

Camloc . Deltron . Deutsch . Huck . K-Fast . Kaynar . Microdot . RAM . Rosan . Screwcorp . Tridair . Voi-Shan

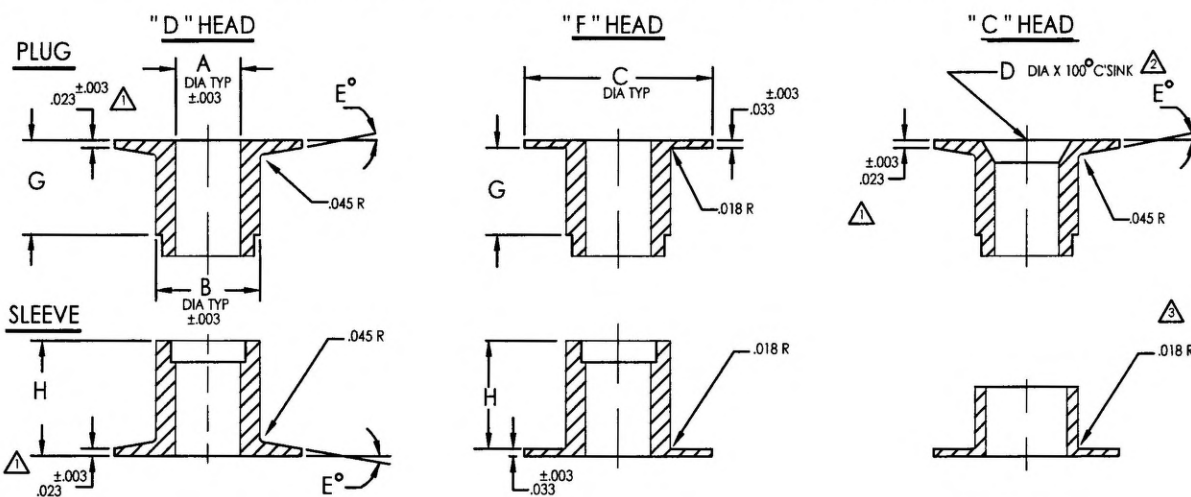


TABLE I

| SIZE | A DIA HOLE | B BODY DIA. | C HEAD DIA. | D C'SINK DIA. | E° HEAD ANGLE |
|------|---------------|----------------|----------------|------------------|------------------|
| 12 | .136 | .278 | .500 | .233 | 13° |
| 15 | .169 | .278 | .500 | .295 | 13° |
| 18 | .194 | .309 | .625 | .362 | 13° |
| 25 | .257 | .372 | .750 | .486 | 14° |
| 28 | .290 | .403 | .812 | .501 | 14° |
| 31 | .318 | .466 | .875 | .574 | 14° |

NOTES: (UNLESS OTHERWISE SPECIFIED)

- 1 HEAD THICKNESS = .033 FOR 31 SIZE.
- 2 "C" STYLE HEAD AVAILABLE IN PLUGS ONLY.
- 3 THRU HOLE ONLY (NO C' BORE) FOR -.03 THRU -.04 LENGTH SLEEVES FOR 25 AND 28 SIZES ONLY.
- 4 SLEEVE AND PLUG FORM A TELESCOPIC PRESS FIT.
- 5 HEAD STYLES MAY BE COMBINED BETWEEN PLUGS AND SLEEVES WITHIN THE SAME SIZE.
- 6 AVAILABLE IN LONGER LENGTHS USING FACTORY INSTALLED SLEEVE EXTENSIONS.
- 7 CONSULT ARCONIC ENGINEERING DEPARTMENT FOR AVAILABILITY OF OPTIONAL MATERIALS, FINISHES AND SIZES.
- 8. PART NUMBER CALLOUT EXAMPLE:

S 1 0 1 F 1 5 - 0 8
P 1 0 1 C 1 5 - 1

ADD SUFFIX "NF" TO PART NUMBER IF NO FINISH IS REQUIRED.
LENGTH DASH NUMBER (SEE SHEET 2).
OPTIONAL FINISH: AL = ALODINE PER MIL-DTL-5541
AA = IRIDITE PER MIL-DTL-5541
SIZE: SEE TABLE I
HEAD STYLE: C = FLUSH HEAD, C' SINK HOLE
D = FLUSH HEAD
F = NON-FLUSH HEAD

