



## STANDARD SHAPES

AVAILABLE WITHOUT DIE CHARGES

EFFECTIVE JUNE, 2025

WESTERN EXTRUSIONS CORPORATION

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## GENERAL INFORMATION

### WESTERN EXTRUSIONS CUSTOMER SERVICE:

- PHONE (972) 245-7515
- TOLL FREE: (800) 888-6063
- FAX: (972) 245-2980

### FINISHES AVAILABLE:

- MILL
- PRETREAT
- PAINT
- ANODIZE
  - CLEAR
  - COLOR BRITE DIP
  - POLISH AND BRITE DIP
  - MECHANICAL FINISHES AND BRITE DIP
  - TWO STEP ELECTROLYTIC BRONZE AND BLACK

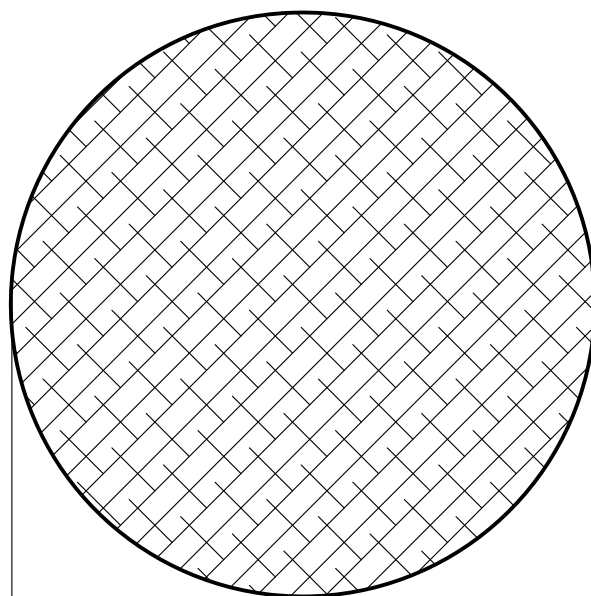
### STANDARD ALLOYS:

- |       |                                   |
|-------|-----------------------------------|
| -6005 | -SHARP CORNERS BROKEN AT 0.020 R. |
| -6061 | -SHARP CORNERS BROKEN AT 0.020 R. |
| -6063 | -SHARP CORNERS BROKEN AT 0.015 R. |
| -6463 | -SHARP CORNERS BROKEN AT 0.015 R. |
| -6351 | -SHARP CORNERS BROKEN AT 0.020 R. |

ALL SHAPES ARE PRODUCED TO ORDER. NO STANDARD SHAPES ARE KEPT IN STOCK.

OTHER STANDARD SHAPES THAT ARE NOT LISTED MAY BE AVAILABLE WITHOUT DIE COST. PLEASE CONTACT YOUR CUSTOMER SERVICE REPRESENTATIVE FOR MORE INFORMATION

ROD



← DIA. →

# ROD

| DIE No.      | DIAMETER     | WT/FT        | PERIMETER    |
|--------------|--------------|--------------|--------------|
|              |              |              |              |
| <b>19475</b> | <b>0.312</b> | <b>0.091</b> | <b>0.980</b> |
|              |              |              |              |
| <b>19859</b> | <b>0.375</b> | <b>0.132</b> | <b>1.178</b> |
|              |              |              |              |
| <b>19820</b> | <b>0.500</b> | <b>0.235</b> | <b>1.571</b> |
|              |              |              |              |
| <b>19753</b> | <b>0.625</b> | <b>0.368</b> | <b>1.963</b> |
|              |              |              |              |
| <b>19373</b> | <b>0.688</b> | <b>0.446</b> | <b>2.161</b> |
|              |              |              |              |
| <b>19817</b> | <b>0.750</b> | <b>0.530</b> | <b>2.356</b> |
|              |              |              |              |
| <b>19895</b> | <b>0.875</b> | <b>0.721</b> | <b>2.749</b> |
|              |              |              |              |
| <b>19446</b> | <b>0.938</b> | <b>0.829</b> | <b>2.947</b> |
|              |              |              |              |
| <b>19905</b> | <b>1.000</b> | <b>0.942</b> | <b>3.142</b> |
|              |              |              |              |
| <b>19903</b> | <b>1.125</b> | <b>1.193</b> | <b>3.534</b> |
|              |              |              |              |
| <b>19909</b> | <b>1.250</b> | <b>1.472</b> | <b>3.927</b> |
|              |              |              |              |
| <b>19427</b> | <b>1.312</b> | <b>1.622</b> | <b>4.122</b> |
|              |              |              |              |
| <b>19426</b> | <b>1.375</b> | <b>1.782</b> | <b>4.320</b> |
|              |              |              |              |
| <b>19933</b> | <b>1.500</b> | <b>2.120</b> | <b>4.712</b> |
|              |              |              |              |
| <b>19888</b> | <b>1.750</b> | <b>2.886</b> | <b>5.498</b> |
|              |              |              |              |
| <b>19951</b> | <b>1.910</b> | <b>3.438</b> | <b>6.000</b> |
|              |              |              |              |
| <b>19730</b> | <b>2.000</b> | <b>3.770</b> | <b>6.283</b> |
|              |              |              |              |
|              |              |              |              |

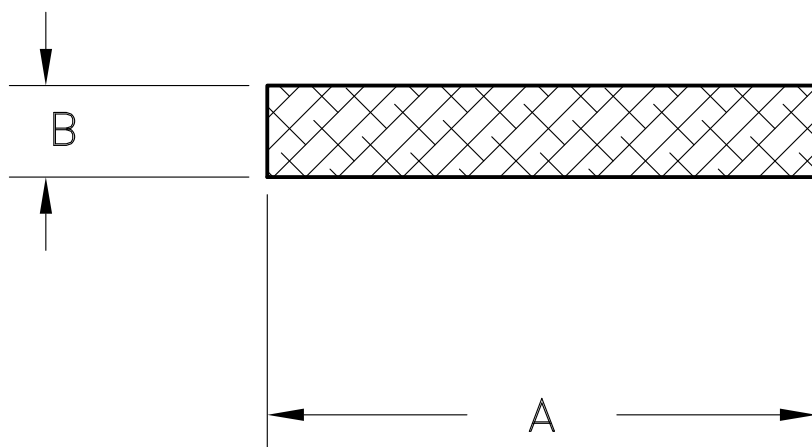
## ROD

[illegible]



# RECTANGULAR BAR

SHARP CORNERS





# RECTANGULAR BAR SHARP CORNERS

| DIE No.                                | A     | DIM | B     | WT/FT | PERIM |
|----------------------------------------|-------|-----|-------|-------|-------|
|                                        |       |     |       |       |       |
| 19760                                  | 0.750 | X   | 0.187 | 0.169 | 1.858 |
| 19681                                  | 0.750 | X   | 0.375 | 0.337 | 2.224 |
|                                        |       |     |       |       |       |
| 19866                                  | 1.000 | X   | 0.125 | 0.150 | 2.233 |
| 19803                                  | 1.000 | X   | 0.250 | 0.300 | 2.473 |
| 19843                                  | 1.000 | X   | 0.313 | 0.376 | 2.626 |
| 19786                                  | 1.000 | X   | 0.375 | 0.450 | 2.750 |
| 19791                                  | 1.000 | X   | 0.500 | 0.600 | 3.000 |
|                                        |       |     |       |       |       |
| 19802                                  | 1.250 | X   | 0.187 | 0.281 | 2.858 |
| 19547                                  | 1.250 | X   | 0.250 | 0.376 | 3.000 |
| 19578                                  | 1.250 | X   | 0.500 | 0.750 | 3.500 |
|                                        |       |     |       |       |       |
| 19468                                  | 1.375 | X   | 0.125 | 0.206 | 3.000 |
|                                        |       |     |       |       |       |
| 19647                                  | 1.500 | X   | 0.125 | 0.226 | 3.250 |
| 19879                                  | 1.500 | X   | 0.250 | 0.450 | 3.483 |
| 19798                                  | 1.500 | X   | 0.375 | 0.676 | 3.750 |
| 19033                                  | 1.500 | X   | 0.375 | 0.676 | 3.750 |
| 19033 (FOR 6463/T5 OR T6 ORDERS ONLY)  |       |     |       |       |       |
| 19968                                  | 1.500 | X   | 0.500 | 0.900 | 4.000 |
| 19433                                  | 1.500 | X   | 0.625 | 1.126 | 4.250 |
|                                        |       |     |       |       |       |
| 19764                                  | 1.750 | X   | 0.187 | 0.394 | 3.858 |
| 19585                                  | 1.750 | X   | 0.500 | 1.050 | 4.500 |
|                                        |       |     |       |       |       |
| 19055                                  | 1.811 | X   | 0.125 | 0.271 | 3.838 |
|                                        |       |     |       |       |       |
| 19944                                  | 2.000 | X   | 0.125 | 0.300 | 4.233 |
| 19893                                  | 2.000 | X   | 0.187 | 0.449 | 4.357 |
| 19877                                  | 2.000 | X   | 0.250 | 0.600 | 4.483 |
| 14781                                  | 2.000 | X   | 0.250 | 0.600 | 4.483 |
| DIE 14781 (FOR 6463 ALLOY ORDERS ONLY) |       |     |       |       |       |

# RECTANGULAR BAR SHARP CORNERS

| DIE No.                                                                      | A     | DIM | B     | WT/FT | PERIM |
|------------------------------------------------------------------------------|-------|-----|-------|-------|-------|
| 19767                                                                        | 2.000 | X   | 0.375 | 0.900 | 4.733 |
| 19792                                                                        | 2.000 | X   | 0.500 | 1.200 | 5.000 |
| 19432                                                                        | 2.000 | X   | 0.625 | 1.500 | 5.250 |
| 19965                                                                        | 2.000 | X   | 0.750 | 1.800 | 5.500 |
| 19678                                                                        | 2.000 | X   | 1.000 | 2.400 | 5.974 |
| 19404                                                                        | 2.000 | X   | 1.500 | 3.600 | 7.000 |
|                                                                              |       |     |       |       |       |
| 19571                                                                        | 2.250 | X   | 0.125 | 0.337 | 4.750 |
| 19763                                                                        | 2.250 | X   | 0.187 | 0.506 | 4.858 |
| 19179                                                                        | 2.250 | X   | 0.250 | 0.676 | 5.000 |
| <b>DIE 19179 SPECIAL TOLERANCES ON DIMENSION 2.250 <math>\pm</math>0.010</b> |       |     |       |       |       |
|                                                                              |       |     |       |       |       |
| 19481                                                                        | 2.500 | X   | 0.188 | 0.563 | 5.375 |
| 19541                                                                        | 2.500 | X   | 0.250 | 0.750 | 5.500 |
| 19716                                                                        | 2.500 | X   | 0.375 | 1.124 | 5.724 |
| 19768                                                                        | 2.500 | X   | 0.500 | 1.500 | 6.000 |
| 19412                                                                        | 2.500 | X   | 0.625 | 1.874 | 6.250 |
| 19772                                                                        | 2.500 | X   | 0.750 | 2.250 | 6.500 |
|                                                                              |       |     |       |       |       |
| 19601                                                                        | 3.000 | X   | 0.125 | 0.450 | 6.250 |
| 19761                                                                        | 3.000 | X   | 0.187 | 0.674 | 6.358 |
| <b>19761 (FOR 6061 &amp; 6005 ORDERS ONLY)</b>                               |       |     |       |       |       |
| 14774                                                                        | 3.000 | X   | 0.250 | 0.900 | 6.500 |
| <b>14774 (FOR 6463 ORDERS ONLY)</b>                                          |       |     |       |       |       |
| 19785                                                                        | 3.000 | X   | 0.375 | 1.350 | 6.750 |
| 19717                                                                        | 3.000 | X   | 0.500 | 1.800 | 6.974 |
| 19596                                                                        | 3.000 | X   | 1.000 | 3.600 | 8.000 |
|                                                                              |       |     |       |       |       |
| 19355                                                                        | 3.300 | X   | 0.250 | 0.990 | 7.100 |
|                                                                              |       |     |       |       |       |
| 19655                                                                        | 3.500 | X   | 0.250 | 1.050 | 7.500 |
| 19522                                                                        | 3.500 | X   | 0.500 | 2.100 | 8.000 |
|                                                                              |       |     |       |       |       |

# RECTANGULAR BAR SHARP CORNERS

| DIE No.                            | A     | DIM | B     | WT/FT  | PERIM  |
|------------------------------------|-------|-----|-------|--------|--------|
| 19613                              | 4.000 | X   | 0.125 | 0.600  | 8.250  |
| 19784                              | 4.000 | X   | 0.250 | 1.200  | 8.500  |
| 19250                              | 4.000 | X   | 0.250 | 1.200  | 8.500  |
| 19250 (FOR 6463/6063 ORDERS ONLY)  |       |     |       |        |        |
| 14778                              | 4.000 | X   | 0.250 | 1.200  | 8.500  |
| 14778 (FOR 6463 ORDERS ONLY)       |       |     |       |        |        |
| 19680                              | 4.000 | X   | 0.375 | 1.800  | 8.724  |
| 14776                              | 4.000 | X   | 0.375 | 1.800  | 8.724  |
| 14776 (FOR 6463 ORDERS ONLY)       |       |     |       |        |        |
| 19779                              | 4.000 | X   | 0.500 | 2.400  | 9.000  |
| 19410                              | 4.000 | X   | 0.625 | 3.000  | 9.250  |
| 19409                              | 4.000 | X   | 0.750 | 3.600  | 9.500  |
|                                    |       |     |       |        |        |
|                                    |       |     |       |        |        |
| 19040                              | 4.500 | X   | 0.250 | 1.350  | 9.500  |
| 19040 (FOR 6061/6005A ORDERS ONLY) |       |     |       |        |        |
| 19953                              | 4.500 | X   | 0.250 | 1.350  | 9.500  |
| 19953 (FOR 6463/6063 ORDERS ONLY)  |       |     |       |        |        |
|                                    |       |     |       |        |        |
| 19483                              | 5.000 | X   | 0.250 | 1.500  | 10.500 |
| 19738                              | 5.000 | X   | 0.375 | 2.250  | 10.750 |
| 14777                              | 5.000 | X   | 0.375 | 2.250  | 10.750 |
| 14777 (FOR 6463 ORDERS ONLY)       |       |     |       |        |        |
| 19622                              | 5.000 | X   | 0.500 | 3.000  | 11.000 |
| 19064                              | 5.000 | X   | 0.625 | 3.750  | 11.224 |
| 19242                              | 5.000 | X   | 0.750 | 4.500  | 11.500 |
| 19243                              | 5.000 | X   | 1.500 | 9.000  | 13.000 |
| 19241                              | 5.000 | X   | 2.000 | 12.000 | 14.000 |
|                                    |       |     |       |        |        |
| 19191                              | 6.000 | X   | 0.188 | 1.327  | 12.376 |
| 19701                              | 6.000 | X   | 0.250 | 1.800  | 12.474 |
| 19113                              | 6.000 | X   | 0.313 | 2.250  | 12.625 |
| 19633                              | 6.000 | X   | 0.375 | 2.700  | 12.750 |
| 19718                              | 6.000 | X   | 0.500 | 3.600  | 12.974 |

