

# SPACERS

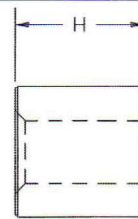
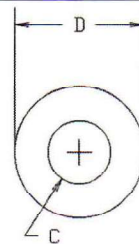
## ROUND, THRU HOLE

**5XX-9XXX-02 BRASS PER ASTM B16**

**6XXA-9XXX-XX ALUMINUM PER ASTM B211**

BASIC PART NO.

FINISH



| H     | D    | C    | CLEAR HOLE | BRASS    | ALUMINUM  | H     | D    | C    | CLEAR HOLE | BRASS    | ALUMINUM  |
|-------|------|------|------------|----------|-----------|-------|------|------|------------|----------|-----------|
| .125  | .188 | .094 | #2         | 507-9202 | 607A-9202 | .125  | .250 | .171 | #8         | 502-9802 | 602A-9802 |
| .188  | .188 | .094 | #2         | 507-9203 | 607A-9203 | .188  | .250 | .171 | #8         | 502-9803 | 602A-9803 |
| .250  | .188 | .094 | #2         | 507-9204 | 607A-9204 | .250  | .250 | .171 | #8         | 502-9804 | 602A-9804 |
| .312  | .188 | .094 | #2         | 507-9205 | 607A-9205 | .312  | .250 | .171 | #8         | 502-9805 | 602A-9805 |
| .375  | .188 | .094 | #2         | 507-9206 | 607A-9206 | .375  | .250 | .171 | #8         | 502-9806 | 602A-9806 |
| .437  | .188 | .094 | #2         | 507-9207 | 607A-9207 | .437  | .250 | .171 | #8         | 502-9807 | 602A-9807 |
| .500  | .188 | .094 | #2         | 507-9208 | 607A-9208 | .500  | .250 | .171 | #8         | 502-9808 | 602A-9808 |
| .562  | .188 | .094 | #2         | 507-9209 | 607A-9209 | .562  | .250 | .171 | #8         | 502-9809 | 602A-9809 |
| .625  | .188 | .094 | #2         | 507-9210 | 607A-9210 | .625  | .250 | .171 | #8         | 502-9810 | 602A-9810 |
| .687  | .188 | .094 | #2         | 507-9211 | 607A-9211 | .687  | .250 | .171 | #8         | 502-9811 | 602A-9811 |
| .750  | .188 | .094 | #2         | 507-9212 | 607A-9212 | .750  | .250 | .171 | #8         | 502-9812 | 602A-9812 |
| .812  | .188 | .094 | #2         | 507-9213 | 607A-9213 | .812  | .250 | .171 | #8         | 502-9813 | 602A-9813 |
| .875  | .188 | .094 | #2         | 507-9214 | 607A-9214 | .875  | .250 | .171 | #8         | 502-9814 | 602A-9814 |
| .937  | .188 | .094 | #2         | 507-9215 | 607A-9215 | .937  | .250 | .171 | #8         | 502-9815 | 602A-9815 |
| 1.000 | .188 | .094 | #2         | 507-9216 | 607A-9216 | 1.000 | .250 | .171 | #8         | 502-9816 | 602A-9816 |
|       |      |      |            |          |           | 1.500 | .250 | .171 | #8         | 502-9824 | 602A-9824 |
|       |      |      |            |          |           | 2.000 | .250 | .171 | #8         | 502-9832 | 602A-9832 |
| .125  | .188 | .120 | #4         | 507-9402 | 607A-9402 | .125  | .312 | .140 | #6         | 505-9602 | 605A-9602 |
| .188  | .188 | .120 | #4         | 507-9403 | 607A-9403 | .188  | .312 | .140 | #6         | 505-9603 | 605A-9603 |
| .250  | .188 | .120 | #4         | 507-9404 | 607A-9404 | .250  | .312 | .140 | #6         | 505-9604 | 605A-9604 |
| .312  | .188 | .120 | #4         | 507-9405 | 607A-9405 | .312  | .312 | .140 | #6         | 505-9605 | 605A-9605 |
| .375  | .188 | .120 | #4         | 507-9406 | 607A-9406 | .375  | .312 | .140 | #6         | 505-9606 | 605A-9606 |
| .437  | .188 | .120 | #4         | 507-9407 | 607A-9407 | .437  | .312 | .140 | #6         | 505-9607 | 605A-9607 |
| .500  | .188 | .120 | #4         | 507-9408 | 607A-9408 | .500  | .312 | .140 | #6         | 505-9608 | 605A-9608 |
| .562  | .188 | .120 | #4         | 507-9409 | 607A-9409 | .562  | .312 | .140 | #6         | 505-9609 | 605A-9609 |
| .625  | .188 | .120 | #4         | 507-9410 | 607A-9410 | .625  | .312 | .140 | #6         | 505-9610 | 605A-9610 |
| .687  | .188 | .120 | #4         | 507-9411 | 607A-9411 | .687  | .312 | .140 | #6         | 505-9611 | 605A-9611 |
| .750  | .188 | .120 | #4         | 507-9412 | 607A-9412 | .750  | .312 | .140 | #6         | 505-9612 | 605A-9612 |
| .812  | .188 | .120 | #4         | 507-9413 | 607A-9413 | .812  | .312 | .140 | #6         | 505-9613 | 605A-9613 |
| .875  | .188 | .120 | #4         | 507-9414 | 607A-9414 | .875  | .312 | .140 | #6         | 505-9614 | 605A-9614 |
| .937  | .188 | .120 | #4         | 507-9415 | 607A-9415 | .937  | .312 | .140 | #6         | 505-9615 | 605A-9615 |
| 1.000 | .188 | .120 | #4         | 507-9416 | 607A-9416 | 1.000 | .312 | .140 | #6         | 505-9616 | 605A-9616 |
| .125  | .250 | .120 | #4         | 502-9402 | 602A-9402 | .125  | .375 | .140 | #6         | 517-9602 | 617A-9602 |
| .188  | .250 | .120 | #4         | 502-9403 | 602A-9403 | .188  | .375 | .140 | #6         | 517-9603 | 617A-9603 |
| .250  | .250 | .120 | #4         | 502-9404 | 602A-9404 | .250  | .375 | .140 | #6         | 517-9604 | 617A-9604 |
| .312  | .250 | .120 | #4         | 502-9405 | 602A-9405 | .312  | .375 | .140 | #6         | 517-9605 | 617A-9605 |
| .375  | .250 | .120 | #4         | 502-9406 | 602A-9406 | .375  | .375 | .140 | #6         | 517-9606 | 617A-9606 |
| .437  | .250 | .120 | #4         | 502-9407 | 602A-9407 | .437  | .375 | .140 | #6         | 517-9607 | 617A-9607 |
| .500  | .250 | .120 | #4         | 502-9408 | 602A-9408 | .500  | .375 | .140 | #6         | 517-9608 | 617A-9608 |
| .562  | .250 | .120 | #4         | 502-9409 | 602A-9409 | .562  | .375 | .140 | #6         | 517-9609 | 617A-9609 |
| .625  | .250 | .120 | #4         | 502-9410 | 602A-9410 | .625  | .375 | .140 | #6         | 517-9610 | 617A-9610 |
| .687  | .250 | .120 | #4         | 502-9411 | 602A-9411 | .687  | .375 | .140 | #6         | 517-9611 | 617A-9611 |
| .750  | .250 | .120 | #4         | 502-9412 | 602A-9412 | .750  | .375 | .140 | #6         | 517-9612 | 617A-9612 |
| .812  | .250 | .120 | #4         | 502-9413 | 602A-9413 | .812  | .375 | .140 | #6         | 517-9613 | 617A-9613 |
| .875  | .250 | .120 | #4         | 502-9414 | 602A-9414 | .875  | .375 | .140 | #6         | 517-9614 | 617A-9614 |
| .937  | .250 | .120 | #4         | 502-9415 | 602A-9415 | .937  | .375 | .140 | #6         | 517-9615 | 617A-9615 |
| 1.000 | .250 | .120 | #4         | 502-9416 | 602A-9416 | 1.000 | .375 | .140 | #6         | 517-9616 | 617A-9616 |
| 1.500 | .250 | .120 | #4         | 502-9424 | 602A-9424 |       |      |      |            |          |           |
| 2.000 | .250 | .120 | #4         | 502-9432 | 602A-9432 |       |      |      |            |          |           |
| .125  | .250 | .140 | #6         | 502-9602 | 602A-9602 | .125  | .375 | .171 | #8         | 517-9802 | 617A-9802 |
| .188  | .250 | .140 | #6         | 502-9603 | 602A-9603 | .188  | .375 | .171 | #8         | 517-9803 | 617A-9803 |
| .250  | .250 | .140 | #6         | 502-9604 | 602A-9604 | .250  | .375 | .171 | #8         | 517-9804 | 617A-9804 |
| .312  | .250 | .140 | #6         | 502-9605 | 602A-9605 | .312  | .375 | .171 | #8         | 517-9805 | 617A-9805 |
| .375  | .250 | .140 | #6         | 502-9606 | 602A-9606 | .375  | .375 | .171 | #8         | 517-9806 | 617A-9806 |
| .437  | .250 | .140 | #6         | 502-9607 | 602A-9607 | .437  | .375 | .171 | #8         | 517-9807 | 617A-9807 |
| .500  | .250 | .140 | #6         | 502-9608 | 602A-9608 | .500  | .375 | .171 | #8         | 517-9808 | 617A-9808 |
| .562  | .250 | .140 | #6         | 502-9609 | 602A-9609 | .562  | .375 | .171 | #8         | 517-9809 | 617A-9809 |
| .625  | .250 | .140 | #6         | 502-9610 | 602A-9610 | .625  | .375 | .171 | #8         | 517-9810 | 617A-9810 |
| .687  | .250 | .140 | #6         | 502-9611 | 602A-9611 | .687  | .375 | .171 | #8         | 517-9811 | 617A-9811 |
| .750  | .250 | .140 | #6         | 502-9612 | 602A-9612 | .750  | .375 | .171 | #8         | 517-9812 | 617A-9812 |
| .812  | .250 | .140 | #6         | 502-9613 | 602A-9613 | .812  | .375 | .171 | #8         | 517-9813 | 617A-9813 |
| .875  | .250 | .140 | #6         | 502-9614 | 602A-9614 | .875  | .375 | .171 | #8         | 517-9814 | 617A-9814 |
| .937  | .250 | .140 | #6         | 502-9615 | 602A-9615 | .937  | .375 | .171 | #8         | 517-9815 | 617A-9815 |
| 1.000 | .250 | .140 | #6         | 502-9616 | 602A-9616 | 1.000 | .375 | .171 | #8         | 517-9816 | 617A-9816 |
| 1.500 | .250 | .140 | #6         | 502-9624 | 602A-9624 |       |      |      |            |          |           |
| 2.000 | .250 | .140 | #6         | 502-9632 | 602A-9632 |       |      |      |            |          |           |

- FOR BRASS PARTS, ADD -02 SUFFIX TO PART NUMBER FOR STANDARD NICKEL FINISH
- FOR ALUMINUM PARTS, ADD -17 SUFFIX TO PART NUMBER FOR STANDARD NON-CHROMATE CLEAR PROTECTIVE COATING OR -16 FOR YELLOW IRRIDITE FINISH.

FOR ADDITIONAL SIZES AND MATERIALS, CONTACT FACTORY





# SPACERS

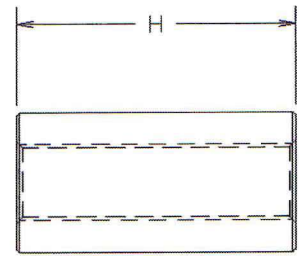
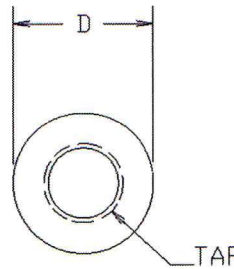
## THREADED , ROUND

**5XX-9XXX-02 BRASS PER ASTM B16**

**6XXA-9XXX-XX ALUMINUM PER ASTM B211**

BASIC PART NO.