TYPE: THRU - RIVET

MATERIAL: 0 = 2024-T4 OR T351 ALUMINUM ALLOY PER AMS-QQ-A-225/6, ANODIZE PER MIL-A-8625, TYPE 1, CLASS OPTIONAL.
5 = A286 CRES PER AMS5737, PASSIVATE PER AMS2700
6 = CRES STEEL PER ASTM-A-581/ ASTM-A-582, AMS5640, PASSIVATE PER AMS2700.
9 = CARBON STEEL PER ASTM-A-108 OR MATERIAL COMPOSITION PER AIR4127, CADMIUM PLATE PER AMS-QQ-P-416 TYPE II, CLASS 2.

SERIES 100: GROMMET TYPE PANEL INSERT

PART TYPE: P = PLUG
S = SLEEVE

MANUFACTURE OF THE PROPRIETARY PARTS SHOWN HERE WITHOUT WRITTEN CONSENT OF ALCOA FASTENING SYSTEMS IS ABSOLUTELY PROHIBITED.

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| | | | |
|-------------------------------------|--|---|--|
| APPROVED DATE 07/21/1977 | CURRENT DESIGN ACTIVITY: ARCONIC Fastening Systems | TITLE: INSERT GROMMET TYPE THRU - RIVET | CURRENT DESIGN ACTIVITY: CAGE CODE: 83324 |
| REV. LETTER AND DATE F 5/27/2019 | Rosan Products 3018 W. Lamita Blvd. Torrance, California 90505-5103 | UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES & ASME Y14.5M TOLERANCES: | SALES DRAWING NO. |
| DAF NUMBER 117757 | | ANGLES DECIMALS = ±5° XX = ±.02 XXX = ±.010 | 101 SERIES SHEET 1 OF 3 |

Camloc . Delron . Deutsch . Huck . K-Fast . Kaynar . Microdot . RAM . Rosan . Screwcorp . Tridair . Vol-Shan

LENGTH TABULATION

12, 15 & 18 SIZES

| SLEEVE DASH No. | PLUG DASH No. | | -X | -0 | -01 | -1 | -11 | -2 | -21 | -3 | -31 |
|-----------------|---------------|------|-------|-------|-------|-------|-------|-------|-------|-------|------|
| | H | G | .085 | .085 | .100 | .116 | .131 | .147 | .162 | .179 | .194 |
| -03 | .103 | .188 | | | | | | | | | |
| -04 | .165 | | .250 | .265 | .281 | .296 | .312 | .327 | .344 | .359 | |
| -06 | .290 | | .375 | .390 | .406 | .421 | .437 | .452 | .469 | .485 | |
| -08 | .415 | | .500 | .515 | .531 | .546 | .562 | .577 | .594 | .609 | |
| -10 | .540 | | .625 | .640 | .656 | .671 | .687 | .702 | .719 | .734 | |
| -12 | .665 | | .750 | .765 | .781 | .796 | .812 | .827 | .844 | .859 | |
| -14 | .790 | | .875 | .890 | .906 | .921 | .937 | .952 | .969 | .984 | |
| -16 | .915 | | 1.000 | 1.015 | 1.031 | 1.046 | 1.062 | 1.077 | 1.094 | 1.109 | |
| -18 | 1.040 | | 1.125 | 1.140 | 1.156 | 1.171 | 1.187 | 1.202 | 1.219 | 1.234 | |