## RECTANGULAR BAR SHARP CORNERS

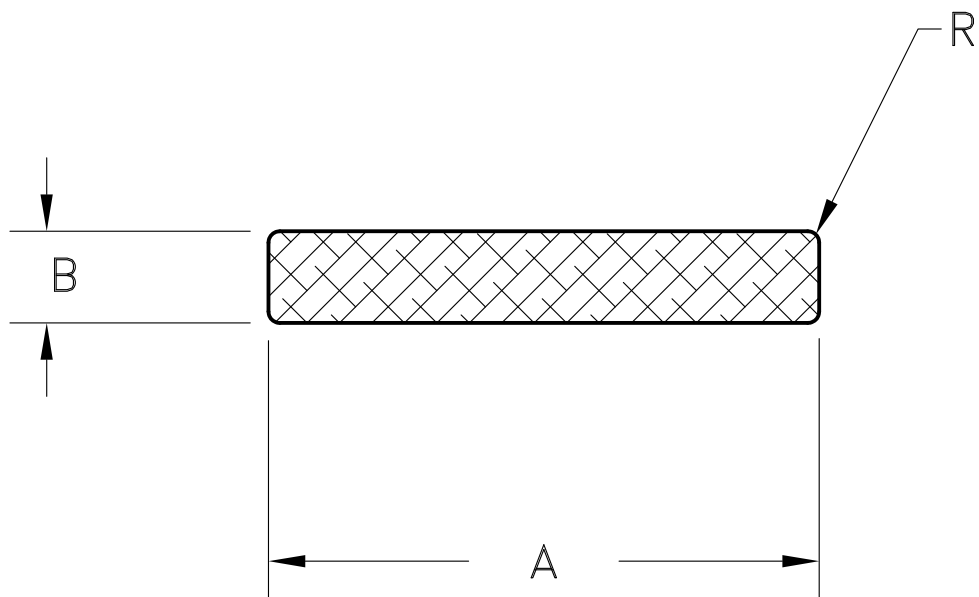
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RECTANGULAR BAR SHARP CORNERS

| DIE No. | A | DIM | B | WT/FT | PERIM |
|---------|---|-----|---|-------|-------|
|         |   |     |   |       |       |
|         |   |     |   |       |       |
|         |   |     |   |       |       |

# RECTANGULAR BAR

ROUNDED CORNERS



RECTANGULAR BAR ROUND CORNERS

| DIE No.                      | A     | DIM | B     | R     | WT/FT | PERIM |
|------------------------------|-------|-----|-------|-------|-------|-------|
|                              |       |     |       |       |       |       |
| 19920                        | 0.750 | X   | 0.125 | 0.062 | 0.108 | 1.644 |
| 19177                        | 0.750 | X   | 0.250 | 0.062 | 0.221 | 1.894 |
|                              |       |     |       |       |       |       |
| 19394                        | 1.000 | X   | 0.125 | 0.031 | 0.149 | 2.197 |
| 19527                        | 1.000 | X   | 0.500 | 0.125 | 0.584 | 2.785 |
|                              |       |     |       |       |       |       |
| 19251                        | 1.250 | X   | 0.250 | 0.125 | 0.359 | 2.785 |
| 19208                        | 1.250 | X   | 0.375 | 0.125 | 0.546 | 3.035 |
| 19827                        | 1.250 | X   | 0.625 | 0.094 | 0.929 | 3.589 |
| 19514                        | 1.250 | X   | 0.875 | 0.093 | 1.303 | 4.090 |
|                              |       |     |       |       |       |       |
| 19172                        | 1.500 | X   | 0.188 | 0.094 | 0.329 | 3.215 |
| 19524                        | 1.500 | X   | 0.500 | 0.125 | 0.884 | 3.785 |
|                              |       |     |       |       |       |       |
| 19055                        | 1.811 | X   | 0.125 | 0.020 | 0.271 | 3.838 |
|                              |       |     |       |       |       |       |
| 19892                        | 2.000 | X   | 0.250 | 0.062 | 0.596 | 4.394 |
| 14775                        | 2.000 | X   | 0.250 | 0.062 | 0.596 | 4.394 |
| 14775 (FOR 6463 ORDERS ONLY) |       |     |       |       |       |       |
| 19543                        | 2.000 | X   | 0.500 | 0.250 | 1.135 | 4.571 |
| 14779                        | 2.000 | X   | 0.500 | 0.250 | 1.135 | 4.571 |
| 14779 (FOR 6463 ORDERS ONLY) |       |     |       |       |       |       |
|                              |       |     |       |       |       |       |
| 19930                        | 2.335 | X   | 0.109 | 0.054 | 0.304 | 4.815 |
|                              |       |     |       |       |       |       |
| 19193                        | 2.750 | X   | 0.313 | 0.156 | 1.006 | 5.857 |
|                              |       |     |       |       |       |       |
| 19066                        | 3.000 | X   | 0.750 | 0.156 | 2.675 | 7.232 |
|                              |       |     |       |       |       |       |
| 19089                        | 3.375 | X   | 1.000 | 0.062 | 4.047 | 8.644 |
|                              |       |     |       |       |       |       |
| 19568                        | 3.625 | X   | 0.188 | 0.094 | 0.776 | 7.465 |

## RECTANGULAR BAR ROUND CORNERS

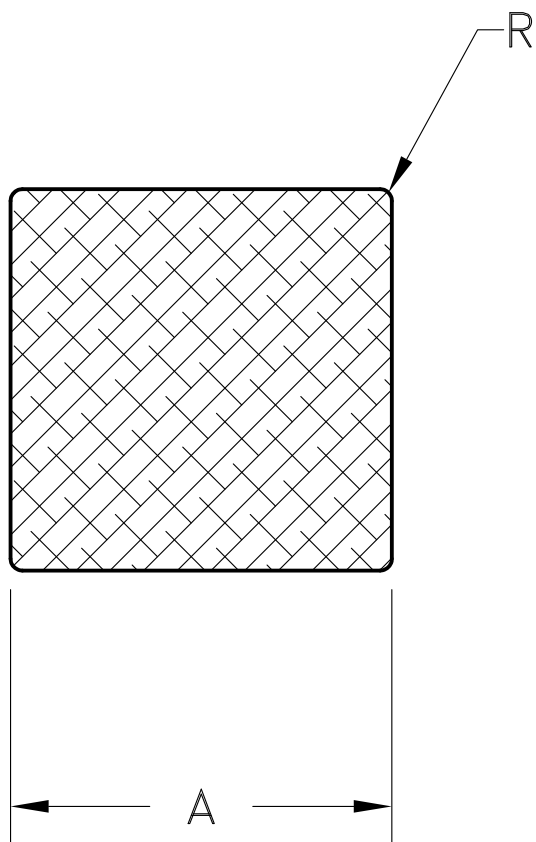
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RECTANGULAR BAR ROUND CORNERS

| DIE No. | A | DIM | B | R | WT/FT | PERIM |
|---------|---|-----|---|---|-------|-------|
|         |   |     |   |   |       |       |
|         |   |     |   |   |       |       |
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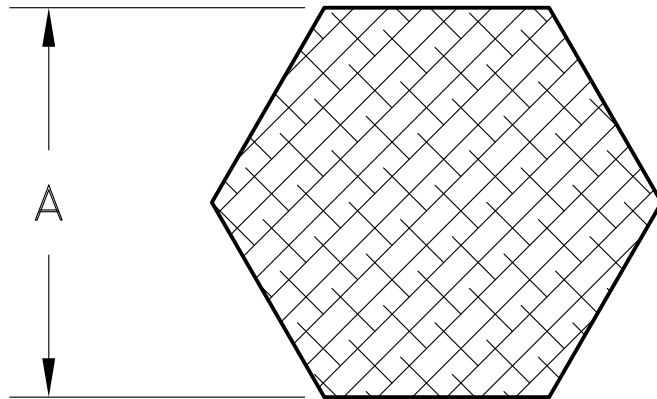
# SQUARE BAR



SQUARE BAR

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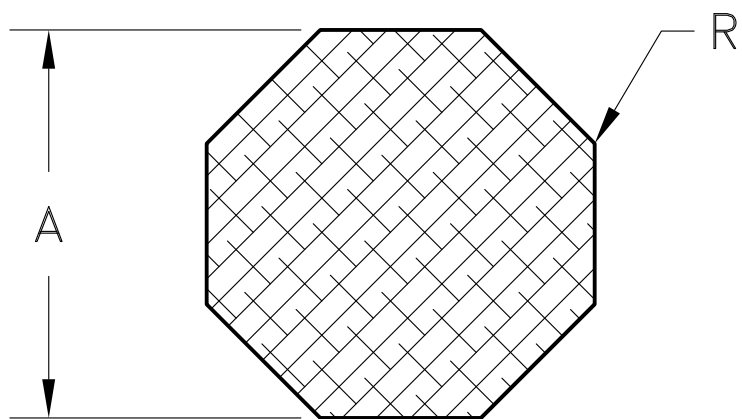
## HEXAGONAL BAR



HEXAGONAL BAR

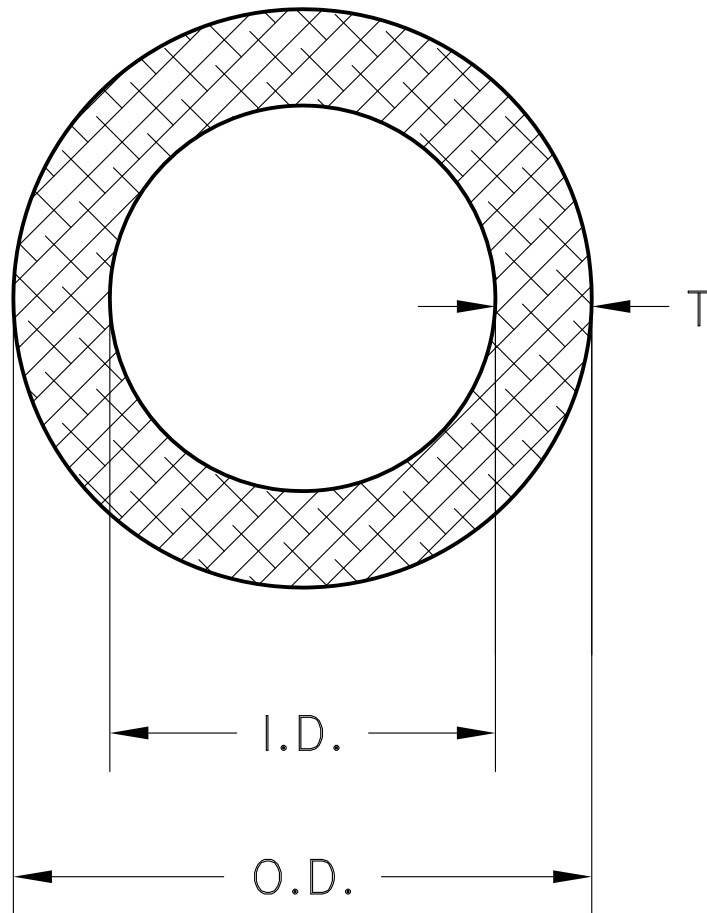
| DIE No. | A | WT/FT | PERIM |
|---------|---|-------|-------|
|         |   |       |       |
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|         |   |       |       |
|         |   |       |       |

## OCTAGONAL BAR





## ROUND TUBE



\*\*PERIMETER EQUALS SUM OF INSIDE AND OUTSIDE PERIMETERS



# ROUND TUBE

| DIE No.                                         | O.D.         | I.D.         | T            | WT/FT        | PERIM         |
|-------------------------------------------------|--------------|--------------|--------------|--------------|---------------|
|                                                 |              |              |              |              |               |
| <b>H 19561</b>                                  | <b>0.715</b> | <b>0.565</b> | <b>0.075</b> | <b>0.181</b> | <b>4.021</b>  |
|                                                 |              |              |              |              |               |
| <b>H 19719</b>                                  | <b>0.750</b> | <b>0.500</b> | <b>0.125</b> | <b>0.295</b> | <b>3.927</b>  |
| <b>H 19577</b>                                  | <b>0.750</b> | <b>0.620</b> | <b>0.065</b> | <b>0.168</b> | <b>4.304</b>  |
|                                                 |              |              |              |              |               |
| <b>H 19452</b>                                  | <b>0.850</b> | <b>0.650</b> | <b>0.100</b> | <b>0.282</b> | <b>4.712</b>  |
|                                                 |              |              |              |              |               |
| <b>H 19708</b>                                  | <b>0.875</b> | <b>0.625</b> | <b>0.125</b> | <b>0.353</b> | <b>4.712</b>  |
| <b>H 19463</b>                                  | <b>0.875</b> | <b>0.685</b> | <b>0.095</b> | <b>0.277</b> | <b>4.904</b>  |
| <b>H 19545</b>                                  | <b>0.875</b> | <b>0.749</b> | <b>0.063</b> | <b>0.192</b> | <b>5.102</b>  |
|                                                 |              |              |              |              |               |
| <b>H 19765</b>                                  | <b>1.000</b> | <b>0.750</b> | <b>0.125</b> | <b>0.412</b> | <b>5.510</b>  |
|                                                 |              |              |              |              |               |
| <b>H 19176</b>                                  | <b>1.125</b> | <b>0.875</b> | <b>0.125</b> | <b>0.472</b> | <b>6.283</b>  |
|                                                 |              |              |              |              |               |
| <b>H 19851</b>                                  | <b>1.250</b> | <b>1.000</b> | <b>0.125</b> | <b>0.530</b> | <b>7.069</b>  |
|                                                 |              |              |              |              |               |
| <b>H 19602</b>                                  | <b>1.500</b> | <b>1.000</b> | <b>0.250</b> | <b>1.178</b> | <b>7.854</b>  |
| <b>H 19782</b>                                  | <b>1.500</b> | <b>1.250</b> | <b>0.125</b> | <b>0.648</b> | <b>8.639</b>  |
| <b>H 14782</b>                                  | <b>1.500</b> | <b>1.250</b> | <b>0.125</b> | <b>0.648</b> | <b>8.639</b>  |
| <b>H 14782 ( FOR 6463 ORDERS ONLY)</b>          |              |              |              |              |               |
| <b>H 19264</b>                                  | <b>1.820</b> | <b>1.433</b> | <b>0.194</b> | <b>1.187</b> | <b>10.220</b> |
|                                                 |              |              |              |              |               |
| <b>H 19573</b>                                  | <b>1.890</b> | <b>1.622</b> | <b>0.134</b> | <b>0.888</b> | <b>11.034</b> |
|                                                 |              |              |              |              |               |
| <b>H 19048</b>                                  | <b>2.000</b> | <b>1.250</b> | <b>0.375</b> | <b>2.297</b> | <b>10.210</b> |
| <b>H 19105</b>                                  | <b>2.000</b> | <b>1.624</b> | <b>0.188</b> | <b>1.284</b> | <b>11.397</b> |
| <b>H 19045</b>                                  | <b>2.000</b> | <b>1.750</b> | <b>0.125</b> | <b>0.884</b> | <b>11.781</b> |
| <b>H 19045 (6463 FOR BRITE DIP ORDERS ONLY)</b> |              |              |              |              |               |
| <b>H 19560</b>                                  | <b>2.000</b> | <b>1.750</b> | <b>0.125</b> | <b>0.884</b> | <b>11.781</b> |
| <b>H 19047</b>                                  | <b>2.000</b> | <b>1.750</b> | <b>0.125</b> | <b>0.884</b> | <b>11.781</b> |
| <b>H 19047 (6463 FOR BRITE DIP ORDERS ONLY)</b> |              |              |              |              |               |