FINISH



| H     | D    | TAP  | BRASS    | ALUMINUM  | H     | D    | TAP  | BRASS    | ALUMINUM  |
|-------|------|------|----------|-----------|-------|------|------|----------|-----------|
| .188  | .156 | 2-56 | 538-9203 | 638A-9203 | .125  | .250 | 6-32 | 543-9602 | 643A-9602 |
| .250  | .156 | 2-56 | 538-9204 | 638A-9204 | .188  | .250 | 6-32 | 543-9603 | 643A-9603 |
| .312  | .156 | 2-56 | 538-9205 | 638A-9205 | .250  | .250 | 6-32 | 543-9604 | 643A-9604 |
| .375  | .156 | 2-56 | 538-9206 | 638A-9206 | .312  | .250 | 6-32 | 543-9605 | 643A-9605 |
|       |      |      |          |           | .375  | .250 | 6-32 | 543-9606 | 643A-9606 |
| .125  | .188 | 2-56 | 542-9202 | 642A-9202 | .437  | .250 | 6-32 | 543-9607 | 643A-9607 |
| .188  | .188 | 2-56 | 542-9203 | 642A-9203 | .500  | .250 | 6-32 | 543-9608 | 643A-9608 |
| .250  | .188 | 2-56 | 542-9204 | 642A-9204 | .562  | .250 | 6-32 | 543-9609 | 643A-9609 |
| .312  | .188 | 2-56 | 542-9205 | 642A-9205 | .625  | .250 | 6-32 | 543-9610 | 643A-9610 |
| .375  | .188 | 2-56 | 542-9206 | 642A-9206 | .687  | .250 | 6-32 | 543-9611 | 643A-9611 |
| .437  | .188 | 2-56 | 542-9207 | 642A-9207 | .750  | .250 | 6-32 | 543-9612 | 643A-9612 |
| .500  | .188 | 2-56 | 542-9208 | 642A-9208 | .812  | .250 | 6-32 | 543-9613 | 643A-9613 |
| .562  | .188 | 2-56 | 542-9209 | 642A-9209 | .875  | .250 | 6-32 | 543-9614 | 643A-9614 |
| .625  | .188 | 2-56 | 542-9210 | 642A-9210 | .937  | .250 | 6-32 | 543-9615 | 643A-9615 |
| .687  | .188 | 2-56 | 542-9211 | 642A-9211 | 1.000 | .250 | 6-32 | 543-9616 | 643A-9616 |
| .750  | .188 | 2-56 | 542-9212 | 642A-9212 | 1.250 | .250 | 6-32 | 543-9620 | 643A-9620 |
| .812  | .188 | 2-56 | 542-9213 | 642A-9213 | 1.500 | .250 | 6-32 | 543-9624 | 643A-9624 |
| .875  | .188 | 2-56 | 542-9214 | 642A-9214 | 1.750 | .250 | 6-32 | 543-9628 | 643A-9628 |
| .937  | .188 | 2-56 | 542-9215 | 642A-9215 | 2.000 | .250 | 6-32 | 543-9632 | 643A-9632 |
| 1.000 | .188 | 2-56 | 542-9216 | 642A-9216 | 2.250 | .250 | 6-32 | 543-9636 | 643A-9636 |
|       |      |      |          |           | 2.500 | .250 | 6-32 | 543-9640 | 643A-9640 |
| .125  | .188 | 4-40 | 542-9402 | 642A-9402 | .125  | .250 | 8-32 | 543-9802 | 643A-9802 |
| .188  | .188 | 4-40 | 542-9403 | 642A-9403 | .188  | .250 | 8-32 | 543-9803 | 643A-9803 |
| .250  | .188 | 4-40 | 542-9404 | 642A-9404 | .250  | .250 | 8-32 | 543-9804 | 643A-9804 |
| .312  | .188 | 4-40 | 542-9405 | 642A-9405 | .312  | .250 | 8-32 | 543-9805 | 643A-9805 |
| .375  | .188 | 4-40 | 542-9406 | 642A-9406 | .375  | .250 | 8-32 | 543-9806 | 643A-9806 |
| .437  | .188 | 4-40 | 542-9407 | 642A-9407 | .437  | .250 | 8-32 | 543-9807 | 643A-9807 |
| .500  | .188 | 4-40 | 542-9408 | 642A-9408 | .500  | .250 | 8-32 | 543-9808 | 643A-9808 |
| .562  | .188 | 4-40 | 542-9409 | 642A-9409 | .562  | .250 | 8-32 | 543-9809 | 643A-9809 |
| .625  | .188 | 4-40 | 542-9410 | 642A-9410 | .625  | .250 | 8-32 | 543-9810 | 643A-9810 |
| .687  | .188 | 4-40 | 542-9411 | 642A-9411 | .687  | .250 | 8-32 | 543-9811 | 643A-9811 |
| .750  | .188 | 4-40 | 542-9412 | 642A-9412 | .750  | .250 | 8-32 | 543-9812 | 643A-9812 |
| .812  | .188 | 4-40 | 542-9413 | 642A-9413 | .812  | .250 | 8-32 | 543-9813 | 643A-9813 |
| .875  | .188 | 4-40 | 542-9414 | 642A-9414 | .875  | .250 | 8-32 | 543-9814 | 643A-9814 |
| .937  | .188 | 4-40 | 542-9415 | 642A-9415 | .937  | .250 | 8-32 | 543-9815 | 643A-9815 |
| 1.000 | .188 | 4-40 | 542-9416 | 642A-9416 | 1.000 | .250 | 8-32 | 543-9816 | 643A-9816 |
|       |      |      |          |           | 1.500 | .250 | 8-32 | 543-9824 | 643A-9824 |
| .125  | .250 | 4-40 | 543-9402 | 643A-9402 | 2.000 | .250 | 8-32 | 543-9832 | 643A-9832 |
| .188  | .250 | 4-40 | 543-9403 | 643A-9403 |       |      |      |          |           |
| .250  | .250 | 4-40 | 543-9404 | 643A-9404 | .250  | .375 | 8-32 | 544-9804 | 644A-9804 |
| .312  | .250 | 4-40 | 543-9405 | 643A-9405 | .375  | .375 | 8-32 | 544-9806 | 644A-9806 |
| .375  | .250 | 4-40 | 543-9406 | 643A-9406 | .500  | .375 | 8-32 | 544-9808 | 644A-9808 |
| .437  | .250 | 4-40 | 543-9407 | 643A-9407 | .625  | .375 | 8-32 | 544-9810 | 644A-9810 |
| .500  | .250 | 4-40 | 543-9408 | 643A-9408 | .750  | .375 | 8-32 | 544-9812 | 644A-9812 |
| .562  | .250 | 4-40 | 543-9409 | 643A-9409 | 1.000 | .375 | 8-32 | 544-9816 | 644A-9816 |
| .625  | .250 | 4-40 | 543-9410 | 643A-9410 |       |      |      |          |           |
| .687  | .250 | 4-40 | 543-9411 | 643A-9411 |       |      |      |          |           |
| .750  | .250 | 4-40 | 543-9412 | 643A-9412 |       |      |      |          |           |
| .812  | .250 | 4-40 | 543-9413 | 643A-9413 |       |      |      |          |           |
| .875  | .250 | 4-40 | 543-9414 | 643A-9414 |       |      |      |          |           |
| .937  | .250 | 4-40 | 543-9415 | 643A-9415 |       |      |      |          |           |
| 1.000 | .250 | 4-40 | 543-9416 | 643A-9416 |       |      |      |          |           |
| 1.500 | .250 | 4-40 | 543-9424 | 643A-9424 |       |      |      |          |           |
| 2.000 | .250 | 4-40 | 543-9432 | 643A-9432 |       |      |      |          |           |

- FOR BRASS PARTS, ADD -02 SUFFIX TO PART NUMBER FOR STANDARD NICKEL FINISH
- FOR ALUMINUM PARTS, ADD -17 SUFFIX TO PART NUMBER FOR STANDARD NON-CHROMATE CLEAR PROTECTIVE COATING OR -16 FOR YELLOW IRRIDITE FINISH.

FOR ADDITIONAL SIZES AND MATERIALS, CONTACT FACTORY

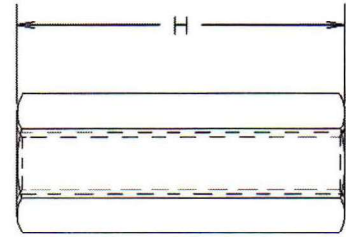
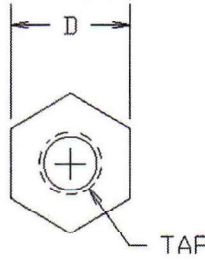




# SPACERS

## SPACER, THREADED, HEX 53X-9XXX-02 BRASS PER ASTM B16 63XA-9XXX-XX ALUMINUM PER ASTM B211

BASIC PART NO. FINISH



| H     | D    | TAP  | BRASS    | ALUMINUM  | H     | D    | TAP  | BRASS    | ALUMINUM  |
|-------|------|------|----------|-----------|-------|------|------|----------|-----------|
| .188  | .156 | 2-56 | 532-9203 | 632A-9203 | .125  | .250 | 6-32 | 535-9602 | 635A-9602 |
| .250  | .156 | 2-56 | 532-9204 | 632A-9204 | .188  | .250 | 6-32 | 535-9603 | 635A-9603 |
| .312  | .156 | 2-56 | 532-9205 | 632A-9205 | .250  | .250 | 6-32 | 535-9604 | 635A-9604 |
| .375  | .156 | 2-56 | 532-9206 | 632A-9206 | .312  | .250 | 6-32 | 535-9605 | 635A-9605 |
| .437  | .156 | 2-56 | 532-9207 | 632A-9207 | .375  | .250 | 6-32 | 535-9606 | 635A-9606 |
| .500  | .156 | 2-56 | 532-9208 | 632A-9208 | .437  | .250 | 6-32 | 535-9607 | 635A-9607 |
| .125  | .188 | 2-56 | 534-9202 | 634A-9202 | .500  | .250 | 6-32 | 535-9608 | 635A-9608 |
| .188  | .188 | 2-56 | 534-9203 | 634A-9203 | .562  | .250 | 6-32 | 535-9609 | 635A-9609 |
| .250  | .188 | 2-56 | 534-9204 | 634A-9204 | .625  | .250 | 6-32 | 535-9610 | 635A-9610 |
| .312  | .188 | 2-56 | 534-9205 | 634A-9205 | .687  | .250 | 6-32 | 535-9611 | 635A-9611 |
| .375  | .188 | 2-56 | 534-9206 | 634A-9206 | .750  | .250 | 6-32 | 535-9612 | 635A-9612 |
| .437  | .188 | 2-56 | 534-9207 | 634A-9207 | .812  | .250 | 6-32 | 535-9613 | 635A-9613 |
| .500  | .188 | 2-56 | 534-9208 | 634A-9208 | .875  | .250 | 6-32 | 535-9614 | 635A-9614 |
| .562  | .188 | 2-56 | 534-9209 | 634A-9209 | .937  | .250 | 6-32 | 535-9615 | 635A-9615 |
| .625  | .188 | 2-56 | 534-9210 | 634A-9210 | 1.000 | .250 | 6-32 | 535-9616 | 635A-9616 |
| .687  | .188 | 2-56 | 534-9211 | 634A-9211 | 1.125 | .250 | 6-32 | 535-9618 | 635A-9618 |
| .750  | .188 | 2-56 | 534-9212 | 634A-9212 | 1.250 | .250 | 6-32 | 535-9620 | 635A-9620 |
| .812  | .188 | 2-56 | 534-9213 | 634A-9213 | 1.375 | .250 | 6-32 | 535-9622 | 635A-9622 |
| .875  | .188 | 2-56 | 534-9214 | 634A-9214 | 1.500 | .250 | 6-32 | 535-9624 | 635A-9624 |
| .937  | .188 | 2-56 | 534-9215 | 634A-9215 | 1.625 | .250 | 6-32 | 535-9626 | 635A-9626 |
| 1.000 | .188 | 2-56 | 534-9216 | 634A-9216 | 1.750 | .250 | 6-32 | 535-9628 | 635A-9628 |
| .125  | .188 | 4-40 | 534-9402 | 634A-9402 | 1.875 | .250 | 6-32 | 535-9630 | 635A-9630 |
| .188  | .188 | 4-40 | 534-9403 | 634A-9403 | 2.000 | .250 | 6-32 | 535-9632 | 635A-9632 |
| .250  | .188 | 4-40 | 534-9404 | 634A-9404 | 2.250 | .250 | 6-32 | 535-9636 | 635A-9636 |
| .312  | .188 | 4-40 | 534-9405 | 634A-9405 | 2.500 | .250 | 6-32 | 535-9640 | 635A-9640 |
| .375  | .188 | 4-40 | 534-9406 | 634A-9406 | .125  | .250 | 8-32 | 535-9802 | 635A-9802 |
| .437  | .188 | 4-40 | 534-9407 | 634A-9407 | .188  | .250 | 8-32 | 535-9803 | 635A-9803 |
| .500  | .188 | 4-40 | 534-9408 | 634A-9408 | .250  | .250 | 8-32 | 535-9804 | 635A-9804 |
| .562  | .188 | 4-40 | 534-9409 | 634A-9409 | .312  | .250 | 8-32 | 535-9805 | 635A-9805 |
| .625  | .188 | 4-40 | 534-9410 | 634A-9410 | .375  | .250 | 8-32 | 535-9806 | 635A-9806 |
| .687  | .188 | 4-40 | 534-9411 | 634A-9411 | .437  | .250 | 8-32 | 535-9807 | 635A-9807 |
| .750  | .188 | 4-40 | 534-9412 | 634A-9412 | .500  | .250 | 8-32 | 535-9808 | 635A-9808 |
| .812  | .188 | 4-40 | 534-9413 | 634A-9413 | .562  | .250 | 8-32 | 535-9809 | 635A-9809 |
| .875  | .188 | 4-40 | 534-9414 | 634A-9414 | .625  | .250 | 8-32 | 535-9810 | 635A-9810 |
| .937  | .188 | 4-40 | 534-9415 | 634A-9415 | .687  | .250 | 8-32 | 535-9811 | 635A-9811 |
| 1.000 | .188 | 4-40 | 534-9416 | 634A-9416 | .750  | .250 | 8-32 | 535-9812 | 635A-9812 |
| .125  | .250 | 4-40 | 535-9402 | 635A-9402 | .812  | .250 | 8-32 | 535-9813 | 635A-9813 |
| .188  | .250 | 4-40 | 535-9403 | 635A-9403 | .875  | .250 | 8-32 | 535-9814 | 635A-9814 |
| .250  | .250 | 4-40 | 535-9404 | 635A-9404 | .937  | .250 | 8-32 | 535-9815 | 635A-9815 |
| .312  | .250 | 4-40 | 535-9405 | 635A-9405 | 1.000 | .250 | 8-32 | 535-9816 | 635A-9816 |
| .375  | .250 | 4-40 | 535-9406 | 635A-9406 | 1.125 | .250 | 8-32 | 535-9818 | 635A-9818 |
| .437  | .250 | 4-40 | 535-9407 | 635A-9407 | 1.250 | .250 | 8-32 | 535-9820 | 635A-9820 |
| .500  | .250 | 4-40 | 535-9408 | 635A-9408 | 1.375 | .250 | 8-32 | 535-9822 | 635A-9822 |
| .562  | .250 | 4-40 | 535-9409 | 635A-9409 | 1.500 | .250 | 8-32 | 535-9824 | 635A-9824 |
| .625  | .250 | 4-40 | 535-9410 | 635A-9410 | 1.625 | .250 | 8-32 | 535-9826 | 635A-9826 |
| .687  | .250 | 4-40 | 535-9411 | 635A-9411 | 1.750 | .250 | 8-32 | 535-9828 | 635A-9828 |
| .750  | .250 | 4-40 | 535-9412 | 635A-9412 | 1.875 | .250 | 8-32 | 535-9830 | 635A-9830 |
| .812  | .250 | 4-40 | 535-9413 | 635A-9413 | 2.000 | .250 | 8-32 | 535-9832 | 635A-9832 |
| .875  | .250 | 4-40 | 535-9414 | 635A-9414 | .250  | .312 | 8-32 | 536-9804 | 636A-9804 |
| .937  | .250 | 4-40 | 535-9415 | 635A-9415 | .375  | .312 | 8-32 | 536-9806 | 636A-9806 |
| 1.000 | .250 | 4-40 | 535-9416 | 635A-9416 | .437  | .312 | 8-32 | 536-9807 | 636A-9807 |
| 1.125 | .250 | 4-40 | 535-9418 | 635A-9418 | .500  | .312 | 8-32 | 536-9808 | 636A-9808 |
| 1.250 | .250 | 4-40 | 535-9420 | 635A-9420 | .625  | .312 | 8-32 | 536-9810 | 636A-9810 |
| 1.375 | .250 | 4-40 | 535-9422 | 635A-9422 | .750  | .312 | 8-32 | 536-9812 | 636A-9812 |
| 1.500 | .250 | 4-40 | 535-9424 | 635A-9424 | .375  | .375 | 8-32 | 537-9806 | 637A-9806 |
| 1.625 | .250 | 4-40 | 535-9426 | 635A-9426 | .500  | .375 | 8-32 | 537-9808 | 637A-9808 |
| 1.750 | .250 | 4-40 | 535-9428 | 635A-9428 | .625  | .375 | 8-32 | 537-9810 | 637A-9810 |
| 1.875 | .250 | 4-40 | 535-9430 | 635A-9430 | .750  | .375 | 8-32 | 537-9812 | 637A-9812 |
| 2.000 | .250 | 4-40 | 535-9432 | 635A-9432 | 1.000 | .375 | 8-32 | 537-9816 | 637A-9816 |

• FOR BRASS PARTS, ADD -02 SUFFIX TO PART NUMBER  
FOR STANDARD NICKEL FINISH  
• SPACERS OVER 1.000" LONG ARE TAPPED AT EACH END.

• FOR ALUMINUM PARTS, ADD -17 SUFFIX TO PART NUMBER  
FOR STANDARD NON-CHROMATE CLEAR PROTECTIVE COATING OR  
-16 FOR YELLOW IRRIDITE FINISH.

