

***Streamline***<sup>®</sup>

Tube • Fittings

THE INDUSTRY'S FINEST PRODUCTS.  
**80 YEARS & COUNTING.**



## INTERNATIONAL CATALOG

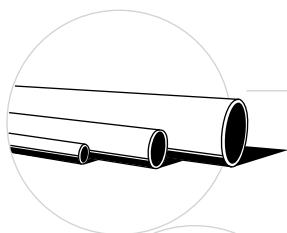
HVACR COPPER TUBE & FITTINGS

  
**MUELLER  
INDUSTRIES**



# H V A C R

COPPER TUBE & FITTINGS



## PRODUCT INFORMATION

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► **80 YEARS**  
OF THE INDUSTRY'S  
FINEST PRODUCTS.  
  
**AND COUNTING.**



- **Mueller Industries' Streamline® brand of tube, fittings, valves and related products have set the HVAC & Refrigeration Industry's standard of excellence for over 80 years. Known for quality, precision fit and reliable performance, we're proud to be the preferred and specified brand of professionals all around the world.**





## **Streamline<sup>®</sup> Past and Future.**

When Mueller Industries introduced the world's first solder-type copper fittings under the Streamline brand in 1930, the HVACR industry changed forever.

Those then-revolutionary Streamline copper solder-jointed fittings were strong, precise and reliable, which helped establish all-copper systems as the industry standard.

Today, Streamline stands for 80 years of excellence in HVAC & Refrigeration flow-control products.

Manufactured in the U.S.A. in our many modern, state-of-the-art facilities, Streamline copper tube,

fittings and line sets; plastic pipe and fittings; brass flare fittings;

refrigeration valves and protection devices are known and respected all

over the world for consistency, precision fit and unfailing performance.



*Streamline*<sup>®</sup>

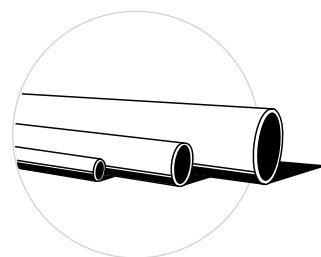
PREMIUM QUALITY TUBE & PIPE MANUFACTURED TO  
**THE ABSOLUTE HIGHEST STANDARDS.**



# TUBE & PIPE



▶ A global leader in premium-quality tube and pipe products since the early 1900's, Streamline® copper tube, line sets and ABS DWV pipe are manufactured in the USA to the absolute highest quality standards. From our pioneering of nitrogen charged ACR copper tube to the precision manufacturing of our ABS DWV pipe, our products reflect many industry first innovations and leading technologies. Each tube and pipe product line offers a full selection of choices to meet the needs of our customers' plumbing, air-conditioning, refrigeration, medical gas and other specialty applications.



- Copper Tube
- Plastic Coated Copper Tube
- Level Wound Copper Tube
- Line Sets

***Streamline®***

# COPPER TUBE • PLUMBING



Streamline® Copper Tube sets the standard for quality, consistency and service in the plumbing industries. With a full line of copper tube products to support most all plumbing supply and DWV applications, Streamline® Copper Tube is available in all common types including Type K, Type L, Type M and DWV. Each piece of tube is incised marked and color coded for easy, long lasting identity. Manufactured in accordance with applicable standards, our ongoing commitment to quality continues to make Streamline® Copper Tube the preferred and specified brand of industry professionals.



- Made to applicable ASTM standards B88, B306, B819
- Meets NSF 61G
- Made in the USA

## Copper Tube • Plumbing

| Nom.<br>Dia. | O.D.<br>Dia. | TYPE K          |               |                 |                 | TYPE L        |                 | TYPE M          | DWV             | MEDICAL GAS                  |                        |
|--------------|--------------|-----------------|---------------|-----------------|-----------------|---------------|-----------------|-----------------|-----------------|------------------------------|------------------------|
|              |              | Hard<br>Lengths | Soft<br>Coils | Soft<br>Lengths | Hard<br>Lengths | Soft<br>Coils | Soft<br>Lengths | Hard<br>Lengths | Hard<br>Lengths | Nitrogenized thr 3-1/8" only |                        |
|              |              |                 |               |                 |                 |               |                 |                 |                 | Type K<br>Hard Lengths       | Type L<br>Hard Lengths |
| 1/4"         | 3/8"         | 10 ft, 20 ft    | 60 ft, 100 ft | 10 ft, 20 ft    | 10 ft, 20 ft    | 60 ft, 100 ft | 10 ft, 20 ft    | -               | -               | 10 ft, 20 ft                 | 10 ft, 20 ft           |
| 3/8"         | 1/2"         | 10 ft, 20 ft    | 60 ft, 100 ft | 10 ft, 20 ft    | 10 ft, 20 ft    | 60 ft, 100 ft | 10 ft, 20 ft    | 10 ft, 20 ft    | -               | 10 ft, 20 ft                 | 10 ft, 20 ft           |
| 1/2"         | 5/8"         | 10 ft, 20 ft    | 60 ft, 100 ft | 10 ft, 20 ft    | 10 ft, 20 ft    | 60 ft, 100 ft | 10 ft, 20 ft    | 10 ft, 20 ft    | -               | 10 ft, 20 ft                 | 10 ft, 20 ft           |
| 5/8"         | 3/4"         | 10 ft, 20 ft    | 60 ft, 100 ft | 10 ft, 20 ft    | 10 ft, 20 ft    | 60 ft, 100 ft | 10 ft, 20 ft    | 10 ft, 20 ft    | -               | 10 ft, 20 ft                 | 10 ft, 20 ft           |
| 3/4"         | 7/8"         | 10 ft, 20 ft    | 60 ft, 100 ft | 10 ft, 20 ft    | 10 ft, 20 ft    | 60 ft, 100 ft | 10 ft, 20 ft    | 10 ft, 20 ft    | -               | 10 ft, 20 ft                 | 10 ft, 20 ft           |
| 1"           | 1-1/8"       | 10 ft, 20 ft    | 60 ft, 100 ft | 10 ft, 20 ft    | 10 ft, 20 ft    | 60 ft, 100 ft | 10 ft, 20 ft    | 10 ft, 20 ft    | -               | 10 ft, 20 ft                 | 10 ft, 20 ft           |
| 1-1/4"       | 1-3/8"       | 10 ft, 20 ft    | 60 ft, 100 ft | 10 ft, 20 ft    | 10 ft, 20 ft    | 60 ft, 100 ft | 10 ft, 20 ft    | 10 ft, 20 ft    | 10 ft, 20 ft    | 10 ft, 20 ft                 | 10 ft, 20 ft           |
| 1-1/2"       | 1-5/8"       | 10 ft, 20 ft    | 60 ft, 100 ft | 10 ft, 20 ft    | 10 ft, 20 ft    | 60 ft, 100 ft | 10 ft, 20 ft    | 10 ft, 20 ft    | 10 ft, 20 ft    | 10 ft, 20 ft                 | 10 ft, 20 ft           |
| 2"           | 2-1/8"       | 10 ft, 20 ft    | 40 ft, 60 ft  | 10 ft, 20 ft    | 10 ft, 20 ft    | 40 ft, 60 ft  | 10 ft, 20 ft    | 10 ft, 20 ft    | 10 ft, 20 ft    | 10 ft, 20 ft                 | 10 ft, 20 ft           |
| 2-1/2"       | 2-5/8"       | 10 ft, 20 ft    | -             | 10 ft, 20 ft    | 10 ft, 20 ft    | -             | 10 ft, 20 ft    | 10 ft, 20 ft    | -               | 10 ft, 20 ft                 | 10 ft, 20 ft           |
| 3"           | 3-1/8"       | 10 ft, 20 ft    | -             | 10 ft, 20 ft    | 10 ft, 20 ft    | -             | 10 ft, 20 ft    | 10 ft, 20 ft    | 10 ft, 20 ft    | 10 ft, 20 ft                 | 10 ft, 20 ft           |
| 3-1/2"       | 3-5/8"       | 10 ft, 20 ft    | -             | -               | 10 ft, 20 ft    | -             | -               | 10 ft, 20 ft    | -               | 10 ft, 20 ft                 | 10 ft, 20 ft           |
| 4"           | 4-1/8"       | 10 ft, 20 ft    | -             | -               | 10 ft, 20 ft    | -             | -               | 10 ft, 20 ft    | 10 ft, 20 ft    | 10 ft, 20 ft                 | 10 ft, 20 ft           |
| 5"           | 5-1/8"       | 10 ft, 20 ft    | -             | -               | 10 ft, 20 ft    | -             | -               | 10 ft, 20 ft    | 10 ft, 20 ft    | 10 ft, 20 ft                 | 10 ft, 20 ft           |
| 6"           | 6-1/8"       | 10 ft, 20 ft    | -             | -               | 10 ft, 20 ft    | -             | -               | 10 ft, 20 ft    | -               | 10 ft, 20 ft                 | 10 ft, 20 ft           |
| 8"           | 8-1/8"       | 10 ft, 20 ft    | -             | -               | 10 ft, 20 ft    | -             | -               | 10 ft, 20 ft    | -               | 10 ft, 20 ft                 | 10 ft, 20 ft           |

# COPPER TUBE • PLASTIC COATED



Streamline® Plastic-Coated Copper Tube is manufactured in a variety of options for use when copper tube is to be buried or used in a potentially aggressive environment. Some building and insulation materials may contain chemicals that are potentially corrosive to plain copper tube, requiring it to be protected to ensure its longevity in service. Our plastic-coated copper tube eliminates the need for on-site tape wrapping or sleeving, creating a savings on labor and ensuring a professional-looking installation. It can be used in a wide variety of situations including reclaimed water applications and the movement of natural gas.



\* Type K & L water tube only.

- UL Recognized to 700 PSI (select diameters)
- For use in above-ground potable water supply systems
- Constructed of high-grade copper
- Made to applicable ASTM standards B88, B280
- Meets NSF 61G

## Polyethylene-Coated Copper Tube: PlumbShield®, GasShield®, OilShield®, Coated ACR

| Nom.   | O.D.   | TYPE K  |               | TYPE L  |               | COATED ACR |         | REFRIGERATION           |
|--------|--------|---------|---------------|---------|---------------|------------|---------|-------------------------|
|        |        | Lengths | Soft Coils    | Lengths | Soft Coils    | Type K     | Type L  | Soft Coils              |
| Dia.   | Dia.   |         |               |         |               |            |         |                         |
| 1/4"   | 3/8"   | -       | 60 ft, 100 ft | -       | 60 ft, 100 ft | -          | -       | 50 ft, 100 ft, 250 ft † |
| 3/8"   | 1/2"   | -       | 60 ft, 100 ft | -       | 60 ft, 100 ft | -          | -       | 50 ft, 100 ft, 250 ft † |
| 1/2"   | 5/8"   | 20 ft   | 60 ft, 100 ft | 20 ft   | 60 ft, 100 ft | 20 ft †    | 20 ft † | 50 ft, 100 ft, 250 ft † |
| 5/8"   | 3/4"   | 20 ft   | 60 ft, 100 ft | 20 ft   | 60 ft, 100 ft | 20 ft †    | 20 ft † | 50 ft, 100 ft †         |
| 3/4"   | 7/8"   | 20 ft   | 60 ft, 100 ft | 20 ft   | 60 ft, 100 ft | 20 ft †    | 20 ft † | 50 ft, 100 ft †         |
| 1"     | 1-1/8" | 20 ft   | 60 ft, 100 ft | 20 ft   | 60 ft, 100 ft | 20 ft †    | 20 ft † | 50 ft, 100 ft †         |
| 1-1/4" | 1-3/8" | 20 ft   | 60 ft, 100 ft | 20 ft   | 60 ft, 100 ft | 20 ft †    | 20 ft † | -                       |
| 1-1/2" | 1-5/8" | 20 ft   | -             | 20 ft   | -             | 20 ft †    | 20 ft   | -                       |
| 2"     | 2-1/8" | 20 ft   | -             | 20 ft   | -             | 20 ft †    | 20 ft   | -                       |

**PlumbShield®** is available in blue and red for water applications and purple for reclaimed water. Certified to NSF 61.

**GasShield®** is available in yellow for natural and LP Gas applications. \*O.D. sizes only. Manufactured to meet the requirements of NFPA 54.

**OilShield®** is available in orange for fuel and oil applications. \*O.D. sizes only. Manufactured to meet the requirements of NFPA 31.

**Coated ACR** is available in white for HVAC & Refrigeration applications. Hard drawn tube lengths are nitrogen charged and plugged.

† UL Recognized to 700 PSI (select diameters)

# COPPER TUBE • HVACR



Streamline® Copper Tube provides the strength, precision and cleanliness needed for the demanding conditions of HVAC and refrigeration applications. Preferred throughout the industry, our products have set the benchmark for HVACR copper tube. Streamline® Nitrogenized® ACR Copper Tube is pressurized with nitrogen to provide maximum protection against the formation of harmful oxides normally formed during brazing operations. Reduction of these oxides greatly reduces system contamination. Streamline® Refrigeration Service Tube is of a consistent dead soft temper, bright, thoroughly dried/dehydrated and packed in shrink wrapping plus individual cartons for the highest level of protection.