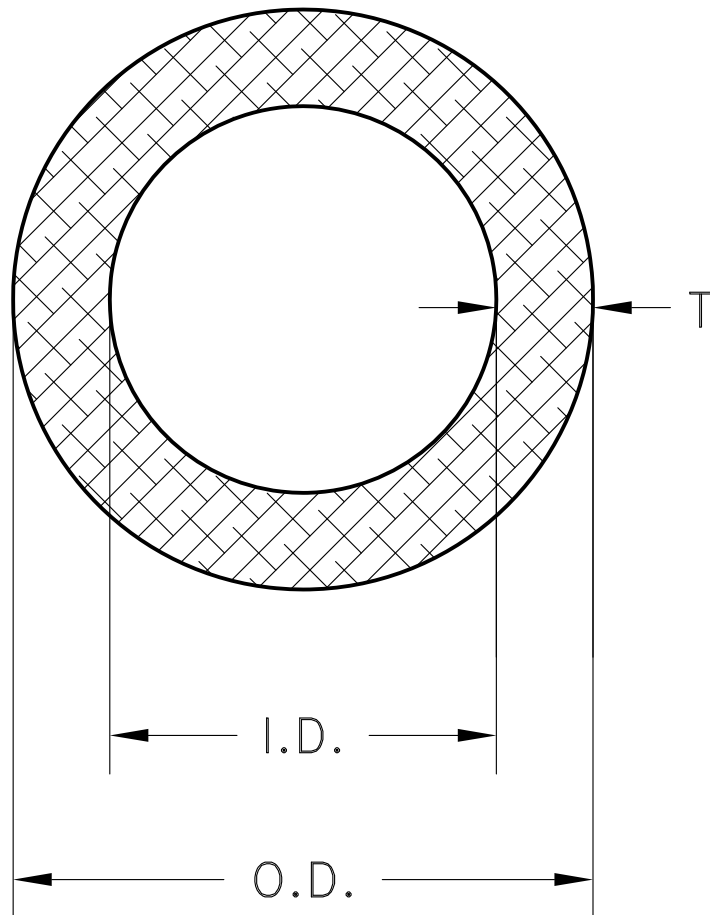
# ROUND TUBE

| DIE No. | O.D.  | I.D.  | T     | WT/FT | PERIM  |
|---------|-------|-------|-------|-------|--------|
| H 19942 | 2.000 | 1.870 | 0.065 | 0.475 | 12.158 |
|         |       |       |       |       |        |
| H 19457 | 2.150 | 1.900 | 0.125 | 0.955 | 12.723 |
|         |       |       |       |       |        |
| H 19086 | 2.365 | 1.939 | 0.213 | 1.724 | 13.525 |
|         |       |       |       |       |        |
| H 19183 | 2.375 | 2.000 | 0.188 | 1.546 | 13.744 |
| H 19952 | 2.375 | 2.193 | 0.091 | 0.784 | 14.351 |
|         |       |       |       |       |        |
| H 19129 | 2.500 | 2.125 | 0.188 | 1.635 | 14.530 |
| H 19732 | 2.500 | 2.250 | 0.125 | 1.120 | 14.923 |
|         |       |       |       |       |        |
| H 19334 | 2.855 | 2.699 | 0.078 | 0.817 | 17.448 |
|         |       |       |       |       |        |
| H 19897 | 3.000 | 2.500 | 0.250 | 2.592 | 17.279 |
| H 19128 | 3.000 | 2.675 | 0.188 | 1.988 | 17.671 |
| H 19544 | 3.000 | 2.750 | 0.125 | 1.355 | 18.064 |
|         |       |       |       |       |        |
| H 19132 | 3.125 | 2.907 | 0.109 | 1.240 | 18.950 |
|         |       |       |       |       |        |
| H 19126 | 3.500 | 3.124 | 0.188 | 2.341 | 20.813 |
| H 19041 | 3.500 | 3.188 | 0.156 | 1.967 | 21.011 |
| H 19127 | 3.500 | 3.250 | 0.125 | 1.590 | 21.206 |
|         |       |       |       |       |        |
| H 19611 | 4.000 | 3.500 | 0.250 | 3.534 | 23.562 |
| H 19216 | 4.000 | 3.750 | 0.125 | 1.825 | 24.347 |
| H 19131 | 4.000 | 3.856 | 0.072 | 1.066 | 24.680 |
|         |       |       |       |       |        |
| H 19124 | 5.000 | 4.375 | 0.313 | 5.522 | 29.452 |
| H 19119 | 5.500 | 5.000 | 0.250 | 4.948 | 32.987 |
|         |       |       |       |       |        |
|         |       |       |       |       |        |

ROUND TUBE

| DIE No. | O.D.  | I.D.  | T     | WT/FT  | PERIM  |
|---------|-------|-------|-------|--------|--------|
|         |       |       |       |        |        |
|         |       |       |       |        |        |
| H 19118 | 6.000 | 5.500 | 0.250 | 5.419  | 36.129 |
|         |       |       |       |        |        |
| H 19123 | 6.500 | 5.500 | 0.500 | 11.310 | 37.699 |
|         |       |       |       |        |        |
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PIPE  
SCHEDULED PIPE



ANSI/ASME STANDARDS B36.10M AND B36.19M  
\*\*PERIMETER EQUALS SUM OF INSIDE AND OUTSIDE PERIMETERS

SCHEDULED PIPE

| DIE No.                                  | NOM.  | SCHED. | O.D.  | I.D.  | T     | WT/FT | PERIM  |
|------------------------------------------|-------|--------|-------|-------|-------|-------|--------|
|                                          |       |        |       |       |       |       |        |
| H 19799                                  | 1/2   | 40     | 0.840 | 0.622 | 0.109 | 0.300 | 4.593  |
| H 24503                                  | 1/2   | 40     | 0.840 | 0.622 | 0.109 | 0.300 | 4.593  |
| H 24503 (6463 FOR BRITE DIP ORDERS ONLY) |       |        |       |       |       |       |        |
|                                          |       |        |       |       |       |       |        |
| H 19988                                  | 3/4   | 40     | 1.050 | 0.824 | 0.113 | 0.400 | 5.888  |
| H 24829                                  | 3/4   | 40     | 1.048 | 0.824 | 0.112 | 0.396 | 5.881  |
| H 24829 (6463 FOR BRITE DIP ORDERS ONLY) |       |        |       |       |       |       |        |
|                                          |       |        |       |       |       |       |        |
| H 19911                                  | 1     | 40     | 1.315 | 1.049 | 0.133 | 0.593 | 7.427  |
| H 24830                                  | 1     | 40     | 1.315 | 1.052 | 0.125 | 0.587 | 7.436  |
| H 24830 (6463 FOR BRITE DIP ORDERS ONLY) |       |        |       |       |       |       |        |
|                                          |       |        |       |       |       |       |        |
| H 19947                                  | 1 1/4 | 40     | 1.660 | 1.380 | 0.140 | 0.802 | 9.550  |
| H 24831                                  | 1 1/4 | 40     | 1.660 | 1.380 | 0.135 | 0.774 | 9.522  |
| H 24831 (6463 FOR BRITE DIP ORDERS ONLY) |       |        |       |       |       |       |        |
|                                          |       |        |       |       |       |       |        |
| H 19382                                  | 1 1/4 | 80     | 1.660 | 1.278 | 0.191 | 1.057 | 9.230  |
| H 19046                                  | 1 1/4 | 80     | 1.660 | 1.278 | 0.191 | 1.057 | 9.230  |
| H 19046 (6463 FOR BRITE DIP ORDERS ONLY) |       |        |       |       |       |       |        |
|                                          |       |        |       |       |       |       |        |
| H 19946                                  | 1 1/2 | 40     | 1.900 | 1.610 | 0.145 | 0.959 | 11.027 |
| H 24562                                  | 1 1/2 | 40     | 1.900 | 1.610 | 0.145 | 0.959 | 11.027 |
| H 24562 (6463 FOR BRITE DIP ORDERS ONLY) |       |        |       |       |       |       |        |
| H 19237                                  | 1 1/2 | 80     | 1.900 | 1.500 | 0.200 | 1.282 | 10.681 |
| H 19603                                  | 1 1/2 | 80     | 1.890 | 1.503 | 0.194 | 1.238 | 10.660 |
| H 19603 (6463 FOR BRITE DIP ORDERS ONLY) |       |        |       |       |       |       |        |

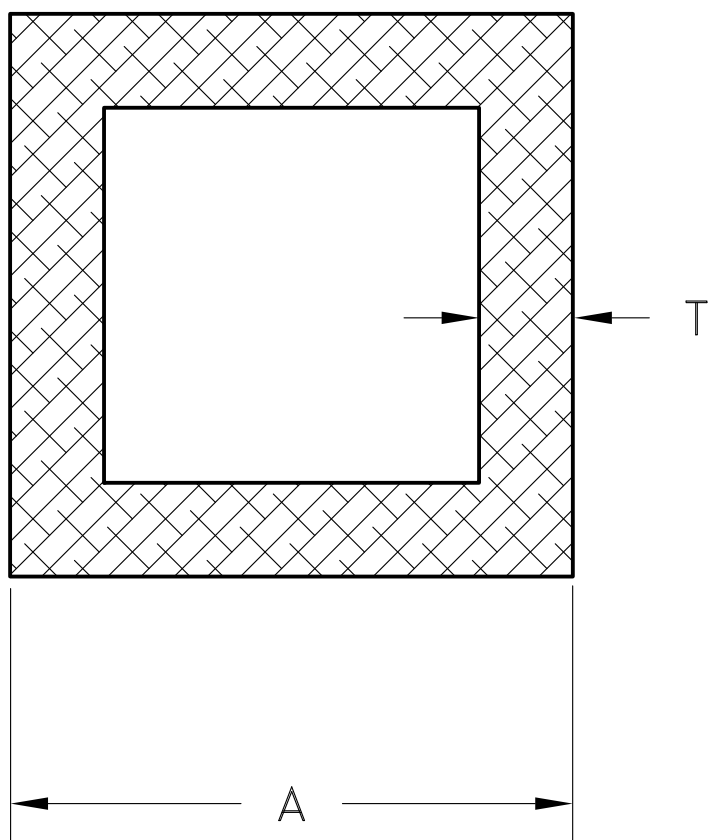
# SCHEDULED PIPE

| DIE No.                                  | NOM.  | SCHED. | O.D.  | I.D.  | T     | WT/FT  | PERIM  |
|------------------------------------------|-------|--------|-------|-------|-------|--------|--------|
|                                          |       |        |       |       |       |        |        |
| H 19809                                  | 2     | 10     | 2.375 | 2.157 | 0.109 | 0.931  | 14.237 |
| H 19969                                  | 2     | 40     | 2.375 | 2.067 | 0.154 | 1.289  | 13.955 |
| H 24832                                  | 2     | 40     | 2.375 | 2.077 | 0.149 | 1.244  | 13.924 |
| H 24832 (6463 FOR BRITE DIP ORDERS ONLY) |       |        |       |       |       |        |        |
| H 19383                                  | 2     | 80     | 2.375 | 1.939 | 0.218 | 1.772  | 13.553 |
| H 19383 (6463 FOR BRITE DIP ORDERS ONLY) |       |        |       |       |       |        |        |
| H 19808                                  | 2 1/2 | 10     | 2.875 | 2.635 | 0.120 | 1.247  | 17.310 |
| H 19459                                  | 2 1/2 | 40     | 2.875 | 2.469 | 0.203 | 2.045  | 16.789 |
|                                          |       |        |       |       |       |        |        |
| H 19473                                  | 3     | 40     | 3.485 | 3.053 | 0.216 | 2.662  | 20.539 |
| H 24505                                  | 3     | 40     | 3.485 | 3.053 | 0.216 | 2.662  | 20.539 |
| H 24505 (6463 FOR BRITE DIP ORDERS ONLY) |       |        |       |       |       |        |        |
| H 19255                                  | 3     | 80     | 3.500 | 2.900 | 0.300 | 3.619  | 20.107 |
|                                          |       |        |       |       |       |        |        |
| H 19474                                  | 4     | 40     | 4.500 | 4.026 | 0.237 | 3.809  | 26.785 |
|                                          |       |        |       |       |       |        |        |
| H 19065                                  | 8     | 40     | 8.625 | 7.981 | 0.322 | 10.069 | 52.171 |
|                                          |       |        |       |       |       |        |        |
| H 19117                                  | 10    | 40     | 10.75 | 10.02 | 0.365 | 14.29  | 65.251 |
|                                          |       |        |       |       |       |        |        |
|                                          |       |        |       |       |       |        |        |
|                                          |       |        |       |       |       |        |        |
|                                          |       |        |       |       |       |        |        |
|                                          |       |        |       |       |       |        |        |



# SQUARE TUBE

SHARP CORNERS



\*\* PERIMETER EQUALS SUM OF INSIDE AND OUTSIDE PERIMETER



# SQUARE TUBE SHARP CORNERS

| DIE NO.                                    | A            | T            | WT/FT        | PERIM         |
|--------------------------------------------|--------------|--------------|--------------|---------------|
|                                            |              |              |              |               |
| <b>H 19521</b>                             | <b>0.750</b> | <b>0.062</b> | <b>0.204</b> | <b>5.504</b>  |
|                                            |              |              |              |               |
| <b>H 19549</b>                             | <b>1.000</b> | <b>0.050</b> | <b>0.228</b> | <b>7.600</b>  |
| <b>H 19620</b>                             | <b>1.000</b> | <b>0.125</b> | <b>0.526</b> | <b>7.000</b>  |
|                                            |              |              |              |               |
| <b>H 19149</b>                             | <b>1.250</b> | <b>0.093</b> | <b>0.517</b> | <b>9.256</b>  |
| <b>H 19607</b>                             | <b>1.250</b> | <b>0.125</b> | <b>0.674</b> | <b>9.000</b>  |
|                                            |              |              |              |               |
| <b>H 19623</b>                             | <b>1.500</b> | <b>0.062</b> | <b>0.428</b> | <b>11.504</b> |
| <b>H 19148</b>                             | <b>1.500</b> | <b>0.093</b> | <b>0.628</b> | <b>11.256</b> |
|                                            |              |              |              |               |
| <b>H 19302</b>                             | <b>1.750</b> | <b>0.125</b> | <b>0.974</b> | <b>13.000</b> |
|                                            |              |              |              |               |
| <b>H 19550</b>                             | <b>2.000</b> | <b>0.065</b> | <b>0.604</b> | <b>15.480</b> |
| <b>H 19301</b>                             | <b>2.000</b> | <b>0.090</b> | <b>0.826</b> | <b>15.280</b> |
| <b>H 19598</b>                             | <b>2.000</b> | <b>0.125</b> | <b>1.124</b> | <b>15.000</b> |
| <b>H 19326</b>                             | <b>2.000</b> | <b>0.250</b> | <b>2.100</b> | <b>13.932</b> |
| 19326 CAN BE EXTRUDE AT TEXAS & NEW JERSEY |              |              |              |               |
|                                            |              |              |              |               |
| <b>H 19280</b>                             | <b>3.000</b> | <b>0.125</b> | <b>1.724</b> | <b>23.000</b> |
| <b>H 19303</b>                             | <b>3.000</b> | <b>0.250</b> | <b>3.300</b> | <b>22.000</b> |
|                                            |              |              |              |               |
| <b>H 19449</b>                             | <b>4.000</b> | <b>0.125</b> | <b>2.324</b> | <b>31.000</b> |
| <b>H 19276</b>                             | <b>4.000</b> | <b>0.188</b> | <b>3.440</b> | <b>30.496</b> |
| <b>H 19361</b>                             | <b>4.000</b> | <b>0.250</b> | <b>4.500</b> | <b>30.000</b> |
| <b>H 19266</b>                             | <b>4.000</b> | <b>0.500</b> | <b>8.400</b> | <b>28.000</b> |
| 19266 CAN BE EXTRUDE AT TEXAS & NEW JERSEY |              |              |              |               |
|                                            |              |              |              |               |
| <b>H 19281</b>                             | <b>6.000</b> | <b>0.125</b> | <b>3.524</b> | <b>47.000</b> |
|                                            |              |              |              |               |
|                                            |              |              |              |               |
|                                            |              |              |              |               |