FOR ADDITIONAL SIZES AND MATERIALS, CONTACT FACTORY



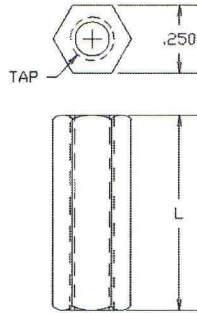


# SPACERS

# STANDOFFS THRUHOLE, ROUND

## SPACER, THREADED, HEX

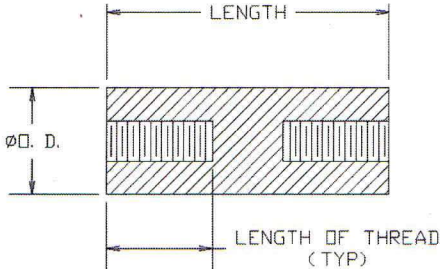
Stainless Steel per ASTM A314/A581/A582



| L     | 4-40<br>THREAD | 6-32<br>THREAD | 8-32<br>THREAD |
|-------|----------------|----------------|----------------|
| .250  | 435S-9404      | 435S-9604      | 435S-9804      |
| .312  | 435S-9405      | 435S-9605      | 435S-9805      |
| .375  | 435S-9406      | 435S-9606      | 435S-9806      |
| .437  | 435S-9407      | 435S-9607      | 435S-9807      |
| .500  | 435S-9408      | 435S-9608      | 435S-9808      |
| .625  | 435S-9410      | 435S-9610      | 435S-9810      |
| .750  | 435S-9412      | 435S-9612      | 435S-9812      |
| .875  | 435S-9414      | 435S-9614      | 435S-9814      |
| 1.000 | 435S-9416      | 435S-9616      | 435S-9816      |
| 1.250 | 435S-9420      | 435S-9620      | 435S-9820      |
| 1.500 | 435S-9424      | 435S-9624      | 435S-9824      |
| 2.000 | 435S-9432      | 435S-9632      | 435S-9832      |

4-40 THREAD ON 1/2" AND OVER TAPPED 1/4" EACH END. 6-32 & 8-32 THREAD ON 1" AND OVER TAPPED 3/8" EACH END

## GLAZED CERAMIC GRADE L-5, MEETS MIL-I-10



| Concord No.                   | Length | Depth of Thread | MIL. Number    |
|-------------------------------|--------|-----------------|----------------|
| <b>6-32 THREAD 3/8" O.D.</b>  |        |                 |                |
| 500-1005                      | 1/2    | 5/32            | NL-523-W01-004 |
| 500-1010                      | 5/8    | 1/4             | NL-523-W01-005 |
| 500-1011                      | 3/4    | 1/4             | NL-523-W01-006 |
| 500-1012                      | 1      | 3/8             | NL-523-W01-008 |
| 500-1013                      | 1-1/4  | 3/8             | NL-523-W01-010 |
| 500-1014                      | 1-1/2  | 3/8             | NL-523-W01-012 |
| 500-1015                      | 2      | 3/8             | NL-523-W01-016 |
| <b>8-32 THREAD 1/2" O.D.</b>  |        |                 |                |
| 500-1020                      | 5/8    | 3/16            | NL-523-W02-005 |
| 500-1021                      | 3/4    | 1/4             | NL-523-W02-006 |
| 500-1022                      | 1      | 3/8             | NL-523-W02-008 |
| 500-1023                      | 1-1/4  | 3/8             | NL-523-W02-010 |
| 500-1024                      | 1-1/2  | 3/8             | NL-523-W02-012 |
| 500-1025                      | 2      | 3/8             | NL-523-W02-016 |
| 500-1026                      | 2-1/2  | 3/8             | NL-523-W02-020 |
| 500-1027                      | 3      | 3/8             | NL-523-W02-024 |
| <b>10-32 THREAD 3/4" O.D.</b> |        |                 |                |
| 500-1030                      | 1      | 3/8             | NL-523-W03-008 |
| 500-1031                      | 1-1/4  | 3/8             | NL-523-W03-010 |
| 500-1032                      | 1-1/2  | 3/8             | NL-523-W03-012 |
| 500-1033                      | 2      | 3/8             | NL-523-W03-016 |
| 500-1034                      | 2-1/2  | 3/8             | NL-523-W03-020 |
| 500-1035                      | 3      | 3/8             | NL-523-W03-024 |
| 500-1036                      | 4      | 3/8             | NL-523-W03-032 |
| <b>1/4-20 THREAD 1" O.D.</b>  |        |                 |                |
| 500-1040                      | 1-1/4  | 7/16            | NL-523-W04-010 |
| 500-1041                      | 1-1/2  | 1/2             | NL-523-W04-012 |
| 500-1042                      | 2      | 5/8             | NL-523-W04-016 |
| 500-1043                      | 2-1/2  | 5/8             | NL-523-W04-020 |
| 500-1044                      | 3      | 5/8             | NL-523-W04-024 |
| 500-1045                      | 4      | 5/8             | NL-523-W04-032 |
| 500-1046                      | 5      | 5/8             | NL-523-W04-040 |
| 500-1047                      | 6      | 5/8             | NL-523-W04-048 |

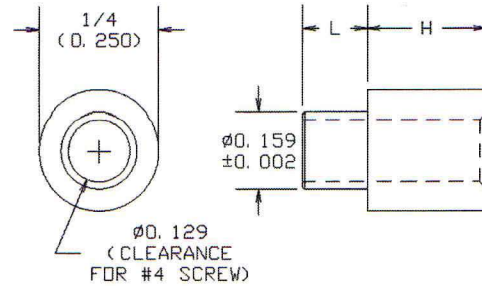
TOLERANCE: 2% OF DIMENSION PLUS .012

## COMMERCIAL CERAMIC STANDOFFS GRADE L5 GLAZED OUTSIDE

| PART NO. | A     | B   | THD    | C    |
|----------|-------|-----|--------|------|
| 500-1050 | 1/4   | 1/4 | 6-32   | Thru |
| 500-1051 | 1/2   | 1/4 | 6-32   | 5/32 |
| 500-1052 | 3/8   | 3/8 | 6-32   | 5/32 |
| 500-1053 | 1/2   | 3/8 | 6-32   | 3/16 |
| 500-1054 | 1/2   | 1/2 | 6-32   | 9/64 |
| 500-1055 | 3/4   | 1/2 | 6-32   | 1/4  |
| 500-1056 | 1     | 1/2 | 6-32   | 3/8  |
| 500-1057 | 1-1/2 | 1/2 | 6-32   | 9/16 |
| 500-1058 | 2-1/2 | 1/2 | 6-32   | 1/2  |
| 500-1059 | 2-1/2 | 3/4 | 1/4-20 | 3/4  |
| 500-1060 | 4     | 3/4 | 1/4-20 | 3/4  |

TOLERANCE: 2% OF DIMENSION PLUS .012

## STANDOFFS, THRU HOLE, ROUND



## 5XX-9XXX-02 6XXA-9XXX-XX

## BRASS PER ASTM B16 ALUMINUM PER ASTM B211

| BASIC PART NO. | FINISH | BOARD THICKNESS | H     | L    | BRASS    | ALUMINUM  |
|----------------|--------|-----------------|-------|------|----------|-----------|
| 1/32           |        | .125            | .125  | .075 | 598-9408 | 698A-9408 |
| 1/32           |        | .188            | .188  | .075 | 598-9422 | 698A-9422 |
| 1/32           |        | .250            | .250  | .075 | 598-9429 | 698A-9429 |
| 1/32           |        | .375            | .375  | .075 | 598-9443 | 698A-9443 |
| 1/32           |        | .500            | .500  | .075 | 598-9457 | 698A-9457 |
| 1/32           |        | .625            | .625  | .075 | 598-9471 | 698A-9471 |
| 1/32           |        | .750            | .750  | .075 | 598-9485 | 698A-9485 |
| 1/32           |        | 1.000           | 1.000 | .075 | 598-9513 | 698A-9513 |
| 1/16           |        | .125            | .125  | .105 | 598-9409 | 698A-9409 |
| 1/16           |        | .188            | .188  | .105 | 598-9423 | 698A-9423 |
| 1/16           |        | .250            | .250  | .105 | 598-9430 | 698A-9430 |
| 1/16           |        | .375            | .375  | .105 | 598-9444 | 698A-9444 |
| 1/16           |        | .500            | .500  | .105 | 598-9458 | 698A-9458 |
| 1/16           |        | .625            | .625  | .105 | 598-9472 | 698A-9472 |
| 1/16           |        | .750            | .750  | .105 | 598-9486 | 698A-9486 |
| 1/16           |        | 1.000           | 1.000 | .105 | 598-9514 | 698A-9514 |
| 3/32           |        | .125            | .125  | .135 | 598-9410 | 698A-9410 |
| 3/32           |        | .188            | .188  | .135 | 598-9424 | 698A-9424 |
| 3/32           |        | .250            | .250  | .135 | 598-9431 | 698A-9431 |
| 3/32           |        | .375            | .375  | .135 | 598-9445 | 698A-9445 |
| 3/32           |        | .500            | .500  | .135 | 598-9459 | 698A-9459 |
| 3/32           |        | .625            | .625  | .135 | 598-9473 | 698A-9473 |
| 3/32           |        | .750            | .750  | .135 | 598-9487 | 698A-9487 |
| 3/32           |        | 1.000           | 1.000 | .135 | 598-9515 | 698A-9515 |
| 1/8            |        | .125            | .125  | .165 | 598-9411 | 698A-9411 |
| 1/8            |        | .188            | .188  | .165 | 598-9425 | 698A-9425 |
| 1/8            |        | .250            | .250  | .165 | 598-9432 | 698A-9432 |
| 1/8            |        | .375            | .375  | .165 | 598-9446 | 698A-9446 |
| 1/8            |        | .500            | .500  | .165 | 598-9460 | 698A-9460 |
| 1/8            |        | .625            | .625  | .165 | 598-9474 | 698A-9474 |
| 1/8            |        | .750            | .750  | .165 | 598-9488 | 698A-9488 |
| 1/8            |        | 1.000           | 1.000 | .165 | 598-9516 | 698A-9516 |

- FOR BRASS PARTS, ADD -02 SUFFIX TO PART NUMBER FOR STANDARD NICKEL FINISH
- FOR ALUMINUM PARTS, ADD -17 SUFFIX TO PART NUMBER FOR STANDARD NON-CHROMATE CLEAR PROTECTIVE COATING OR -16 FOR YELLOW IRRIDITE FINISH.

### SWAGING TOOLS

| H     | ANVIL     | PUNCH     |
|-------|-----------|-----------|
| .125  | TA250-125 | TP160-125 |
| .188  | TA250-125 | TP160-125 |
| .250  | TA250-250 | TP160-125 |
| .375  | TA250-250 | TP160-125 |
| .500  | TA250-500 | TP160-125 |
| .625  | TA250-500 | TP160-125 |
| .750  | TA250-750 | TP160-125 |
| 1.000 | TA250-750 | TP160-125 |

FOR ADDITIONAL SIZES AND MATERIALS, CONTACT FACTORY



e-mail : [info@concord-elex.com](mailto:info@concord-elex.com)  
800-847-4162 (outside N.Y.S.)  
212-777-6571 • fax. 212-995-0161

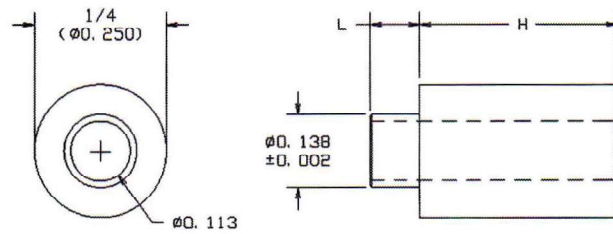


# STANDOFFS, THRUHOLE, ROUND

## STANDOFFS THRUHOLE, ROUND

(CLEARANCE FOR #3 SCREW)

**548-9XXX-02 BRASS PER ASTM B16**  
**548-9XXX-XXX-02**  
**648A-9XXX-XX ALUMINUM PER ASTM B211**  
**648A-9XXX-XXX-XX**



BASIC PART NO. FINISH\*

| BOARD THICKNESS | H     | L    | BRASS        | ALUMINUM      | BOARD THICKNESS | H     | L    | BRASS    | ALUMINUM  |
|-----------------|-------|------|--------------|---------------|-----------------|-------|------|----------|-----------|
| 1/32            | .125  | .062 | 548-9408-062 | 648A-9408-062 | 1/32            | .125  | .075 | 548-9408 | 648A-9408 |
| 1/32            | .188  | .062 | 548-9422-062 | 648A-9422-062 | 1/32            | .188  | .075 | 548-9422 | 648A-9422 |
| 1/32            | .250  | .062 | 548-9429-062 | 648A-9429-062 | 1/32            | .250  | .075 | 548-9429 | 648A-9429 |
| 1/32            | .375  | .062 | 548-9443-062 | 648A-9443-062 | 1/32            | .375  | .075 | 548-9443 | 648A-9443 |
| 1/32            | .500  | .062 | 548-9457-062 | 648A-9457-062 | 1/32            | .500  | .075 | 548-9457 | 648A-9457 |
| 1/32            | .625  | .062 | 548-9471-062 | 648A-9471-062 | 1/32            | .625  | .075 | 548-9471 | 648A-9471 |
| 1/32            | .750  | .062 | 548-9485-062 | 648A-9485-062 | 1/32            | .750  | .075 | 548-9485 | 648A-9485 |
| 1/32            | 1.000 | .062 | 548-9513-062 | 648A-9513-062 | 1/32            | 1.000 | .075 | 548-9513 | 648A-9513 |
| 1/16            | .125  | .094 | 548-9409-094 | 648A-9409-094 | 1/16            | .125  | .105 | 548-9409 | 648A-9409 |
| 1/16            | .188  | .094 | 548-9423-094 | 648A-9423-094 | 1/16            | .188  | .105 | 548-9423 | 648A-9423 |
| 1/16            | .250  | .094 | 548-9430-094 | 648A-9430-094 | 1/16            | .250  | .105 | 548-9430 | 648A-9430 |
| 1/16            | .375  | .094 | 548-9444-094 | 648A-9444-094 | 1/16            | .375  | .105 | 548-9444 | 648A-9444 |
| 1/16            | .500  | .094 | 548-9458-094 | 648A-9458-094 | 1/16            | .500  | .105 | 548-9458 | 648A-9458 |
| 1/16            | .625  | .094 | 548-9472-094 | 648A-9472-094 | 1/16            | .625  | .105 | 548-9472 | 648A-9472 |
| 1/16            | .750  | .094 | 548-9486-094 | 648A-9486-094 | 1/16            | .750  | .105 | 548-9486 | 648A-9486 |
| 1/16            | 1.000 | .094 | 548-9514-094 | 648A-9514-094 | 1/16            | 1.000 | .105 | 548-9514 | 648A-9514 |
| 3/32            | .125  | .125 | 548-9410-125 | 648A-9410-125 | 3/32            | .125  | .135 | 548-9410 | 648A-9410 |
| 3/32            | .188  | .125 | 548-9424-125 | 648A-9424-125 | 3/32            | .188  | .135 | 548-9424 | 648A-9424 |
| 3/32            | .250  | .125 | 548-9431-125 | 648A-9431-125 | 3/32            | .250  | .135 | 548-9431 | 648A-9431 |
| 3/32            | .375  | .125 | 548-9445-125 | 648A-9445-125 | 3/32            | .375  | .135 | 548-9445 | 648A-9445 |
| 3/32            | .500  | .125 | 548-9459-125 | 648A-9459-125 | 3/32            | .500  | .135 | 548-9459 | 648A-9459 |
| 3/32            | .625  | .125 | 548-9473-125 | 648A-9473-125 | 3/32            | .625  | .135 | 548-9473 | 648A-9473 |
| 3/32            | .750  | .125 | 548-9487-125 | 648A-9487-125 | 3/32            | .750  | .135 | 548-9487 | 648A-9487 |
| 3/32            | 1.000 | .125 | 548-9515-125 | 648A-9515-125 | 3/32            | 1.000 | .135 | 548-9515 | 648A-9515 |
| 1/8             | .125  | .156 | 548-9411-156 | 648A-9411-156 | 1/8             | .125  | .165 | 548-9411 | 648A-9411 |
| 1/8             | .188  | .156 | 548-9425-156 | 648A-9425-156 | 1/8             | .188  | .165 | 548-9425 | 648A-9425 |
| 1/8             | .250  | .156 | 548-9432-156 | 648A-9432-156 | 1/8             | .250  | .165 | 548-9432 | 648A-9432 |
| 1/8             | .375  | .156 | 548-9446-156 | 648A-9446-156 | 1/8             | .375  | .165 | 548-9446 | 648A-9446 |
| 1/8             | .500  | .156 | 548-9460-156 | 648A-9460-156 | 1/8             | .500  | .165 | 548-9460 | 648A-9460 |
| 1/8             | .625  | .156 | 548-9474-156 | 648A-9474-156 | 1/8             | .625  | .165 | 548-9474 | 648A-9474 |
| 1/8             | .750  | .156 | 548-9488-156 | 648A-9488-156 | 1/8             | .750  | .165 | 548-9488 | 648A-9488 |
| 1/8             | 1.000 | .156 | 548-9516-156 | 648A-9516-156 | 1/8             | 1.000 | .165 | 548-9516 | 648A-9516 |
| 3/16            | .125  | .219 | 548-9413-219 | 648A-9413-219 |                 |       |      |          |           |
| 3/16            | .188  | .219 | 548-9427-219 | 648A-9427-219 |                 |       |      |          |           |
| 3/16            | .250  | .219 | 548-9434-219 | 648A-9434-219 |                 |       |      |          |           |
| 3/16            | .375  | .219 | 548-9448-219 | 648A-9448-219 |                 |       |      |          |           |
| 3/16            | .500  | .219 | 548-9462-219 | 648A-9462-219 |                 |       |      |          |           |
| 3/16            | .625  | .219 | 548-9476-219 | 648A-9476-219 |                 |       |      |          |           |
| 3/16            | .750  | .219 | 548-9490-219 | 648A-9490-219 |                 |       |      |          |           |
| 3/16            | 1.000 | .219 | 548-9518-219 | 648A-9518-219 |                 |       |      |          |           |
| 1/4             | .125  | .281 | 548-9414-281 | 648A-9414-281 |                 |       |      |          |           |
| 1/4             | .188  | .281 | 548-9428-281 | 648A-9428-281 |                 |       |      |          |           |
| 1/4             | .250  | .281 | 548-9435-281 | 648A-9435-281 |                 |       |      |          |           |
| 1/4             | .375  | .281 | 548-9449-281 | 648A-9449-281 |                 |       |      |          |           |
| 1/4             | .500  | .281 | 548-9463-281 | 648A-9463-281 |                 |       |      |          |           |
| 1/4             | .625  | .281 | 548-9477-281 | 648A-9477-281 |                 |       |      |          |           |
| 1/4             | .750  | .281 | 548-9491-281 | 648A-9491-281 |                 |       |      |          |           |
| 1/4             | 1.000 | .281 | 548-9519-281 | 648A-9519-281 |                 |       |      |          |           |