- UL Recognized to 700 PSI (select diameters)
- Made to applicable ASTM standard B280
- Made in the USA

## Copper Tube • Refrigeration

| ACR TUBE<br>Nitrogenized® thru 3-1/8" only |                        |                          |
|--------------------------------------------|------------------------|--------------------------|
| O.D.<br>Dia.                               | Hard Lengths           |                          |
|                                            | Standard ACR<br>Type L | Heavy Wall ACR<br>Type K |
| 3/8"                                       | 10 ft, 20 ft †         | 10 ft, 20 ft †           |
| 1/2"                                       | 10 ft, 20 ft †         | 10 ft, 20 ft †           |
| 5/8"                                       | 10 ft, 20 ft †         | 10 ft, 20 ft †           |
| 3/4"                                       | 10 ft, 20 ft †         | 10 ft, 20 ft †           |
| 7/8"                                       | 10 ft, 20 ft †         | 10 ft, 20 ft †           |
| 1-1/8"                                     | 10 ft, 20 ft †         | 10 ft, 20 ft †           |
| 1-3/8"                                     | 10 ft, 20 ft †         | 10 ft, 20 ft †           |
| 1-5/8"                                     | 10 ft, 20 ft †         | 10 ft, 20 ft †           |
| 2-1/8"                                     | 10 ft, 20 ft †         | 10 ft, 20 ft †           |
| 2-5/8"                                     | 10 ft, 20 ft †         | 10 ft, 20 ft †           |
| 3-1/8"                                     | 10 ft, 20 ft           | 10 ft, 20 ft             |
| 3-5/8"                                     | 10 ft, 20 ft           | 10 ft, 20 ft             |
| 4-1/8"                                     | 10 ft, 20 ft           | 10 ft, 20 ft             |
| 5-1/8"                                     | 10 ft, 20 ft           | 10 ft, 20 ft             |
| 6-1/8"                                     | 10 ft, 20 ft           | 10 ft, 20 ft             |
| 8-1/8"                                     | 10 ft, 20 ft           | 10 ft, 20 ft             |

| REFRIGERATION<br>SERVICE TUBE |                 |
|-------------------------------|-----------------|
| O.D.<br>Dia.                  | Soft Coils      |
| 1/8"                          | 50 ft, 100 ft † |
| 3/16"                         | 50 ft, 100 ft † |
| 1/4"                          | 50 ft, 100 ft † |
| 5/16"                         | 50 ft, 100 ft † |
| 3/8"                          | 50 ft, 100 ft † |
| 1/2"                          | 50 ft, 100 ft † |
| 5/8"                          | 50 ft, 100 ft † |
| 3/4"                          | 50 ft, 100 ft † |
| 7/8"                          | 50 ft, 100 ft † |
| 1-1/8"                        | 50 ft, 100 ft † |
| 1-3/8"                        | 50 ft, 100 ft   |
| 1-5/8"                        | 50 ft, 100 ft   |

| TEMPERATURE CONTROL TUBE |                         |                 |                         |                 |
|--------------------------|-------------------------|-----------------|-------------------------|-----------------|
| O.D.<br>Dia.<br>1/4"     | Wall Thickness<br>.025" |                 | Wall Thickness<br>.032" |                 |
|                          | Hard<br>Lengths         | Soft<br>Lengths | Hard<br>Lengths         | Soft<br>Lengths |
|                          | 10 ft, 20 ft            | 10 ft, 20 ft    | 10 ft, 20 ft            | 10 ft, 20 ft    |

Temperature Control Tube is not recommended for forming or bending purposes.

Temperature Control Tube order quantities are in 2000 ft. per box increments.

Standard ACR Copper Tube is produced from Type L Copper Tube. Heavy Wall ACR Copper Tube produced from Type K Copper Tube is available upon request.

† UL Recognized to 700 PSI (select diameters)

# COPPER TUBE • DATA

Mueller Industries' cleaning, purging and pressurizing process assures the high level of tube cleanliness in conformance to ASTM B280, the refrigeration industry standard. The tube is sealed with plugs which maintain the standard of cleanliness from the factory to the job site.

STREAMLINE® COPPER TUBE PRESSURIZED WITH NITROGEN provides maximum protection against the formation of harmful oxides normally formed during brazing operations. Reduction of these oxides greatly reduces system contamination. Plugs are reusable. When less than a 20' length of tube is required for an installation the unused length of tube may be re-plugged to prevent atmospheric contamination during storage.

STREAMLINE® NITROGENIZED seamless copper tube is available in sizes 3/8" OD through 3-1/8" OD. Larger sizes from 3-5/8" OD through 8-1/8" OD are cleaned and capped. Manufactured and cleaned in accordance with ASTM B280. 20-ft. lengths hard drawn - cleaned and capped - color coded - Marked "ACR/MED"

## TYPE K NITROGENIZED OXY / MED

## RATED WORKING PRESSURE (PSIG)<sup>1</sup>

| SIZE  | WT/FT | FT/BNDL | WALL  | 150°F | 200°F | 300°F | 400°F |
|-------|-------|---------|-------|-------|-------|-------|-------|
| 3/8   | 0.145 | 500     | 0.035 | 913   | 860   | 842   | 537   |
| 1/2   | 0.269 | 500     | 0.049 | 960   | 904   | 885   | 565   |
| 5/8   | 0.344 | 500     | 0.049 | 758   | 713   | 698   | 446   |
| 3/4   | 0.418 | 200     | 0.049 | 626   | 589   | 577   | 368   |
| 7/8   | 0.641 | 200     | 0.065 | 724   | 682   | 668   | 426   |
| 1 1/8 | 0.839 | 100     | 0.065 | 557   | 524   | 513   | 327   |
| 1 3/8 | 1.04  | 100     | 0.065 | 452   | 425   | 416   | 266   |
| 1 5/8 | 1.36  | 100     | 0.072 | 420   | 396   | 387   | 247   |
| 2 1/8 | 2.06  | —       | 0.083 | 370   | 348   | 341   | 217   |
| 2 5/8 | 2.93  | —       | 0.095 | 338   | 319   | 312   | 199   |
| 3 1/8 | 4.00  | —       | 0.109 | 328   | 308   | 302   | 193   |
| 3 5/8 | 5.12  | —       | 0.120 | 311   | 293   | 286   | 183   |
| 4 1/8 | 6.51  | —       | 0.134 | 306   | 288   | 282   | 180   |
| 5 1/8 | 9.67  | —       | 0.160 | 293   | 276   | 270   | 172   |
| 6 1/8 | 13.90 | —       | 0.192 | 295   | 277   | 271   | 173   |
| 8 1/8 | 25.90 | —       | 0.271 | 314   | 295   | 289   | 184   |

## TYPE L NITROGENIZED ACR / MED

| SIZE  | WT/FT | FT/BNDL | WALL  | 150°F | 200°F | 300°F | 400°F |
|-------|-------|---------|-------|-------|-------|-------|-------|
| 3/8   | 0.126 | 500     | 0.030 | 775   | 729   | 714   | 456   |
| 1/2   | 0.198 | 500     | 0.035 | 662   | 623   | 610   | 389   |
| 5/8   | 0.285 | 500     | 0.040 | 613   | 577   | 565   | 361   |
| 3/4   | 0.362 | 200     | 0.042 | 537   | 505   | 495   | 316   |
| 7/8   | 0.455 | 200     | 0.045 | 495   | 466   | 456   | 291   |
| 1 1/8 | 0.655 | 100     | 0.050 | 420   | 395   | 387   | 247   |
| 1 3/8 | 0.884 | 100     | 0.055 | 373   | 351   | 344   | 219   |
| 1 5/8 | 1.14  | 100     | 0.060 | 347   | 327   | 320   | 204   |
| 2 1/8 | 1.75  | —       | 0.070 | 309   | 291   | 285   | 182   |
| 2 5/8 | 2.48  | —       | 0.080 | 285   | 269   | 263   | 168   |
| 3 1/8 | 3.33  | —       | 0.090 | 270   | 254   | 248   | 159   |
| 3 5/8 | 4.29  | —       | 0.100 | 258   | 243   | 238   | 152   |
| 4 1/8 | 5.38  | —       | 0.110 | 249   | 235   | 230   | 147   |
| 5 1/8 | 7.61  | —       | 0.125 | 229   | 215   | 211   | 135   |
| 6 1/8 | 10.2  | —       | 0.140 | 213   | 201   | 196   | 125   |
| 8 1/8 | 19.3  | —       | 0.200 | 230   | 216   | 212   | 135   |

Tables give computed allowable stress for annealed copper tube at indicated temperature.

<sup>1</sup>Temperature – Pressure Ratings above are according to industry-wide standards at ASTM and ASME. For higher pressure applications, review page 31 for Mueller Industries' specific ratings and unique UL Recognized status.

# COPPER TUBE • DATA

## REFRIGERATION SERVICE TUBE

STREAMLINE® dehydrated and nitrogen purged and sealed copper tube is of a consistent annealed temper, bright and thoroughly dried and packaged in individual cartons. Each carton is clearly labeled showing size and length.

Tube is manufactured in accordance with ASTM B280 and ANSI B9.1, refrigeration industry standards. For special lengths and sizes not listed please consult your local Mueller Industries representative.

## COILS

| SIZE  |       | RATED INTERNAL WORKING PRESSURE (PSIG) <sup>1</sup> |       |       |       | 50 FEET  |         | SHIP INFO | 100 FOOT |         |
|-------|-------|-----------------------------------------------------|-------|-------|-------|----------|---------|-----------|----------|---------|
| O.D.  | WALL  | 150°F                                               | 200°F | 350°F | 400°F | COIL DIA | WT/COIL | COIL/MSTR | COL DIA  | WT/COIL |
| 1/8   | 0.030 | 2613                                                | 2459  | 2049  | 1537  | 10 3/4   | 1.74    | 10        | 17       | 3.48    |
| 3/16  | 0.030 | 1645                                                | 1548  | 1290  | 968   | 11 3/4   | 2.88    | 10        | 18 5/8   | 5.76    |
| 1/4   | 0.030 | 1195                                                | 1125  | 938   | 703   | 13 1/2   | 4.02    | 10        | 18 5/8   | 8.04    |
| 5/16  | 0.032 | 1017                                                | 957   | 798   | 598   | 15 1/2   | 5.45    | 10        | 19 7/8   | 10.90   |
| 3/8   | 0.032 | 836                                                 | 787   | 656   | 492   | 17       | 6.70    | 10        | 21 7/8   | 13.40   |
| 1/2   | 0.032 | 618                                                 | 581   | 485   | 363   | 19 7/8   | 9.10    | 5         | 25       | 18.20   |
| 5/8   | 0.035 | 525                                                 | 494   | 412   | 309   | 21 1/4   | 12.55   | 5         | 25 1/4   | 25.10   |
| 3/4   | 0.035 | 435                                                 | 409   | 341   | 256   | 23 1/4   | 15.25   | 3         | 29       | 30.50   |
| 7/8   | 0.045 | 495                                                 | 466   | 388   | 291   | 27 1/4   | 22.75   | 3         | 32 1/4   | 45.50   |
| 1 1/8 | 0.050 | 420                                                 | 395   | 330   | 247   | 34 1/2   | 32.75   | -         | 38 1/2   | 65.50   |
| 1 3/8 | 0.055 | 373                                                 | 351   | 293   | 219   | 45       | 44.20   | -         | 45       | 88.40   |
| 1 5/8 | 0.060 | 347                                                 | 327   | 272   | 204   | 45       | 57.00   | -         | 49       | 114.00  |

## TECHNICAL DATA

Values of allowable internal working pressure for copper tube in service are based on the formula from ANSI B31, Standard Code for Pressure Piping:

$$P = \frac{2 S t m}{D}$$

$$D \text{ max} = 0.8 t m$$

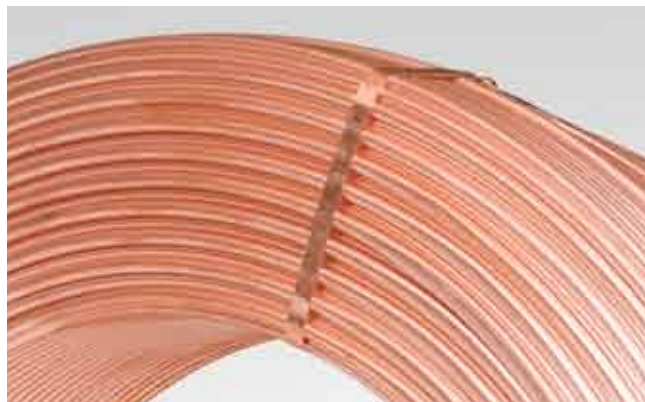
|         |                    |                               |
|---------|--------------------|-------------------------------|
| P =     | Allowable Pressure | @150°F S = 5100 PSIG annealed |
| S =     | Allowable stress   | @ 200°F S= 4800PSIG annealed  |
| T =     | Wall thickness     | @ 300°F S= 4700 PSIG annealed |
| D Max = | Outside Diameter   | @ 400°F S= 3000 PSIG annealed |

All ratings listed for types K, L, M, DWV and refrigeration service tube in the preceding charts are calculated for tube in the annealed condition. These values should be used when soldering, brazing or welding is employed for joining components in a system. While the ratings for hard drawn tube are substantially higher, they should only be used for systems using properly designed flare or compression mechanical joints, since joining by any heating process might anneal (soften) the tube.

