

# “O-RING SEAL”

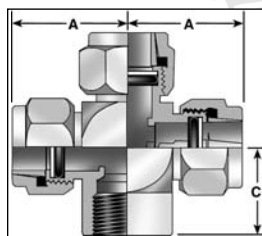
## T A P E R E D P I P E T H R E A D

“O-RING SEAL”

### 820 • Female Cross

| Part No.        | Tube O.D. | Female Pipe Thread | “A” (Tube Leg) | “C” Female Pipe Leg |
|-----------------|-----------|--------------------|----------------|---------------------|
| 820-4-4-4-2     | 1/4"      | 1/8"               | 1 1/16"        | 2 1/32"             |
| 820-5-5-5-2     | 5/16"     | 1/8"               | 1 1/32"        | 2 1/32"             |
| 820-6-6-6-4     | 3/8"      | 1/4"               | 1 1/4"         | 2 9/32"             |
| 820-8-8-8-6     | 1/2"      | 3/8"               | 1 17/32"       | 3 1/32"             |
| 820-10-10-10-8  | 5/8"      | 1/2"               | 1 23/32"       | 1 1/4"              |
| 820-12-12-12-12 | 3/4"      | 3/4"               | 1 31/32"       | 1 11/32"            |
| 820-14-14-14-12 | 7/8"      | 3/4"               | 2"             | 1 11/32"            |
| 820-16-16-16-16 | 1"        | 1"                 | 2 11/32"       | 1 5/8"              |
| 820-20-20-20-20 | 1 1/4"    | 1 1/4"             | 2 25/32"       | 1 11/16"            |
| 820-24-24-24-24 | 1 1/2"    | 1 1/2"             | 3 3/32"        | 2 1/16"             |
| 820-32-32-32-32 | 2"        | 2"                 | 3 25/32"       | 2 3/8"              |

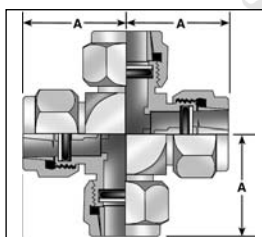
### 820 FEMALE CROSS • TUBE END - TUBE END - FEMALE PIPE END



### 850 • Tube Cross

| Part No. | Tube O.D. | “A” (Tube Leg) |
|----------|-----------|----------------|
| 850-4    | 1/4"      | 1"             |
| 850-5    | 5/16"     | 1 1/32"        |
| 850-6    | 3/8"      | 1 1/8"         |
| 850-8    | 1/2"      | 1 15/32"       |
| 850-10   | 5/8"      | 1 21/32"       |
| 850-12   | 3/4"      | 1 27/32"       |
| 850-14   | 7/8"      | 1 15/16"       |
| 850-16   | 1"        | 2 7/32"        |
| 850-20   | 1 1/4"    | 2 19/32"       |
| 850-24   | 1 1/2"    | 2 29/32"       |
| 850-32   | 2"        | 3 19/32"       |

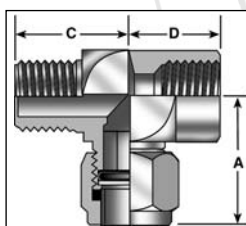
### 850 TUBE CROSS TUBE END - ALL OPENINGS



### 860 • Gauge Tee

| Part No.     | Tube O.D. | Male & Female Pipe Thread | “A” (Tube Leg) | “C” (Male Pipe Leg) | “D” Female Pipe Leg |
|--------------|-----------|---------------------------|----------------|---------------------|---------------------|
| 860-4-2-2    | 1/4"      | 1/8"                      | 1 1/16"        | 2 5/32"             | 2 1/32"             |
| 860-6-4-4    | 3/8"      | 1/4"                      | 1 1/4"         | 1 9/32"             | 2 9/32"             |
| 860-8-6-6    | 1/2"      | 3/8"                      | 1 17/32"       | 1 7/32"             | 3 1/32"             |
| 860-10-8-8   | 5/8"      | 1/2"                      | 1 23/32"       | 1 15/32"            | 1 1/4"              |
| 860-12-12-12 | 3/4"      | 3/4"                      | 1 31/32"       | 1 15/32"            | 1 11/32"            |
| 860-14-12-12 | 7/8"      | 3/4"                      | 2"             | 1 5/8"              | 1 11/32"            |
| 860-16-16-16 | 1"        | 1"                        | 2 11/32"       | 1 31/32"            | 1 5/8"              |

### 860 GAUGE TEE • FEMALE PIPE END - MALE PIPE END - TUBE SIDE OUTLET

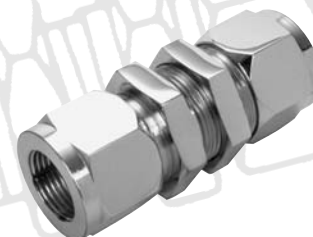
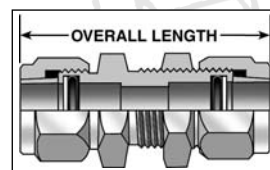