- FOR BRASS PARTS, ADD -02 SUFFIX TO PART NUMBER FOR STANDARD NICKEL FINISH
- FOR ALUMINUM PARTS, ADD -17 SUFFIX TO PART NUMBER FOR STANDARD NON-CHROMATE CLEAR PROTECTIVE COATING OR -16 FOR YELLOW IRRIDITE FINISH.

### SWAGING TOOLS

| H             | ANVIL     | PUNCH     |
|---------------|-----------|-----------|
| .125<br>.188  | TA250-125 | TP136-110 |
| .250<br>.375  | TA250-250 | TP136-110 |
| .500<br>.625  | TA250-500 | TP136-110 |
| .750<br>1.000 | TA250-750 | TP136-110 |

FOR ADDITIONAL SIZES AND MATERIALS, CONTACT FACTORY





# STANDOFFS, THRUHOLE, ROUND

## STANDOFFS THRUHOLE, ROUND

**549-9XXX-02 BRASS PER ASTM B16**

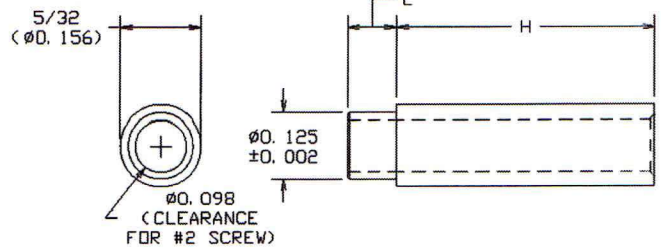
**549-9XXX-XXX-02**

**649A-9XXX-XX ALUMINUM PER ASTM B211**

**649A-9XXX-XXX-XX**

BASIC PART NO.

FINISH



| BOARD THICKNESS | H     | L    | BRASS        | ALUMINUM      | BOARD THICKNESS | H     | L    | BRASS    | ALUMINUM  |
|-----------------|-------|------|--------------|---------------|-----------------|-------|------|----------|-----------|
| 1/32            | .125  | .062 | 549-9208-062 | 649A-9208-062 | 1/32            | .125  | .075 | 549-9208 | 649A-9208 |
| 1/32            | .188  | .062 | 549-9222-062 | 649A-9222-062 | 1/32            | .188  | .075 | 549-9222 | 649A-9222 |
| 1/32            | .250  | .062 | 549-9229-062 | 649A-9229-062 | 1/32            | .250  | .075 | 549-9229 | 649A-9229 |
| 1/32            | .375  | .062 | 549-9243-062 | 649A-9243-062 | 1/32            | .375  | .075 | 549-9243 | 649A-9243 |
| 1/32            | .500  | .062 | 549-9257-062 | 649A-9257-062 | 1/32            | .500  | .075 | 549-9257 | 649A-9257 |
| 1/32            | .625  | .062 | 549-9271-062 | 649A-9271-062 | 1/32            | .625  | .075 | 549-9271 | 649A-9271 |
| 1/32            | .750  | .062 | 549-9285-062 | 649A-9285-062 | 1/32            | .750  | .075 | 549-9285 | 649A-9285 |
| 1/32            | 1.000 | .062 | 549-9313-062 | 649A-9313-062 | 1/32            | 1.000 | .075 | 549-9313 | 649A-9313 |
| 1/16            | .125  | .094 | 549-9209-094 | 649A-9209-094 | 1/16            | .125  | .105 | 549-9209 | 649A-9209 |
| 1/16            | .188  | .094 | 549-9223-094 | 649A-9223-094 | 1/16            | .188  | .105 | 549-9223 | 649A-9223 |
| 1/16            | .250  | .094 | 549-9230-094 | 649A-9230-094 | 1/16            | .250  | .105 | 549-9230 | 649A-9230 |
| 1/16            | .375  | .094 | 549-9244-094 | 649A-9244-094 | 1/16            | .375  | .105 | 549-9244 | 649A-9244 |
| 1/16            | .500  | .094 | 549-9258-094 | 649A-9258-094 | 1/16            | .500  | .105 | 549-9258 | 649A-9258 |
| 1/16            | .625  | .094 | 549-9272-094 | 649A-9272-094 | 1/16            | .625  | .105 | 549-9272 | 649A-9272 |
| 1/16            | .750  | .094 | 549-9286-094 | 649A-9286-094 | 1/16            | .750  | .105 | 549-9286 | 649A-9286 |
| 1/16            | 1.000 | .094 | 549-9314-094 | 649A-9314-094 | 1/16            | 1.000 | .105 | 549-9314 | 649A-9314 |
| 3/32            | .125  | .125 | 549-9210-125 | 649A-9210-125 | 3/32            | .125  | .135 | 549-9210 | 649A-9210 |
| 3/32            | .188  | .125 | 549-9224-125 | 649A-9224-125 | 3/32            | .188  | .135 | 549-9224 | 649A-9224 |
| 3/32            | .250  | .125 | 549-9231-125 | 649A-9231-125 | 3/32            | .250  | .135 | 549-9231 | 649A-9231 |
| 3/32            | .375  | .125 | 549-9245-125 | 649A-9245-125 | 3/32            | .375  | .135 | 549-9245 | 649A-9245 |
| 3/32            | .500  | .125 | 549-9259-125 | 649A-9259-125 | 3/32            | .500  | .135 | 549-9259 | 649A-9259 |
| 3/32            | .625  | .125 | 549-9273-125 | 649A-9273-125 | 3/32            | .625  | .135 | 549-9273 | 649A-9273 |
| 3/32            | .750  | .125 | 549-9287-125 | 649A-9287-125 | 3/32            | .750  | .135 | 549-9287 | 649A-9287 |
| 3/32            | 1.000 | .125 | 549-9315-125 | 649A-9315-125 | 3/32            | 1.000 | .135 | 549-9315 | 649A-9315 |
| 1/8             | .125  | .156 | 549-9211-156 | 649A-9211-156 | 1/8             | .125  | .165 | 549-9211 | 649A-9211 |
| 1/8             | .188  | .156 | 549-9225-156 | 649A-9225-156 | 1/8             | .188  | .165 | 549-9225 | 649A-9225 |
| 1/8             | .250  | .156 | 549-9232-156 | 649A-9232-156 | 1/8             | .250  | .165 | 549-9232 | 649A-9232 |
| 1/8             | .375  | .156 | 549-9246-156 | 649A-9246-156 | 1/8             | .375  | .165 | 549-9246 | 649A-9246 |
| 1/8             | .500  | .156 | 549-9260-156 | 649A-9260-156 | 1/8             | .500  | .165 | 549-9260 | 649A-9260 |
| 1/8             | .625  | .156 | 549-9274-156 | 649A-9274-156 | 1/8             | .625  | .165 | 549-9274 | 649A-9274 |
| 1/8             | .750  | .156 | 549-9288-156 | 649A-9288-156 | 1/8             | .750  | .165 | 549-9288 | 649A-9288 |
| 1/8             | 1.000 | .156 | 549-9316-156 | 649A-9316-156 | 1/8             | 1.000 | .165 | 549-9316 | 649A-9316 |
| 3/16            | .125  | .219 | 549-9213-219 | 649A-9213-219 |                 |       |      |          |           |
| 3/16            | .188  | .219 | 549-9227-219 | 649A-9227-219 |                 |       |      |          |           |
| 3/16            | .250  | .219 | 549-9234-219 | 649A-9234-219 |                 |       |      |          |           |
| 3/16            | .375  | .219 | 549-9248-219 | 649A-9248-219 |                 |       |      |          |           |
| 3/16            | .500  | .219 | 549-9262-219 | 649A-9262-219 |                 |       |      |          |           |
| 3/16            | .625  | .219 | 549-9276-219 | 649A-9276-219 |                 |       |      |          |           |
| 3/16            | .750  | .219 | 549-9290-219 | 649A-9290-219 |                 |       |      |          |           |
| 3/16            | 1.000 | .219 | 549-9318-219 | 649A-9318-219 |                 |       |      |          |           |
| 1/4             | .125  | .281 | 549-9214-281 | 649A-9214-281 |                 |       |      |          |           |
| 1/4             | .188  | .281 | 549-9228-281 | 649A-9228-281 |                 |       |      |          |           |
| 1/4             | .250  | .281 | 549-9235-281 | 649A-9235-281 |                 |       |      |          |           |
| 1/4             | .375  | .281 | 549-9249-281 | 649A-9249-281 |                 |       |      |          |           |
| 1/4             | .500  | .281 | 549-9263-281 | 649A-9263-281 |                 |       |      |          |           |
| 1/4             | .625  | .281 | 549-9277-281 | 649A-9277-281 |                 |       |      |          |           |
| 1/4             | .750  | .281 | 549-9291-281 | 649A-9291-281 |                 |       |      |          |           |
| 1/4             | 1.000 | .281 | 549-9319-281 | 649A-9319-281 |                 |       |      |          |           |

- FOR BRASS PARTS, ADD -02 SUFFIX TO PART NUMBER FOR STANDARD NICKEL FINISH
- FOR ALUMINUM PARTS, ADD -17 SUFFIX TO PART NUMBER FOR STANDARD NON-CHROMATE CLEAR PROTECTIVE COATING OR -16 FOR YELLOW IRRIDITE FINISH.

### SWAGING TOOLS

| H             | ANVIL     | PUNCH    |
|---------------|-----------|----------|
| .125<br>.188  | TA156-125 | TP125-98 |
| .250<br>.375  | TA156-250 | TP125-98 |
| .500<br>.625  | TA156-500 | TP125-98 |
| .750<br>1.000 | TA156-750 | TP125-98 |

FOR ADDITIONAL SIZES AND MATERIALS, CONTACT FACTORY



e-mail : [info@concord-elex.com](mailto:info@concord-elex.com)  
800-847-4162 (outside N.Y.S.)  
212-777-6571 • fax. 212-995-0161



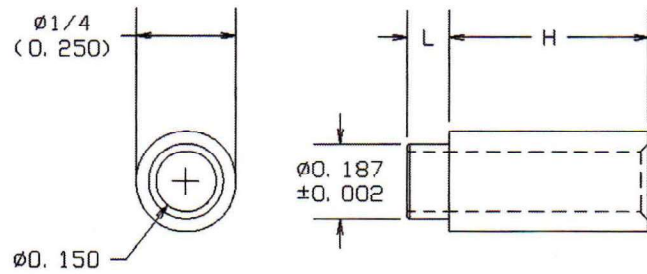
# STANDOFFS, THRUHOLE, ROUND

## STANDOFFS THRUHOLE, ROUND

**547-9XXX-02**  
**647A-9XXX-XX**

BASIC PART NO. FINISH\*

**BRASS PER ASTM B16**  
**ALUMINUM PER ASTM B211**



| BOARD THICKNESS | H     | L    | BRASS    | ALUMINUM  | BOARD THICKNESS | H     | L    | BRASS    | ALUMINUM  |
|-----------------|-------|------|----------|-----------|-----------------|-------|------|----------|-----------|
| 1/32            | .125  | .075 | 547-9608 | 647A-9608 | 1/8             | .125  | .165 | 547-9611 | 647A-9611 |
| 1/32            | .188  | .075 | 547-9622 | 647A-9622 | 1/8             | .188  | .165 | 547-9625 | 647A-9625 |
| 1/32            | .250  | .075 | 547-9629 | 647A-9629 | 1/8             | .250  | .165 | 547-9632 | 647A-9632 |
| 1/32            | .375  | .075 | 547-9643 | 647A-9643 | 1/8             | .375  | .165 | 547-9646 | 647A-9646 |
| 1/32            | .500  | .075 | 547-9657 | 647A-9657 | 1/8             | .500  | .165 | 547-9660 | 647A-9660 |
| 1/32            | .625  | .075 | 547-9671 | 647A-9671 | 1/8             | .625  | .165 | 547-9674 | 647A-9674 |
| 1/32            | .750  | .075 | 547-9685 | 647A-9685 | 1/8             | .750  | .165 | 547-9688 | 647A-9688 |
| 1/32            | 1.000 | .075 | 547-9713 | 647A-9713 | 1/8             | 1.000 | .165 | 547-9716 | 647A-9716 |
| 1/16            | .125  | .105 | 547-9609 | 647A-9609 | 3/16            | .125  | .230 | 547-9613 | 647A-9613 |
| 1/16            | .188  | .105 | 547-9623 | 647A-9623 | 3/16            | .188  | .230 | 547-9627 | 647A-9627 |
| 1/16            | .250  | .105 | 547-9630 | 647A-9630 | 3/16            | .250  | .230 | 547-9634 | 647A-9634 |
| 1/16            | .375  | .105 | 547-9644 | 647A-9644 | 3/16            | .375  | .230 | 547-9648 | 647A-9648 |
| 1/16            | .500  | .105 | 547-9658 | 647A-9658 | 3/16            | .500  | .230 | 547-9662 | 647A-9662 |
| 1/16            | .625  | .105 | 547-9672 | 647A-9672 | 3/16            | .625  | .230 | 547-9676 | 647A-9676 |
| 1/16            | .750  | .105 | 547-9686 | 647A-9686 | 3/16            | .750  | .230 | 547-9690 | 647A-9690 |
| 1/16            | 1.000 | .105 | 547-9714 | 647A-9714 | 3/16            | 1.000 | .230 | 547-9718 | 647A-9718 |
| 3/32            | .125  | .135 | 547-9610 | 647A-9610 | 1/4             | .125  | .290 | 547-9614 | 647A-9614 |
| 3/32            | .188  | .135 | 547-9624 | 647A-9624 | 1/4             | .188  | .290 | 547-9628 | 647A-9628 |
| 3/32            | .250  | .135 | 547-9631 | 647A-9631 | 1/4             | .250  | .290 | 547-9635 | 647A-9635 |
| 3/32            | .375  | .135 | 547-9645 | 647A-9645 | 1/4             | .375  | .290 | 547-9649 | 647A-9649 |
| 3/32            | .500  | .135 | 547-9659 | 647A-9659 | 1/4             | .500  | .290 | 547-9663 | 647A-9663 |
| 3/32            | .625  | .135 | 547-9673 | 647A-9673 | 1/4             | .625  | .290 | 547-9677 | 647A-9677 |
| 3/32            | .750  | .135 | 547-9687 | 647A-9687 | 1/4             | .750  | .290 | 547-9691 | 647A-9691 |
| 3/32            | 1.000 | .135 | 547-9715 | 647A-9715 | 1/4             | 1.000 | .290 | 547-9719 | 647A-9719 |