In designing a system, careful consideration should also be given to joint ratings as well as those of the components.

<sup>1</sup>Temperature – Pressure Ratings above are according to industry-wide standards at ASTM and ASME. For higher pressure applications, review page 31 for Mueller Industries' specific ratings and unique UL Recognized status.

# COPPER TUBE • LEVEL WOUND



Streamline® Level Wound Copper Tube is a great solution for when large quantity coiled tubing is a benefit. Available in light annealed, soft annealed and hard temper, this tube comes in either bulk coil or spool rolled coil packaging. Bulk coils come independently stacked with cardboard disk separators and stretch wrapped onto a skid. Spool coil coils come stacked with hub mounted cardboard reels and also stretch wrapped onto a skid. Streamline® Level Wound Copper Tube is manufactured in various wall dimensions and diameters. Custom options and tempers can be quoted upon request.



- Seamless tube alloy made to C12200 DHP
- Copper material made to ASTM standard B743
- Custom O.D. wall and or tempers can be quoted as required
- Bulk packaging and spool packaging available

## Copper Tube • Level Wound

| O.D. Dia. | Wall  | Sizes (lbs.) | Coil Width | Coils per Skid | Approx. Feet / Co |
|-----------|-------|--------------|------------|----------------|-------------------|
| 1/4"      | .028" | 180          | 7"         | 6              | 2377              |
| 1/4"      | .030" | 180          | 7"         | 6              | 2239              |
| 5/16"     | .032" | 180          | 7"         | 6              | 1643              |
| 3/8"      | .028" | 180          | 7"         | 6              | 1521              |
| 3/8"      | .030" | 180          | 7"         | 6              | 1428              |
| 3/8"      | .035" | 180          | 7"         | 6              | 1242              |
| 1/2"      | .028" | 180          | 7"         | 6              | 1118              |
| 1/2"      | .032" | 180          | 7"         | 6              | 987               |
| 1/2"      | .035" | 180          | 7"         | 6              | 908               |
| 5/8"      | .032" | 180          | 9"         | 5              | 779               |
| 5/8"      | .035" | 180          | 9"         | 5              | 716               |
| 5/8"      | .040" | 180          | 9"         | 5              | 632               |
| 3/4"      | .035" | 180          | 9"         | 5              | 591               |
| 7/8"      | .038" | 180          | 9"         | 5              | 465               |
| 7/8"      | .045" | 180          | 9"         | 5              | 396               |
| 1-1/8"    | .050" | 180          | 9"         | 5              | 275               |

\* Level Wound Copper Tube is available in Light Annealed, Soft Annealed and Hard Temper.

### Bulk Packaging Information

Skids (43" X 43") | Coil ID = 26"  
Stacked in with cardboard disk as separators  
Plastic stretch wrapped on to a skid  
Coils per skid are dependent on coil width

### Spool Packaging Information

Skids (43" X 43")  
Spools Diameter 42" O.D. | Hub Hole 5.25" I.D.  
Stacked with cardboard reels and hubs mounted  
Plastic stretch wrapped on to a skid  
Coils per skid are dependent on coil width

### Temper

050 = Light Annealed  
060 = Soft Annealed  
H58 = Hard

# LINE SETS



Streamline® Line Sets have been an industry leader for decades. We leverage our many years of experience and expertise producing copper tube in every line set we make. From liquid line and suction line handling to unique insulation applications and packaging, every Streamline® Line Set meets our rigorous standards for quality and consistency. With a broad offering of liquid line and suction line diameters, insulation, thicknesses, custom ends and connections – plus a wide array of custom options, we're able to meet our customers most specialized and exacting needs.

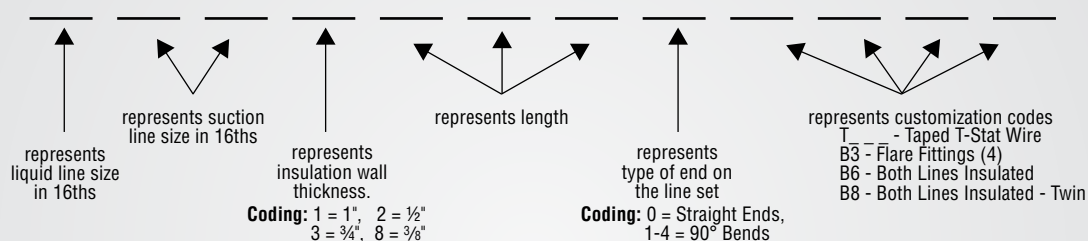


- UL Recognized to 700 PSI
- R410A engineered & tested
- Proprietary manufacturing process allows for kink-free installation

#### Custom Options Include:

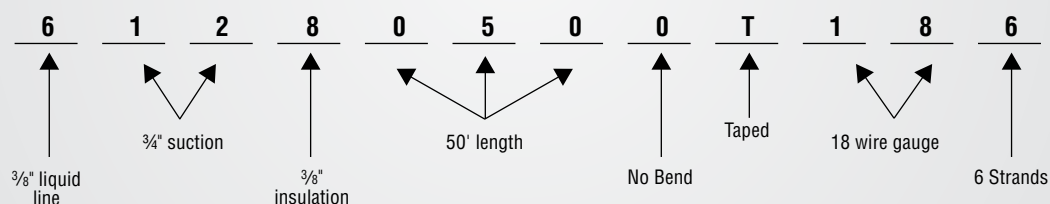
- Insulated liquid and suction lines for mini-split and twin tube systems
- Flare nuts, 90-degree bends, custom connections and assemblies
- Nitrogen and refrigerant charged lines
- Custom lengths
- Thermostat wire, mini-split wire or control cable, and taping

## Line Sets Part Number Coding



#### EXAMPLE:

Part # 61280500T186



# LINE SETS

|            |             |              |            | STANDARD LINE SETS         |     |     |     |     |     |     |     |     |     |      |
|------------|-------------|--------------|------------|----------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|
|            |             |              |            | Quantity per Master Carton |     |     |     |     |     |     |     |     |     |      |
| Series No. | Liquid Line | Suction Line | Insulation | 10'                        | 15' | 20' | 25' | 30' | 35' | 40' | 45' | 50' | 60' | 100' |
| 406        | 1/4"        | 3/8"         | 3/8"       | 14                         | 14  | 14  | 14  | 14  | 12  | 12  | 8   | 8   | 7   | 1    |
|            |             |              | 1/2"       | 14                         | 14  | 14  | 14  | 14  | 12  | 12  | 8   | 8   | 7   | 1    |
|            |             |              | 3/4"       | 8                          | 8   | 8   | 8   | 5   | 7   | 5   | 4   | 4   | 4   | 1    |
|            |             |              | 1"         | 8                          | 8   | 8   | 8   | 4   | 5   | 5   | 4   | 4   | 4   | 1    |
| 408        | 1/4"        | 1/2"         | 3/8"       | 14                         | 14  | 14  | 14  | 14  | 12  | 12  | 8   | 7   | 7   | 1    |
|            |             |              | 1/2"       | 14                         | 14  | 14  | 14  | 12  | 8   | 8   | 8   | 7   | 5   | 1    |
|            |             |              | 3/4"       | 14                         | 14  | 8   | 8   | 7   | 7   | 5   | 4   | 4   | 4   | 1    |
|            |             |              | 1"         | 12                         | 8   | 8   | 8   | 5   | 5   | 5   | 4   | 4   | 4   | 1    |
| 410        | 1/4"        | 5/8"         | 3/8"       | 14                         | 14  | 14  | 14  | 12  | 8   | 8   | 8   | 8   | 7   | 1    |
|            |             |              | 1/2"       | 14                         | 14  | 12  | 12  | 8   | 8   | 8   | 7   | 7   | 5   | 1    |
|            |             |              | 3/4"       | 12                         | 12  | 12  | 8   | 7   | 7   | 7   | 7   | 5   | 5   | 1    |
|            |             |              | 1"         | 12                         | 8   | 8   | 8   | 5   | 5   | 5   | 4   | 4   | 4   | 1    |
| 412        | 1/4"        | 3/4"         | 3/8"       | 14                         | 14  | 14  | 12  | 12  | 8   | 8   | 7   | 7   | 5   | 1    |
|            |             |              | 1/2"       | 14                         | 14  | 12  | 8   | 8   | 7   | 7   | 5   | 5   | 4   | 1    |
|            |             |              | 3/4"       | 12                         | 12  | 8   | 8   | 5   | 5   | 5   | 4   | 4   | 4   | 1    |
|            |             |              | 1"         | 12                         | 8   | 8   | 8   | 5   | 5   | 5   | 4   | 4   | 4   | 1    |
| 510        | 5/16"       | 5/8"         | 3/8"       | 14                         | 14  | 14  | 14  | 12  | 8   | 8   | 8   | 8   | 7   | 1    |
|            |             |              | 1/2"       | 14                         | 14  | 12  | 12  | 8   | 8   | 8   | 7   | 7   | 5   | 1    |
|            |             |              | 3/4"       | 12                         | 12  | 12  | 8   | 8   | 8   | 8   | 7   | 5   | 5   | 1    |
|            |             |              | 1"         | 12                         | 12  | 8   | 5   | 8   | 8   | 8   | 7   | 4   | 5   | 1    |
| 512        | 5/16"       | 3/4"         | 3/8"       | 14                         | 14  | 14  | 12  | 12  | 8   | 8   | 7   | 5   | 5   | 1    |
|            |             |              | 1/2"       | 14                         | 14  | 12  | 8   | 8   | 7   | 7   | 5   | 5   | 4   | 1    |
|            |             |              | 3/4"       | 12                         | 8   | 8   | 8   | 5   | 5   | 5   | 4   | 4   | 4   | 1    |
|            |             |              | 1"         | 12                         | 8   | 8   | 5   | 5   | 5   | 5   | 4   | 4   | 4   | 1    |
| 514        | 5/16"       | 7/8"         | 3/8"       | 14                         | 14  | 12  | 12  | 8   | 8   | 8   | 7   | 7   | 5   | 1    |
|            |             |              | 1/2"       | 14                         | 12  | 8   | 8   | 7   | 7   | 5   | 5   | 5   | 4   | 1    |
|            |             |              | 3/4"       | 12                         | 8   | 8   | 8   | 5   | 5   | 4   | 4   | 4   | 4   | 1    |
|            |             |              | 1"         | 12                         | 8   | 8   | 7   | 5   | 5   | 4   | 4   | 4   | 4   | 1    |
| 518        | 5/16"       | 1-1/8"       | 3/8"       | 8                          | 8   | 8   | 8   | 7   | 7   | 5   | 5   | 5   | 5   | 1    |
|            |             |              | 1/2"       | 8                          | 8   | 8   | 8   | 7   | 5   | 5   | 4   | 4   | 4   | 1    |
|            |             |              | 3/4"       | 8                          | 7   | 7   | 7   | 5   | 4   | 4   | 4   | 4   | 4   | 1    |
|            |             |              | 1"         | 8                          | 7   | 7   | 7   | 5   | 4   | 4   | 4   | 4   | 4   | 1    |
| 610        | 3/8"        | 5/8"         | 3/8"       | 14                         | 14  | 14  | 14  | 12  | 8   | 8   | 8   | 8   | 7   | 1    |
|            |             |              | 1/2"       | 14                         | 14  | 12  | 12  | 8   | 8   | 8   | 7   | 7   | 5   | 1    |
|            |             |              | 3/4"       | 12                         | 12  | 12  | 7   | 7   | 5   | 5   | 5   | 5   | 5   | 1    |
|            |             |              | 1"         | 8                          | 12  | 8   | 5   | 5   | 4   | 4   | 4   | 4   | 4   | 1    |
| 612        | 3/8"        | 3/4"         | 3/8"       | 14                         | 14  | 14  | 12  | 12  | 8   | 8   | 7   | 7   | 5   | 1    |
|            |             |              | 1/2"       | 14                         | 12  | 12  | 8   | 8   | 7   | 7   | 5   | 5   | 4   | 1    |
|            |             |              | 3/4"       | 12                         | 8   | 8   | 8   | 5   | 5   | 5   | 4   | 4   | 4   | 1    |
|            |             |              | 1"         | 12                         | 8   | 8   | 5   | 5   | 4   | 4   | 4   | 4   | 4   | 1    |
| 614        | 3/8"        | 7/8"         | 3/8"       | 14                         | 12  | 12  | 12  | 8   | 8   | 8   | 7   | 7   | 5   | 1    |
|            |             |              | 1/2"       | 14                         | 8   | 8   | 8   | 7   | 7   | 5   | 5   | 5   | 4   | 1    |
|            |             |              | 3/4"       | 12                         | 8   | 8   | 7   | 5   | 5   | 4   | 4   | 4   | 4   | 1    |
|            |             |              | 1"         | 7                          | 7   | 7   | 5   | 5   | 4   | 4   | 4   | 4   | 4   | 1    |
| 618        | 3/8"        | 1-1/8"       | 3/8"       | 8                          | 8   | 8   | 8   | 7   | 7   | 5   | 5   | 5   | 5   | -    |
|            |             |              | 1/2"       | 8                          | 8   | 8   | 8   | 7   | 5   | 5   | 4   | 4   | 4   | -    |
|            |             |              | 3/4"       | 8                          | 7   | 7   | 7   | 5   | 4   | 4   | 4   | 4   | 4   | -    |
|            |             |              | 1"         | 8                          | 7   | 7   | 7   | 5   | 4   | 4   | 4   | 4   | 4   | -    |
| 810        | 1/2"        | 5/8"         | 3/8"       | 14                         | 14  | 14  | 14  | 12  | 8   | 8   | 8   | 8   | 7   | 1    |
|            |             |              | 1/2"       | 14                         | 14  | 12  | 12  | 8   | 8   | 8   | 7   | 7   | 5   | 1    |
|            |             |              | 3/4"       | 12                         | 12  | 12  | 7   | 7   | 5   | 5   | 5   | 5   | 5   | 1    |
|            |             |              | 1"         | 12                         | 12  | 12  | 7   | 7   | 5   | 5   | 5   | 5   | 5   | 1    |
| 812        | 1/2"        | 3/4"         | 3/8"       | 14                         | 14  | 14  | 12  | 12  | 8   | 8   | 7   | 7   | 5   | 1    |
|            |             |              | 1/2"       | 14                         | 14  | 12  | 8   | 8   | 7   | 7   | 5   | 5   | 4   | 1    |
|            |             |              | 3/4"       | 12                         | 8   | 8   | 8   | 5   | 5   | 5   | 4   | 4   | 4   | 1    |
|            |             |              | 1"         | 12                         | 8   | 8   | 8   | 5   | 5   | 5   | 4   | 4   | 4   | 1    |
| 814        | 1/2"        | 7/8"         | 3/8"       | 14                         | 14  | 12  | 12  | 8   | 8   | 8   | 7   | 7   | 5   | 1    |
|            |             |              | 1/2"       | 14                         | 12  | 8   | 7   | 7   | 7   | 4   | 5   | 5   | 4   | 1    |
|            |             |              | 3/4"       | 12                         | 8   | 8   | 7   | 5   | 5   | 4   | 4   | 4   | 4   | 1    |
|            |             |              | 1"         | 12                         | 8   | 8   | 7   | 5   | 5   | 4   | 4   | 4   | 4   | 1    |
| 818        | 1/2"        | 1-1/8"       | 3/8"       | 8                          | 8   | 8   | 8   | 8   | 7   | 5   | 5   | 5   | 5   | -    |
|            |             |              | 1/2"       | 8                          | 8   | 8   | 8   | 8   | 5   | 5   | 4   | 4   | 4   | -    |
|            |             |              | 3/4"       | 8                          | 7   | 7   | 7   | 5   | 4   | 4   | 4   | 4   | 4   | -    |
|            |             |              | 1"         | 8                          | 7   | 7   | 7   | 5   | 4   | 4   | 4   | 4   | 4   | -    |