Particularly suited for gauge & air bleeder valve connections

### 900 • Bulkhead Union

| Part No.  | Tube O.D.       | Bulkhead Hole Dia. | Overall Length |
|-----------|-----------------|--------------------|----------------|
| 900-4-4   | 1/4"            | 17/32"             | 2 7/16"        |
| 900-5-5   | 5/16"           | 19/32"             | 2 7/16"        |
| 900-6-6   | 3/8"            | 21/32"             | 2 5/8"         |
| 900-8-8   | 1/2"            | 29/32"             | 3 5/32"        |
| 900-10-10 | 5/8"            | 1 1/32"            | 3 1/2"         |
| 900-10-8  | 5/8" to 1/2" BH | 29/32"             | 3 9/32"        |
| 900-12-12 | 3/4"            | 1 5/32"            | 3 13/16"       |
| 900-14-14 | 7/8"            | 1 9/32"            | 3 7/8"         |
| 900-16-16 | 1"              | 1 17/32"           | 4 1/8"         |
| 900-20-20 | 1 1/4"          | 1 25/32"           | 4 5/8"         |
| 900-20-16 | 1 1/4" to 1" BH | 1 17/32"           | 4 13/32"       |
| 900-24-24 | 1 1/2"          | 2 1/32"            | 4 7/8"         |
| 900-32-32 | 2"              | 2 21/32"           | 5 3/4"         |

### 900 BULKHEAD UNION • TUBE BOTH ENDS



Maximum Bulkhead Thickness 1/2"

#### Stainless Steel Tubing

Lenz O-ring Seal tube fitting performs equally well on stainless steel tubing as with carbon steel tubing, but requires the use of stainless steel sleeves (#165-xxSS) and stainless steel buffer washers (#195-xx-SS), even when used with steel fittings. Example, when ordering: 100-12-12 with ss sleeves. When Ordering Lenz Fittings in all Stainless Steel Add SS To The Part Number. Example: 100-12-12-SS

# TUBING

## ( SPECIFICATIONS & IDENTIFICATION )

### LENZ HYDRAULIC STEEL TUBING Dead Soft • Fully Annealed • Bright Finish

Superior grade tubing selected for excellence of bending and flaring. The formula given below is determined with the flow calculated to give nominal pressure drop through tubing having the diameter and wall thickness as indicated in the table to left. This flow is based on a velocity of 15 feet per second and fluids having a maximum viscosity of 315 S.S.U.

#### Formula

$$GPM = \frac{\pi D^2 \times 15}{1.283} = 36.69 \times D^2$$

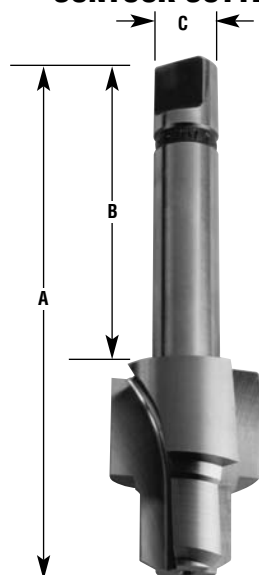
\*D = Inside Diameter of Tubing

Furnished in 12 Ft. Lengths-Longer Lengths On Request.  
\*\*Safety Factor of 5 means that the tubing will burst at 5 times the working pressure indicated.

### Lenz Hydraulic Steel Tubing

| Size No. | O.D.   | I.D.  | Wall Thickness | G.P.M. Flow | Working Pressure |
|----------|--------|-------|----------------|-------------|------------------|
| 4.035    | 1/4"   | .180  | .035           | 1.2         | 2800             |
| 4.049    | 1/4"   | .152  | .049           | .85         | 3920             |
| 5.035    | 5/16"  | .242  | .035           | 2.15        | 2240             |
| 5.049    | 5/16"  | .214  | .049           | 1.68        | 3136             |
| 6.035    | 3/8"   | .305  | .035           | 3.45        | 1867             |
| 6.049    | 3/8"   | .277  | .049           | 2.82        | 2613             |
| 6.065    | 3/8"   | .245  | .065           | 2.2         | 3467             |
| 8.035    | 1/2"   | .430  | .035           | 6.79        | 1400             |
| 8.049    | 1/2"   | .402  | .049           | 5.92        | 1960             |
| 8.065    | 1/2"   | .370  | .065           | 5.03        | 2600             |
| 10.049   | 5/8"   | .527  | .049           | 10.2        | 1568             |
| 10.065   | 5/8"   | .495  | .065           | 9.0         | 2080             |
| 10.095   | 5/8"   | .435  | .095           | 6.94        | 3040             |
| 12.049   | 3/4"   | .652  | .049           | 15.6        | 1307             |
| 12.065   | 3/4"   | .620  | .065           | 14.1        | 1733             |
| 12.095   | 3/4"   | .560  | .095           | 11.5        | 2533             |
| 12.109   | 3/4"   | .532  | .109           | 10.4        | 2907             |
| 14.049   | 7/8"   | .777  | .049           | 22.1        | 1120             |
| 14.065   | 7/8"   | .745  | .065           | 20.4        | 1486             |
| 14.095   | 7/8"   | .685  | .095           | 17.2        | 2171             |
| 16.065   | 1"     | .870  | .065           | 27.8        | 1300             |
| 16.095   | 1"     | .810  | .095           | 24.1        | 1900             |
| 16.120   | 1"     | .760  | .120           | 21.2        | 2400             |
| 20.065   | 1 1/4" | 1.120 | .065           | 46.0        | 1040             |
| 20.095   | 1 1/4" | 1.060 | .095           | 41.2        | 1520             |
| 20.120   | 1 1/4" | 1.010 | .120           | 37.4        | 1920             |
| 24.095   | 1 1/2" | 1.310 | .095           | 63.0        | 1267             |
| 24.120   | 1 1/2" | 1.260 | .120           | 58.1        | 1600             |

