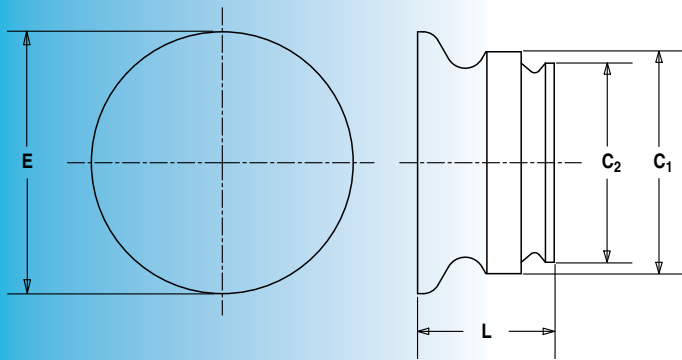


## Features and Benefits

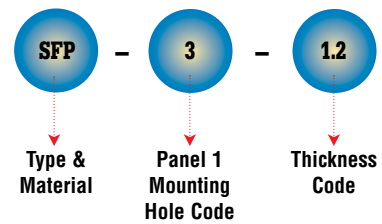
- ▶ Alternative to riveting or welding.
- ▶ No special installation equipment required.
- ▶ Standard parts install into sheets as thin as .039"/1mm.
- ▶ Flush mounted.
- ▶ Minimal space requirements.
- ▶ Can be installed blind into bottom (sheet 2) panel.
- ▶ Can join dissimilar metal (which otherwise can not be welded).
- ▶ Can be concealed with paints and powder coatings.
- ▶ Can be used as single flush-mounted pivot point.
- ▶ RoHS compliant.



*SpotFast fastener installed into unequal thickness sheets.*



### Part Number Designation



Type and Size	Thickness Code	Panel 1 Thickness ±0.08mm / ±.003"		Panel 1 Mounting Hole +0.08mm / +.003" - .000"		Panel 2 Thickness Min. (1)		Panel 2 Mounting Hole +0.08mm / +.003" - .000"		C <sub>1</sub> Max.		C <sub>2</sub> Max.		E Max.		L Max.		Min. Dist Hole C/L To Edge	
		mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.
SFP-3	1.0	1	.039	3	.118	1	.039	2.5	.098	2.98	.117	2.48	.097	3.76	.148	1.9	.075	2.54	0.1
SFP-3	1.2	1.2	.047	3	.118	1.2	.047	2.5	.098	2.98	.117	2.48	.097	3.76	.148	2.31	.091	2.54	0.1
SFP-3	1.6	1.6	.063	3	.118	1.6	.063	2.5	.098	2.98	.117	2.48	.097	3.76	.148	3.12	.123	2.54	0.1
SFP-5	1.0	1	.039	5	.197	1	.039	4.5	.177	4.98	.196	4.47	.176	5.56	.219	1.9	.075	3.56	0.14
SFP-5	1.2	1.2	.047	5	.197	1.2	.047	4.5	.177	4.98	.196	4.47	.176	5.56	.219	2.31	.091	3.56	0.14
SFP-5	1.6	1.6	.063	5	.197	1.6	.063	4.5	.177	4.98	.196	4.47	.176	5.56	.219	3.12	.123	3.56	0.14

(1) Fastener will provide flush application at minimum sheet thickness.

### Performance Data<sup>(2)</sup>

Type and Size	Thickness Code	Stainless Steel			
		Installation		Pushout	
		kN	lbs.	N	lbs.
SFP-3	1.0	13.5	3000	620	140
SFP-3	1.2	20	4500	830	186
SFP-3	1.6	22	5000	1500	340
SFP-5	1.0	18	4000	990	222
SFP-5	1.2	27	6000	1158	260
SFP-5	1.6	33	7500	3117	701

(2) Installation and pushout values reported are averages when all installation specifications and procedures are followed. Variations in mounting hole size, sheet material, and installation procedure will affect this data. Performance testing of this product in your application is recommended. We will be happy to provide samples for this purpose or perform the installation for you.

### Material & Finish Specifications

**Fastener Material:** Precipitation Hardening Grade Stainless Steel

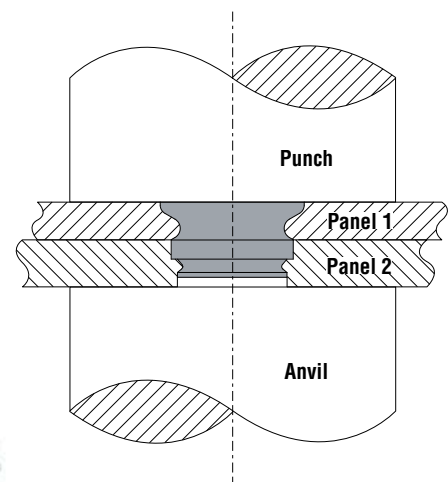
**Finish:** Passivated and/or tested per ASTM A380

**For Use In Sheet Hardness:** HRB 88 / HB 183 or less<sup>(3)</sup>

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

### Installation

1. Punch or drill properly sized mounting hole in both panels. Do not perform any secondary operations such as deburring.
2. Place Panel 2 with smaller mounting hole on anvil and align Panel 1 mounting hole with the mounting hole of Panel 2. Place the smaller diameter end of the fastener through the mounting holes as shown in the drawing.
3. With the punch and anvil surfaces parallel, apply squeezing force until the fastener is flush with the top of Panel 1.



SpotFast fasteners shown actual size.

RoHS compliance information can be found on our web site.

Specifications subject to change without notice.

**PennEngineering®**

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