### Mini-Split Line Sets • Plain Ends

#### LIQUID LINE & SUCTION LINE INSULATED

#### Quantity per Master Carton

| Series No. | Liquid Line | Suction Line | Insulation | 15' | 20' | 25' | 30' | 35' | 40' | 45' | 50' | 100' |
|------------|-------------|--------------|------------|-----|-----|-----|-----|-----|-----|-----|-----|------|
| 406        | 1/4"        | 3/8"         | 3/8"       | 14  | 14  | 14  | 14  | 12  | 12  | 8   | 8   | 1    |
|            |             |              | 1/2"       | 14  | 14  | 14  | 14  | 8   | 12  | 8   | 7   | 1    |
|            |             |              | 3/4"       | 14  | 8   | 7   | 7   | 7   | 5   | 4   | 5   | 1    |
| 408        | 1/4"        | 1/2"         | 3/8"       | 14  | 14  | 14  | 14  | 12  | 12  | 8   | 7   | 1    |
|            |             |              | 1/2"       | 14  | 14  | 14  | 12  | 8   | 8   | 8   | 5   | 1    |
|            |             |              | 3/4"       | 14  | 8   | 7   | 7   | 7   | 5   | 4   | 4   | 1    |
| 410        | 1/4"        | 5/8"         | 3/8"       | 14  | 14  | 14  | 12  | 8   | 8   | 8   | 8   | 1    |
|            |             |              | 1/2"       | 14  | 14  | 8   | 8   | 8   | 8   | 7   | 7   | 1    |
|            |             |              | 3/4"       | 12  | 12  | 7   | 7   | 7   | 7   | 7   | 5   | 1    |
| 610        | 3/8"        | 5/8"         | 3/8"       | 14  | 14  | 14  | 12  | 8   | 8   | 8   | 8   | 1    |
|            |             |              | 1/2"       | 14  | 12  | 12  | 8   | 8   | 8   | 7   | 7   | 1    |
|            |             |              | 3/4"       | 12  | 12  | 7   | 7   | 5   | 5   | 5   | 5   | 1    |
| 612        | 3/8"        | 3/4"         | 3/8"       | 14  | 14  | 12  | 12  | 8   | 8   | 7   | 7   | 1    |
|            |             |              | 1/2"       | 14  | 12  | 8   | 8   | 7   | 7   | 5   | 5   | 1    |
|            |             |              | 3/4"       | 8   | 8   | 8   | 5   | 5   | 5   | 4   | 4   | 1    |



### Mini-Split Line Sets • Flare Fittings

#### LIQUID LINE & SUCTION LINE INSULATED

#### Quantity per Master Carton

| Series No. | Liquid Line | Suction Line | Insulation | 15' | 20' | 25' | 30' | 35' | 40' | 45' | 50' | 100' |
|------------|-------------|--------------|------------|-----|-----|-----|-----|-----|-----|-----|-----|------|
| 406        | 1/4"        | 3/8"         | 3/8"       | 14  | 14  | 14  | 14  | 12  | 12  | 8   | 8   | 1    |
|            |             |              | 1/2"       | 12  | 12  | 12  | 8   | 8   | 12  | 8   | 8   | 1    |
|            |             |              | 3/4"       | 14  | 8   | 12  | 7   | 7   | 5   | 4   | 5   | 1    |
| 408        | 1/4"        | 1/2"         | 3/8"       | 14  | 14  | 14  | 14  | 12  | 12  | 8   | 7   | 1    |
|            |             |              | 1/2"       | 14  | 12  | 14  | 12  | 8   | 8   | 8   | 7   | 1    |
|            |             |              | 3/4"       | 14  | 8   | 8   | 7   | 7   | 5   | 4   | 5   | 1    |
| 410        | 1/4"        | 5/8"         | 3/8"       | 14  | 14  | 14  | 12  | 8   | 8   | 8   | 8   | 1    |
|            |             |              | 1/2"       | 14  | 12  | 12  | 8   | 8   | 8   | 7   | 7   | 1    |
|            |             |              | 3/4"       | 12  | 12  | 7   | 7   | 7   | 7   | 7   | 5   | 1    |
| 610        | 3/8"        | 5/8"         | 3/8"       | 14  | 14  | 14  | 12  | 8   | 8   | 8   | 8   | 1    |
|            |             |              | 1/2"       | 14  | 12  | 12  | 8   | 8   | 8   | 7   | 7   | 1    |
|            |             |              | 3/4"       | 12  | 12  | 7   | 7   | 5   | 5   | 5   | 5   | 1    |
| 612        | 3/8"        | 3/4"         | 3/8"       | 14  | 14  | 12  | 12  | 8   | 7   | 7   | 7   | 1    |
|            |             |              | 1/2"       | 14  | 12  | 8   | 7   | 7   | 7   | 5   | 4   | 1    |
|            |             |              | 3/4"       | 8   | 8   | 8   | 5   | 5   | 5   | 4   | 4   | 1    |

*Streamline*<sup>®</sup>

THE BEST FITTINGS IN THE JOINT.<sup>™</sup>



# COPPER FITTINGS



▶ As originators of the solder-type copper fittings, our commitment to providing the highest quality fittings in the industry holds a special place. Today, our expansive line of Streamline® Copper Fittings are one of the industry's most complete offerings of fittings for copper piping systems from one source. Our many years of engineering know-how and experience are reflected in the fine quality and workmanship of each copper fitting we manufacture.

• Copper Fittings

***Streamline®***

# COPPER FITTINGS



Streamline® Copper Solder-Joint Fittings for supply/pressurized systems have been the leading brand of copper fittings for over 80 years. Available in wrot copper, our product selection has grown to become the most extensive in the industry. We are the acknowledged experts at engineering and manufacturing precision solder-joint copper fittings. Quality, consistency and reliability have made the Streamline® brand trusted and specified all around the world.



- UL Recognized to 700 PSI (select diameters)
- Constructed of high-grade copper or bronze materials
- Made to applicable ASTM standards B16.15, B16.18, B16.22, B16.24, B16.50, B1.20.1
- Wrot fittings meet NSF 61G



## Adapter • Female

C x F  
WC-402



| Item No. | Diameter        | Each Wt. | Inner Qty. | Master Carton |
|----------|-----------------|----------|------------|---------------|
| W 01204  | 1/4" x 1/2"     | 0.1000   | 100        | 300           |
| W 01205  | 1/4" x 3/8"     | 0.0500   | 100        | 700           |
| W 01206  | 1/4" x 1/4"     | 0.0400   | 100        | 900           |
| W 01207  | 1/4" x 1/8"     | 0.0400   | 100        | 1,500         |
| W 01214  | 3/8" x 3/8"     | 0.0600   | 50         | 750           |
| W 01215  | 3/8" x 1/4"     | 0.0400   | 50         | 750           |
| W 01216  | 3/8" x 1/8"     | 0.0300   | 100        | 1,500         |
| W 01223  | 1/2" x 3/4"     | 0.1600   | 50         | 300           |
| W 01224  | 1/2" x 1/2"     | 0.1000   | 50         | 500           |
| W 01225  | 1/2" x 3/8"     | 0.0700   | 50         | 750           |
| W 01226  | 1/2" x 1/4"     | 0.0600   | 50         | 750           |
| W 01230  | 5/8" x 3/4"     | 0.1600   | 25         | 250           |
| W 01231  | 5/8" x 1/2"     | 0.1000   | 50         | 500           |
| W 01232  | 5/8" x 3/8"     | 0.0700   | 50         | 500           |
| W 01233  | 5/8" x 1/4"     | 0.0600   | 50         | 500           |
| W 01238  | 3/4" x 3/4"     | 0.1500   | 50         | 500           |
| W 01239  | 3/4" x 1/2"     | 0.0900   | 50         | 500           |
| W 01245  | 7/8" x 1"       | 0.2700   | 25         | 250           |
| W 01246  | 7/8" x 3/4"     | 0.1400   | 25         | 250           |
| W 01247  | 7/8" x 1/2"     | 0.1100   | 25         | 250           |
| W 01261  | 1-1/8" x 1-1/4" | 0.2800   | 10         | 100           |

(CONTINUED NEXT COLUMN)

(CONTINUED FROM PREVIOUS COLUMN)

| Item No. | Diameter        | Each Wt. | Inner Qty. | Master Carton |
|----------|-----------------|----------|------------|---------------|
| W 01263  | 1-1/8" x 1"     | 0.2500   | 25         | 250           |
| W 01264  | 1-1/8" x 3/4"   | 0.2200   | 25         | 250           |
| W 01265  | 1-1/8" x 1/2"   | 0.2500   | 20         | 200           |
| W 01270  | 1-3/8" x 1-1/2" | 0.5000   | 10         | 100           |
| W 01271  | 1-3/8" x 1-1/4" | 0.4500   | 10         | 100           |
| W 01272  | 1-3/8" x 1"     | 0.3300   | 10         | 100           |
| W 01278  | 1-5/8" x 2"     | 0.7400   | —          | 60            |
| W 01279  | 1-5/8" x 1-1/2" | 0.5300   | 10         | 100           |
| W 01280  | 1-5/8" x 1-1/4" | 0.3900   | 5          | 50            |
| W 01287  | 2-1/8" x 2"     | 0.5700   | —          | 50            |
| W 01288  | 2-1/8" x 1-1/2" | 0.7400   | 5          | 50            |
| W 01296  | 2-5/8" x 2-1/2" | 1.2200   | —          | 25            |
| W 01297  | 3-1/8" x 3"     | —        | —          | 15            |

