



Self-Clinching Guide Pin

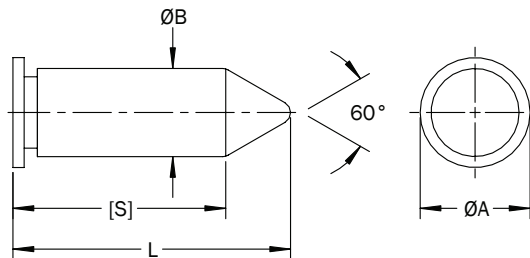
FEATURES

- Precisely locates stacked and/or mating panels and chasses.
- Self-clinching design provides permanent installation in panels 1.02mm thick.
- Wide range of pin diameters and lengths accommodates most alignment requirements. Custom sizes available by request.
- Choice of RoHS compliant materials and finishes.



PART DESCRIPTION EXAMPLE

GPST — M3 — 12 — Z
 T T T T
 Material Pin Length Finish
 Code Size Code Code



GENERAL

| Pin Size | Sheet | | | ØA Nom. | | ØB +0.00 -0.08 |
|----------|-------------------|-----------------------------|--|--------------|------|----------------------|
| | Minimum Thickness | Hole Size +0.08 -0.00 | Minimum Distance Hole Center To Edge | GPST GPSS | GPS4 | |
| M3 | 1.02 | 3.02 | 5.59 | 3.97 | 3.97 | 3.00 |
| M4 | 1.02 | 4.01 | 6.35 | 4.76 | 5.00 | 3.99 |
| M5 | 1.02 | 5.00 | 7.11 | 6.35 | 6.35 | 4.98 |
| M6 | 1.02 | 5.99 | 7.87 | 7.14 | 7.14 | 5.97 |

All dimensions in millimeters

Pencom offers a large variety of guide pins. Consult the Pencom website or contact an account representative to learn how Pencom can meet your alignment and fastening needs.



LENGTH

| Pin Size | (L) Length Code +0.00/-0.25 | | | | | | |
|----------|-----------------------------|------|------|-------|-------|-------|-------|
| | 6 | 8 | 10 | 12 | 15 | 20 | 25 |
| | S Ref. | | | | | | |
| M3 | 4.15 | 6.15 | 8.15 | 10.15 | 13.15 | 18.15 | 23.15 |
| M4 | 3.30 | 5.30 | 7.30 | 9.30 | 12.30 | 17.30 | 22.30 |
| M5 | 2.40 | 4.40 | 6.40 | 8.40 | 11.40 | 16.40 | 21.40 |
| M6 | — | 3.55 | 5.55 | 7.55 | 10.55 | 15.55 | 20.55 |

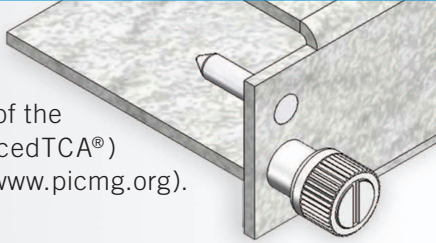
All dimensions in millimeters

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MATERIAL & FINISH

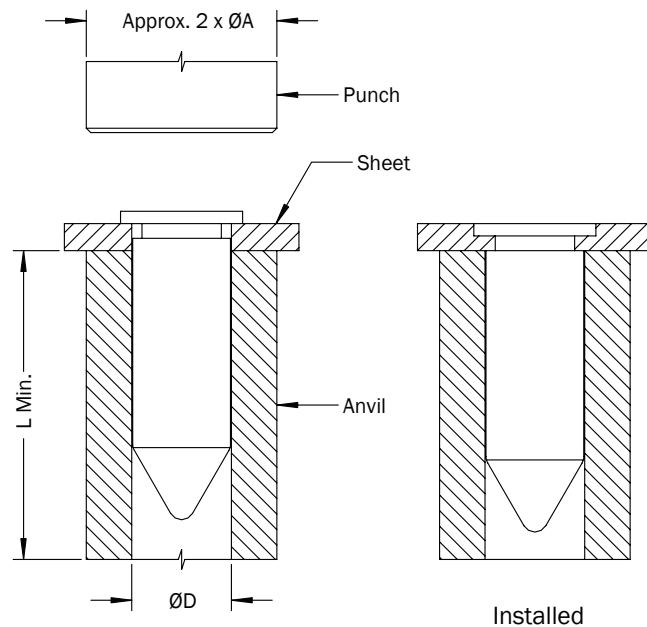
| Material Code | Material Description | Finish Code | Finish Description | For Use in Sheet Hardness | |
|---------------|------------------------------|-------------|--|---------------------------|-------------|
| | | | | HRB 60 Max. | HRB 80 Max. |
| ST | Heat-treated Carbon Steel | Z | Zinc (SC1) with Type III Clear Chromate per ASTM B 633 | • | |
| SS | 300-Series Stainless Steel | P | Passivate and/or test per ASTM A 967 | • | |
| S4 | Heat-treated Stainless Steel | P | Passivate and/or test per ASTM A 967 | | • |