- FOR BRASS PARTS, ADD -02 SUFFIX TO PART NUMBER FOR STANDARD NICKEL FINISH
- FOR ALUMINUM PARTS, ADD -17 SUFFIX TO PART NUMBER FOR STANDARD NON-CHROMATE CLEAR PROTECTIVE COATING OR -16 FOR YELLOW IRRIDITE FINISH.

| H             | ANVIL     | PUNCH     |
|---------------|-----------|-----------|
| .125<br>.188  | TA250-125 | TP187-150 |
| .250<br>.375  | TA250-250 | TP187-150 |
| .500<br>.625  | TA250-500 | TP187-150 |
| .750<br>1.000 | TA250-750 | TP187-150 |

# SAME DAY SHIPMENTS FROM STOCK

FOR ADDITIONAL SIZES AND MATERIALS, CONTACT FACTORY





# STANDOFFS, THRUHOLE, ROUND

## STANDOFFS THRUHOLE, ROUND

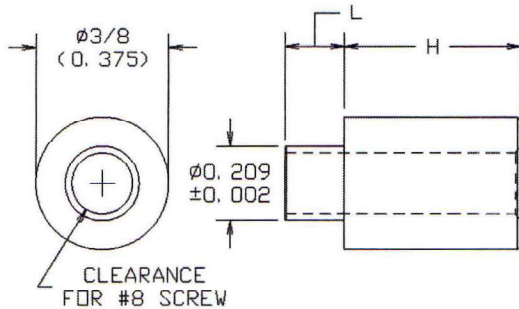
599-9XXX-02

699A-9XXX-XX

BRASS PER ASTM B16

ALUMINUM PER ASTM B211

BASIC PART NO. FINISH



| BOARD THICKNESS | H     | L    | BRASS    | ALUMINUM  |
|-----------------|-------|------|----------|-----------|
| 1/32            | .125  | .075 | 599-9808 | 699A-9808 |
| 1/32            | .188  | .075 | 599-9822 | 699A-9822 |
| 1/32            | .250  | .075 | 599-9829 | 699A-9829 |
| 1/32            | .375  | .075 | 599-9843 | 699A-9843 |
| 1/32            | .500  | .075 | 599-9857 | 699A-9857 |
| 1/32            | .625  | .075 | 599-9871 | 699A-9871 |
| 1/32            | .750  | .075 | 599-9885 | 699A-9885 |
| 1/32            | 1.000 | .075 | 599-9913 | 699A-9913 |
| 1/16            | .125  | .105 | 599-9809 | 699A-9809 |
| 1/16            | .188  | .105 | 599-9823 | 699A-9823 |
| 1/16            | .250  | .105 | 599-9830 | 699A-9830 |
| 1/16            | .375  | .105 | 599-9844 | 699A-9844 |
| 1/16            | .500  | .105 | 599-9858 | 699A-9858 |
| 1/16            | .625  | .105 | 599-9872 | 699A-9872 |
| 1/16            | .750  | .105 | 599-9886 | 699A-9886 |
| 1/16            | 1.000 | .105 | 599-9914 | 699A-9914 |
| 3/32            | .125  | .135 | 599-9810 | 699A-9810 |
| 3/32            | .188  | .135 | 599-9824 | 699A-9824 |
| 3/32            | .250  | .135 | 599-9831 | 699A-9831 |
| 3/32            | .375  | .135 | 599-9845 | 699A-9845 |
| 3/32            | .500  | .135 | 599-9859 | 699A-9859 |
| 3/32            | .625  | .135 | 599-9873 | 699A-9873 |
| 3/32            | .750  | .135 | 599-9887 | 699A-9887 |
| 3/32            | 1.000 | .135 | 599-9915 | 699A-9915 |
| 1/8             | .125  | .165 | 599-9811 | 699A-9811 |
| 1/8             | .188  | .165 | 599-9825 | 699A-9825 |
| 1/8             | .250  | .165 | 599-9832 | 699A-9832 |
| 1/8             | .375  | .165 | 599-9846 | 699A-9846 |
| 1/8             | .500  | .165 | 599-9860 | 699A-9860 |
| 1/8             | .625  | .165 | 599-9874 | 699A-9874 |
| 1/8             | .750  | .165 | 599-9888 | 699A-9888 |
| 1/8             | 1.000 | .165 | 599-9916 | 699A-9916 |

- FOR BRASS PARTS, ADD -02 SUFFIX TO PART NUMBER FOR STANDARD NICKEL FINISH
- FOR ALUMINUM PARTS, ADD -17 SUFFIX TO PART NUMBER FOR STANDARD NON-CHROMATE CLEAR PROTECTIVE COATING OR -16 FOR YELLOW IRRIDITE FINISH.

| H             | ANVIL     | PUNCH     |
|---------------|-----------|-----------|
| .125<br>.188  | TA375-125 | TP210-180 |
| .250<br>.375  | TA375-250 | TP210-180 |
| .500<br>.625  | TA375-500 | TP210-180 |
| .750<br>1.000 | TA375-750 | TP210-180 |

CALL  
CONCORD  
FOR  
UNSURPASSED  
QUALITY

FOR ADDITIONAL SIZES AND MATERIALS, CONTACT FACTORY



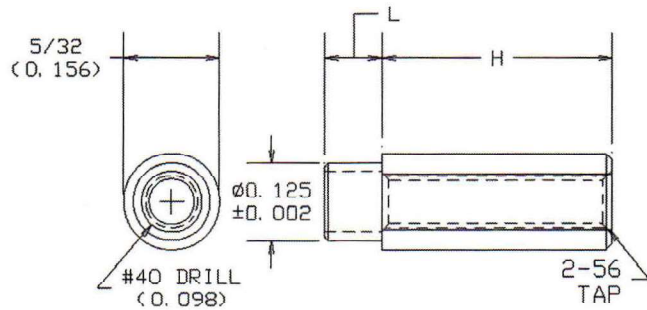


# STANDOFFS, THREADED, ROUND

## STANDOFFS THREADED, ROUND

**588-9XXX-XXX-02 BRASS PER ASTM B16**  
**688A-9XXX-XXX-XX ALUMINUM PER ASTM B211**

BASIC PART NO. FINISH



FOR H=.750 AND H=1.000 ONLY,  
TAPPED BOTH ENDS, NOT TAPPED THRU

| BOARD THICKNESS | H     | L    | BRASS        | ALUMINUM      | BOARD THICKNESS | H     | L    | BRASS        | ALUMINUM      |
|-----------------|-------|------|--------------|---------------|-----------------|-------|------|--------------|---------------|
| 1/32            | .125  | .062 | 588-9208-062 | 688A-9208-062 | 1/8             | .125  | .156 | 588-9211-156 | 688A-9211-156 |
| 1/32            | .188  | .062 | 588-9222-062 | 688A-9222-062 | 1/8             | .188  | .156 | 588-9225-156 | 688A-9225-156 |
| 1/32            | .250  | .062 | 588-9229-062 | 688A-9229-062 | 1/8             | .250  | .156 | 588-9232-156 | 688A-9232-156 |
| 1/32            | .375  | .062 | 588-9243-062 | 688A-9243-062 | 1/8             | .375  | .156 | 588-9246-156 | 688A-9246-156 |
| 1/32            | .500  | .062 | 588-9257-062 | 688A-9257-062 | 1/8             | .500  | .156 | 588-9260-156 | 688A-9260-156 |
| 1/32            | .625  | .062 | 588-9271-062 | 688A-9271-062 | 1/8             | .625  | .156 | 588-9274-156 | 688A-9274-156 |
| 1/32            | .750  | .062 | 588-9285-062 | 688A-9285-062 | 1/8             | .750  | .156 | 588-9288-156 | 688A-9288-156 |
| 1/32            | 1.000 | .062 | 588-9313-062 | 688A-9313-062 | 1/8             | 1.000 | .156 | 588-9316-156 | 688A-9316-156 |
| 1/16            | .125  | .094 | 588-9209-094 | 688A-9209-094 | 3/16            | .125  | .219 | 588-9213-219 | 688A-9213-219 |
| 1/16            | .188  | .094 | 588-9223-094 | 688A-9223-094 | 3/16            | .188  | .219 | 588-9227-219 | 688A-9227-219 |
| 1/16            | .250  | .094 | 588-9230-094 | 688A-9230-094 | 3/16            | .250  | .219 | 588-9234-219 | 688A-9234-219 |
| 1/16            | .375  | .094 | 588-9244-094 | 688A-9244-094 | 3/16            | .375  | .219 | 588-9248-219 | 688A-9248-219 |
| 1/16            | .500  | .094 | 588-9258-094 | 688A-9258-094 | 3/16            | .500  | .219 | 588-9262-219 | 688A-9262-219 |
| 1/16            | .625  | .094 | 588-9272-094 | 688A-9272-094 | 3/16            | .625  | .219 | 588-9276-219 | 688A-9276-219 |
| 1/16            | .750  | .094 | 588-9286-094 | 688A-9286-094 | 3/16            | .750  | .219 | 588-9290-219 | 688A-9290-219 |
| 1/16            | 1.000 | .094 | 588-9314-094 | 688A-9314-094 | 3/16            | 1.000 | .219 | 588-9318-219 | 688A-9318-219 |
| 3/32            | .125  | .125 | 588-9210-125 | 688A-9210-125 | 1/4             | .125  | .281 | 588-9214-281 | 688A-9214-281 |
| 3/32            | .188  | .125 | 588-9224-125 | 688A-9224-125 | 1/4             | .188  | .281 | 588-9228-281 | 688A-9228-281 |
| 3/32            | .250  | .125 | 588-9231-125 | 688A-9231-125 | 1/4             | .250  | .281 | 588-9235-281 | 688A-9235-281 |
| 3/32            | .375  | .125 | 588-9245-125 | 688A-9245-125 | 1/4             | .375  | .281 | 588-9249-281 | 688A-9249-281 |
| 3/32            | .500  | .125 | 588-9259-125 | 688A-9259-125 | 1/4             | .500  | .281 | 588-9263-281 | 688A-9263-281 |
| 3/32            | .625  | .125 | 588-9273-125 | 688A-9273-125 | 1/4             | .625  | .281 | 588-9277-281 | 688A-9277-281 |
| 3/32            | .750  | .125 | 588-9287-125 | 688A-9287-125 | 1/4             | .750  | .281 | 588-9291-281 | 688A-9291-281 |
| 3/32            | 1.000 | .125 | 588-9315-125 | 688A-9315-125 | 1/4             | 1.000 | .281 | 588-9319-281 | 688A-9319-281 |

- FOR BRASS PARTS, ADD -02 SUFFIX TO PART NUMBER FOR STANDARD NICKEL FINISH
- FOR ALUMINUM PARTS, ADD -17 SUFFIX TO PART NUMBER FOR STANDARD NON-CHROMATE CLEAR PROTECTIVE COATING OR -16 FOR YELLOW IRRIDITE FINISH.

| H     | ANVIL     | PUNCH    |
|-------|-----------|----------|
| .125  | TA156-125 | TP125-98 |
| .188  |           |          |
| .250  | TA156-250 | TP125-98 |
| .375  |           |          |
| .500  | TA156-500 | TP125-98 |
| .625  |           |          |
| .750  | TA156-750 | TP125-98 |
| 1.000 |           |          |