## COPPER FITTINGS



### Adapter • Fitting

FTG x F

Wrot Style #: WC-405



| Item No. | Diameter        | Each Wt. | Inner Qty. | Master Qty. |
|----------|-----------------|----------|------------|-------------|
| W 01514  | 3/8" x 3/8"     | 0.0600   | 50         | 750         |
| W 01524  | 1/2" x 1/2"     | 0.1000   | 50         | 350         |
| W 01525  | 1/2" x 3/8"     | 0.0500   | 50         | 750         |
| W 01526  | 1/2" x 1/4"     | 0.0600   | 50         | 750         |
| W 01531  | 5/8" x 1/2"     | 0.1100   | 50         | 450         |
| W 01532  | 5/8" x 3/8"     | 0.0700   | 50         | 750         |
| W 01546  | 7/8" x 3/4"     | 0.1700   | 25         | 250         |
| W 01547  | 7/8" x 1/2"     | 0.1100   | 50         | 500         |
| W 01563  | 1-1/8" x 1"     | 0.2400   | 25         | 250         |
| W 01564  | 1-1/8" x 3/4"   | 0.1800   | 25         | 250         |
| W 01571  | 1-3/8" x 1-1/4" | 0.4000   | 10         | 100         |
| W 01579  | 1-5/8" x 1-1/2" | 0.4600   | 10         | 100         |
| W 01587  | 2-1/8" x 2"     | 0.6500   | —          | 50          |
| W 01596  | 2-5/8" x 2-1/2" | 1.2000   | —          | 25          |



### Adapter • Male

C X M

Wrot Style #: WC-401

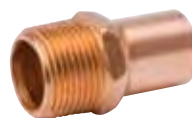


| Item No. | Diameter        | Each Wt. | Inner Qty. | Master Qty. |
|----------|-----------------|----------|------------|-------------|
| W 01105  | 1/4" x 3/8"     | 0.0600   | 50         | 750         |
| W 01106  | 1/4" x 1/4"     | 0.0300   | 50         | 1,200       |
| W 01107  | 1/4" x 1/8"     | 0.0200   | 50         | 2,400       |
| W 01109  | 5/16" x 3/8"    | 0.0700   | 50         | 800         |
| W 01110  | 5/16" x 1/4"    | 0.0300   | 50         | 1,200       |
| W 01113  | 3/8" x 1/2"     | 0.0800   | 50         | 500         |
| W 01114  | 3/8" x 3/8"     | 0.0600   | 50         | 750         |
| W 01115  | 3/8" x 1/4"     | 0.0300   | 50         | 1,200       |
| W 01116  | 3/8" x 1/8"     | 0.0200   | 50         | 2,000       |
| W 01123  | 1/2" x 3/4"     | 0.1700   | 25         | 250         |
| W 01124  | 1/2" x 1/2"     | 0.0900   | 50         | 500         |
| W 01125  | 1/2" x 3/8"     | 0.0600   | 50         | 500         |
| W 01126  | 1/2" x 1/4"     | 0.0500   | 50         | 750         |
| W 01129  | 5/8" x 1"       | 0.3000   | 15         | 150         |
| W 01130  | 5/8" x 3/4"     | 0.1700   | 25         | 250         |
| W 01131  | 5/8" x 1/2"     | 0.0600   | 50         | 500         |
| W 01132  | 5/8" x 3/8"     | 0.0700   | 50         | 500         |
| W 01133  | 5/8" x 1/4"     | 0.0600   | 25         | 600         |
| W 01138  | 3/4" x 3/4"     | 0.1400   | 25         | 250         |
| W 01139  | 3/4" x 1/2"     | 0.1200   | 25         | 250         |
| W 01145  | 7/8" x 1"       | 0.2900   | 10         | 100         |
| W 01146  | 7/8" x 3/4"     | 0.1300   | 25         | 250         |
| W 01147  | 7/8" x 1/2"     | 0.1200   | 25         | 250         |
| W 01161  | 1-1/8" x 1-1/2" | 0.4800   | 10         | 100         |
| W 01162  | 1-1/8" x 11/4"  | 0.3900   | 10         | 100         |
| W 01163  | 1-1/8" x 1"     | 0.2400   | 10         | 100         |
| W 01164  | 1-1/8" x 3/4"   | 0.1700   | 10         | 100         |
| W 01165  | 1-1/8" x 1/2"   | 0.1800   | 10         | 100         |
| W 01170  | 1-3/8" x 1-1/2" | 0.4800   | 10         | 100         |
| W 01171  | 1-3/8" x 1-1/4" | 0.4100   | 10         | 100         |
| W 01172  | 1-3/8" x 1"     | 0.2400   | 10         | 100         |
| W 01173  | 1-3/8" x 3/4"   | 0.2100   | 10         | 100         |
| W 01178  | 1-5/8" x 2"     | 0.7800   | —          | 50          |

(CONTINUED NEXT COLUMN)

(CONTINUED FROM PREVIOUS COLUMN)

| Item No. | Diameter        | Each Wt. | Inner Qty. | Master Qty. |
|----------|-----------------|----------|------------|-------------|
| W 01179  | 1-5/8" x 1-1/2" | 0.5100   | 10         | 100         |
| W 01180  | 1-5/8" x 1-1/4" | 0.3700   | 10         | 100         |
| W 01181  | 1-5/8" x 1"     | 0.3800   | 10         | 100         |
| W 01187  | 2-1/8" x 2"     | 0.5700   | 5          | 50          |
| W 01188  | 2-1/8" x 1-1/2" | 0.6400   | —          | 50          |
| W 01189  | 2-1/8" x 1-1/4" | 0.5700   | —          | 50          |
| W 01196  | 2-5/8" x 2-1/2" | 1.2600   | —          | 20          |
| W 01197  | 2-5/8" x 2"     | 0.9800   | —          | 20          |
| W 01198  | 2-5/8" x 1-1/2" | 0.9800   | —          | 22          |
| W 01199  | 3-1/8" x 3"     | 1.7000   | —          | 20          |
| W 01150  | 4-1/8" x 4"     | 3.7100   | —          | 16          |



### Adapter • Fitting

FTG x M

Wrot Style #: WC-404



| Item No. | Diameter        | Each Wt. | Inner Qty. | Master Qty. |
|----------|-----------------|----------|------------|-------------|
| W 01425  | 1/2" x 3/8"     | 0.0500   | 50         | 750         |
| W 01431  | 5/8" x 1/2"     | 0.0900   | 50         | 500         |
| W 01432  | 5/8" x 3/8"     | 0.0600   | 50         | 750         |
| W 01446  | 7/8" x 3/4"     | 0.1500   | 50         | 500         |
| W 01447  | 7/8" x 1/2"     | 0.1300   | 50         | 500         |
| W 01463  | 1-1/8" x 1"     | 0.2300   | 25         | 250         |
| W 01464  | 1-1/8" x 3/4"   | 0.1900   | 25         | 250         |
| W 01471  | 1-3/8" x 1-1/4" | 0.4100   | 10         | 100         |
| W 01479  | 1-5/8" x 1-1/2" | 0.4900   | 10         | 100         |
| W 01487  | 2-1/8" x 2"     | 0.7600   | —          | 50          |
| W 01496  | 2-5/8" x 2-1/2" | 1.9500   | —          | 20          |



### Bushing • Flush

FTG x C

Wrot Style #: WC-106



| Item No. | Diameter        | Each Wt. | Inner Qty. | Master Qty. |
|----------|-----------------|----------|------------|-------------|
| W 01706  | 3/8" x 1/4"     | 0.0100   | 100        | 4,000       |
| W 01712  | 1/2" x 3/8"     | 0.0100   | 100        | 4,000       |
| W 01714  | 1/2" x 1/4"     | 0.0200   | 100        | 2,400       |
| W 01715  | 5/8" x 1/2"     | 0.0200   | 100        | 1,500       |
| W 01717  | 5/8" x 3/8"     | 0.0400   | 100        | 1,500       |
| W 01720  | 3/4" x 5/8"     | 0.0300   | 50         | 750         |
| W 01721  | 3/4" x 1/2"     | 0.0600   | 50         | 750         |
| W 01722  | 3/4" x 3/8"     | 0.0800   | 50         | 750         |
| W 01725  | 7/8" x 3/4"     | 0.0400   | 50         | 500         |
| W 01726  | 7/8" x 5/8"     | 0.0700   | 50         | 500         |
| W 01727  | 7/8" x 1/2"     | 0.1100   | 50         | 500         |
| W 01737  | 1-1/8" x 7/8"   | 0.1200   | 50         | 500         |
| W 01738  | 1-1/8" x 3/4"   | 0.1800   | 50         | 500         |
| W 01739  | 1-1/8" x 5/8"   | 0.2200   | 25         | 250         |
| W 01743  | 1-3/8" x 1-1/8" | 0.1600   | 10         | 200         |
| W 01745  | 1-3/8" x 7/8"   | 0.3000   | 10         | 200         |
| W 01750  | 1-5/8" x 1-3/8" | 0.2200   | 10         | 100         |
| W 01751  | 1-5/8" x 1-1/8" | 0.4100   | 10         | 100         |
| W 01758  | 2-1/8" x 1-5/8" | 0.6800   | 10         | 100         |
| W 01759  | 2-1/8" x 1-3/8" | 0.9400   | 5          | 50          |
| W 01767  | 2-5/8" x 2-1/8" | 0.9200   | —          | 50          |

All diameters are O.D.



## Bushing • Flush

FTG x F  
Wrot Style #: WC-417  
Brass



| Item No. | Diameter        | Each Wt. | Inner Qty. | Master Qty. |
|----------|-----------------|----------|------------|-------------|
| A 07812  | 5/8" x 1/8"     | 0.0400   | 100        | 1,600       |
| A 07813  | 5/8" x 1/4"     | 0.0200   | 50         | 1,200       |
| A 07814  | 7/8" x 3/8"     | 0.0800   | 50         | 450         |
| A 07815  | 1-1/8" x 1/2"   | 0.1700   | 50         | 300         |
| A 07816  | 1-3/8" x 3/4"   | 0.2500   | 10         | 160         |
| A 07817  | 1-5/8" x 1"     | 0.3400   | 10         | 90          |
| A 07819  | 2-1/8" x 1-1/2" | 0.4800   | 10         | 90          |



## Cap

C  
Wrot Style #: WC-415



| Item No.  | Diameter | Each Wt. | Inner Qty. | Master Qty. |
|-----------|----------|----------|------------|-------------|
| W 07002 † | 1/4"     | 0.0000   | 50         | 2,000       |
| W 07004 † | 3/8"     | 0.0100   | 50         | 2,000       |
| W 07006 † | 1/2"     | 0.0100   | 50         | 1,000       |
| W 07007 † | 5/8"     | 0.0200   | 100        | 1,000       |
| W 07008 † | 3/4"     | 0.0300   | 50         | 2,000       |
| W 07009 † | 7/8"     | 0.0400   | 50         | 500         |
| W 07011 † | 1-1/8"   | 0.0800   | 50         | 500         |
| W 07012 † | 1-3/8"   | 0.1100   | 25         | 250         |
| W 07013 † | 1-5/8"   | 0.1800   | 25         | 250         |
| W 07014 † | 2-1/8"   | 0.3000   | —          | 100         |
| W 07015 † | 2-5/8"   | 0.4800   | —          | 50          |
| W 07016   | 3-1/8"   | 0.7300   | —          | 50          |
| W 07017   | 3-5/8"   | 1.1500   | —          | 25          |
| W 07018   | 4-1/8"   | 1.5000   | —          | 20          |



## Coupling • No Stop

C x C  
Wrot Style #: WC-400NS



| Item No.  | Diameter | Each Wt. | Inner Qty. | Master Qty. |
|-----------|----------|----------|------------|-------------|
| W 01900 † | 1/4"     | 0.0000   | 100        | 4,000       |
| W 01901 † | 3/8"     | 0.0100   | 50         | 2,000       |
| W 01902 † | 1/2"     | 0.0100   | 50         | 1,700       |
| W 01903 † | 5/8"     | 0.0300   | 100        | 1,000       |
| W 01904 † | 3/4"     | 0.0400   | 25         | 375         |
| W 01905 † | 7/8"     | 0.0600   | 50         | 500         |
| W 01906 † | 1-1/8"   | 0.1100   | 25         | 250         |
| W 01907 † | 1-3/8"   | 0.1500   | 25         | 250         |
| W 01908 † | 1-5/8"   | 0.2500   | 10         | 100         |
| W 01909 † | 2-1/8"   | 0.4000   | —          | 75          |
| W 01910 † | 2-5/8"   | 0.6600   | —          | 50          |
| W 01911   | 3-1/8"   | 1.0300   | —          | 25          |
| W 01913   | 4-1/8"   | 2.1500   | —          | 15          |