25 & 28 SIZES

| SLEEVE DASH No. | PLUG DASH No. | | -X | -0 | -01 | -1 | -11 | -2 | -21 | -3 | -31 |
|-----------------|---------------|------|-------|-------|-------|-------|-------|-------|-------|-------|------|
| | H | G | .120 | .120 | .135 | .151 | .167 | .183 | .198 | .214 | .230 |
| -03 | .067 | .187 | | | | | | | | | |
| -04 | .130 | | .250 | .265 | .281 | .297 | .313 | .328 | .344 | .360 | |
| -06 | .255 | | .375 | .390 | .406 | .422 | .438 | .453 | .469 | .485 | |
| -08 | .380 | | .500 | .515 | .531 | .547 | .563 | .578 | .594 | .610 | |
| -10 | .505 | | .625 | .640 | .656 | .672 | .688 | .703 | .719 | .735 | |
| -12 | .630 | | .750 | .765 | .781 | .797 | .813 | .828 | .844 | .860 | |
| -14 | .755 | | .875 | .890 | .906 | .922 | .938 | .953 | .969 | .985 | |
| -16 | .880 | | 1.000 | 1.015 | 1.031 | 1.047 | 1.063 | 1.078 | 1.094 | 1.110 | |
| -18 | 1.005 | | 1.125 | 1.140 | 1.156 | 1.172 | 1.188 | 1.203 | 1.219 | 1.235 | |

31 SIZE

| SLEEVE DASH No. | PLUG DASH No. | | -0 | -01 | -1 | -11 | -2 | -21 | -3 | -31 |
|-----------------|---------------|---|-------|-------|-------|-------|-------|-------|-------|-------|
| | H | G | | .190 | .206 | .221 | .237 | .252 | .268 | .283 |
| -06 | .185 | | .375 | .391 | .406 | .422 | .437 | .453 | .468 | .484 |
| -08 | .310 | | .500 | .516 | .531 | .547 | .562 | .578 | .593 | .609 |
| -10 | .435 | | .625 | .640 | .656 | .672 | .687 | .703 | .718 | .734 |
| -12 | .560 | | .750 | .766 | .781 | .797 | .812 | .828 | .843 | .859 |
| -14 | .685 | | .875 | .891 | .906 | .922 | .937 | .953 | .968 | .984 |
| -16 | .810 | | 1.000 | 1.016 | 1.031 | 1.047 | 1.062 | 1.078 | 1.093 | 1.109 |
| -18 | .935 | | 1.125 | 1.141 | 1.156 | 1.172 | 1.187 | 1.203 | 1.218 | 1.234 |

EXAMPLES:

1. REQUIREMENTS : #15 SIZE THRU -RIVET , ALUMINUM ALLOY, NON-FLUSH HEAD FOR A .375 OVERALL PANEL .
FROM TABLE SELECT :
-0 PLUG = P101F15-0
-06 SLEEVE = S101F15-06

2. REQUIREMENTS : #15 SIZE C'SINK HOLE ,CRES STEEL , FLUSH HEAD FOR A .400 OVERALL PANEL .
FROM TABLE SELECT :
-01 PLUG = P161C15-01
-06 SLEEVE = S161D15-06



PANEL THICKNESS

SELECT SLEEVE AND PLUG DASH NUMBERS BY DETERMINING THE THICKNESS CLOSEST TO BUT NOT GREATER THAN PANEL TO BE USED



INDICATES NOT AVAILABLE

MANUFACTURE OF THE PROPRIETARY PARTS SHOWN HERE WITHOUT WRITTEN CONSENT OF ALCOA FASTENING SYSTEMS IS ABSOLUTELY PROHIBITED.