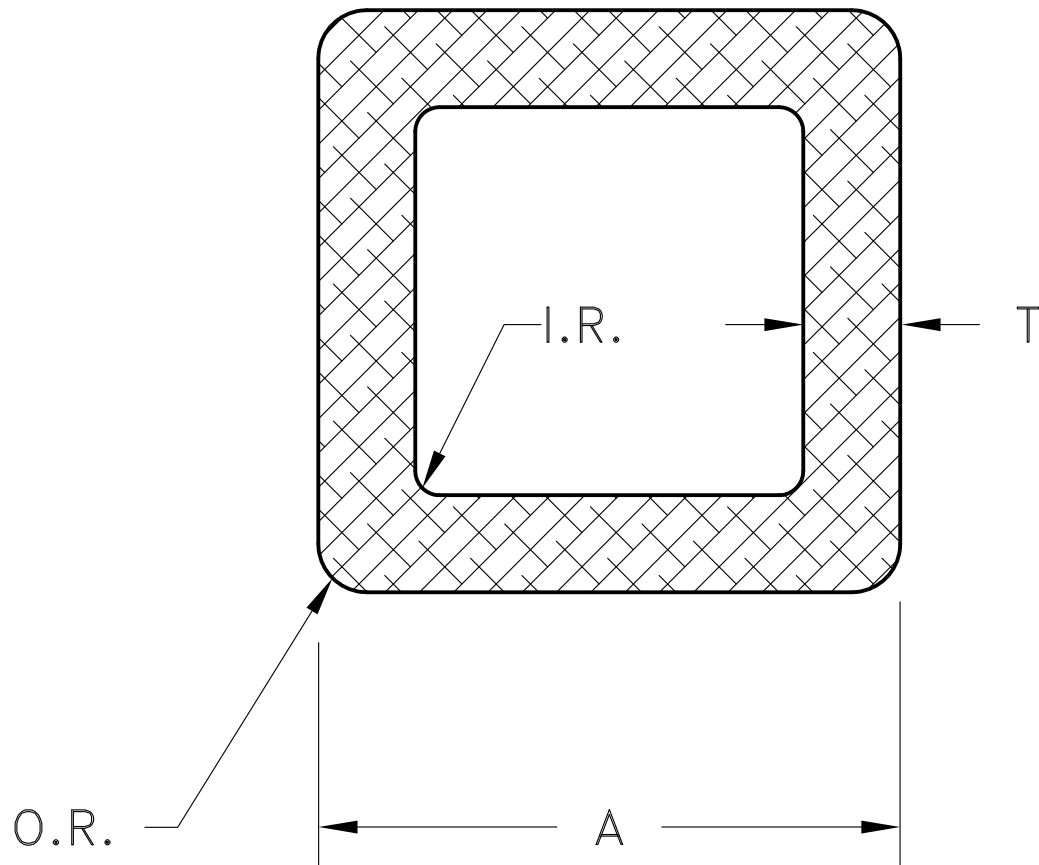
SQUARE TUBE SHARP CORNERS

| DIE NO. | A | T | WT/FT | PERIM |
|---------|---|---|-------|-------|
|         |   |   |       |       |



# SQUARE TUBE

ROUNDED CORNERS



\*\* PERIMETER EQUALS SUM OF INSIDE AND OUTSIDE PERIMETER

SQUARE TUBE ROUND CORNERS

| DIE No. | A         | T        | IR        | OR     | WT/FT | PERIM  |
|---------|-----------|----------|-----------|--------|-------|--------|
| H 19300 | 0.750     | 0.045    | 0.044     | 0.093  | 0.145 | 5.404  |
| H 19393 | 0.750     | 0.062    | 0.031     | 0.093  | 0.197 | 5.291  |
| H 19285 | 0.750     | 0.125    |           | 0.093  | 0.366 | 4.840  |
| H 19588 | 1.000     | 0.062    | 0.031     | 0.094  | 0.270 | 7.290  |
| H 19397 | 1.000     | 0.067    | 0.156     | 0.156  | 0.300 | 6.928  |
| H 19583 | 1.000     | 0.088    | 0.031     | 0.094  | 0.377 | 7.082  |
| H 19556 | 1.000     | 0.094    |           | 0.030  | 0.408 | 7.196  |
| H 19818 | 1.000     | 0.125    |           | 0.062  | 0.522 | 6.868  |
| H 19396 | 1.000     | 0.125    | 0.089     | 0.156  | 0.508 | 6.579  |
| H 19221 | 1.000     | 0.125    | 0.063     | 0.125  | 0.514 | 6.677  |
| H 19206 | 1.000     | 0.125    |           | 0.141  | 0.504 | 6.758  |
| H 19462 | 1.125     | 0.074    | 0.060     | 0.125  | 0.361 | 8.090  |
| H 19748 | 1.250     | 0.072    | 0.053     | 0.125  | 0.394 | 9.118  |
|         | USE 19500 | FOR 6463 | BRITE DIP | ORDERS | ONLY  |        |
| H 19962 | 1.250     | 0.093    | 0.032     | 0.090  | 0.516 | 9.074  |
| H 19312 | 1.250     | 0.125    |           | 0.125  | 0.659 | 8.796  |
| H 19141 | 1.375     | 0.156    | 0.125     | 0.156  | 0.904 | 9.270  |
| H 19465 | 1.500     | 0.090    | 0.098     | 0.188  | 0.583 | 10.789 |
| H 19923 | 1.500     | 0.125    | 0.090     | 0.031  | 0.832 | 10.792 |
| H 19931 | 1.750     | 0.125    | 0.062     | 0.188  | 0.943 | 12.571 |
| H 19314 | 2.000     | 0.125    | 0.030     | 0.125  | 1.110 | 14.745 |
| H 19207 | 2.000     | 0.125    | 0.080     | 0.188  | 1.096 | 14.540 |
| H 19966 | 2.000     | 0.125    | 0.125     | 0.125  | 1.126 | 14.570 |
| H 19346 | 2.000     | 0.125    | 0.125     | 0.250  | 1.076 | 14.356 |
| H 19702 | 2.000     | 0.188    | 0.031     | 0.031  | 1.634 | 14.390 |

SQUARE TUBE ROUND CORNERS

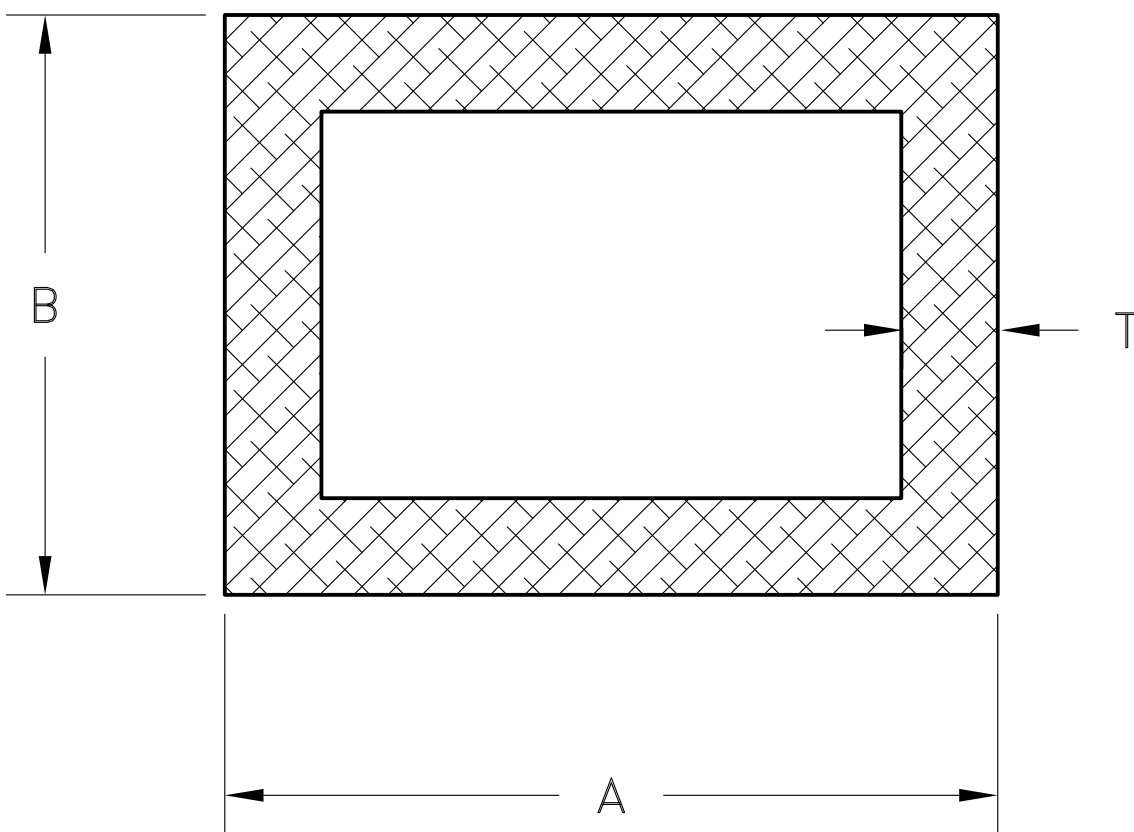
| DIE No.                                    | A      | T     | IR    | OR    | WT/FT  | PERIM  |
|--------------------------------------------|--------|-------|-------|-------|--------|--------|
| H 19143                                    | 2.000  | 0.188 | 0.250 | 0.406 | 1.530  | 13.381 |
| H 19707                                    | 2.000  | 0.250 |       | 0.250 | 2.035  | 13.554 |
| H 19299                                    | 2.000  | 0.250 | 0.125 | 0.250 | 2.051  | 13.356 |
|                                            |        |       |       |       |        |        |
| H 19917                                    | 2.500  | 0.125 | 0.090 | 0.031 | 1.432  | 18.792 |
| 19917 CAN BE EXTRUDED AT W.E. & NEW JERSEY |        |       |       |       |        |        |
|                                            |        |       |       |       |        |        |
| H 19867                                    | 3.000  | 0.187 | 0.031 | 0.031 | 2.525  | 22.398 |
| H 19323                                    | 3.000  | 0.250 | 0.031 | 0.187 | 3.265  | 21.626 |
| H 19360                                    | 3.000  | 0.250 | 0.062 | 0.250 | 3.203  | 21.368 |
| 19360 CAN EXTRUDED AT W.E. & NEW JERSEY    |        |       |       |       |        |        |
|                                            |        |       |       |       |        |        |
| H 19262                                    | 3.100  | 0.375 | 0.031 | 0.016 | 4.906  | 21.720 |
|                                            |        |       |       |       |        |        |
| H 19365                                    | 4.000  | 0.125 | 0.250 | 0.125 | 2.374  | 30.356 |
| H 19838                                    | 4.000  | 0.250 | 0.250 | 0.125 | 4.549  | 29.356 |
| 19838 CAN BE EXTRUDED AT W.E. & NEW JERSEY |        |       |       |       |        |        |
|                                            |        |       |       |       |        |        |
|                                            |        |       |       |       |        |        |
| H 19098                                    | 6.000  | 0.188 | 0.125 | 0.125 | 5.245  | 46.067 |
| H 19038                                    | 6.000  | 0.500 | 0.250 | 0.250 | 13.200 | 43.142 |
| 19038 CAN BE EXTRUDED AT W.E. & NEW JERSEY |        |       |       |       |        |        |
| H 19017                                    | 6.000  | 0.500 | 0.031 | 0.031 | 13.200 | 49.905 |
|                                            |        |       |       |       |        |        |
| H 19100                                    | 8.000  | 0.188 | 0.125 | 0.125 | 7.050  | 62.067 |
| H 19039                                    | 8.000  | 0.500 | 0.250 | 0.750 | 17.485 | 58.283 |
|                                            |        |       |       |       |        |        |
| H 19035                                    | 10.000 | 0.375 | 0.375 | 0.375 | 17.325 | 75.724 |
|                                            |        |       |       |       |        |        |
|                                            |        |       |       |       |        |        |
|                                            |        |       |       |       |        |        |
|                                            |        |       |       |       |        |        |
|                                            |        |       |       |       |        |        |

SQUARE TUBE ROUND CORNERS

| DIE No. | A | T | IR | OR | WT/FT | PERIM |
|---------|---|---|----|----|-------|-------|
|         |   |   |    |    |       |       |
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|         |   |   |    |    |       |       |

# RECTANGULAR TUBE

SHARP CORNERS



\*\* PERIMETER EQUAL SUM OF INSIDE AND OUTSIDE PERIMETER

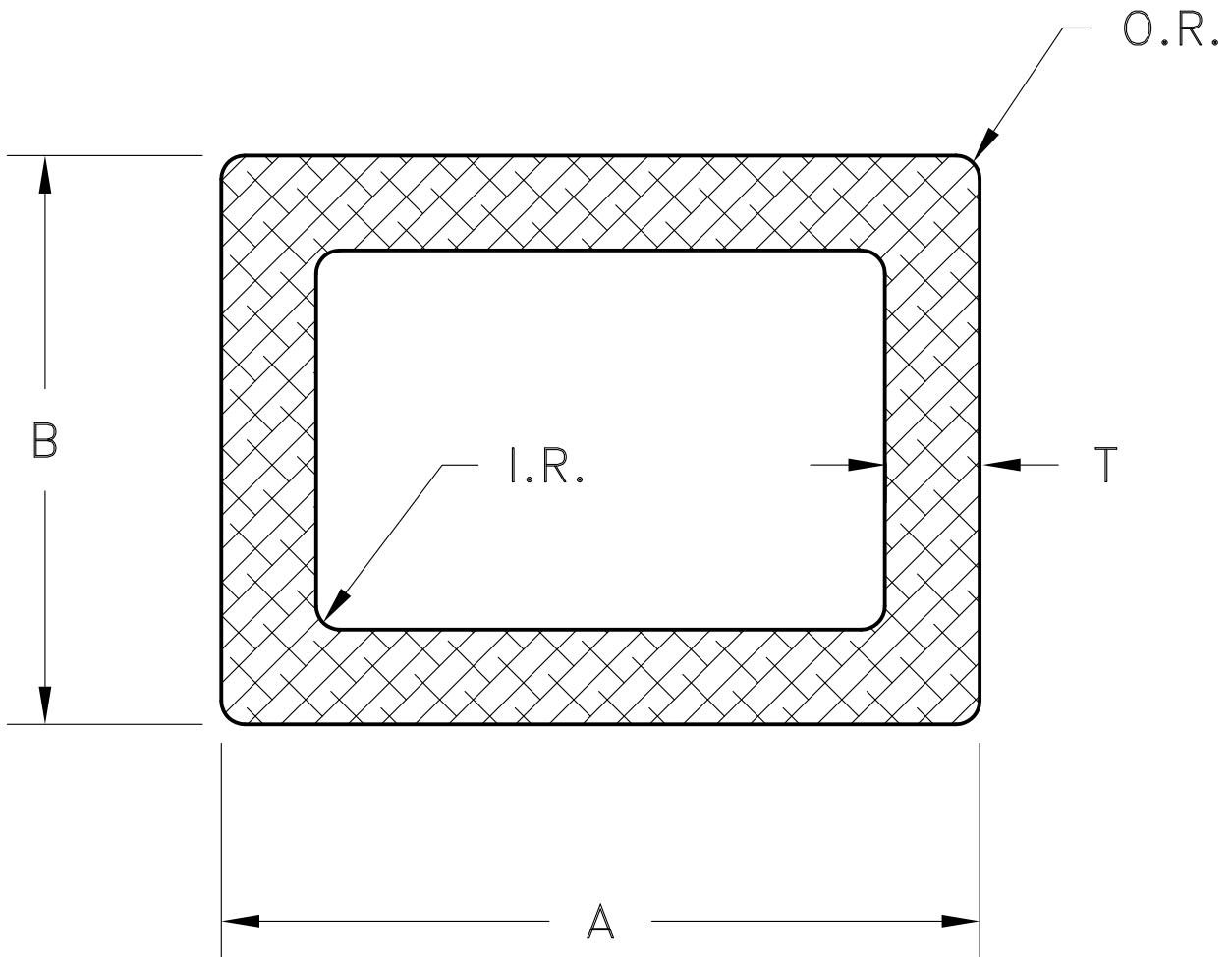


## RECTANGULAR TUBE SHARP CORNERS

[illegible]