## Coupling • Rolled Stop

C x C  
Wrot Style #: WC-400



| Item No.  | Diameter | Each Wt. | Inner Qty. | Master Qty. |
|-----------|----------|----------|------------|-------------|
| W 01000 † | 1/8"     | 0.0000   | 100        | 4,000       |
| W 01001 † | 3/16"    | 0.0000   | 100        | 4,000       |
| W 01003 † | 1/4"     | 0.0000   | 100        | 4,000       |
| W 01009 † | 3/8"     | 0.0100   | 50         | 2,000       |
| W 01017 † | 1/2"     | 0.0100   | 50         | 1,700       |
| W 01022 † | 5/8"     | 0.0300   | 100        | 1,000       |
| W 01028 † | 3/4"     | 0.0500   | 50         | 500         |
| W 01034 † | 7/8"     | 0.0600   | 50         | 500         |
| W 01040 † | 1"       | 0.0900   | 25         | 250         |
| W 01047 † | 1-1/8"   | 0.1100   | 25         | 250         |
| W 01055 † | 1-3/8"   | 0.1500   | 25         | 250         |
| W 01062 † | 1-1/2"   | 0.2200   | —          | 150         |
| W 01063 † | 1-5/8"   | 0.2100   | 10         | 100         |
| W 01072 † | 2-1/8"   | 0.4000   | —          | 75          |
| W 01082 † | 2-5/8"   | 0.6600   | —          | 50          |
| W 01092   | 3-1/8"   | 1.0300   | —          | 25          |
| W 10100   | 3-5/8"   | 1.1800   | —          | 20          |
| W 10107   | 4-1/8"   | 2.1100   | —          | 15          |



## Coupling • Staked Stop

C x C  
Wrot Style #: WC-400S



| Item No.  | Diameter | Each Wt. | Inner Qty. | Master Qty. |
|-----------|----------|----------|------------|-------------|
| W 10141 † | 1/4"     | 0.0000   | 100        | 3,400       |
| W 10142 † | 5/16"    | 0.0100   | 100        | 5,600       |
| W 10143 † | 3/8"     | 0.0100   | 50         | 2,000       |
| W 10144 † | 1/2"     | 0.0100   | 50         | 1,700       |
| W 10145 † | 5/8"     | 0.0300   | 100        | 1,000       |
| W 10157 † | 3/4"     | 0.0400   | 25         | 500         |
| W 10146 † | 7/8"     | 0.0600   | 50         | 500         |
| W 10147 † | 1-1/8"   | 0.1100   | 25         | 250         |
| W 10148 † | 1-3/8"   | 0.1500   | 25         | 250         |
| W 10149 † | 1-5/8"   | 0.2200   | 10         | 100         |
| W 10150 † | 2-1/8"   | 0.4100   | —          | 75          |
| W 10151 † | 2-5/8"   | 0.6600   | —          | 50          |
| W 10152   | 3-1/8"   | 1.0200   | —          | 25          |
| W 10153   | 3-5/8"   | 1.0300   | —          | 20          |
| W 10154   | 4-1/8"   | 2.1500   | —          | 15          |
| W 10155   | 5-1/8"   | 3.3400   | —          | 8           |
| W 10156   | 6-1/8"   | 4.6100   | —          | 3           |
| W 10130   | 8-1/8"   | 14.1300  | —          | 1           |

## COPPER FITTINGS



### Coupling • Reducing

C x C

Wrot Style #: WC-400R



| Item No.  | Diameter        | Each Wt. | Inner Qty. | Master Qty. |
|-----------|-----------------|----------|------------|-------------|
| W 01004 † | 1/4" x 3/16"    | 0.0100   | 50         | 2,000       |
| W 01005 † | 1/4" x 1/8"     | 0.0000   | 50         | 2,000       |
| W 01010 † | 3/8" x 5/16     | 0.0100   | 50         | 1,700       |
| W 01011 † | 3/8" x 1/4"     | 0.0100   | 50         | 2,000       |
| W 01019 † | 1/2" x 3/8"     | 0.0100   | 50         | 1,700       |
| W 01021 † | 1/2" x 1/4"     | 0.0200   | 50         | 1,200       |
| W 01023 † | 5/8" x 1/2"     | 0.0300   | 100        | 1,000       |
| W 01025 † | 5/8" x 3/8"     | 0.0300   | 100        | 1,000       |
| W 01027 † | 5/8" x 1/4"     | 0.0300   | 100        | 1,000       |
| W 01029 † | 3/4" x 5/8"     | 0.0500   | 100        | 600         |
| W 01030 † | 3/4" x 1/2"     | 0.0400   | 100        | 600         |
| W 01031 † | 3/4" x 3/8"     | 0.0400   | 100        | 600         |
| W 01035 † | 7/8" x 3/4"     | 0.0600   | 100        | 1,000       |
| W 01036 † | 7/8" x 5/8"     | 0.0800   | 50         | 500         |
| W 01037 † | 7/8" x 1/2"     | 0.0600   | 50         | 500         |
| W 01038 † | 7/8" x 3/8"     | 0.0600   | 50         | 500         |
| W 01049 † | 1-1/8" x 7/8"   | 0.1300   | 25         | 250         |
| W 01050 † | 1-1/8" x 3/4"   | 0.1100   | 25         | 250         |
| W 01051 † | 1-1/8" x 5/8"   | 0.1100   | 25         | 250         |
| W 01052 † | 1-1/8" x 1/2"   | 0.1100   | 25         | 250         |
| W 01056 † | 1-3/8" x 1-1/8" | 0.2000   | 10         | 100         |
| W 01058 † | 1-3/8" x 7/8"   | 0.1700   | 10         | 100         |
| W 01060 † | 1-3/8" x 5/8"   | 0.1700   | 10         | 100         |
| W 01064 † | 1-5/8" x 1-3/8" | 0.2300   | 10         | 100         |
| W 01065 † | 1-5/8" x 1-1/8" | 0.2300   | 10         | 100         |
| W 01067 † | 1-5/8" x 7/8"   | 0.2400   | 10         | 100         |
| W 01069 † | 1-5/8" x 5/8"   | 0.2200   | 10         | 100         |
| W 01073 † | 2-1/8" x 1-5/8" | 0.4300   | —          | 100         |
| W 01074 † | 2-1/8" x 1-3/8" | 0.4300   | —          | 100         |
| W 01075 † | 2-1/8" x 1-1/8" | 0.4600   | —          | 100         |
| W 01077 † | 2-1/8" x 7/8"   | 0.4000   | —          | 100         |
| W 01079 † | 2-1/8" x 5/8"   | 0.4100   | —          | 75          |
| W 01083 † | 2-5/8" x 2-1/8" | 0.6500   | —          | 50          |
| W 01084 † | 2-5/8" x 1-5/8" | 0.7500   | —          | 50          |
| W 01085 † | 2-5/8" x 1-3/8" | 0.7000   | —          | 50          |
| W 01086 † | 2-5/8" x 1-1/8" | 0.7100   | —          | 50          |
| W 01093   | 3-1/8" x 2-5/8" | 1.0600   | —          | 25          |
| W 01094   | 3-1/8" x 2-1/8" | 1.1000   | —          | 25          |
| W 01095   | 3-1/8" x 1-5/8" | 1.0100   | —          | 25          |
| W 10101   | 3-5/8" x 3-1/8" | 1.2200   | —          | 25          |
| W 10108   | 4-1/8" x 3-5/8" | 1.8700   | —          | 20          |
| W 10109   | 4-1/8" x 3-1/8" | 0.7600   | —          | 20          |
| W 10110   | 4-1/8" x 2-5/8" | 1.8800   | —          | 15          |
| W 10111   | 4-1/8" x 2-1/8" | 1.9700   | —          | 20          |



### 45° Elbow

C x C

Wrot Style #: WE-504



| Item No.  | Diameter | Each Wt. | Inner Qty. | Master Qty. |
|-----------|----------|----------|------------|-------------|
| W 03005 † | 1/4"     | 0.0100   | 50         | 2,000       |
| W 03012 † | 3/8"     | 0.0100   | 50         | 2,800       |
| W 03021 † | 1/2"     | 0.0300   | 50         | 850         |
| W 03026 † | 5/8"     | 0.0400   | 50         | 500         |
| W 03030 † | 3/4"     | 0.0600   | 50         | 500         |
| W 03034 † | 7/8"     | 0.0900   | 25         | 250         |
| W 03044 † | 1-1/8"   | 0.1600   | 25         | 250         |
| W 03050 † | 1-3/8"   | 0.2500   | 10         | 100         |
| W 03055 † | 1-5/8"   | 0.3600   | 10         | 100         |
| W 03059 † | 2-1/8"   | 0.6000   | 10         | 50          |
| W 03063 † | 2-5/8"   | 1.0000   | 5          | 25          |
| W 03067   | 3-1/8"   | 1.5300   | 2          | 20          |
| W 03070   | 3-5/8"   | 2.8100   | 2          | 10          |
| W 03073   | 4-1/8"   | 3.1400   | —          | 5           |



### 45° Elbow • Street

FTG x C

Wrot Style #: WE-505



| Item No.  | Diameter | Each Wt. | Inner Qty. | Master Qty. |
|-----------|----------|----------|------------|-------------|
| W 03312 † | 3/8"     | 0.0100   | 100        | 3,400       |
| W 03321 † | 1/2"     | 0.0300   | 100        | 1,500       |
| W 03326 † | 5/8"     | 0.0300   | 50         | 500         |
| W 03330 † | 3/4"     | 0.0600   | 50         | 500         |
| W 03334 † | 7/8"     | 0.0900   | 25         | 250         |
| W 03344 † | 1-1/8"   | 0.1500   | 25         | 250         |
| W 03350 † | 1-3/8"   | 0.2400   | 10         | 100         |
| W 03355 † | 1-5/8"   | 0.3300   | 10         | 100         |
| W 03359 † | 2-1/8"   | 0.6100   | 5          | 50          |
| W 03363 † | 2-5/8"   | 1.0500   | 2          | 20          |
| W 03368   | 3-1/8"   | 1.5200   | 2          | 10          |
| W 03373   | 4-1/8"   | 3.1100   | —          | 5           |



### 45° Elbow

FTG x FTG

Wrot Style #: WE-507



| Item No.  | Diameter | Each Wt. | Inner Qty. | Master Qty. |
|-----------|----------|----------|------------|-------------|
| W 03621 † | 1/2"     | 0.0200   | 50         | 1,700       |
| W 03626 † | 5/8"     | 0.0400   | 50         | 750         |
| W 03634 † | 7/8"     | 0.1000   | 25         | 250         |
| W 03644 † | 1-1/8"   | 0.1800   | 10         | 100         |



## 90° Elbow • Short Radius

C x C

Wrot Style #: WE-500



| Item No.  | Diameter        | Each Wt. | Inner Qty. | Master Qty. |
|-----------|-----------------|----------|------------|-------------|
| W 02003 † | 1/4"            | 0.0100   | 50         | 2,000       |
| W 02009 † | 3/8"            | 0.0200   | 50         | 1,700       |
| W 02017 † | 1/2"            | 0.0300   | 50         | 1,000       |
| W 02022 † | 5/8"            | 0.0500   | 100        | 1,000       |
| W 02028 † | 3/4"            | 0.0800   | 50         | 500         |
| W 02034 † | 7/8"            | 0.1100   | 50         | 500         |
| W 02040 † | 1"              | 0.2200   | 20         | 200         |
| W 02047 † | 1-1/8"          | 0.2400   | 25         | 250         |
| W 02084 † | 1-3/8"          | 0.3000   | 10         | 100         |
| W 02085 † | 1-5/8"          | 0.4200   | 10         | 100         |
| W 02086 † | 2-1/8"          | 0.7600   | 10         | 50          |
| W 02087 † | 2-5/8"          | 1.1900   | 5          | 25          |
| W 02088 † | 3-1/8"          | 1.8800   | 5          | 25          |
| W 02089 † | 3-5/8"          | 2.7700   | 2          | 10          |
| W 02090 † | 4-1/8"          | 4.0000   | 2          | 10          |
| W 02097 † | 6-1/8"          | 13.7300  | —          | 1           |
| W 02011 † | 3/8" x 1/4"     | 0.0200   | 50         | 750         |
| W 02019 † | 1/2" x 3/8"     | 0.0300   | 50         | 750         |
| W 02023 † | 5/8" x 1/2"     | 0.0500   | 50         | 500         |
| W 02025 † | 5/8" x 3/8"     | 0.0500   | 50         | 500         |
| W 02029 † | 3/4" x 5/8"     | 0.0600   | 50         | 500         |
| W 02030 † | 3/4" x 1/2"     | 0.0700   | 50         | 500         |
| W 02035 † | 7/8" x 3/4"     | 0.1100   | 50         | 500         |
| W 02036 † | 7/8" x 5/8"     | 0.1100   | 50         | 500         |
| W 02037 † | 7/8" x 1/2"     | 0.1100   | 50         | 500         |
| W 02049 † | 1-1/8" x 7/8"   | 0.1700   | 25         | 250         |
| W 02050 † | 1-1/8" x 3/4"   | 0.1600   | 25         | 250         |
| W 02051 † | 1-1/8" x 5/8"   | 0.1800   | 25         | 250         |
| W 02052 † | 1-1/8" x 1/2"   | 0.2000   | 25         | 150         |
| W 02056 † | 1-3/8" x 1-1/8" | 0.3200   | 20         | 200         |
| W 02077 † | 1-5/8" x 1-3/8" | 0.3300   | 5          | 100         |
| W 02078 † | 2-1/8" x 1-5/8" | 0.6000   | 5          | 50          |