FOR ADDITIONAL SIZES AND MATERIALS, CONTACT FACTORY





# STANDOFFS, THREADED, ROUND

## STANDOFFS THREADED, ROUND

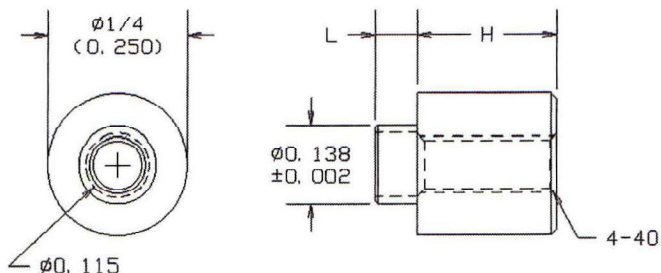
**513-9XXX-02 BRASS PER ASTM B16**

**513-9XXX-XXX-02**

**613A-9XXX-XX ALUMINUM PER ASTM B211**

**613A-9XXX-XXX-XX**

BASIC PART NO. FINISH\*



| BOARD THICKNESS |       |      |              |               | BOARD THICKNESS |       |      |          |           |
|-----------------|-------|------|--------------|---------------|-----------------|-------|------|----------|-----------|
| THICKNESS       | H     | L    | BRASS        | ALUMINUM      | THICKNESS       | H     | L    | BRASS    | ALUMINUM  |
| 1/32            | .125  | .062 | 513-9408-062 | 613A-9408-062 | 1/32            | .125  | .075 | 513-9408 | 613A-9408 |
| 1/32            | .188  | .062 | 513-9422-062 | 613A-9422-062 | 1/32            | .188  | .075 | 513-9422 | 613A-9422 |
| 1/32            | .250  | .062 | 513-9429-062 | 613A-9429-062 | 1/32            | .250  | .075 | 513-9429 | 613A-9429 |
| 1/32            | .375  | .062 | 513-9443-062 | 613A-9443-062 | 1/32            | .375  | .075 | 513-9443 | 613A-9443 |
| 1/32            | .500  | .062 | 513-9457-062 | 613A-9457-062 | 1/32            | .500  | .075 | 513-9457 | 613A-9457 |
| 1/32            | .625  | .062 | 513-9471-062 | 613A-9471-062 | 1/32            | .625  | .075 | 513-9471 | 613A-9471 |
| 1/32            | .750  | .062 | 513-9485-062 | 613A-9485-062 | 1/32            | .750  | .075 | 513-9485 | 613A-9485 |
| 1/32            | 1.000 | .062 | 513-9513-062 | 613A-9513-062 | 1/32            | 1.000 | .075 | 513-9513 | 613A-9513 |
| 1/16            | .125  | .094 | 513-9409-094 | 613A-9409-094 | 1/16            | .125  | .105 | 513-9409 | 613A-9409 |
| 1/16            | .188  | .094 | 513-9423-094 | 613A-9423-094 | 1/16            | .188  | .105 | 513-9423 | 613A-9423 |
| 1/16            | .250  | .094 | 513-9430-094 | 613A-9430-094 | 1/16            | .250  | .105 | 513-9430 | 613A-9430 |
| 1/16            | .375  | .094 | 513-9444-094 | 613A-9444-094 | 1/16            | .375  | .105 | 513-9444 | 613A-9444 |
| 1/16            | .500  | .094 | 513-9458-094 | 613A-9458-094 | 1/16            | .500  | .105 | 513-9458 | 613A-9458 |
| 1/16            | .625  | .094 | 513-9472-094 | 613A-9472-094 | 1/16            | .625  | .105 | 513-9472 | 613A-9472 |
| 1/16            | .750  | .094 | 513-9486-094 | 613A-9486-094 | 1/16            | .750  | .105 | 513-9486 | 613A-9486 |
| 1/16            | 1.000 | .094 | 513-9514-094 | 613A-9514-094 | 1/16            | 1.000 | .105 | 513-9514 | 613A-9514 |
| 3/32            | .125  | .125 | 513-9410-125 | 613A-9410-125 | 3/32            | .125  | .135 | 513-9410 | 613A-9410 |
| 3/32            | .188  | .125 | 513-9424-125 | 613A-9424-125 | 3/32            | .188  | .135 | 513-9424 | 613A-9424 |
| 3/32            | .250  | .125 | 513-9431-125 | 613A-9431-125 | 3/32            | .250  | .135 | 513-9431 | 613A-9431 |
| 3/32            | .375  | .125 | 513-9445-125 | 613A-9445-125 | 3/32            | .375  | .135 | 513-9445 | 613A-9445 |
| 3/32            | .500  | .125 | 513-9459-125 | 613A-9459-125 | 3/32            | .500  | .135 | 513-9459 | 613A-9459 |
| 3/32            | .625  | .125 | 513-9473-125 | 613A-9473-125 | 3/32            | .625  | .135 | 513-9473 | 613A-9473 |
| 3/32            | .750  | .125 | 513-9487-125 | 613A-9487-125 | 3/32            | .750  | .135 | 513-9487 | 613A-9487 |
| 3/32            | 1.000 | .125 | 513-9515-125 | 613A-9515-125 | 3/32            | 1.000 | .135 | 513-9515 | 613A-9515 |
| 1/8             | .125  | .156 | 513-9411-156 | 613A-9411-156 | 1/8             | .125  | .165 | 513-9411 | 613A-9411 |
| 1/8             | .188  | .156 | 513-9425-156 | 613A-9425-156 | 1/8             | .188  | .165 | 513-9425 | 613A-9425 |
| 1/8             | .250  | .156 | 513-9432-156 | 613A-9432-156 | 1/8             | .250  | .165 | 513-9432 | 613A-9432 |
| 1/8             | .375  | .156 | 513-9446-156 | 613A-9446-156 | 1/8             | .375  | .165 | 513-9446 | 613A-9446 |
| 1/8             | .500  | .156 | 513-9460-156 | 613A-9460-156 | 1/8             | .500  | .165 | 513-9460 | 613A-9460 |
| 1/8             | .625  | .156 | 513-9474-156 | 613A-9474-156 | 1/8             | .625  | .165 | 513-9474 | 613A-9474 |
| 1/8             | .750  | .156 | 513-9488-156 | 613A-9488-156 | 1/8             | .750  | .165 | 513-9488 | 613A-9488 |
| 1/8             | 1.000 | .156 | 513-9516-156 | 613A-9516-156 | 1/8             | 1.000 | .165 | 513-9516 | 613A-9516 |
| 3/16            | .125  | .219 | 513-9413-219 | 613A-9413-219 |                 |       |      |          |           |
| 3/16            | .188  | .219 | 513-9427-219 | 613A-9427-219 |                 |       |      |          |           |
| 3/16            | .250  | .219 | 513-9434-219 | 613A-9434-219 |                 |       |      |          |           |
| 3/16            | .375  | .219 | 513-9448-219 | 613A-9448-219 |                 |       |      |          |           |
| 3/16            | .500  | .219 | 513-9462-219 | 613A-9462-219 |                 |       |      |          |           |
| 3/16            | .625  | .219 | 513-9476-219 | 613A-9476-219 |                 |       |      |          |           |
| 3/16            | .750  | .219 | 513-9490-219 | 613A-9490-219 |                 |       |      |          |           |
| 3/16            | 1.000 | .219 | 513-9518-219 | 613A-9518-219 |                 |       |      |          |           |
| 1/4             | .125  | .281 | 513-9414-281 | 613A-9414-281 |                 |       |      |          |           |
| 1/4             | .188  | .281 | 513-9428-281 | 613A-9428-281 |                 |       |      |          |           |
| 1/4             | .250  | .281 | 513-9435-281 | 613A-9435-281 |                 |       |      |          |           |
| 1/4             | .375  | .281 | 513-9449-281 | 613A-9449-281 |                 |       |      |          |           |
| 1/4             | .500  | .281 | 513-9463-281 | 613A-9463-281 |                 |       |      |          |           |
| 1/4             | .625  | .281 | 513-9477-281 | 613A-9477-281 |                 |       |      |          |           |
| 1/4             | .750  | .281 | 513-9491-281 | 613A-9491-281 |                 |       |      |          |           |
| 1/4             | 1.000 | .281 | 513-9519-281 | 613A-9519-281 |                 |       |      |          |           |

- \* FOR BRASS PARTS, ADD -02 SUFFIX TO PART NUMBER FOR STANDARD NICKEL FINISH
- \* FOR ALUMINUM PARTS, ADD -17 SUFFIX TO PART NUMBER FOR STANDARD NON-CHROMATE CLEAR PROTECTIVE COATING OR -16 FOR YELLOW IRRIDITE FINISH.

### SWAGING TOOLS

| H             | ANVIL     | PUNCH     |
|---------------|-----------|-----------|
| .125<br>.188  | TA250-125 | TP136-110 |
| .250<br>.375  | TA250-250 | TP136-110 |
| .500<br>.625  | TA250-500 | TP136-110 |
| .750<br>1.000 | TA250-750 | TP136-110 |

FOR ADDITIONAL SIZES AND MATERIALS, CONTACT FACTORY





# STANDOFFS, THREADED, ROUND

## STANDOFFS THREADED, ROUND

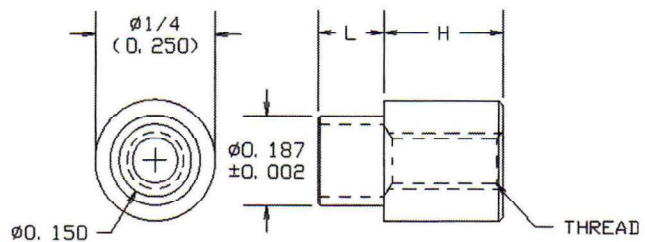
**512-9XXX-02**

**BRASS PER ASTM B16**

**612A-9XXX-XX**

**ALUMINUM PER ASTM B211**

BASIC PART NO. FINISH-



| BOARD THICKNESS | H     | L    | THD  | BRASS    | ALUMINUM  | BOARD THICKNESS | H     | L    | THD  | BRASS    | ALUMINUM  |
|-----------------|-------|------|------|----------|-----------|-----------------|-------|------|------|----------|-----------|
| 1/32            | .125  | .075 | 4-40 | 512-9408 | 612A-9408 | 1/32            | .125  | .075 | 6-32 | 512-9608 | 612A-9608 |
| 1/32            | .188  | .075 | 4-40 | 512-9422 | 612A-9422 | 1/32            | .188  | .075 | 6-32 | 512-9622 | 612A-9622 |
| 1/32            | .250  | .075 | 4-40 | 512-9429 | 612A-9429 | 1/32            | .250  | .075 | 6-32 | 512-9629 | 612A-9629 |
| 1/32            | .375  | .075 | 4-40 | 512-9443 | 612A-9443 | 1/32            | .375  | .075 | 6-32 | 512-9643 | 612A-9643 |
| 1/32            | .500  | .075 | 4-40 | 512-9457 | 612A-9457 | 1/32            | .500  | .075 | 6-32 | 512-9657 | 612A-9657 |
| 1/32            | .625  | .075 | 4-40 | 512-9471 | 612A-9471 | 1/32            | .625  | .075 | 6-32 | 512-9671 | 612A-9671 |
| 1/32            | .750  | .075 | 4-40 | 512-9485 | 612A-9485 | 1/32            | .750  | .075 | 6-32 | 512-9685 | 612A-9685 |
| 1/32            | 1.000 | .075 | 4-40 | 512-9513 | 612A-9513 | 1/32            | 1.000 | .075 | 6-32 | 512-9713 | 612A-9713 |
| 1/16            | .125  | .105 | 4-40 | 512-9409 | 612A-9409 | 1/16            | .125  | .105 | 6-32 | 512-9609 | 612A-9609 |
| 1/16            | .188  | .105 | 4-40 | 512-9423 | 612A-9423 | 1/16            | .188  | .105 | 6-32 | 512-9623 | 612A-9623 |
| 1/16            | .250  | .105 | 4-40 | 512-9430 | 612A-9430 | 1/16            | .250  | .105 | 6-32 | 512-9630 | 612A-9630 |
| 1/16            | .375  | .105 | 4-40 | 512-9444 | 612A-9444 | 1/16            | .375  | .105 | 6-32 | 512-9644 | 612A-9644 |
| 1/16            | .500  | .105 | 4-40 | 512-9458 | 612A-9458 | 1/16            | .500  | .105 | 6-32 | 512-9658 | 612A-9658 |
| 1/16            | .625  | .105 | 4-40 | 512-9472 | 612A-9472 | 1/16            | .625  | .105 | 6-32 | 512-9672 | 612A-9672 |
| 1/16            | .750  | .105 | 4-40 | 512-9486 | 612A-9486 | 1/16            | .750  | .105 | 6-32 | 512-9686 | 612A-9686 |
| 1/16            | 1.000 | .105 | 4-40 | 512-9514 | 612A-9514 | 1/16            | 1.000 | .105 | 6-32 | 512-9714 | 612A-9714 |
| 3/32            | .125  | .135 | 4-40 | 512-9410 | 612A-9410 | 3/32            | .125  | .135 | 6-32 | 512-9610 | 612A-9610 |
| 3/32            | .188  | .135 | 4-40 | 512-9424 | 612A-9424 | 3/32            | .188  | .135 | 6-32 | 512-9624 | 612A-9624 |
| 3/32            | .250  | .135 | 4-40 | 512-9431 | 612A-9431 | 3/32            | .250  | .135 | 6-32 | 512-9631 | 612A-9631 |
| 3/32            | .375  | .135 | 4-40 | 512-9445 | 612A-9445 | 3/32            | .375  | .135 | 6-32 | 512-9645 | 612A-9645 |
| 3/32            | .500  | .135 | 4-40 | 512-9459 | 612A-9459 | 3/32            | .500  | .135 | 6-32 | 512-9659 | 612A-9659 |
| 3/32            | .625  | .135 | 4-40 | 512-9473 | 612A-9473 | 3/32            | .625  | .135 | 6-32 | 512-9673 | 612A-9673 |
| 3/32            | .750  | .135 | 4-40 | 512-9487 | 612A-9487 | 3/32            | .750  | .135 | 6-32 | 512-9687 | 612A-9687 |
| 3/32            | 1.000 | .135 | 4-40 | 512-9515 | 612A-9515 | 3/32            | 1.000 | .135 | 6-32 | 512-9715 | 612A-9715 |
| 1/8             | .125  | .165 | 4-40 | 512-9411 | 612A-9411 | 1/8             | .125  | .165 | 6-32 | 512-9611 | 612A-9611 |
| 1/8             | .188  | .165 | 4-40 | 512-9425 | 612A-9425 | 1/8             | .188  | .165 | 6-32 | 512-9625 | 612A-9625 |
| 1/8             | .250  | .165 | 4-40 | 512-9432 | 612A-9432 | 1/8             | .250  | .165 | 6-32 | 512-9632 | 612A-9632 |
| 1/8             | .375  | .165 | 4-40 | 512-9446 | 612A-9446 | 1/8             | .375  | .165 | 6-32 | 512-9646 | 612A-9646 |
| 1/8             | .500  | .165 | 4-40 | 512-9460 | 612A-9460 | 1/8             | .500  | .165 | 6-32 | 512-9660 | 612A-9660 |
| 1/8             | .625  | .165 | 4-40 | 512-9474 | 612A-9474 | 1/8             | .625  | .165 | 6-32 | 512-9674 | 612A-9674 |
| 1/8             | .750  | .165 | 4-40 | 512-9488 | 612A-9488 | 1/8             | .750  | .165 | 6-32 | 512-9688 | 612A-9688 |
| 1/8             | 1.000 | .165 | 4-40 | 512-9516 | 612A-9516 | 1/8             | 1.000 | .165 | 6-32 | 512-9716 | 612A-9716 |
|                 |       |      |      |          |           | 3/16            | .125  | .230 | 6-32 | 512-9613 | 612A-9613 |
|                 |       |      |      |          |           | 3/16            | .188  | .230 | 6-32 | 512-9627 | 612A-9627 |
|                 |       |      |      |          |           | 3/16            | .250  | .230 | 6-32 | 512-9634 | 612A-9634 |
|                 |       |      |      |          |           | 3/16            | .375  | .230 | 6-32 | 512-9648 | 612A-9648 |
|                 |       |      |      |          |           | 3/16            | .500  | .230 | 6-32 | 512-9662 | 612A-9662 |
|                 |       |      |      |          |           | 3/16            | .625  | .230 | 6-32 | 512-9676 | 612A-9676 |
|                 |       |      |      |          |           | 3/16            | .750  | .230 | 6-32 | 512-9690 | 612A-9690 |
|                 |       |      |      |          |           | 3/16            | 1.000 | .230 | 6-32 | 512-9718 | 612A-9718 |
|                 |       |      |      |          |           | 1/4             | .125  | .290 | 6-32 | 512-9614 | 612A-9614 |
|                 |       |      |      |          |           | 1/4             | .188  | .290 | 6-32 | 512-9628 | 612A-9628 |
|                 |       |      |      |          |           | 1/4             | .250  | .290 | 6-32 | 512-9635 | 612A-9635 |
|                 |       |      |      |          |           | 1/4             | .375  | .290 | 6-32 | 512-9649 | 612A-9649 |
|                 |       |      |      |          |           | 1/4             | .500  | .290 | 6-32 | 512-9663 | 612A-9663 |
|                 |       |      |      |          |           | 1/4             | .625  | .290 | 6-32 | 512-9677 | 612A-9677 |
|                 |       |      |      |          |           | 1/4             | .750  | .290 | 6-32 | 512-9691 | 612A-9691 |
|                 |       |      |      |          |           | 1/4             | 1.000 | .290 | 6-32 | 512-9719 | 612A-9719 |

- FOR BRASS PARTS, ADD -02 SUFFIX TO PART NUMBER FOR STANDARD NICKEL FINISH
- FOR ALUMINUM PARTS, ADD -17 SUFFIX TO PART NUMBER FOR STANDARD NON-CHROMATE CLEAR PROTECTIVE COATING OR -16 FOR YELLOW IRRIDITE FINISH.