# RECTANGULAR TUBE

ROUNDED CORNERS



\*\* PERIMETER EQUALS SUM OF INSIDE AND OUTSIDE PERIMETER

# RECTANGULAR TUBE ROUND CORNERS

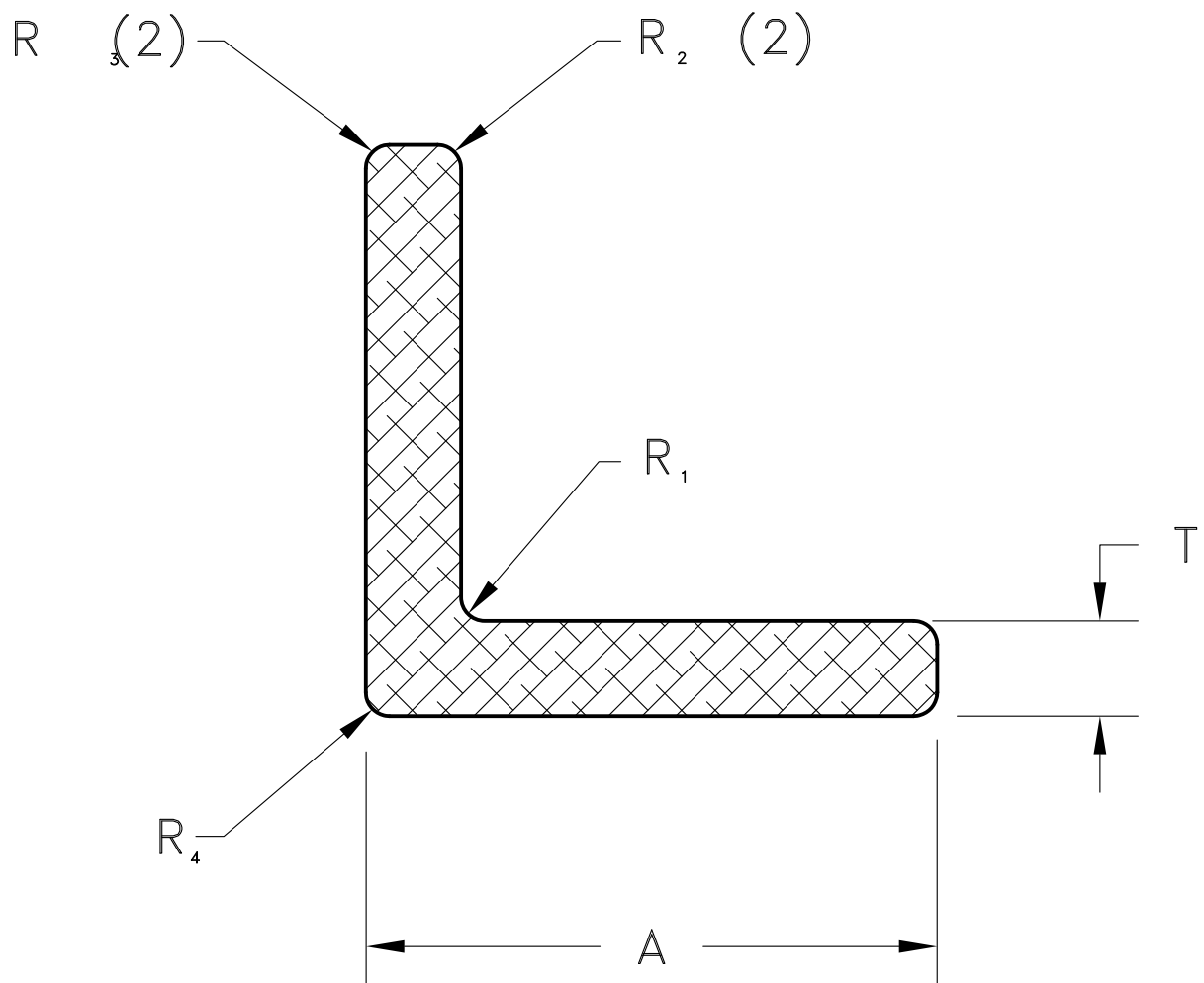
| DIE No.                                 | A      | DIM | B     | T           | IR    | OR    | WT/FT  | PERIM  |
|-----------------------------------------|--------|-----|-------|-------------|-------|-------|--------|--------|
|                                         |        |     |       |             |       |       |        |        |
| H 19195                                 | 1.500  | X   | 1.000 | 0.062       |       | 0.015 | 0.335  | 9.478  |
| H 19152                                 | 1.500  | X   | 1.000 | 0.062       | 0.062 | 0.062 | 0.354  | 9.291  |
|                                         |        |     |       |             |       |       |        |        |
| H 19458                                 | 2.000  | X   | 1.000 | 0.125       | 0.109 | 0.125 | 0.822  | 10.598 |
| (USE H 19458 FOR BRITE DIP ORDERS ONLY) |        |     |       |             |       |       |        |        |
| H 19889                                 | 2.000  | X   | 1.500 | 0.125       | 0.031 |       | 0.976  | 12.947 |
|                                         |        |     |       |             |       |       |        |        |
| H 19146                                 | 3.000  | X   | 1.000 | 0.188       | 0.031 | 0.031 | 1.631  | 14.394 |
| H 19924                                 | 3.000  | X   | 2.000 | 0.125       | 0.090 | 0.030 | 1.432  | 18.792 |
| H 19922                                 | 3.000  | X   | 2.000 | 0.250       | 0.090 | 0.031 | 2.707  | 17.792 |
|                                         |        |     |       |             |       |       |        |        |
| H 19253                                 | 4.000  | X   | 2.000 | 0.125       | 0.090 | 0.188 | 1.697  | 22.522 |
| H 19212                                 | 4.000  | X   | 2.000 | 0.125       | 0.125 | 0.250 | 1.676  | 22.356 |
| H 19518                                 | 4.000  | X   | 2.000 | 0.188       | 0.125 |       | 2.554  | 22.281 |
| H 19160                                 | 4.000  | X   | 2.000 | 0.250       | 0.062 | 0.250 | 3.240  | 21.464 |
| H 19530                                 | 4.000  | X   | 3.000 | 0.125       | 0.125 | 0.125 | 2.026  | 26.570 |
|                                         |        |     |       |             |       |       |        |        |
| H 19210                                 | 5.000  | X   | 2.000 | 0.125       | 0.063 | 0.125 | 2.014  | 26.677 |
|                                         |        |     |       |             |       |       |        |        |
| H 19929                                 | 6.000  | X   | 3.000 | 0.125       | 0.125 | 0.125 | 2.626  | 34.570 |
| H 19366                                 | 6.000  | X   | 4.000 | 0.150       | 0.062 | 0.125 | 3.480  | 38.479 |
| H 19291                                 | 6.000  | X   | 4.000 | 0.250       | 0.025 | 0.025 | 5.700  | 37.914 |
|                                         |        |     |       |             |       |       |        |        |
| H 19072                                 | 8.000  | X   | 4.000 | 0.150/0.190 | 0.125 | 0.125 | 4.567  | 46.211 |
| H 19329                                 | 8.000  | X   | 4.000 | 0.250       | 0.125 |       | 6.916  | 45.785 |
| H 19330                                 | 8.000  | X   | 4.000 | 0.250       | 0.125 | 0.125 | 6.900  | 45.570 |
| H 19054                                 | 8.000  | X   | 6.000 | 0.500       | 0.250 | 0.250 | 15.600 | 51.142 |
|                                         |        |     |       |             |       |       |        |        |
| H 19022                                 | 8.500  | X   | 4.500 | 0.250       | 0.125 | 0.250 | 7.452  | 49.368 |
|                                         |        |     |       |             |       |       |        |        |
| H 19061                                 | 10.000 | X   | 2.000 | 0.125       | 0.031 | 0.031 | 3.525  | 46.907 |
|                                         |        |     |       |             |       |       |        |        |

RECTANGULAR TUBE ROUND CORNERS

| DIE No. | A      | DIM | B     | T     | IR    | OR    | WT/FT | PERIM  |
|---------|--------|-----|-------|-------|-------|-------|-------|--------|
|         |        |     |       |       |       |       |       |        |
| H 19062 | 12.000 | X   | 2.000 | 0.190 | 0.031 | 0.031 | 6.211 | 54.385 |
|         |        |     |       |       |       |       |       |        |
|         |        |     |       |       |       |       |       |        |
|         |        |     |       |       |       |       |       |        |
|         |        |     |       |       |       |       |       |        |
|         |        |     |       |       |       |       |       |        |
|         |        |     |       |       |       |       |       |        |



ANGLE  
EQUAL LEGS



# ANGLES EQUAL LEGS

| DIE No.                                | A     | T     | R1    | R2    | R3    | R4    | WT/FT | PERIM  |
|----------------------------------------|-------|-------|-------|-------|-------|-------|-------|--------|
|                                        |       |       |       |       |       |       |       |        |
| 19913                                  | 0.500 | 0.125 |       |       |       |       | 0.131 | 2.000  |
|                                        |       |       |       |       |       |       |       |        |
| 19812                                  | 0.750 | 0.125 |       |       |       |       | 0.206 | 3.000  |
|                                        |       |       |       |       |       |       |       |        |
| 19575                                  | 1.000 | 0.062 |       |       |       |       | 0.144 | 4.000  |
| 19807                                  | 1.000 | 0.094 |       | 0.094 |       |       | 0.210 | 3.919  |
| 19994                                  | 1.000 | 0.125 |       |       |       |       | 0.281 | 3.959  |
| 19806                                  | 1.000 | 0.125 |       | 0.062 | 0.062 | 0.125 | 0.274 | 3.840  |
|                                        |       |       |       |       |       |       |       |        |
| 19743                                  | 1.250 | 0.125 |       |       |       |       | 0.356 | 5.000  |
| 19461                                  | 1.250 | 0.188 | 0.125 |       |       |       | 0.526 | 4.946  |
|                                        |       |       |       |       |       |       |       |        |
| 19932                                  | 1.500 | 0.125 |       |       |       |       | 0.431 | 6.000  |
| 19880                                  | 1.500 | 0.187 |       |       |       |       | 0.631 | 6.000  |
| 19864                                  | 1.500 | 0.250 |       |       |       |       | 0.824 | 6.000  |
|                                        |       |       |       |       |       |       |       |        |
| 19084                                  | 1.750 | 0.188 | 0.015 | 0.015 | 0.015 | 0.015 | 0.747 | 7.000  |
|                                        |       |       |       |       |       |       |       |        |
| 19511                                  | 2.000 | 0.125 |       |       |       |       | 0.581 | 8.000  |
| 19194                                  | 2.000 | 0.188 |       |       |       |       | 0.858 | 8.000  |
| 19878                                  | 2.000 | 0.250 |       |       |       |       | 1.124 | 8.000  |
| 19023                                  | 2.000 | 0.250 |       |       |       |       | 1.124 | 8.000  |
| DIE 19023 (FOR 6463 ALLOY ORDERS ONLY) |       |       |       |       |       |       |       |        |
| 19028                                  | 2.000 | 0.250 | 0.250 | 0.125 | 0.015 | 0.015 | 1.133 | 7.785  |
| DIE 19028 (FOR 6463 ALLOY ORDERS ONLY) |       |       |       |       |       |       |       |        |
|                                        |       |       |       |       |       |       |       |        |
| 19940                                  | 2.500 | 0.187 |       |       |       |       | 1.080 | 10.000 |
|                                        |       |       |       |       |       |       |       |        |
| 19618                                  | 3.000 | 0.125 |       |       |       |       | 0.881 | 12.000 |
| 19154                                  | 3.000 | 0.313 |       |       |       |       | 2.136 | 12.000 |
|                                        |       |       |       |       |       |       |       |        |

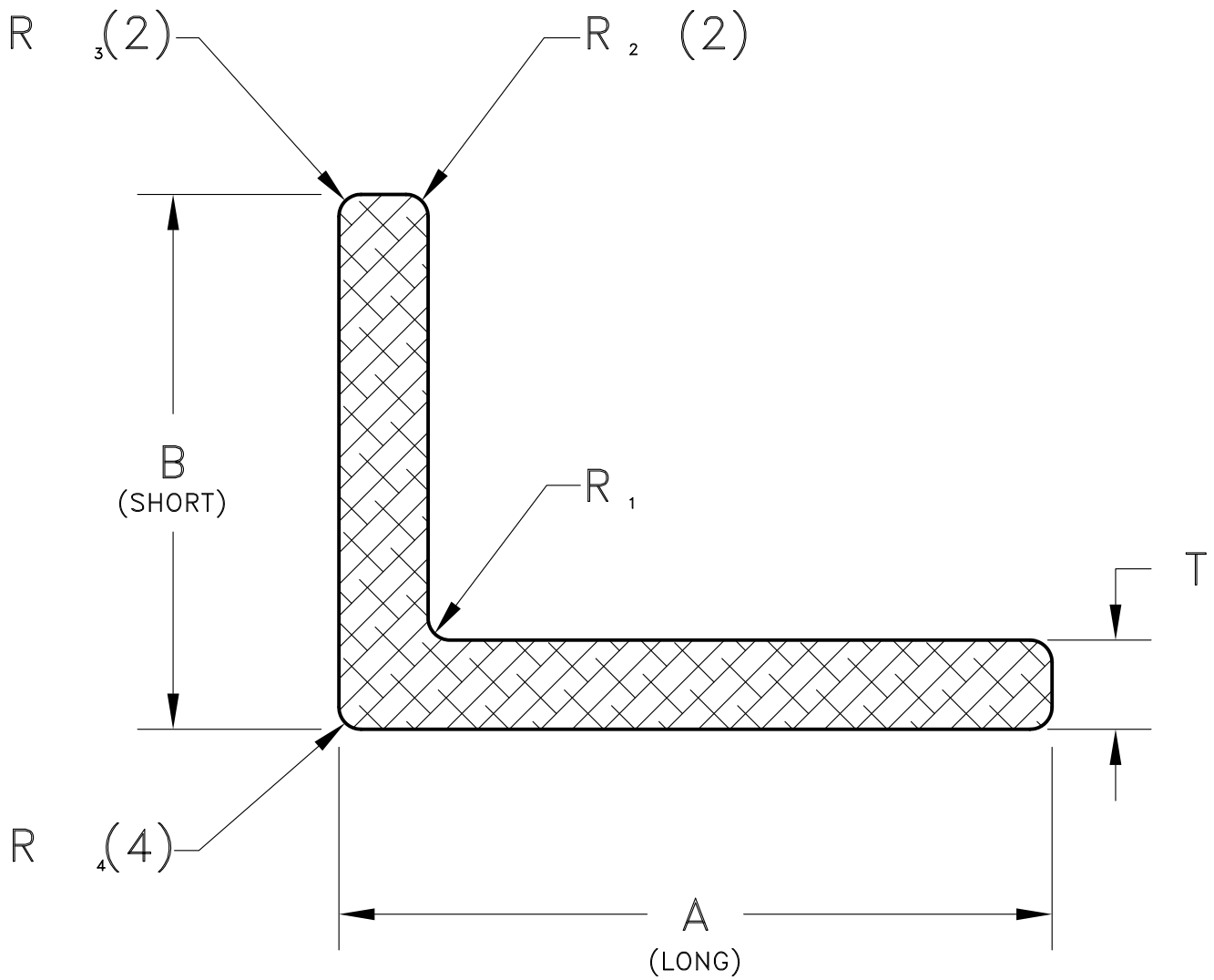
# ANGLES EQUAL LEGS

| DIE No. | A | T | R1 | R2 | R3 | R4 | WT/FT | PERIM |
|---------|---|---|----|----|----|----|-------|-------|
|         |   |   |    |    |    |    |       |       |
|         |   |   |    |    |    |    |       |       |
|         |   |   |    |    |    |    |       |       |
|         |   |   |    |    |    |    |       |       |
|         |   |   |    |    |    |    |       |       |