## 90° Elbow • Long Radius

C x C

Wrot Style #: WE-500L



| Item No.  | Diameter | Each Wt. | Inner Qty. | Master Qty. |
|-----------|----------|----------|------------|-------------|
| W 02701 † | 3/16"    | 0.0000   | 50         | 1,000       |
| W 02715 † | 1/4"     | 0.0100   | 50         | 2,000       |
| W 02710 † | 5/16"    | 0.0100   | 50         | 1,700       |
| W 02716 † | 3/8"     | 0.0200   | 50         | 1,700       |
| W 02717 † | 1/2"     | 0.0400   | 50         | 500         |
| W 02722 † | 5/8"     | 0.0600   | 50         | 500         |
| W 02728 † | 3/4"     | 0.0900   | 50         | 500         |
| W 02734 † | 7/8"     | 0.1300   | 25         | 250         |
| W 02747 † | 1-1/8"   | 0.2700   | 10         | 100         |
| W 02055 † | 1-3/8"   | 0.4200   | 10         | 100         |
| W 02063 † | 1-5/8"   | 0.6000   | 5          | 50          |
| W 02072 † | 2-1/8"   | 1.2300   | 5          | 25          |
| W 02082 † | 2-5/8"   | 2.0500   | 5          | 25          |
| W 02092 † | 3-1/8"   | 3.1300   | 2          | 10          |
| W 02093 † | 3-5/8"   | 5.5300   | 1          | 5           |
| W 02095 † | 4-1/8"   | 7.9800   | —          | 1           |

(CONTINUED NEXT COLUMN)

(CONTINUED FROM PREVIOUS COLUMN)

| Item No.  | Diameter        | Each Wt. | Inner Qty. | Master Qty. |
|-----------|-----------------|----------|------------|-------------|
| W 02711 † | 3/8" x 1/4"     | 0.0100   | 50         | 3,000       |
| W 02719 † | 1/2" x 3/8"     | 0.0300   | 50         | 2,000       |
| W 02723 † | 5/8" x 1/2"     | 0.0400   | 50         | 1,000       |
| W 02725 † | 5/8" x 3/8"     | 0.0300   | 50         | 1,000       |
| W 02735 † | 7/8" x 3/4"     | 0.1200   | 25         | 250         |
| W 02736 † | 7/8" x 5/8"     | 0.0900   | 50         | 500         |
| W 02749 † | 1-1/8" x 7/8"   | 0.1700   | 10         | 100         |
| W 02756 † | 1-3/8" x 1-1/8" | 0.3100   | 10         | 100         |
| W 02058 † | 1-3/8" x 7/8"   | 0.3700   | 10         | 100         |
| W 02060 † | 1-3/8" x 5/8"   | 0.3700   | 10         | 100         |
| W 02064 † | 1-5/8" x 1-3/8" | 0.4400   | 5          | 50          |
| W 02065 † | 1-5/8" x 1-1/8" | 0.5200   | 5          | 50          |
| W 02067 † | 1-5/8" x 7/8"   | 0.5100   | 5          | 50          |
| W 02073 † | 2-1/8" x 1-5/8" | 0.9800   | 2          | 20          |
| W 02074 † | 2-1/8" x 1-3/8" | 0.9400   | 2          | 20          |
| W 02075 † | 2-1/8" x 1-1/8" | 0.9700   | 2          | 20          |
| W 02083 † | 2-5/8" x 2-1/8" | 1.5300   | 2          | 20          |



## 90° Elbow Short Radius • Street

FTG x C

Wrot Style #: WE-503



| Item No.  | Diameter | Each Wt. | Inner Qty. | Master Qty. |
|-----------|----------|----------|------------|-------------|
| W 02305 † | 1/4"     | 0.0100   | 50         | 2,000       |
| W 02312 † | 3/8"     | 0.0200   | 50         | 1,700       |
| W 02321 † | 1/2"     | 0.0300   | 50         | 750         |
| W 02326 † | 5/8"     | 0.0500   | 50         | 500         |
| W 02330 † | 3/4"     | 0.0900   | 25         | 250         |
| W 02334 † | 7/8"     | 0.1100   | 25         | 250         |
| W 02344 † | 1-1/8"   | 0.2200   | 25         | 250         |
| W 02384 † | 1-3/8"   | 0.2900   | 25         | 125         |
| W 02385 † | 1-5/8"   | 0.4400   | 10         | 100         |
| W 02386 † | 2-1/8"   | 0.7700   | 10         | 50          |
| W 02387 † | 2-5/8"   | 1.2300   | 5          | 25          |
| W 02388 † | 3-1/8"   | 1.9400   | 2          | 20          |
| W 02389 † | 3-5/8"   | 2.7800   | 1          | 10          |
| W 02390 † | 4-1/8"   | 4.0300   | 2          | 10          |

## COPPER FITTINGS



### 90° Elbow Long Radius • Street

FTG x C

Wrot Style #: WE-503L



| Item No.  | Diameter | Each Wt. | Inner Qty. | Master Qty. |
|-----------|----------|----------|------------|-------------|
| W 02809 † | 3/8"     | 0.0200   | 50         | 1,700       |
| W 02817 † | 1/2"     | 0.0400   | 50         | 500         |
| W 02822 † | 5/8"     | 0.0600   | 50         | 500         |
| W 02828 † | 3/4"     | 0.0900   | 25         | 250         |
| W 02834 † | 7/8"     | 0.1300   | 25         | 250         |
| W 02847 † | 1-1/8"   | 0.2600   | 10         | 100         |
| W 02350 † | 1-3/8"   | 0.4200   | 10         | 100         |
| W 02355 † | 1-5/8"   | 0.6000   | 5          | 50          |
| W 02359 † | 2-1/8"   | 1.2300   | 5          | 25          |
| W 02363 † | 2-5/8"   | 2.0800   | 5          | 25          |
| W 02368   | 3-1/8"   | 3.1200   | 2          | 10          |
| W 02393   | 3-5/8"   | 5.5200   | 1          | 5           |
| W 02395   | 4-1/8"   | 8.0700   | —          | 1           |



### 90° Elbow • Short Radius

FTG x FTG

Wrot Style #: WE-506



| Item No.  | Diameter | Each Wt. | Inner Qty. | Master Qty. |
|-----------|----------|----------|------------|-------------|
| W 02612 † | 3/8"     | 0.0200   | 50         | 2,800       |
| W 02621 † | 1/2"     | 0.0300   | 50         | 750         |
| W 02626 † | 5/8"     | 0.0500   | 50         | 500         |
| W 02634 † | 7/8"     | 0.1100   | 25         | 250         |
| W 02644 † | 1-1/8"   | 0.2200   | 10         | 100         |
| W 02684 † | 1-3/8"   | 0.3100   | 10         | 100         |
| W 02685 † | 1-5/8"   | 0.4300   | 5          | 50          |
| W 02686 † | 2-1/8"   | 0.7900   | 1          | 10          |
| W 02687 † | 2-5/8"   | 1.2500   | 1          | 10          |
| W 02688   | 3-1/8"   | 2.0800   | 1          | 10          |
| W 02689   | 3-5/8"   | 2.6300   | 1          | 10          |
| W 02690   | 4-1/8"   | 3.8800   | 1          | 5           |



### 90° Elbow • Long Radius

FTG x FTG

Wrot Style #: WE-506L



| Item No.  | Diameter | Each Wt. | Inner Qty. | Master Qty. |
|-----------|----------|----------|------------|-------------|
| W 02650 † | 1-3/8"   | 0.4400   | 5          | 50          |
| W 02655 † | 1-5/8"   | 0.6300   | 5          | 50          |
| W 02659 † | 2-1/8"   | 1.2300   | 1          | 10          |



### 90° Elbow • Forged Brass

C x F

Wrot Style #: WE-502



| Item No. | Diameter    | Each Wt. | Inner Qty. | Master Qty. |
|----------|-------------|----------|------------|-------------|
| W 02206  | 1/4" x 1/4" | 0.1000   | 50         | 450         |
| W 02207  | 1/4" x 1/8" | 0.0700   | 50         | 800         |
| W 02214  | 3/8" x 3/8" | 0.1000   | 50         | 600         |
| W 02216  | 3/8" x 1/8" | 0.0800   | 50         | 700         |
| W 02225  | 3/8" x 3/8" | 0.1100   | 25         | 300         |
| W 02226  | 3/8" x 1/4" | 0.1000   | 25         | 350         |



### 90° Elbow • Forged Brass

C x M

Wrot Style #: WE-501



| Item No. | Diameter    | Each Wt. | Inner Qty. | Master Qty. |
|----------|-------------|----------|------------|-------------|
| W 02106  | 1/4" x 1/4" | 0.0700   | 50         | 700         |
| W 02107  | 1/4" x 1/8" | 0.0400   | 50         | 1,200       |
| W 02115  | 1/4" x 1/4" | 0.0600   | 50         | 800         |
| W 02116  | 1/4" x 1/8" | 0.0600   | 50         | 800         |
| W 02125  | 1/4" x 3/8" | 0.1000   | 25         | 400         |
| W 02132  | 1/4" x 3/8" | 0.1600   | 10         | 240         |



### 90° Fitting Reducer

FTG x C

Wrot Style #: WC-403



| Item No.  | Diameter        | Each Wt. | Inner Qty. | Master Qty. |
|-----------|-----------------|----------|------------|-------------|
| W 01302 † | 1/4" x 1/8"     | 0.0000   | 50         | 2,000       |
| W 01306 † | 3/8" x 1/4"     | 0.0100   | 50         | 2,000       |
| W 01312 † | 1/2" x 3/8"     | 0.0200   | 50         | 2,000       |
| W 01314 † | 1/2" x 1/4"     | 0.0100   | 50         | 2,800       |
| W 01315 † | 5/8" x 1/2"     | 0.0300   | 50         | 750         |
| W 01317 † | 5/8" x 3/8"     | 0.0200   | 50         | 1,700       |
| W 01320 † | 3/4" x 5/8"     | 0.0400   | 100        | 1,000       |
| W 01321 † | 3/4" x 1/2"     | 0.0400   | 100        | 900         |
| W 01322 † | 3/4" x 3/8"     | 0.0400   | 100        | 900         |
| W 01325 † | 7/8" x 3/4"     | 0.0600   | 50         | 500         |
| W 01326 † | 7/8" x 5/8"     | 0.0600   | 50         | 500         |
| W 01327 † | 7/8" x 1/2"     | 0.0600   | 50         | 500         |
| W 01337 † | 1-1/8" x 7/8"   | 0.1100   | 25         | 250         |
| W 01338 † | 1-1/8" x 3/4"   | 0.1000   | 25         | 250         |
| W 01339 † | 1-1/8" x 5/8"   | 0.1000   | 25         | 250         |
| W 01340 † | 1-1/8" x 1/2"   | 0.1000   | 20         | 200         |
| W 01343 † | 1-3/8" x 1-1/8" | 0.1700   | 10         | 100         |
| W 01345 † | 1-3/8" x 7/8"   | 0.1700   | 10         | 100         |
| W 01347 † | 1-3/8" x 5/8"   | 0.1600   | 10         | 100         |
| W 01350 † | 1-5/8" x 1-3/8" | 0.2300   | 10         | 100         |
| W 01351 † | 1-5/8" x 1-1/8" | 0.2400   | 10         | 100         |
| W 01353 † | 1-5/8" x 7/8"   | 0.2300   | 10         | 100         |

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## 90° Fitting Reducer (Continued)

FTG x C  
Wrot Style #: WC-403



| Item No.  | Diameter        | Each Wt. | Inner Qty. | Master Qty. |
|-----------|-----------------|----------|------------|-------------|
| W 01355 † | 1-5/8" x 5/8"   | 0.2200   | 10         | 100         |
| W 01358 † | 2-1/8" x 1-5/8" | 0.4400   | —          | 100         |
| W 01359 † | 2-1/8" x 1-3/8" | 0.4300   | —          | 100         |
| W 01360 † | 2-1/8" x 1-1/8" | 0.4500   | —          | 100         |
| W 01362 † | 2-1/8" x 7/8"   | 0.4300   | —          | 100         |
| W 01364 † | 2-1/8" x 5/8"   | 0.4200   | —          | 100         |
| W 01367 † | 2-5/8" x 2-1/8" | 0.6200   | —          | 50          |
| W 01368 † | 2-5/8" x 1-5/8" | 0.5700   | —          | 50          |
| W 01369 † | 2-5/8" x 1-3/8" | 0.6200   | —          | 50          |
| W 01370 † | 2-5/8" x 1-1/8" | 0.6300   | —          | 50          |
| W 01376   | 3-1/8" x 2-5/8" | 1.0000   | —          | 25          |
| W 01377   | 3-1/8" x 2-1/8" | 0.8900   | —          | 25          |
| W 01378   | 3-1/8" x 1-5/8" | 0.9200   | —          | 50          |
| W 01379   | 3-1/8" x 1-3/8" | 1.0100   | —          | 50          |
| W 01381   | 3-5/8" x 3-1/8" | 1.2800   | —          | 20          |
| W 01382   | 3-5/8" x 2-5/8" | 1.3700   | —          | 20          |
| W 01383   | 3-5/8" x 2-1/8" | 1.4700   | —          | 20          |
| W 01386   | 4-1/8" x 3-5/8" | 1.7400   | —          | 20          |
| W 01387   | 4-1/8" x 3-1/8" | 1.7700   | —          | 15          |
| W 01388   | 4-1/8" x 2-5/8" | 1.8300   | —          | 15          |
| W 01389   | 4-1/8" x 2-1/8" | 1.8600   | —          | 15          |