### SWAGING TOOLS

| H             | ANVIL     | PUNCH     |
|---------------|-----------|-----------|
| .125<br>.188  | TA250-125 | TP187-150 |
| .250<br>.375  | TA250-250 | TP187-150 |
| .500<br>.625  | TA250-500 | TP187-150 |
| .750<br>1.000 | TA250-750 | TP187-150 |

FOR ADDITIONAL SIZES AND MATERIALS, CONTACT FACTORY





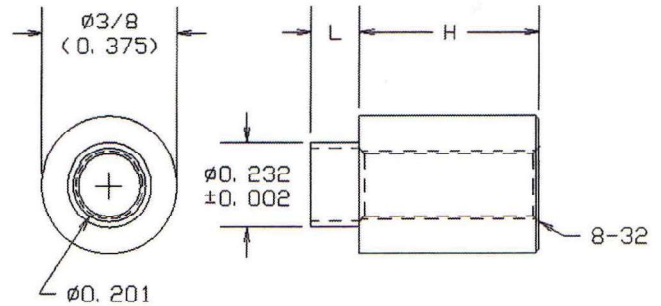
# STANDOFFS, THREADED, ROUND - CHASSIS FASTENERS

## STANDOFFS THREADED, ROUND

**523-9XXX-02**  
**623A-9XXX-XX**

BASIC PART NO. FINISH\*

**BRASS PER ASTM B16**  
**ALUMINUM PER ASTM B211**



| BOARD THICKNESS | H     | L    | BRASS    | ALUMINUM  | BOARD THICKNESS | H     | L    | BRASS    | ALUMINUM  |
|-----------------|-------|------|----------|-----------|-----------------|-------|------|----------|-----------|
| 1/32            | .125  | .075 | 523-9808 | 623A-9808 | 1/8             | .125  | .165 | 523-9811 | 623A-9811 |
| 1/32            | .188  | .075 | 523-9822 | 623A-9822 | 1/8             | .188  | .165 | 523-9825 | 623A-9825 |
| 1/32            | .250  | .075 | 523-9829 | 623A-9829 | 1/8             | .250  | .165 | 523-9832 | 623A-9832 |
| 1/32            | .375  | .075 | 523-9843 | 623A-9843 | 1/8             | .375  | .165 | 523-9846 | 623A-9846 |
| 1/32            | .500  | .075 | 523-9857 | 623A-9857 | 1/8             | .500  | .165 | 523-9860 | 623A-9860 |
| 1/32            | .625  | .075 | 523-9871 | 623A-9871 | 1/8             | .625  | .165 | 523-9874 | 623A-9874 |
| 1/32            | .750  | .075 | 523-9885 | 623A-9885 | 1/8             | .750  | .165 | 523-9888 | 623A-9888 |
| 1/32            | 1.000 | .075 | 523-9913 | 623A-9913 | 1/8             | 1.000 | .165 | 523-9916 | 623A-9916 |
| 1/16            | .125  | .105 | 523-9809 | 623A-9809 | 3/16            | .125  | .230 | 523-9813 | 623A-9813 |
| 1/16            | .188  | .105 | 523-9823 | 623A-9823 | 3/16            | .188  | .230 | 523-9827 | 623A-9827 |
| 1/16            | .250  | .105 | 523-9830 | 623A-9830 | 3/16            | .250  | .230 | 523-9834 | 623A-9834 |
| 1/16            | .375  | .105 | 523-9844 | 623A-9844 | 3/16            | .375  | .230 | 523-9848 | 623A-9848 |
| 1/16            | .500  | .105 | 523-9858 | 623A-9858 | 3/16            | .500  | .230 | 523-9862 | 623A-9862 |
| 1/16            | .625  | .105 | 523-9872 | 623A-9872 | 3/16            | .625  | .230 | 523-9876 | 623A-9876 |
| 1/16            | .750  | .105 | 523-9886 | 623A-9886 | 3/16            | .750  | .230 | 523-9890 | 623A-9890 |
| 1/16            | 1.000 | .105 | 523-9914 | 623A-9914 | 3/16            | 1.000 | .230 | 523-9918 | 623A-9918 |
| 3/32            | .125  | .135 | 523-9810 | 623A-9810 | 1/4             | .125  | .290 | 523-9814 | 623A-9814 |
| 3/32            | .188  | .135 | 523-9824 | 623A-9824 | 1/4             | .188  | .290 | 523-9828 | 623A-9828 |
| 3/32            | .250  | .135 | 523-9831 | 623A-9831 | 1/4             | .250  | .290 | 523-9835 | 623A-9835 |
| 3/32            | .375  | .135 | 523-9845 | 623A-9845 | 1/4             | .375  | .290 | 523-9849 | 623A-9849 |
| 3/32            | .500  | .135 | 523-9859 | 623A-9859 | 1/4             | .500  | .290 | 523-9863 | 623A-9863 |
| 3/32            | .625  | .135 | 523-9873 | 623A-9873 | 1/4             | .625  | .290 | 523-9877 | 623A-9877 |
| 3/32            | .750  | .135 | 523-9887 | 623A-9887 | 1/4             | .750  | .290 | 523-9891 | 623A-9891 |
| 3/32            | 1.000 | .135 | 523-9915 | 623A-9915 | 1/4             | 1.000 | .290 | 523-9919 | 623A-9919 |

### SWAGING TOOLS

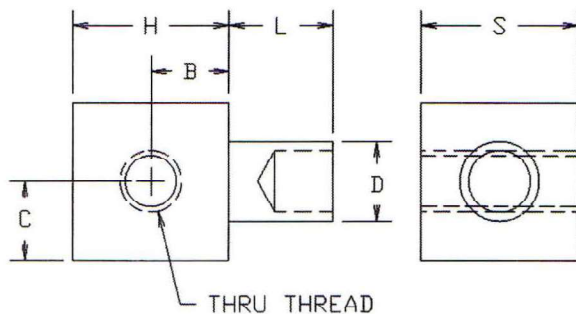
| H             | ANVIL     | PUNCH     |
|---------------|-----------|-----------|
| .125<br>.188  | TA375-125 | TP232-201 |
| .250<br>.375  | TA375-250 | TP232-201 |
| .500<br>.625  | TA375-500 | TP232-201 |
| .750<br>1.000 | TA375-750 | TP232-201 |

- FOR BRASS PARTS, ADD -02 SUFFIX TO PART NUMBER  
FOR STANDARD NICKEL FINISH
- FOR ALUMINUM PARTS, ADD -17 SUFFIX TO PART NUMBER  
FOR STANDARD NON-CHROMATE CLEAR PROTECTIVE COATING OR  
-16 FOR YELLOW IRRIDITE FINISH.

## CHASSIS FASTENERS

MATERIAL: BRASS PER ASTM B16  
ALUMINUM PER ASTM B211

PART NO. CHANGED FOR BRASS OR ALUMINUM  
PER THIS EXAMPLE



**90-9450-044**

BRASS, BRIGHT TIN PL.

**90-9550-16**

ALUMINUM, YELLOW IRRIDITE

| PART NO | D    | H    | B    | S    | C    | L    | T    | THREAD |
|---------|------|------|------|------|------|------|------|--------|
| 90-9X50 | .126 | .250 | .125 | .250 | .125 | .075 | 1/32 | 4-40   |
| 90-9X51 | .126 | .250 | .125 | .250 | .125 | .105 | 1/16 | 4-40   |
| 90-9X52 | .126 | .250 | .125 | .250 | .125 | .135 | 3/32 | 4-40   |
| 90-9X53 | .126 | .250 | .125 | .250 | .125 | .165 | 1/8  | 4-40   |
| 90-9X55 | .188 | .380 | .219 | .312 | .156 | .105 | 1/16 | 6-32   |
| 90-9X56 | .188 | .380 | .219 | .312 | .156 | .135 | 3/32 | 6-32   |
| 90-9X57 | .188 | .380 | .219 | .312 | .156 | .165 | 1/8  | 6-32   |

FOR ADDITIONAL SIZES AND MATERIALS, CONTACT FACTORY

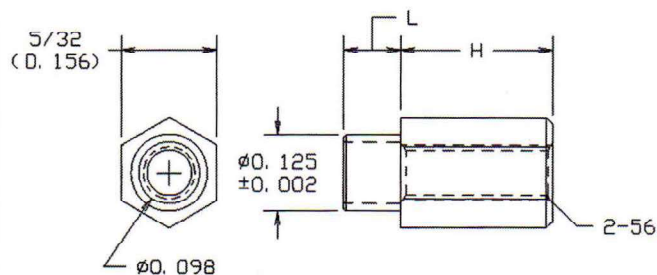




# STANDOFFS, THREADED, HEX

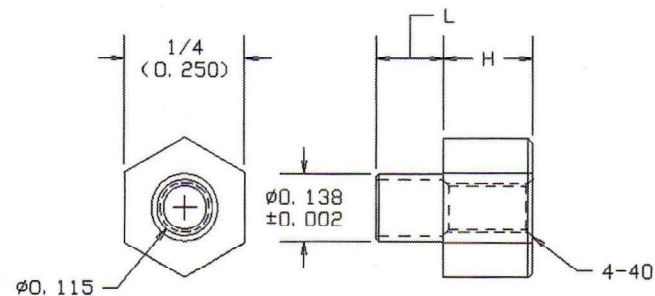
**525-9XXX-XXX-02 BRASS PER ASTM B16**  
**625A-9XXX-XXX-XX ALUMINUM PER ASTM B211**

BASIC PART NO. FINISH\*



**530-9XXX-02 BRASS PER ASTM B16**  
**630A-9XXX-XX ALUMINUM PER ASTM B211**

BASIC PART NO. FINISH\*



| BOARD THICKNESS | H     | L    | BRASS        | ALUMINUM      |
|-----------------|-------|------|--------------|---------------|
| 1/16            | .125  | .094 | 525-9209-094 | 625A-9209-094 |
| 1/16            | .188  | .094 | 525-9223-094 | 625A-9223-094 |
| 1/16            | .250  | .094 | 525-9230-094 | 625A-9230-094 |
| 1/16            | .375  | .094 | 525-9244-094 | 625A-9244-094 |
| 1/16            | .500  | .094 | 525-9258-094 | 625A-9258-094 |
| 1/16            | .625  | .094 | 525-9272-094 | 625A-9272-094 |
| 1/16            | .750  | .094 | 525-9286-094 | 625A-9286-094 |
| 1/16            | 1.000 | .094 | 525-9314-094 | 625A-9314-094 |
| 3/32            | .125  | .125 | 525-9210-125 | 625A-9210-125 |
| 3/32            | .188  | .125 | 525-9224-125 | 625A-9224-125 |
| 3/32            | .250  | .125 | 525-9231-125 | 625A-9231-125 |
| 3/32            | .375  | .125 | 525-9245-125 | 625A-9245-125 |
| 3/32            | .500  | .125 | 525-9259-125 | 625A-9259-125 |
| 3/32            | .625  | .125 | 525-9273-125 | 625A-9273-125 |
| 3/32            | .750  | .125 | 525-9287-125 | 625A-9287-125 |
| 3/32            | 1.000 | .125 | 525-9315-125 | 625A-9315-125 |
| 1/8             | .125  | .156 | 525-9211-156 | 625A-9211-156 |
| 1/8             | .188  | .156 | 525-9225-156 | 625A-9225-156 |
| 1/8             | .250  | .156 | 525-9232-156 | 625A-9232-156 |
| 1/8             | .375  | .156 | 525-9246-156 | 625A-9246-156 |
| 1/8             | .500  | .156 | 525-9260-156 | 625A-9260-156 |
| 1/8             | .625  | .156 | 525-9274-156 | 625A-9274-156 |
| 1/8             | .750  | .156 | 525-9288-156 | 625A-9288-156 |
| 1/8             | 1.000 | .156 | 525-9316-156 | 625A-9316-156 |

| BOARD THICKNESS | H     | L    | BRASS    | ALUMINUM  |
|-----------------|-------|------|----------|-----------|
| 1/32            | .125  | .075 | 530-9408 | 630A-9408 |
| 1/32            | .188  | .075 | 530-9422 | 630A-9422 |
| 1/32            | .250  | .075 | 530-9429 | 630A-9429 |
| 1/32            | .375  | .075 | 530-9443 | 630A-9443 |
| 1/32            | .500  | .075 | 530-9457 | 630A-9457 |
| 1/32            | .625  | .075 | 530-9471 | 630A-9471 |
| 1/32            | .750  | .075 | 530-9485 | 630A-9485 |
| 1/32            | 1.000 | .075 | 530-9513 | 630A-9513 |
| 1/16            | .125  | .105 | 530-9409 | 630A-9409 |
| 1/16            | .188  | .105 | 530-9423 | 630A-9423 |
| 1/16            | .250  | .105 | 530-9430 | 630A-9430 |
| 1/16            | .375  | .105 | 530-9444 | 630A-9444 |
| 1/16            | .500  | .105 | 530-9458 | 630A-9458 |
| 1/16            | .625  | .105 | 530-9472 | 630A-9472 |
| 1/16            | .750  | .105 | 530-9486 | 630A-9486 |
| 1/16            | 1.000 | .105 | 530-9514 | 630A-9514 |
| 3/32            | .125  | .135 | 530-9410 | 630A-9410 |
| 3/32            | .188  | .135 | 530-9424 | 630A-9424 |
| 3/32            | .250  | .135 | 530-9431 | 630A-9431 |
| 3/32            | .375  | .135 | 530-9445 | 630A-9445 |
| 3/32            | .500  | .135 | 530-9459 | 630A-9459 |
| 3/32            | .625  | .135 | 530-9473 | 630A-9473 |
| 3/32            | .750  | .135 | 530-9487 | 630A-9487 |
| 3/32            | 1.000 | .135 | 530-9515 | 630A-9515 |
| 1/8             | .125  | .165 | 530-9411 | 630A-9411 |
| 1/8             | .188  | .165 | 530-9425 | 630A-9425 |
| 1/8             | .250  | .165 | 530-9432 | 630A-9432 |
| 1/8             | .375  | .165 | 530-9446 | 630A-9446 |
| 1/8             | .500  | .165 | 530-9460 | 630A-9460 |
| 1/8             | .625  | .165 | 530-9474 | 630A-9474 |
| 1/8             | .750  | .165 | 530-9488 | 630A-9488 |
| 1/8             | 1.000 | .165 | 530-9516 | 630A-9516 |

- FOR BRASS PARTS, ADD -02 SUFFIX TO PART NUMBER FOR STANDARD NICKEL FINISH
- FOR ALUMINUM PARTS, ADD -17 SUFFIX TO PART NUMBER FOR STANDARD NON-CHROMATE CLEAR PROTECTIVE COATING OR -16 FOR YELLOW IRRIDITE FINISH.

- FOR BRASS PARTS, ADD -02 SUFFIX TO PART NUMBER FOR STANDARD NICKEL FINISH
- FOR ALUMINUM PARTS, ADD -17 SUFFIX TO PART NUMBER FOR STANDARD NON-CHROMATE CLEAR PROTECTIVE COATING OR -16 FOR YELLOW IRRIDITE FINISH.