ANGLE  
UNEQUAL LEGS



# ANGLES UNEQUAL LEGS

| DIE NO. | A     | B     | T     | R1    | R2    | R3    | R4    | WT/FT | PERIM  |
|---------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
|         |       |       |       |       |       |       |       |       |        |
| 19133   | 0.666 | 0.563 | 0.063 |       |       |       |       | 0.088 | 2.458  |
|         |       |       |       |       |       |       |       |       |        |
| 19675   | 1.000 | 0.500 | 0.125 |       |       |       |       | 0.206 | 3.000  |
|         |       |       |       |       |       |       |       |       |        |
| 19766   | 1.500 | 0.500 | 0.125 |       |       |       |       | 0.281 | 4.000  |
| 19683   | 1.500 | 0.750 | 0.125 |       |       |       |       | 0.319 | 4.463  |
| 19744   | 1.500 | 1.000 | 0.125 |       |       |       |       | 0.356 | 4.993  |
| 19111   | 1.500 | 1.000 | 0.187 |       |       |       |       | 0.520 | 5.000  |
| 19085   | 1.500 | 1.250 | 0.188 | 0.015 | 0.015 | 0.015 | 0.015 | 0.578 | 5.500  |
|         |       |       |       |       |       |       |       |       |        |
| 19263   | 2.000 | 0.562 | 0.188 |       |       |       |       | 0.535 | 5.124  |
| 19891   | 2.000 | 1.000 | 0.062 |       |       |       |       | 0.218 | 6.000  |
| 19670   | 2.000 | 1.000 | 0.250 |       |       |       |       | 0.824 | 5.961  |
| 19810   | 2.000 | 1.500 | 0.125 |       |       |       |       | 0.506 | 7.000  |
| 19110   | 2.000 | 1.500 | 0.187 |       |       |       |       | 0.744 | 7.000  |
| 19686   | 2.000 | 1.750 | 0.250 |       |       |       |       | 1.050 | 7.461  |
|         |       |       |       |       |       |       |       |       |        |
| 19060   | 2.125 | 1.375 | 0.125 |       |       |       |       | 0.506 | 6.961  |
|         |       |       |       |       |       |       |       |       |        |
| 19203   | 2.175 | 1.175 | 0.175 | SHARP | 0.088 |       |       | 0.658 | 6.523  |
|         |       |       |       |       |       |       |       |       |        |
| 19466   | 2.500 | 1.500 | 0.125 |       |       |       |       | 0.581 | 8.011  |
| 19092   | 2.500 | 1.500 | 0.188 |       |       |       |       | 0.860 | 8.000  |
| 19112   | 2.500 | 1.500 | 0.250 |       |       |       |       | 1.125 | 8.000  |
|         |       |       |       |       |       |       |       |       |        |
| 19747   | 3.000 | 2.000 | 0.094 |       |       |       |       | 0.553 | 10.000 |
| 19516   | 3.000 | 2.000 | 0.125 |       |       |       |       | 0.731 | 10.000 |
| 19559   | 3.000 | 2.000 | 0.250 |       |       |       |       | 1.426 | 10.000 |
|         |       |       |       |       |       |       |       |       |        |
| 19052   | 3.375 | 1.375 | 0.375 | 0.020 | 0.188 | 0.188 | 0.188 | 1.924 | 9.089  |
|         |       |       |       |       |       |       |       |       |        |
| 19685   | 3.500 | 1.250 | 0.125 |       |       |       |       | 0.694 | 9.461  |

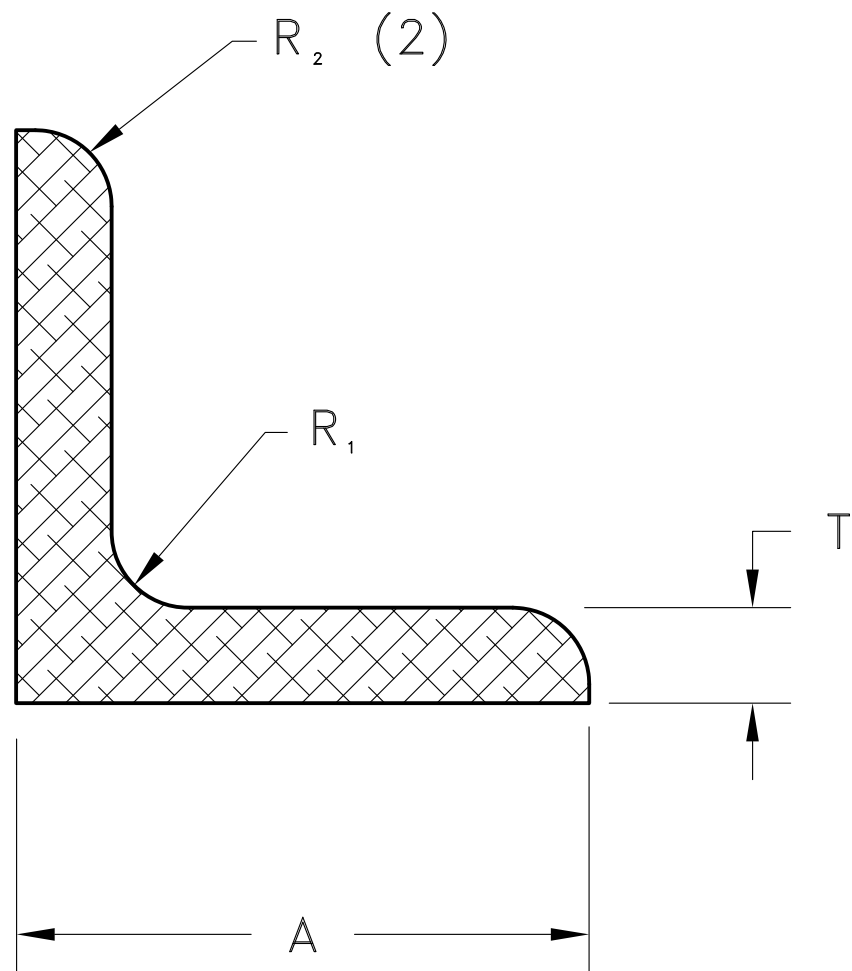
ANGLES UNEQUAL LEGS

| DIE NO. | A     | B     | T           | R1    | R2         | R3 | R4    | WT/FT | PERIM  |
|---------|-------|-------|-------------|-------|------------|----|-------|-------|--------|
|         |       |       |             |       |            |    |       |       |        |
| 19205   | 4.000 | 2.000 | 0.188       |       |            |    |       | 1.312 | 12.000 |
| 19986   | 4.000 | 2.000 | 0.250       |       |            |    |       | 1.724 | 11.959 |
|         |       |       |             |       |            |    |       |       |        |
| 19211   | 4.500 | 2.000 | 0.188/0.250 | 0.062 | 0.094/.125 |    | 0.250 | 1.531 | 12.678 |
|         |       |       |             |       |            |    |       |       |        |
|         |       |       |             |       |            |    |       |       |        |
|         |       |       |             |       |            |    |       |       |        |
|         |       |       |             |       |            |    |       |       |        |



# STRUCTURAL ANGLE

EQUAL LEGS

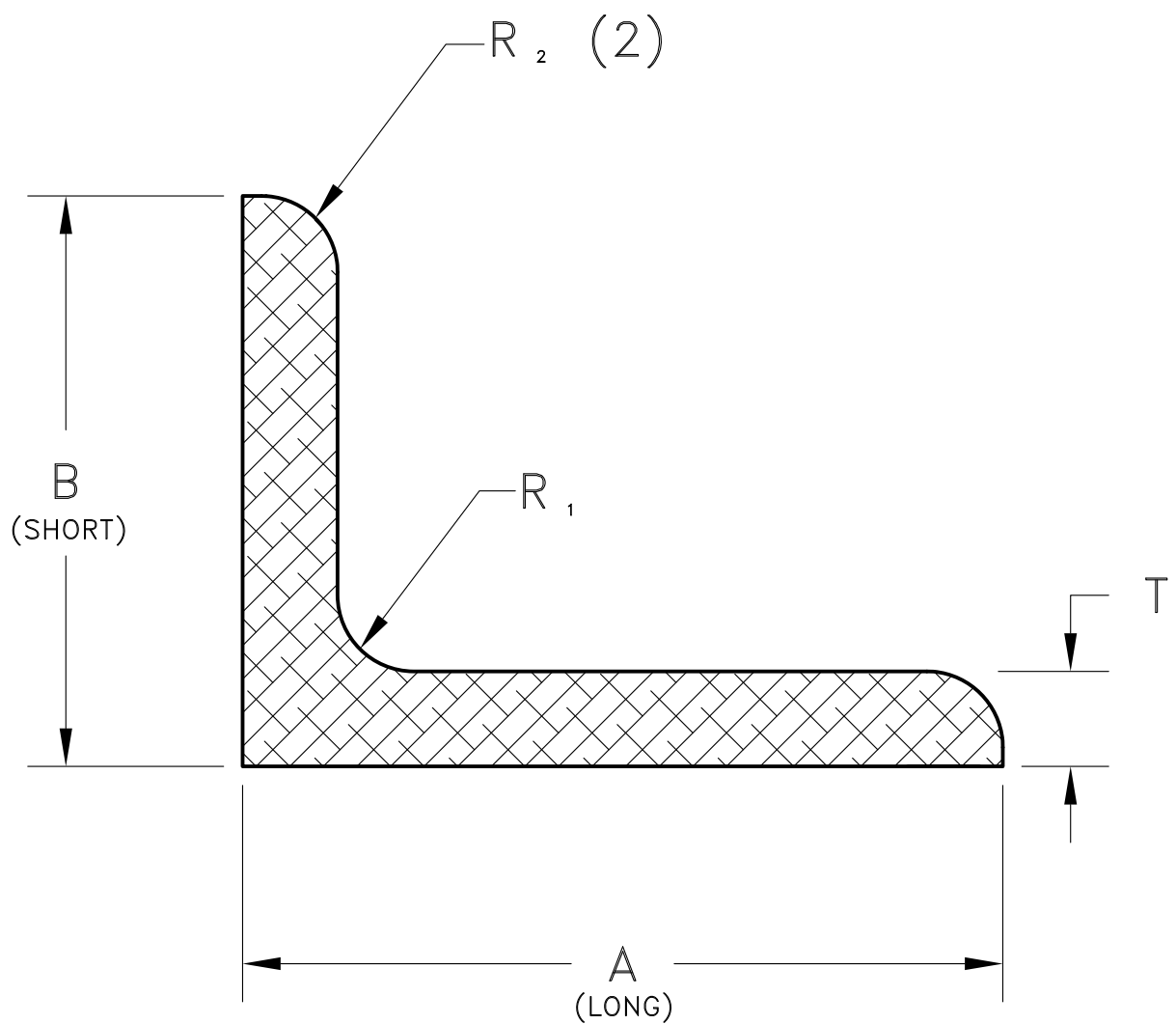


# STRUCTURAL ANGLES EQUAL LEGS

| DIE No.                     | A     | T     | R1    | R2    | WT/FT | PERIM  |
|-----------------------------|-------|-------|-------|-------|-------|--------|
| 19890                       | 1.000 | 0.125 | 0.125 | 0.093 | 0.281 | 3.867  |
| 19461                       | 1.250 | 0.188 | 0.125 |       | 0.526 | 4.946  |
| 19671                       | 1.500 | 0.125 | 0.188 | 0.125 | 0.432 | 5.795  |
| 19995                       | 1.500 | 0.187 | 0.187 | 0.125 | 0.632 | 5.808  |
| 19990                       | 2.000 | 0.125 | 0.250 | 0.125 | 0.589 | 7.766  |
| 19677                       | 2.000 | 0.188 | 0.250 | 0.125 | 0.865 | 7.766  |
| 19855                       | 2.000 | 0.250 | 0.250 | 0.125 | 1.133 | 7.785  |
| 19662                       | 2.000 | 0.375 | 0.250 | 0.125 | 1.639 | 7.785  |
| 19028                       | 2.000 | 0.250 | 0.250 | 0.125 | 1.133 | 7.785  |
| 19028 (FOR 6463 ALLOY ONLY) |       |       |       |       |       |        |
| 19662                       | 2.000 | 0.375 | 0.250 | 0.125 | 1.639 | 7.785  |
| 19664                       | 2.500 | 0.188 | 0.250 | 0.125 | 1.093 | 9.785  |
| 19668                       | 2.500 | 0.250 | 0.250 | 0.125 | 1.433 | 9.766  |
| 19739                       | 3.000 | 0.250 | 0.312 | 0.250 | 1.720 | 11.656 |
| 19076                       | 3.000 | 0.313 | 0.312 | 0.250 | 2.125 | 11.612 |
| 19667                       | 3.000 | 0.375 | 0.312 | 0.250 | 2.524 | 11.651 |
| 19234                       | 3.500 | 0.250 | 0.375 | 0.250 | 2.029 | 13.624 |
| 19075                       | 4.000 | 0.250 | 0.375 | 0.250 | 2.329 | 15.589 |
| 19189                       | 4.000 | 0.375 | 0.375 | 0.281 | 3.427 | 15.598 |
| 19074                       | 5.000 | 0.500 | 0.500 | 0.375 | 5.691 | 19.424 |
|                             |       |       |       |       |       |        |
|                             |       |       |       |       |       |        |
|                             |       |       |       |       |       |        |
|                             |       |       |       |       |       |        |

