

PEM[®] Type SGPC[™] Swaging Collar Studs

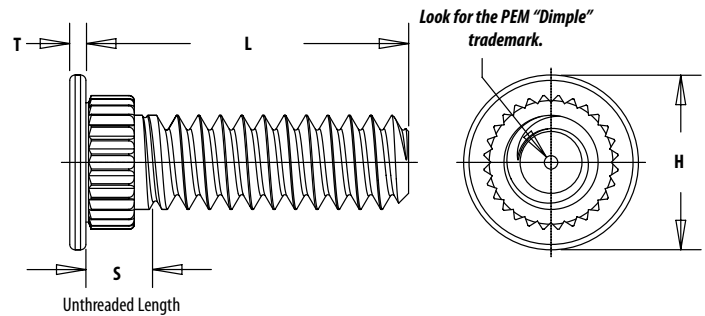


PEM Type SGPC swaging collar studs can install into most panel material, provide strong torque-out resistance and are suitable for close centerline-to-edge situations. These studs can also accommodate multiple panels as long as the total thickness does not exceed the maximum sheet thickness.*



Features and Benefits

- Installs into sheets as thin as 0.6 mm.
- Can be installed into dissimilar materials.
- Can be installed into most panel materials, including stainless steel.
- Allows for close centerline-to-edge distance.
- Corrosion resistant.
- RoHS compliant.



All dimensions are in millimeters.

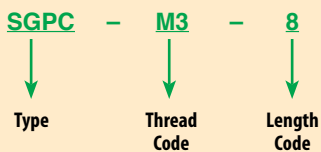
| METRIC | Thread Size x Pitch | Type | Thread Code | Length Code "L" ±0.4 (Length Code in millimeters) | | | | | | | | Sheet Thickness (1) | Hole Size in Sheet +0.08 | Hole Dia. of Attached Panel +0.13 | H ±0.25 | S Max. (2) | T ±0.1 | Min. Dist. Hole \varnothing to Edge | |
|--------|---------------------|--------------------------------------|-------------|--|----|----|----|----|----|----|----|---------------------|--------------------------|-----------------------------------|---------|------------|--------|---------------------------------------|-----|
| | | Fastener Material Stainless Steel | | 8 | 10 | 12 | 15 | 18 | 20 | 25 | 30 | | | | | | | | 35 |
| | M2.5 x 0.45 | SGPC | M2.5 | 8 | 10 | 12 | 15 | 18 | NA | NA | NA | NA | 0.6 - 1.2 | 4 | 4.95 | 5 | 2.7 | 0.5 | 3.9 |
| | M3 x 0.5 | SGPC | M3 | 8 | 10 | 12 | 15 | 18 | 20 | 25 | NA | NA | 0.6 - 1.2 | 4.5 | 5.45 | 6 | 2.8 | 0.6 | 4.3 |
| | M4 x 0.7 | SGPC | M4 | 8 | 10 | 12 | 15 | 18 | 20 | 25 | 30 | NA | 0.6 - 1.2 | 5.5 | 6.3 | 7 | 3.2 | 0.6 | 4.9 |
| | M5 x 0.8 | SGPC | M5 | 8 | 10 | 12 | 15 | 18 | 20 | 25 | 30 | 35 | 0.6 - 1.2 | 6.5 | 7.45 | 8 | 3.5 | 0.6 | 5.5 |
| | M6 x 1 | SGPC | M6 | NA | 10 | 12 | 15 | 18 | 20 | 25 | 30 | 35 | 0.6 - 1.2 | 7.5 | 8.3 | 9 | 3.9 | 0.7 | 6.2 |

(1) See installation data for tooling requirements. Contact Technical Support (techsupport@pemnet.com) for other thicknesses.

(2) Threads are gageable to within 2 pitches on the "S" Max. dimension. A class 3B/5H maximum material commercial nut shall pass up to the "S" Max. dimension. NA Not Available.

* When using the fastener to attach more than one sheet or panel, the stud may seem slightly loose after installation. This is a normal condition in some applications and will not effect the stud's performance.