When used in conjunction with Pencom captive screws, 3mm GP Guide Pins satisfy the requirements of PICMG 3.0 of the Advanced Telecom Computing Architecture (AdvancedTCA®) specifications for telecommunications rack equipment (www.picmg.org).



INSTALLATION

1. Punch or drill hole in sheet. Do not deburr edges.
2. Insert guide pin through hole in sheet and into the anvil, as shown.
3. Squeeze the sheet and guide pin head between parallel punch and anvil surfaces. Use only enough pressure to seat the guide pin head flush with the sheet.



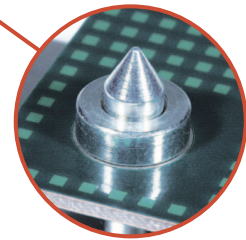
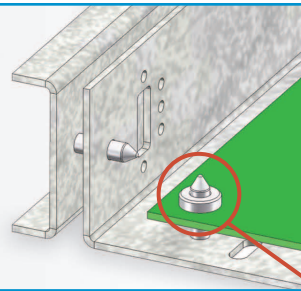
ANVIL DIMENSIONS

| Pin Size | ØD |
|----------|-----------|
| M3 | 3.13/3.05 |
| M4 | 4.12/4.04 |
| M5 | 5.11/5.03 |
| M6 | 6.10/6.02 |

All dimensions in millimeters

GP Self-Clinching Guide Pin

Guide pins can be used anywhere alignment between mating components is critical. All of Pencom's guide pins will mate with a punched or drilled hole. Greater performance can be achieved by using Pencom's GR Guide Pin Receptacle Nuts. Request flier PF-GR GUIDE PIN NUT or visit Pencom's website to create a complete alignment solution.



PERFORMANCE

| Pin | | 1.02mm Test Sheet Material | | | | | |
|------|---------------|----------------------------|--------------|--------------------------|--------------|----------------------------|--------------|
| Size | Material Code | 5052-H32 Aluminum | | 1008 Carbon Steel HRB 60 | | 304 Stainless Steel HRB 80 | |
| | | Installation (kN) | Push-out (N) | Installation (kN) | Push-out (N) | Installation (kN) | Push-out (N) |
| M3 | ST | 3.9-4.7 | 580 | 7.0-8.6 | 1230 | (2) | (2) |
| | SS | | | | | (2) | (2) |
| | S4 | | | | | 15.4-18.8 | 1870 |
| M4 | ST | 3.9-4.7 | 670 | 7.0-8.6 | 1230 | (2) | (2) |
| | SS | | | | | (2) | (2) |
| | S4 | | | | | 18.8-23.0 | 1870 |
| M5 | ST | 7.3-9.0 | 760 | 14.2-17.4 | 1480 | (2) | (2) |
| | SS | | | | | (2) | (2) |
| | S4 | | | | | 27.3-33.4 | 2190 |
| M6 | ST | 7.3-9.0 | 860 | 14.2-17.4 | 1480 | (2) | (2) |
| | SS | | | | | (2) | (2) |
| | S4 | | | | | 29.6-36.1 | 2190 |

- (1) Performance data represents the average destructive result when all installation specifications are strictly followed. Variations in panel hole size, thickness, material and installation methods will affect the loads. Values may not be consistent with loading in an assembly. Pencom strongly encourages testing in the application.
- (2) Not recommended.

This information may be updated periodically. Contact Pencom for current information or see www.pencomsf.com