# STRUCTURAL ANGLE

## UNEQUAL LEGS

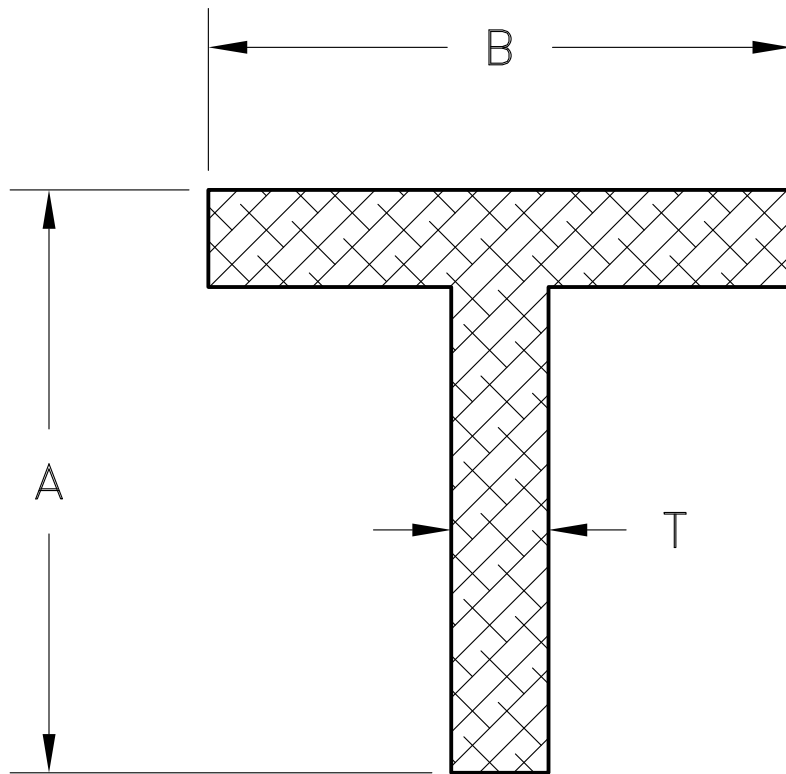




## STRUCTURAL ANGLES UNEQUAL LEGS

[illegible]

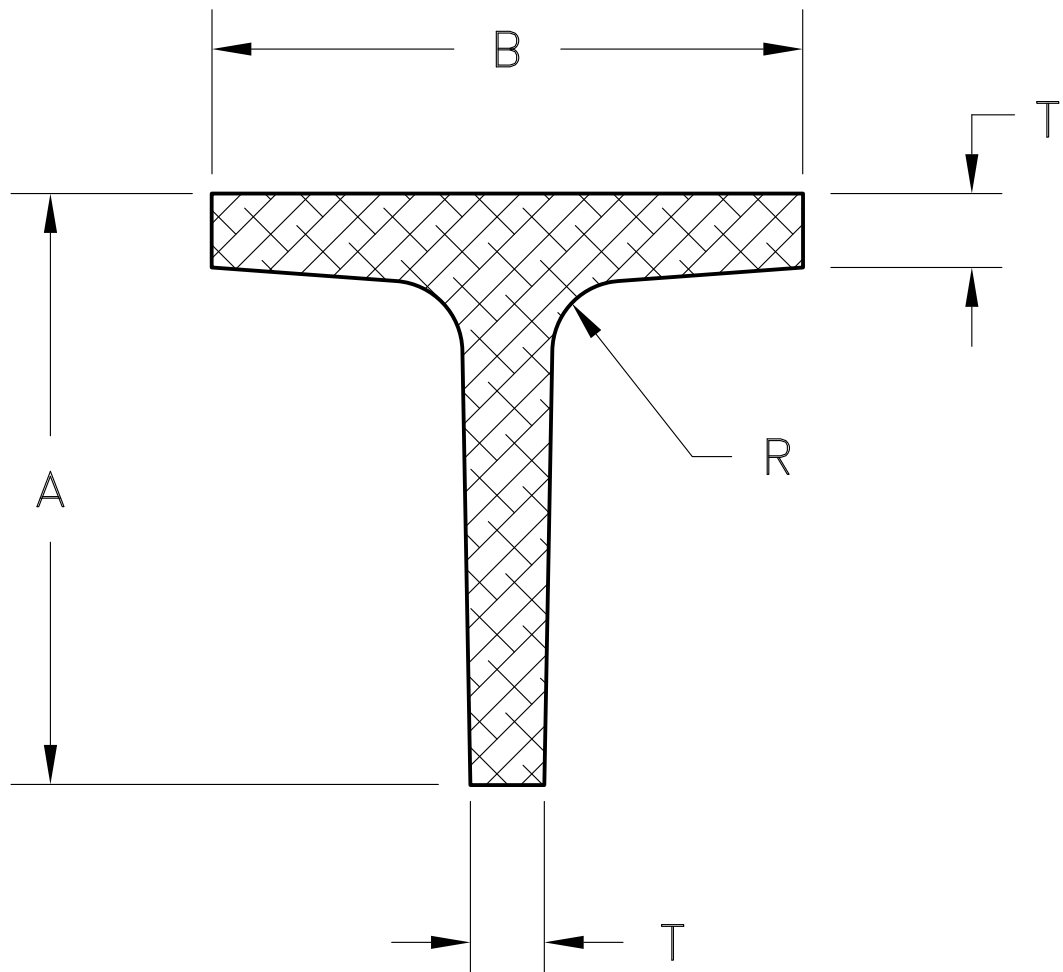
# TEE



## TEE

[illegible]

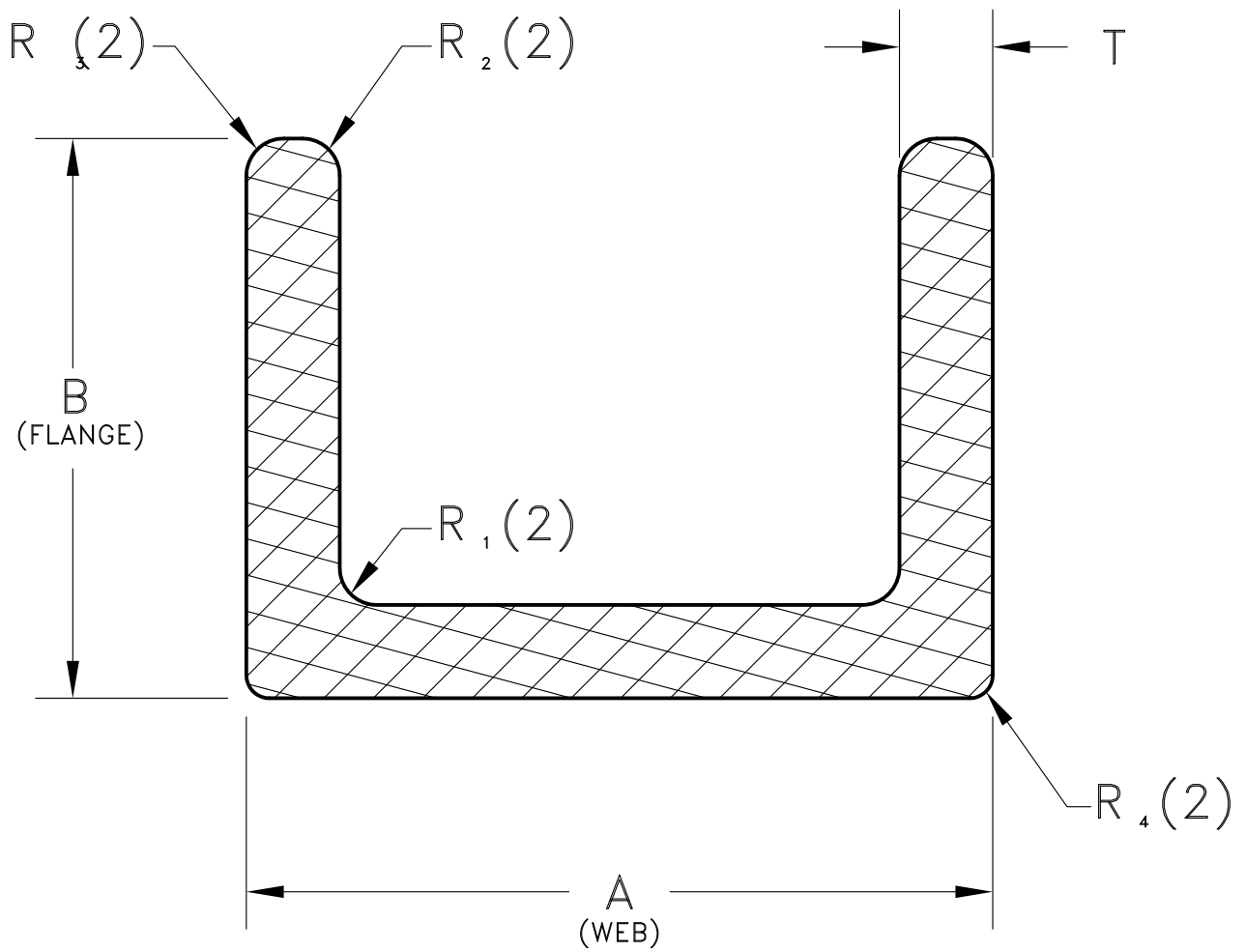
# STRUCTURAL TEE



## STRUCTURAL TEE

[illegible]

# CHANNEL



# CHANNEL

| DIE NO. | A     | DIM | B     | WEB/FLANGE  | R1    | R2    | R3    | R4    | WT/FT | PERIM  |
|---------|-------|-----|-------|-------------|-------|-------|-------|-------|-------|--------|
|         |       |     |       |             |       |       |       |       |       |        |
| 19725   | 0.500 | X   | 0.750 | 0.125       |       |       |       |       | 0.263 | 3.698  |
|         |       |     |       |             |       |       |       |       |       |        |
| 19811   | 1.000 | X   | 0.500 | 0.125       |       |       |       |       | 0.263 | 3.750  |
| 19487   | 1.000 | X   | 0.750 | 0.063       |       |       |       |       | 0.180 | 4.874  |
| 19377   | 1.000 | X   | 1.000 | 0.125       |       |       |       |       | 0.413 | 5.750  |
| 19617   | 1.000 | X   | 1.000 | 0.125       |       |       |       | 0.062 | 0.410 | 5.697  |
| 19554   | 1.000 | X   | 1.500 | 0.125       |       |       |       |       | 0.563 | 7.750  |
|         |       |     |       |             |       |       |       |       |       |        |
| 19322   | 1.500 | X   | 1.500 | 0.125       |       |       |       |       | 0.637 | 8.750  |
|         |       |     |       |             |       |       |       |       |       |        |
| 19515   | 1.750 | X   | 1.000 | 0.125       |       |       |       |       | 0.526 | 7.250  |
| 19109   | 1.750 | X   | 1.750 | 0.190       | 0.125 | 0.095 |       | 0.125 | 1.101 | 9.742  |
|         |       |     |       |             |       |       |       |       |       |        |
| 19254   | 1.894 | X   | 2.000 | 0.197       | 0.062 | 0.031 | 0.031 | 0.062 | 1.394 | 11.140 |
|         |       |     |       |             |       |       |       |       |       |        |
| 19594   | 2.500 | X   | 1.000 | 0.120       | 0.031 | 0.031 | 0.031 | 0.031 | 0.612 | 8.654  |
| 19875   | 2.500 | X   | 1.500 | 0.125       |       |       |       |       | 0.787 | 10.750 |
|         |       |     |       |             |       |       |       |       |       |        |
| 19204   | 2.750 | X   | 2.500 | 0.250       | 0.125 |       |       | 0.250 | 2.150 | 14.678 |
|         |       |     |       |             |       |       |       |       |       |        |
| 19286   | 3.000 | X   | 1.500 | 0.130/0.200 | 0.250 |       |       |       | 1.158 | 11.525 |
| 19298   | 3.000 | X   | 1.750 | 0.170/0.260 | 0.250 |       |       |       | 1.630 | 12.445 |
|         |       |     |       |             |       |       |       |       |       |        |
| 19178   | 4.000 | X   | 1.500 | 0.150/0.185 | 0.250 |       |       |       | 1.352 | 13.485 |
| 19363   | 4.000 | X   | 2.000 | 0.150/0.230 | 0.250 |       |       |       | 1.774 | 15.485 |
| 19362   | 4.000 | X   | 2.250 | 0.190/0.290 | 0.250 |       |       |       | 2.377 | 16.405 |
|         |       |     |       |             |       |       |       |       |       |        |
| 19053   | 5.000 | X   | 1.375 | 0.375       | 0.020 | 0.188 | 0.188 | 0.188 | 3.096 | 14.250 |
| 19378   | 5.000 | X   | 2.250 | 0.150/0.260 | 0.300 |       |       |       | 2.256 | 18.442 |
| 19292   | 5.000 | X   | 2.750 | 0.190/0.320 | 0.300 |       |       |       | 3.152 | 20.362 |
|         |       |     |       |             |       |       |       |       |       |        |
|         |       |     |       |             |       |       |       |       |       |        |

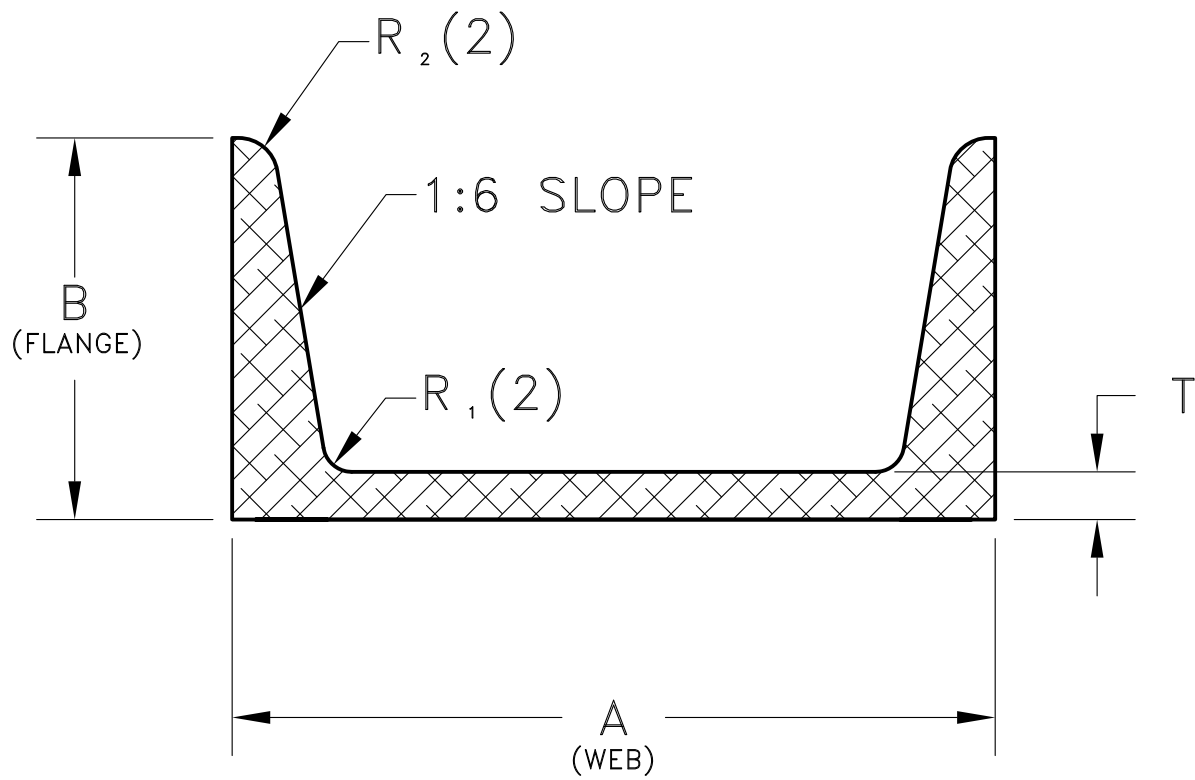
## CHANNEL

[illegible]