### PCC LENZ S.A.E. PORT CONTOUR CUTTERS



### PCT LENZ PRECISION S.A.E. PORT THREAD TAPS



These tools have three flutes which form the standard internal O-Ring Boss for straight thread tube fittings. Standard in high-speed steel. Carbide tipped available on special order. Four flute cutters available on special order.

### PCC-LENZ S.A.E. Port Contour Cutter

| Part No. | Tube O.D. | Thread Size | "A" Overall Length                | "B" Shank Length                  | "C" Shank Dia. |
|----------|-----------|-------------|-----------------------------------|-----------------------------------|----------------|
| PCC-2    | 1/8"      | 5/16"-24    | 3 <sup>23</sup> / <sub>32</sub> " | 2 <sup>11</sup> / <sub>64</sub> " | .500           |
| PCC-4    | 1/4"      | 7/16"-20    | 3 <sup>25</sup> / <sub>32</sub> " | 2 <sup>5</sup> / <sub>32</sub> "  | .500           |
| PCC-5    | 5/16"     | 1/2"-20     | 3 <sup>27</sup> / <sub>32</sub> " | 2 <sup>7</sup> / <sub>32</sub> "  | .500           |
| PCC-6    | 3/8"      | 9/16"-18    | 3 <sup>29</sup> / <sub>32</sub> " | 2 <sup>5</sup> / <sub>64</sub> "  | .500           |
| PCC-8    | 1/2"      | 3/4"-16     | 3 <sup>31</sup> / <sub>32</sub> " | 2 <sup>1</sup> / <sub>16</sub> "  | .500           |
| PCC-10   | 5/8"      | 7/8"-14     | 3 <sup>31</sup> / <sub>32</sub> " | 1 <sup>53</sup> / <sub>64</sub> " | .750           |
| PCC-12   | 3/4"      | 1 1/16"-12  | 4 1/8"                            | 1 <sup>55</sup> / <sub>64</sub> " | .750           |
| PCC-14   | 7/8"      | 1 3/16"-12  | 4 1/8"                            | 1 <sup>27</sup> / <sub>32</sub> " | .750           |
| PCC-16   | 1"        | 1 5/16"-12  | 4 1/8"                            | 1 <sup>27</sup> / <sub>32</sub> " | .750           |
| PCC-20   | 1 1/4"    | 1 5/8"-12   | 4 1/8"                            | 1 <sup>53</sup> / <sub>64</sub> " | 1.000          |
| PCC-24   | 1 1/2"    | 1 7/8"-12   | 4 1/8"                            | 1 <sup>13</sup> / <sub>16</sub> " | 1.000          |
| PCC-32   | 2"        | 2 1/2"-12   | 4 1/4"                            | 1 <sup>29</sup> / <sub>32</sub> " | 1.000          |

### PCT • LENZ Precision S.A.E. Port Thread Taps

| Part Number | Tube O.D. | Thread Size |
|-------------|-----------|-------------|
| PCT-2       | 1/8"      | 5/16"-24    |
| PCT-4       | 1/4"      | 7/16"-20    |
| PCT-5       | 5/16"     | 1/2"-20     |
| PCT-6       | 3/8"      | 9/16"-18    |
| PCT-8       | 1/2"      | 3/4"-16     |
| PCT-10      | 5/8"      | 7/8"-14     |
| PCT-12      | 3/4"      | 1 1/16"-12  |
| PCT-14      | 7/8"      | 1 3/16"-12  |
| PCT-16      | 1"        | 1 5/16"-12  |
| PCT-20      | 1 1/4"    | 1 5/8"-12   |
| PCT-24      | 1 1/2"    | 1 7/8"-12   |
| PCT-32      | 2"        | 2 1/2"-12   |