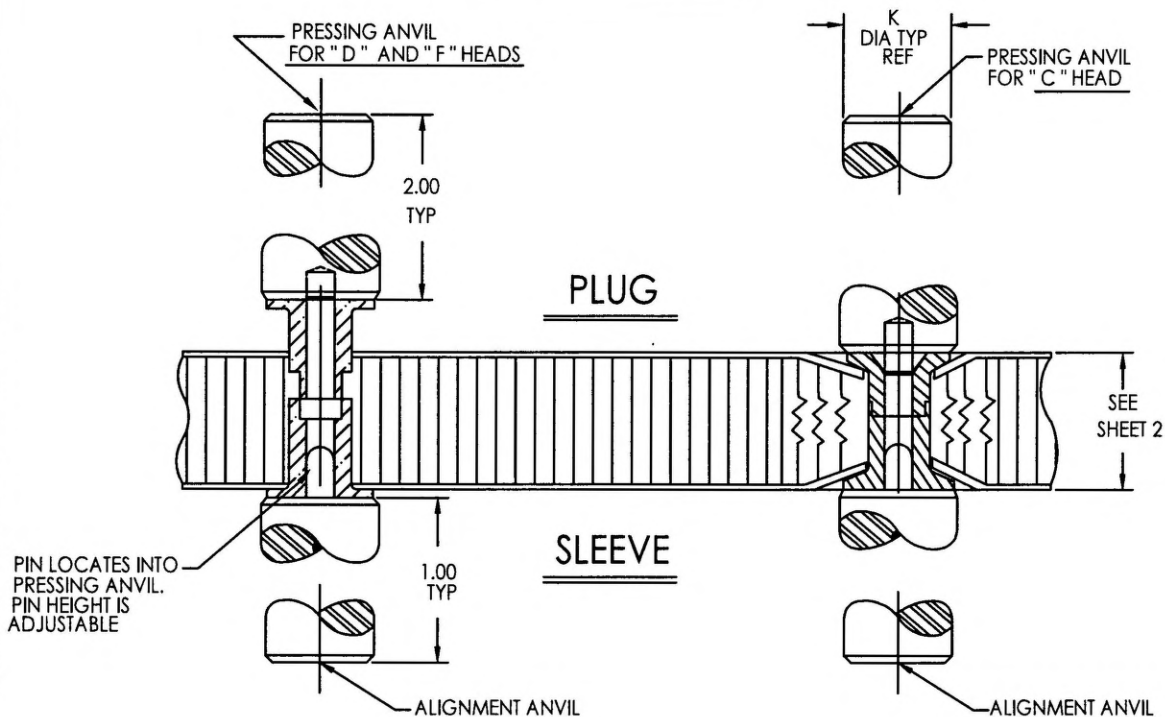
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|-------------------------------------|--|---|--|
| APPROVED DATE 07/21/1977 | CURRENT DESIGN ACTIVITY: ARCONIC Fastening Systems | TITLE: INSERT GROMMET TYPE THRU-RIVET | CURRENT DESIGN ACTIVITY: CAGE CODE: B3324 |
| REV. LETTER AND DATE F 5/27/2019 | | | SALES DRAWING NO. |
| DAF NUMBER 117757 | Rosan Products 3018 W. Lomita Blvd. Torrance, California 90505-5103 | UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES & ASME Y14.3M TOLERANCES: | 101 SERIES SHEET 2 OF 3 |

ANGLES = ±5'
DECIMALS .XX = ±.02
.XXX = ±.010

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INSTALLATION



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| SIZE | INSTALLATION HOLE DIAMETER | FOR "D" AND "F" HEAD STYLES | | | | FOR "C" HEAD STYLE | | | K DIA TYP REF |
|------|----------------------------|-----------------------------|------------|----------|-------------|--------------------|----------|-----|---------------|
| | | TOOL KIT No | ANVIL TYPE | | TOOL KIT No | ANVIL TYPE | | | |
| | | | PRESSING | ALIGNING | | PRESSING | ALIGNING | | |
| 12 | .290 | 1612 | 1612-1 | 1612-2 | 1615-1 | 1615-1-1 | 1612-2 | .50 | |
| 15 | .290 | 1614-2 | 1614-2-1 | 1614-2-2 | 1615-2 | 1615-2-1 | 1614-2-2 | .56 | |
| 18 | .323 | 1614-3 | 1614-3-1 | 1614-3-2 | 1615-3 | 1615-3-1 | 1614-3-2 | .62 | |
| 25 | .390 | 1614-4 | 1614-4-1 | 1614-4-2 | 1615-4 | 1615-4-1 | 1614-4-2 | .75 | |
| 28 | .421 | 1674 | 1674-1 | 1674-2 | 1676 | 1676-1 | 1674-2 | .81 | |
| 31 | .484 | 1614-5 | 1614-5-1 | 1614-5-2 | 1615-5 | 1615-5-1 | 1614-5-2 | .87 | |

INSTALLATION NOTES:

1. INSTALLATION PRESSURE IS A VARIABLE DEPENDING UPON TYPE OF PANEL BEING USED.
2. ANVILS ARE LOW CARBON STEEL WITH A COMMERCIAL CORROSION INHIBITING COATING.

| | | | |
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|--|--|---|--|

ANGLES = ±3°
 DECIMALS .XX = ±.02
 .XXX = ±.010