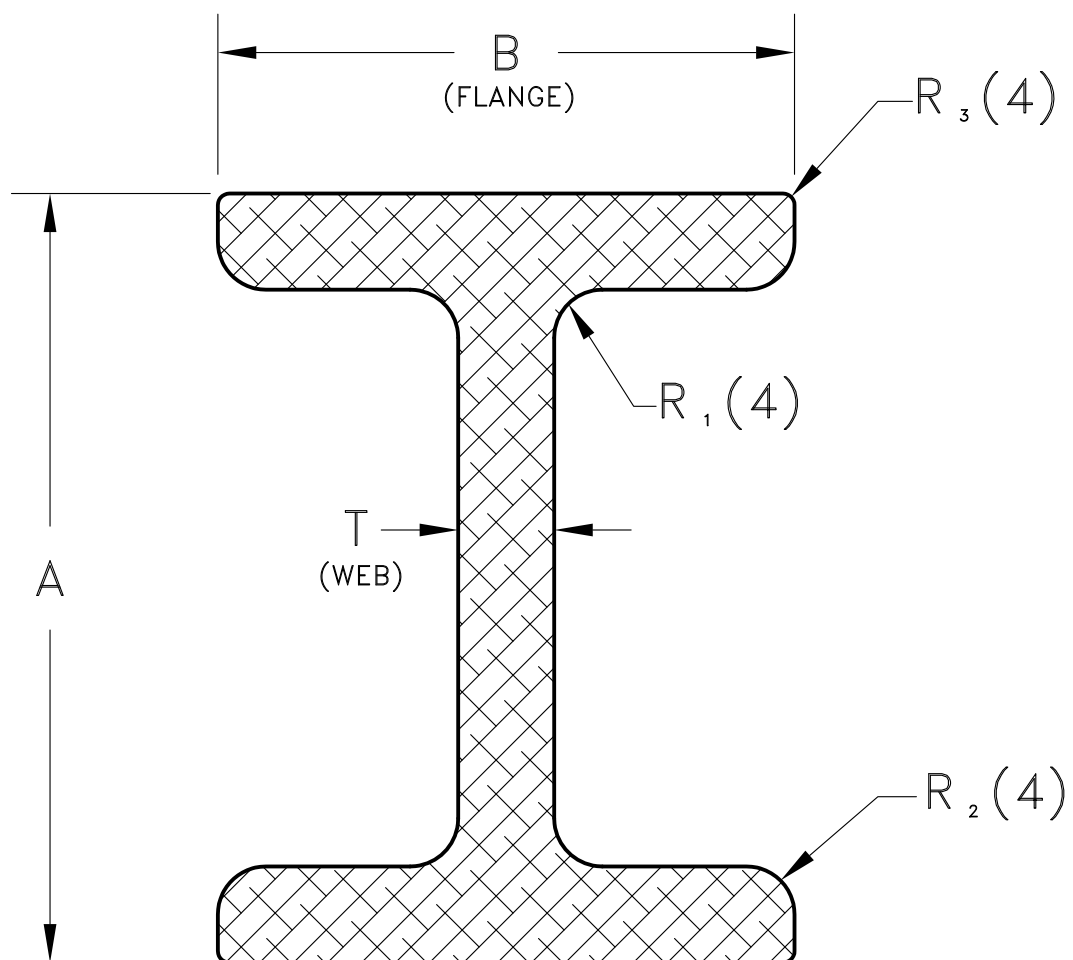
# STRUCTURAL CHANNEL



## STRUCTURAL CHANNEL

[illegible]

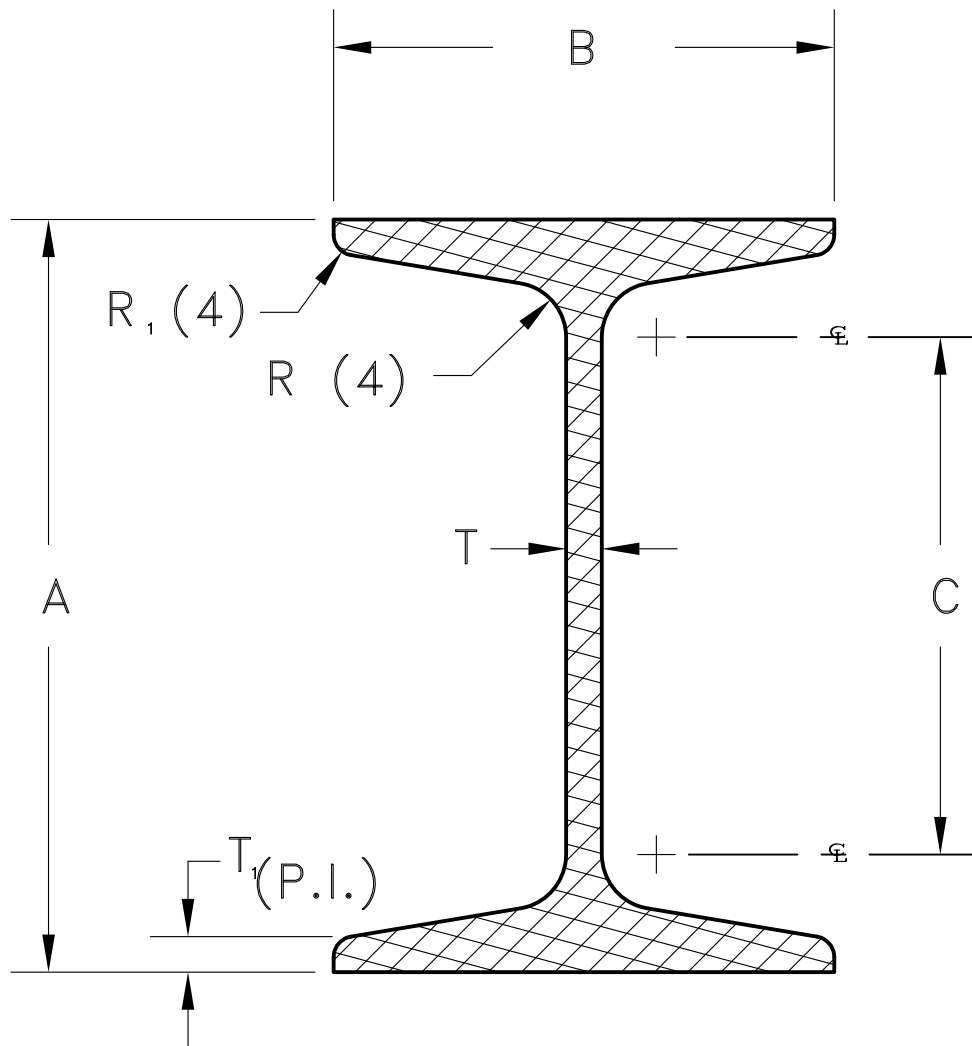
## WIDE FLANGE BEAMS



# WIDE FLANGE BEAMS

| DIE NO.                                    | A      | DIM | B     | WEB/FLANGE  | R1    | R2    | R3    | WT/FT  | PERIM  |
|--------------------------------------------|--------|-----|-------|-------------|-------|-------|-------|--------|--------|
|                                            |        |     |       |             |       |       |       |        |        |
| 19375                                      | 4.000  | X   | 2.250 | 0.130/0.090 | 0.125 | 0.030 | 0.030 | 1.120  | 16.502 |
| 19660                                      | 4.000  | X   | 3.000 | 0.125       | 0.062 | 0.062 | 0.062 | 1.458  | 19.431 |
| 19380                                      | 4.000  | X   | 3.000 | 0.170/0.290 | 0.250 |       |       | 2.850  | 19.231 |
|                                            |        |     |       |             |       |       |       |        |        |
| 19341                                      | 5.000  | X   | 3.500 | 0.190/0.320 | 0.300 |       |       | 3.775  | 23.105 |
|                                            |        |     |       |             |       |       |       |        |        |
| 19336                                      | 5.500  | X   | 3.460 | 0.195/280   | 0.281 | 0.140 |       | 3.522  | 23.498 |
| 19336 CAN BE EXTRUDE AT TEXAS & NEW JERSEY |        |     |       |             |       |       |       |        |        |
|                                            |        |     |       |             |       |       |       |        |        |
| 19296                                      | 6.000  | X   | 4.000 | 0.190/0.290 | 0.300 |       |       | 4.112  | 27.116 |
| 19379                                      | 6.000  | X   | 4.000 | 0.210/0.350 | 0.300 |       |       | 4.788  | 27.065 |
|                                            |        |     |       |             |       |       |       |        |        |
| 19337                                      | 6.500  | X   | 4.000 | 0.220/0.310 | 0.281 | 0.155 |       | 4.560  | 27.557 |
| 19337 CAN BE EXTRUDE AT TEXAS & NEW JERSEY |        |     |       |             |       |       |       |        |        |
|                                            |        |     |       |             |       |       |       |        |        |
| 19095                                      | 8.000  | X   | 4.000 | 0.175/0.230 | 0.175 | 0.060 | 0.060 | 3.815  | 31.155 |
| 19094                                      | 8.000  | X   | 5.000 | 0.200/0.250 | 0.200 | 0.060 | 0.060 | 4.834  | 35.062 |
| 19297                                      | 8.000  | X   | 5.000 | 0.230/0.350 | 0.300 |       |       | 6.300  | 34.823 |
| 19342                                      | 8.000  | X   | 5.000 | 0.250/0.410 | 0.300 |       |       | 7.159  | 34.783 |
| 19093                                      | 8.000  | X   | 5.500 | 0.250/0.400 | 0.250 | 0.060 | 0.060 | 7.497  | 36.876 |
| 19252                                      | 8.000  | X   | 7.000 | 0.313/0.450 | 0.313 | 0.060 | 0.060 | 10.320 | 42.642 |
|                                            |        |     |       |             |       |       |       |        |        |
| 19150                                      | 12.000 | X   | 7.000 | 0.290/0.470 | 0.400 | 0.060 | 0.060 | 11.910 | 50.745 |
|                                            |        |     |       |             |       |       |       |        |        |
|                                            |        |     |       |             |       |       |       |        |        |
|                                            |        |     |       |             |       |       |       |        |        |
|                                            |        |     |       |             |       |       |       |        |        |
|                                            |        |     |       |             |       |       |       |        |        |
|                                            |        |     |       |             |       |       |       |        |        |

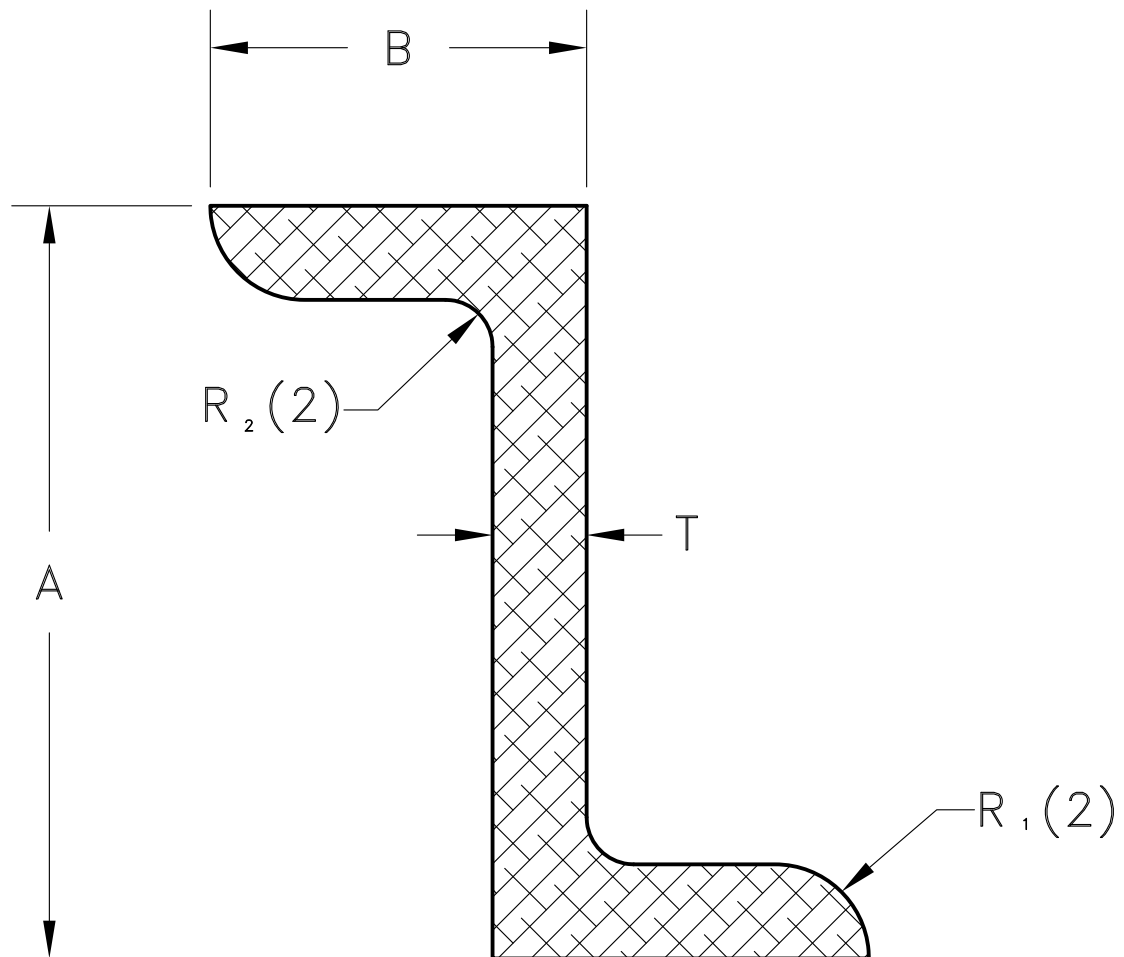
# I BEAMS



# I BEAM

[illegible]

ZEE

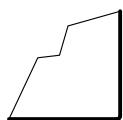




## ZEE

[illegible]

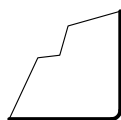
# RADIUS TABLE



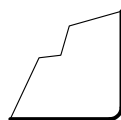
0.016 R.



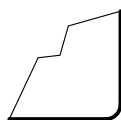
0.031 R.



0.047 R.



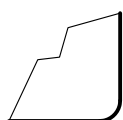
0.062 R.



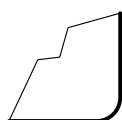
0.078 R.



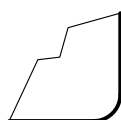
0.094 R.



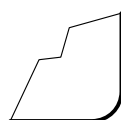
0.109 R.



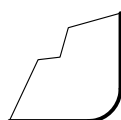
0.125 R.



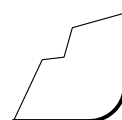
0.141 R.



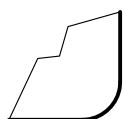
0.156 R.



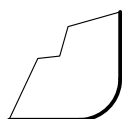
0.172 R.



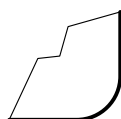
0.188 R.



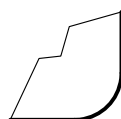
0.203 R.



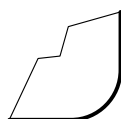
0.219 R.



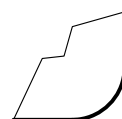
0.234 R.



0.250 R.



0.266 R.



0.281 R.



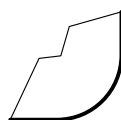
0.297 R.



0.312 R.



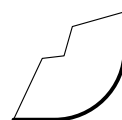
0.328 R.



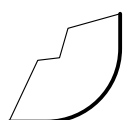
0.344 R.



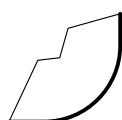
0.359 R.



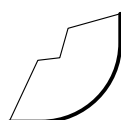
0.375 R.



0.391 R.



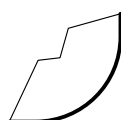
0.406 R.



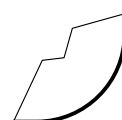
0.422 R.



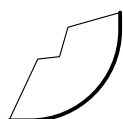
0.438 R.



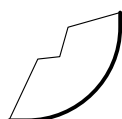
0.453 R.



0.469 R.



0.484 R.



0.500 R.