Part Number Designation



Material and Finish Specifications

Fastener Material: 300 series stainless steel
Finish: Passivated and/or tested per ASTM A380
For Use In Any Sheet Hardness.



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Performance Data⁽¹⁾

| METRIC | Thread Code | Max. Rec. Tightening Torque For Mating Nut (N·m) | Test Sheet Material | | | |
|--------|-------------|--|---|-------------|------------------|---------------|
| | | | Single sheet of 1 mm 300 Series Stainless Steel | | | |
| | | | Installation (kN) | Pushout (N) | Torque-out (N·m) | Pull-thru (N) |
| M2.5 | 0.41 | 20.1 | 2546 | 0.86 | 2561 | |
| M3 | 0.74 | 21.8 | 2051 | 1.35 | 2851 | |
| M4 | 1.7 | 28.5 | 2396 | 2.66 | 4000 | |
| M5 | 3.5 | 35.6 | 3200 | 5.96 | 4284 | |
| M6 | 5.9 | 42.3 | 3262 | 9.19 | 6311 | |

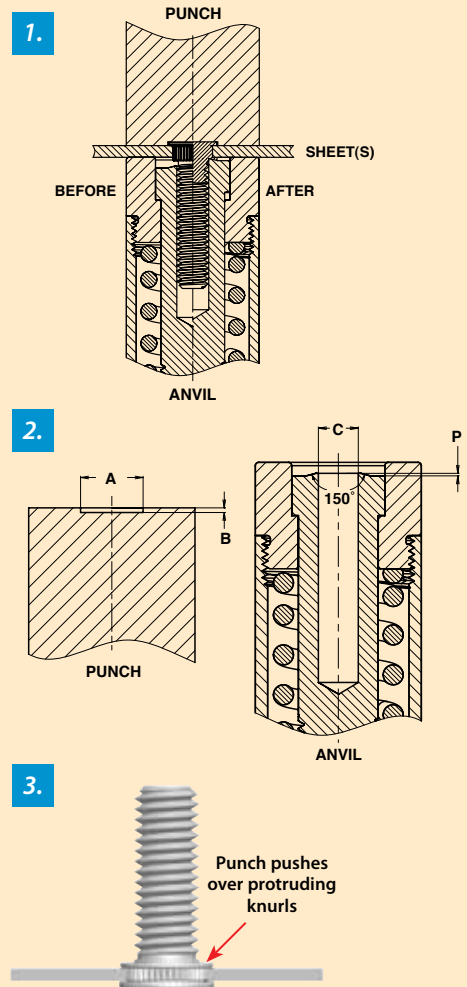
(1) The values reported are averages when all installation specifications and procedures are followed. Variations in mounting hole size, sheet material and installation procedure will affect this data. Performance testing of this product in your application is recommended. We will be happy to provide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

Installation

1. Prepare properly sized mounting hole in sheet.
2. Insert fastener through mounting hole as shown in drawing.
3. With punch and anvil surfaces parallel, apply squeezing force until the punch pushes over the protruding knurls of the stud.

| METRIC | Thread Code | Punch Dimensions (mm) | | Punch Part Number | Anvil Dimensions (mm) | | Anvil Part Number |
|--------|-------------|-----------------------|---------|-------------------|-----------------------|---------|-------------------|
| | | A | B | | C | P | |
| | | +0.1 | -0.025 | | +0.025 | -0.05 | |
| M2.5 | 5.5 | 0.47 | 8015117 | 2.53 | 0.35 | 8016989 | |
| M3 | 6.5 | 0.57 | 8015118 | 3.03 | 0.35 | 8016990 | |
| M4 | 7.5 | 0.57 | 8015119 | 4.03 | 0.35 | 8016991 | |
| M5 | 8.5 | 0.57 | 8015120 | 5.03 | 0.35 | 8016992 | |
| M6 | 9.5 | 0.67 | 8015121 | 6.03 | 0.35 | 8016993 | |

NOTE: For panel design information, go to http://www.pemnet.com/SGPC_Panel_Designs.pdf



RoHS compliance information can be found on our website.
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Specifications subject to change without notice.
See our website for the most current version of this bulletin.

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