## SWAGING TOOLS

| H     | ANVIL     | PUNCH    |
|-------|-----------|----------|
| .125  | TA180-125 | TP125-98 |
| .188  | TA180-125 | TP125-98 |
| .250  | TA180-250 | TP125-98 |
| .375  | TA180-250 | TP125-98 |
| .500  | TA180-500 | TP125-98 |
| .625  | TA180-500 | TP125-98 |
| .750  | TA180-750 | TP125-98 |
| 1.000 | TA180-750 | TP125-98 |

## SWAGING TOOLS

| H     | ANVIL     | PUNCH     |
|-------|-----------|-----------|
| .125  | TA289-125 | TP136-110 |
| .188  | TA289-125 | TP136-110 |
| .250  | TA289-250 | TP136-110 |
| .375  | TA289-250 | TP136-110 |
| .500  | TA289-500 | TP136-110 |
| .625  | TA289-500 | TP136-110 |
| .750  | TA289-750 | TP136-110 |
| 1.000 | TA289-750 | TP136-110 |

FOR ADDITIONAL SIZES AND MATERIALS, CONTACT FACTORY





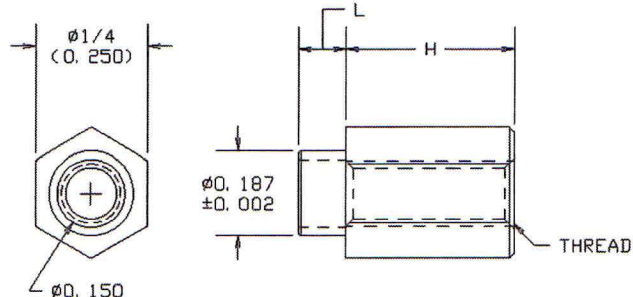
# STANDOFFS, THREADED, HEX

## STANDOFFS THREADED, HEX

**52X-9XXX-02**  
**62XA-9XXX-XX**

BASIC PART NO. FINISH\*

**BRASS PER ASTM B16**  
**ALUMINUM PER ASTM B211**



| BOARD THICKNESS | H     | L    | THD  | BRASS    | ALUMINUM  | BOARD THICKNESS | H     | L    | THD  | BRASS    | ALUMINUM  |
|-----------------|-------|------|------|----------|-----------|-----------------|-------|------|------|----------|-----------|
| 1/32            | .125  | .075 | 4-40 | 527-9408 | 627A-9408 | 1/32            | .125  | .075 | 6-32 | 528-9608 | 628A-9608 |
| 1/32            | .188  | .075 | 4-40 | 527-9422 | 627A-9422 | 1/32            | .188  | .075 | 6-32 | 528-9622 | 628A-9622 |
| 1/32            | .250  | .075 | 4-40 | 527-9429 | 627A-9429 | 1/32            | .250  | .075 | 6-32 | 528-9629 | 628A-9629 |
| 1/32            | .375  | .075 | 4-40 | 527-9443 | 627A-9443 | 1/32            | .375  | .075 | 6-32 | 528-9643 | 628A-9643 |
| 1/32            | .500  | .075 | 4-40 | 527-9457 | 627A-9457 | 1/32            | .500  | .075 | 6-32 | 528-9657 | 628A-9657 |
| 1/32            | .625  | .075 | 4-40 | 527-9471 | 627A-9471 | 1/32            | .625  | .075 | 6-32 | 528-9671 | 628A-9671 |
| 1/32            | .750  | .075 | 4-40 | 527-9485 | 627A-9485 | 1/32            | .750  | .075 | 6-32 | 528-9685 | 628A-9685 |
| 1/32            | 1.000 | .075 | 4-40 | 527-9513 | 627A-9513 | 1/32            | 1.000 | .075 | 6-32 | 528-9713 | 628A-9713 |
| 1/16            | .125  | .105 | 4-40 | 527-9409 | 627A-9409 | 1/16            | .125  | .105 | 6-32 | 528-9609 | 628A-9609 |
| 1/16            | .188  | .105 | 4-40 | 527-9423 | 627A-9423 | 1/16            | .188  | .105 | 6-32 | 528-9623 | 628A-9623 |
| 1/16            | .250  | .105 | 4-40 | 527-9430 | 627A-9430 | 1/16            | .250  | .105 | 6-32 | 528-9630 | 628A-9630 |
| 1/16            | .375  | .105 | 4-40 | 527-9444 | 627A-9444 | 1/16            | .375  | .105 | 6-32 | 528-9644 | 628A-9644 |
| 1/16            | .500  | .105 | 4-40 | 527-9458 | 627A-9458 | 1/16            | .500  | .105 | 6-32 | 528-9658 | 628A-9658 |
| 1/16            | .625  | .105 | 4-40 | 527-9472 | 627A-9472 | 1/16            | .625  | .105 | 6-32 | 528-9672 | 628A-9672 |
| 1/16            | .750  | .105 | 4-40 | 527-9486 | 627A-9486 | 1/16            | .750  | .105 | 6-32 | 528-9686 | 628A-9686 |
| 1/16            | 1.000 | .105 | 4-40 | 527-9514 | 627A-9514 | 1/16            | 1.000 | .105 | 6-32 | 528-9714 | 628A-9714 |
| 3/32            | .125  | .135 | 4-40 | 527-9410 | 627A-9410 | 3/32            | .125  | .135 | 6-32 | 528-9610 | 628A-9610 |
| 3/32            | .188  | .135 | 4-40 | 527-9424 | 627A-9424 | 3/32            | .188  | .135 | 6-32 | 528-9624 | 628A-9624 |
| 3/32            | .250  | .135 | 4-40 | 527-9431 | 627A-9431 | 3/32            | .250  | .135 | 6-32 | 528-9631 | 628A-9631 |
| 3/32            | .375  | .135 | 4-40 | 527-9445 | 627A-9445 | 3/32            | .375  | .135 | 6-32 | 528-9645 | 628A-9645 |
| 3/32            | .500  | .135 | 4-40 | 527-9459 | 627A-9459 | 3/32            | .500  | .135 | 6-32 | 528-9659 | 628A-9659 |
| 3/32            | .625  | .135 | 4-40 | 527-9473 | 627A-9473 | 3/32            | .625  | .135 | 6-32 | 528-9673 | 628A-9673 |
| 3/32            | .750  | .135 | 4-40 | 527-9487 | 627A-9487 | 3/32            | .750  | .135 | 6-32 | 528-9687 | 628A-9687 |
| 3/32            | 1.000 | .135 | 4-40 | 527-9515 | 627A-9515 | 3/32            | 1.000 | .135 | 6-32 | 528-9715 | 628A-9715 |
| 1/8             | .125  | .165 | 4-40 | 527-9411 | 627A-9411 | 1/8             | .125  | .165 | 6-32 | 528-9611 | 628A-9611 |
| 1/8             | .188  | .165 | 4-40 | 527-9425 | 627A-9425 | 1/8             | .188  | .165 | 6-32 | 528-9625 | 628A-9625 |
| 1/8             | .250  | .165 | 4-40 | 527-9432 | 627A-9432 | 1/8             | .250  | .165 | 6-32 | 528-9632 | 628A-9632 |
| 1/8             | .375  | .165 | 4-40 | 527-9446 | 627A-9446 | 1/8             | .375  | .165 | 6-32 | 528-9646 | 628A-9646 |
| 1/8             | .500  | .165 | 4-40 | 527-9460 | 627A-9460 | 1/8             | .500  | .165 | 6-32 | 528-9660 | 628A-9660 |
| 1/8             | .625  | .165 | 4-40 | 527-9474 | 627A-9474 | 1/8             | .625  | .165 | 6-32 | 528-9674 | 628A-9674 |
| 1/8             | .750  | .165 | 4-40 | 527-9488 | 627A-9488 | 1/8             | .750  | .165 | 6-32 | 528-9688 | 628A-9688 |
| 1/8             | 1.000 | .165 | 4-40 | 527-9516 | 627A-9516 | 1/8             | 1.000 | .165 | 6-32 | 528-9716 | 628A-9716 |

- FOR BRASS PARTS, ADD -02 SUFFIX TO PART NUMBER FOR STANDARD NICKEL FINISH
- FOR ALUMINUM PARTS, ADD -17 SUFFIX TO PART NUMBER FOR STANDARD NON-CHROMATE CLEAR PROTECTIVE COATING OR -16 FOR YELLOW IRRIDITE FINISH.

### SWAGING TOOLS

| H             | ANVIL     | PUNCH     |
|---------------|-----------|-----------|
| .125<br>.188  | TA289-125 | TP187-150 |
| .250<br>.375  | TA289-250 | TP187-150 |
| .500<br>.625  | TA289-500 | TP187-150 |
| .750<br>1.000 | TA289-750 | TP187-150 |

FOR ADDITIONAL SIZES AND MATERIALS, CONTACT FACTORY





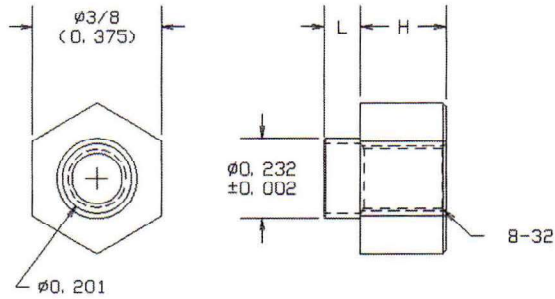
# STANDOFFS, HEX

# ARBOR PRESS & TOOLING

**STANDOFFS  
THREADED, HEX  
529-9XXX-02  
629A-9XXX-XX**

**BRASS PER ASTM B16  
ALUMINUM PER ASTM B211**

BASIC PART NO. FINISH-



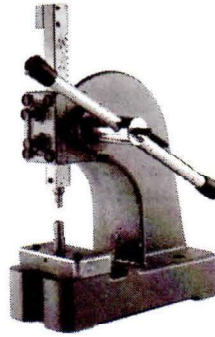
| BOARD THICKNESS | H     | L    | BRASS    | ALUMINUM  |
|-----------------|-------|------|----------|-----------|
| 1/32            | .125  | .075 | 529-9808 | 629A-9808 |
| 1/32            | .188  | .075 | 529-9822 | 629A-9822 |
| 1/32            | .250  | .075 | 529-9829 | 629A-9829 |
| 1/32            | .375  | .075 | 529-9843 | 629A-9843 |
| 1/32            | .500  | .075 | 529-9857 | 629A-9857 |
| 1/32            | .625  | .075 | 529-9871 | 629A-9871 |
| 1/32            | .750  | .075 | 529-9885 | 629A-9885 |
| 1/32            | 1.000 | .075 | 529-9913 | 629A-9913 |
| 1/16            | .125  | .105 | 529-9809 | 629A-9809 |
| 1/16            | .188  | .105 | 529-9823 | 629A-9823 |
| 1/16            | .250  | .105 | 529-9830 | 629A-9830 |
| 1/16            | .375  | .105 | 529-9844 | 629A-9844 |
| 1/16            | .500  | .105 | 529-9858 | 629A-9858 |
| 1/16            | .625  | .105 | 529-9872 | 629A-9872 |
| 1/16            | .750  | .105 | 529-9886 | 629A-9886 |
| 1/16            | 1.000 | .105 | 529-9914 | 629A-9914 |
| 3/32            | .125  | .135 | 529-9810 | 629A-9810 |
| 3/32            | .188  | .135 | 529-9824 | 629A-9824 |
| 3/32            | .250  | .135 | 529-9831 | 629A-9831 |
| 3/32            | .375  | .135 | 529-9845 | 629A-9845 |
| 3/32            | .500  | .135 | 529-9859 | 629A-9859 |
| 3/32            | .625  | .135 | 529-9873 | 629A-9873 |
| 3/32            | .750  | .135 | 529-9887 | 629A-9887 |
| 3/32            | 1.000 | .135 | 529-9915 | 629A-9915 |
| 1/8             | .125  | .165 | 529-9811 | 629A-9811 |
| 1/8             | .188  | .165 | 529-9825 | 629A-9825 |
| 1/8             | .250  | .165 | 529-9832 | 629A-9832 |
| 1/8             | .375  | .165 | 529-9846 | 629A-9846 |
| 1/8             | .500  | .165 | 529-9860 | 629A-9860 |
| 1/8             | .625  | .165 | 529-9874 | 629A-9874 |
| 1/8             | .750  | .165 | 529-9888 | 629A-9888 |
| 1/8             | 1.000 | .165 | 529-9916 | 629A-9916 |

- FOR BRASS PARTS, ADD -02 SUFFIX TO PART NUMBER FOR STANDARD NICKEL FINISH
- FOR ALUMINUM PARTS, ADD -17 SUFFIX TO PART NUMBER FOR STANDARD NON-CHROMATE CLEAR PROTECTIVE COATING OR -16 FOR YELLOW IRRIDITE FINISH.

### SWAGING TOOLS

| H     | ANVIL     | PUNCH     |
|-------|-----------|-----------|
| .125  | TA433-125 | TP232-201 |
| .188  | TA433-125 | TP232-201 |
| .250  | TA433-250 | TP232-201 |
| .375  | TA433-250 | TP232-201 |
| .500  | TA433-500 | TP232-201 |
| .625  | TA433-500 | TP232-201 |
| .750  | TA433-750 | TP232-201 |
| 1.000 | TA433-750 | TP232-201 |

## ARBOR PRESS



A MANUAL PRESSURE SWAGER PRESS DESIGNED FOR QUICK, SOLID, UNIFORM SWAGING OF SOLDER TERMINALS. CONCORD WILL MANUFACTURE SWAGER TOOLING FOR ANY CONCORD MADE SOLDER TERMINALS.

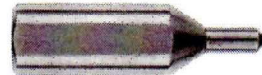
### SWAGING TOOLS



(TA) STANDARD ANVIL

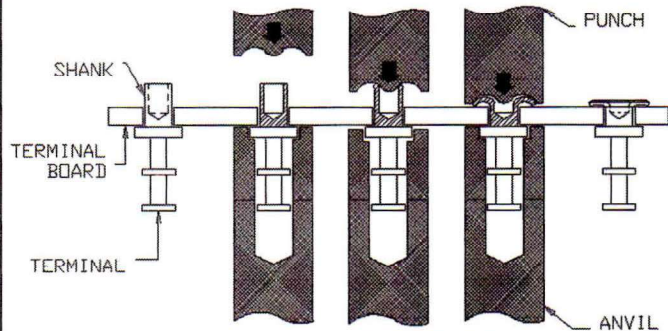


(TP) STANDARD ROLL

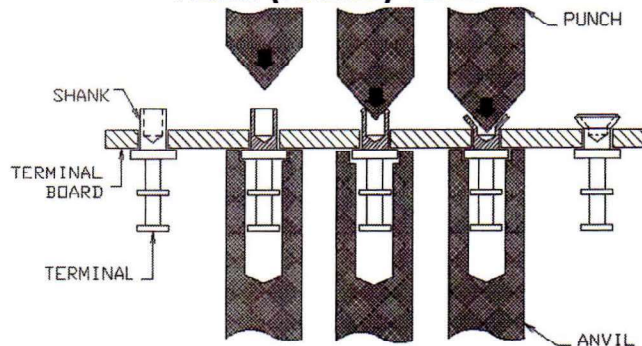


(TFLP) STANDARD FLARE

### SWAGING TOOLS



### FLARE (FUNNEL) TOOLS



1. FIRST DRILL A HOLE IN THE BOARD THAT IS JUST LARGE ENOUGH FOR THE SHANK OF THE TERMINAL TO PASS THROUGH, BUT NOT LARGE ENOUGH FOR THE SHOULDER TO PASS THROUGH, (SEE INDIVIDUAL PART SPECIFICATION FOR RECOMMENDED HOLE SIZE)
- 2A. THE NAME, ROLL SWAGE FAIRLY WELL DESCRIBES WHAT IS HAPPENING TO THE PART. THE LIP OF THE SHANK, WHICH EXTENDS PAST THE FACE OF THE BOARD, IS ROLLED OVER AND BACK DOWN ONTO THE FACE OF THE BOARD AS SHOWN.
- 2B. THE "FLARE" SWAGE IS ALSO KNOWN AS THE "FUNNEL" SWAGE. THE FLARE SWAGE OPERATION FORMS THE LIPS OF THE SHANK INTO A FUNNEL SHAPE.
3. THE TOOL THAT SUPPORTS THE TERMINAL WHILE THIS IS BEING DONE IS CALLED THE "ANVIL" (ALSO SOMETIMES CALLED THE "SEAT")
4. THE TOOL THAT DOES THE ACTUAL FORMING IS CALLED THE "PUNCH".

FOR ADDITIONAL SIZES AND MATERIALS, CONTACT FACTORY