## Hanger High Ear

C  
Wrot Style #: W-124



| Item No. | Diameter | Each Wt. | Inner Qty. | Master Qty. |
|----------|----------|----------|------------|-------------|
| A 03167  | 5/8"     | 0.0300   | 100        | 10,000      |
| A 03168  | 7/8"     | 0.0400   | 25         | 500         |
| A 03171  | 1-1/8"   | 0.0400   | 25         | 250         |



## Plug • Fitting

FTG  
Wrot Style #: WC-416  
Brass



| Item No. | Diameter | Each Wt. | Inner Qty. | Master Qty. |
|----------|----------|----------|------------|-------------|
| A 01402  | 1/4"     | 0.0100   | 50         | 500         |
| A 01422  | 3/8"     | 0.0100   | 100        | 4,000       |
| A 01392  | 1/2"     | 0.0200   | 50         | 2,000       |
| A 01504  | 5/8"     | 0.0300   | 50         | 1,200       |
| A 02273  | 3/4"     | 0.0500   | 10         | 560         |
| A 01529  | 7/8"     | 0.0700   | 50         | 600         |
| A 01556  | 1-1/8"   | 0.1200   | 25         | 375         |
| A 01590  | 1-3/8"   | 0.2000   | 15         | 180         |
| A 01628  | 1-5/8"   | 0.2800   | 10         | 120         |



## P-Trap • Pressure

C x C  
Wrot Style #: WE-554P



| Item No. | Diameter | Each Wt. | Inner Qty. | Master Qty. |
|----------|----------|----------|------------|-------------|
| W 60999  | 5/8"     | 0.3800   | 10         | 50          |
| W 61008  | 3/4"     | 0.5100   | 10         | 50          |
| W 61000  | 7/8"     | 0.6300   | 5          | 25          |
| W 61001  | 1-1/8"   | 0.8700   | 3          | 15          |
| W 61002  | 1-3/8"   | 1.1600   | 4          | 20          |
| W 61003  | 1-5/8"   | 2.2800   | 4          | 4           |
| W 61009  | 2-1/8"   | 3.8700   | —          | 3           |



## P-Trap • Suction Line Long Radius

C x C  
Wrot Style #: WE-554PL



| Item No. | Diameter | Each Wt. | Inner Qty. | Master Qty. |
|----------|----------|----------|------------|-------------|
| W 60998  | 5/8"     | 0.1500   | 30         | 150         |
| W 60997  | 3/4"     | 0.3000   | 20         | 100         |
| W 60996  | 7/8"     | 0.3600   | 15         | 75          |
| W 60995  | 1-1/8"   | 0.5800   | 15         | 75          |
| W 60994  | 1-3/8"   | 0.9700   | 5          | 25          |
| W 60993  | 1-5/8"   | 1.8400   | —          | 5           |
| W 60992  | 2-1/8"   | 3.6100   | —          | 3           |

## COPPER FITTINGS



### Return Bend

C x C

Wrot Style #: WE-512



| Item No.  | Diameter        | Each Wt. | Inner Qty. | Master Qty. |
|-----------|-----------------|----------|------------|-------------|
| W 06025 † | 3/8" x 4-1/2"   | 0.1000   | 25         | 150         |
| W 06020 † | 3/8" x 1-1/2"   | 0.0200   | 25         | 850         |
| W 06048 † | 1/2" x 6"       | 0.2100   | —          | 100         |
| W 06045 † | 1/2" x 4"       | 0.1400   | —          | 200         |
| W 06041 † | 1/2" x 3"       | 0.1100   | 25         | 250         |
| W 06036 † | 1/2" x 2"       | 0.0600   | 50         | 300         |
| W 06035 † | 1/2" x 12-9/32" | 0.0800   | 50         | 300         |
| W 06032 † | 1/2" x 1-1/2"   | 0.0600   | 50         | 500         |
| W 06069 † | 5/8" x 6"       | 0.3000   | 5          | 30          |
| W 06062 † | 5/8" x 3-3/8"   | 0.1800   | 10         | 100         |
| W 06060 † | 5/8" x 3"       | 0.1600   | 25         | 150         |
| W 06058 † | 5/8" x 2-1/2"   | 0.1400   | 25         | 250         |
| W 06056 † | 5/8" x 2-1/4"   | 0.1300   | 25         | 250         |
| W 06053 † | 5/8" x 1-7/8"   | 0.1100   | 25         | 250         |
| W 06051 † | 5/8" x 19/16"   | 0.1000   | 25         | 250         |
| W 06084 † | 3/4" x 4"       | 0.2500   | —          | 120         |
| W 06081 † | 3/4" x 3-3/8"   | 0.2400   | 10         | 90          |
| W 06077 † | 3/4" x 2-1/2"   | 0.1700   | 10         | 100         |
| W 06074 † | 3/4" x 2-1/8"   | 0.1600   | 10         | 100         |
| W 06073 † | 3/4" x 2"       | 0.1500   | 10         | 100         |
| W 06099 † | 7/8" x 12"      | 0.8800   | —          | 15          |
| W 06095 † | 7/8" x 3-3/8"   | 0.2900   | 10         | 100         |
| W 06092 † | 7/8" x 2-1/2"   | 0.2300   | 10         | 100         |
| W 60111 † | 1-1/8" x 3-1/4" | 0.4900   | 5          | 50          |
| W 60110 † | 1-1/8" x 3"     | 0.4700   | 5          | 50          |
| W 60121 † | 1-3/8" x 3-3/4" | 0.6500   | 5          | 50          |
| W 60131 † | 1-5/8" x 4-1/2" | 1.0000   | 5          | 25          |
| W 60140 † | 2-1/8" x 5-1/2" | 1.9200   | 5          | 25          |



### Tee

C x C x C

Wrot Style #: WT-600



| Item No.  | Diameter | Each Wt. | Inner Qty. | Master Qty. |
|-----------|----------|----------|------------|-------------|
| W 40302 † | 3/16"    | 0.0100   | 50         | 1,700       |
| W 40306 † | 1/4"     | 0.0100   | 100        | 2,400       |
| W 40313 † | 5/16"    | 0.0100   | 50         | 1,700       |
| W 04000 † | 3/8"     | 0.0200   | 50         | 1,700       |
| W 04001 † | 1/2"     | 0.0400   | 50         | 500         |
| W 04006 † | 5/8"     | 0.0700   | 50         | 500         |
| W 04017 † | 3/4"     | 0.1200   | 25         | 250         |
| W 04031 † | 7/8"     | 0.1600   | 25         | 250         |
| W 04048 † | 1-1/8"   | 0.2900   | 10         | 100         |
| W 04068 † | 1-3/8"   | 0.4200   | 5          | 50          |
| W 04084 † | 1-5/8"   | 0.6000   | 5          | 50          |
| W 40102 † | 2-1/8"   | 1.1400   | 5          | 25          |
| W 40123 † | 2-5/8"   | 1.7200   | 2          | 20          |
| W 40152   | 3-1/8"   | 2.7700   | 2          | 10          |
| W 40190   | 3-5/8"   | 5.6600   | 1          | 5           |
| W 40200   | 4-1/8"   | 5.9900   | 1          | 5           |
| W 40400   | 5-1/8"   | 12.3800  | —          | 1           |
| W 40500   | 6-1/8"   | 20.8500  | —          | 1           |



### Tee • Reducing

C x C x C

Wrot Style #: WT-600



| Item No.  | Diameter                 | Each Wt. | Inner Qty. | Master Qty. |
|-----------|--------------------------|----------|------------|-------------|
| W 40368 † | 1/4" x 1/4" x 3/8"       | 0.0300   | 50         | 750         |
| W 40308 † | 1/4" x 1/4" x 3/16"      | 0.0100   | 50         | 2,000       |
| W 40334 † | 5/16" x 5/16" x 3/8"     | 0.0300   | 50         | 750         |
| W 04016 † | 3/8" x 3/8" x 5/8"       | 0.0800   | 50         | 500         |
| W 04005 † | 3/8" x 3/8" x 1/2"       | 0.0400   | 50         | 500         |
| W 40324 † | 3/8" x 3/8" x 1/4"       | 0.0200   | 50         | 1,700       |
| W 40330 † | 3/8" x 1/4" x 3/8"       | 0.0200   | 50         | 500         |
| W 40332 † | 3/8" x 1/4" x 1/4"       | 0.0200   | 50         | 1,700       |
| W 04015 † | 1/2" x 1/2" x 5/8"       | 0.0900   | 50         | 500         |
| W 04002 † | 1/2" x 1/2" x 3/8"       | 0.0400   | 50         | 500         |
| W 40350 † | 1/2" x 1/2" x 1/4"       | 0.0400   | 50         | 500         |
| W 04003 † | 1/2" x 3/8" x 1/2"       | 0.0500   | 50         | 500         |
| W 04004 † | 1/2" x 3/8" x 3/8"       | 0.0400   | 50         | 500         |
| W 40358 † | 1/2" x 3/8" x 1/4"       | 0.0400   | 50         | 750         |
| W 40363 † | 1/2" x 1/4" x 1/2"       | 0.0500   | 50         | 750         |
| W 40364 † | 1/2" x 1/4" x 3/8"       | 0.0400   | 50         | 750         |
| W 40366 † | 1/2" x 1/4" x 1/4"       | 0.0500   | 50         | 450         |
| W 04067 † | 5/8" x 5/8" x 1-1/8"     | 0.3500   | 10         | 100         |
| W 04047 † | 5/8" x 5/8" x 7/8"       | 0.1100   | 25         | 250         |
| W 04029 † | 5/8" x 5/8" x 3/4"       | 0.1000   | 25         | 250         |
| W 04007 † | 5/8" x 5/8" x 1/2"       | 0.0800   | 50         | 500         |
| W 04008 † | 5/8" x 5/8" x 3/8"       | 0.0600   | 50         | 500         |
| W 04014 † | 5/8" x 5/8" x 1/4"       | 0.0800   | 50         | 500         |
| W 04009 † | 5/8" x 1/2" x 5/8"       | 0.0900   | 50         | 500         |
| W 04010 † | 5/8" x 1/2" x 1/2"       | 0.0800   | 50         | 500         |
| W 04011 † | 5/8" x 1/2" x 3/8"       | 0.0800   | 50         | 500         |
| W 04012 † | 5/8" x 3/8" x 5/8"       | 0.0900   | 50         | 500         |
| W 40367 † | 5/8" x 3/8" x 1/2"       | 0.0800   | 50         | 500         |
| W 04013 † | 5/8" x 3/8" x 3/8"       | 0.0900   | 50         | 500         |
| W 04046 † | 3/4" x 3/4" x 7/8"       | 0.1500   | 25         | 250         |
| W 04018 † | 3/4" x 3/4" x 5/8"       | 0.1000   | 25         | 250         |
| W 04019 † | 3/4" x 3/4" x 1/2"       | 0.1000   | 25         | 250         |
| W 04020 † | 3/4" x 3/4" x 3/8"       | 0.1000   | 25         | 250         |
| W 04021 † | 3/4" x 5/8" x 3/4"       | 0.1300   | 25         | 225         |
| W 04022 † | 3/4" x 5/8" x 5/8"       | 0.1100   | 25         | 250         |
| W 04023 † | 3/4" x 5/8" x 1/2"       | 0.1100   | 25         | 225         |
| W 04025 † | 3/4" x 1/2" x 3/4"       | 0.1500   | 25         | 250         |
| W 04026 † | 3/4" x 1/2" x 5/8"       | 0.1400   | 25         | 225         |
| W 04027 † | 3/4" x 1/2" x 1/2"       | 0.1100   | 25         | 250         |
| W 04065 † | 7/8" x 7/8" x 1-1/8"     | 0.2200   | 10         | 100         |
| W 04032 † | 7/8" x 7/8" x 3/4"       | 0.1700   | 25         | 250         |
| W 04033 † | 7/8" x 7/8" x 5/8"       | 0.1200   | 25         | 250         |
| W 04034 † | 7/8" x 7/8" x 1/2"       | 0.1100   | 25         | 250         |
| W 04035 † | 7/8" x 7/8" x 3/8"       | 0.1100   | 25         | 250         |
| W 04036 † | 7/8" x 3/4" x 7/8"       | 0.1900   | 25         | 250         |
| W 04037 † | 7/8" x 3/4" x 3/4"       | 0.1700   | 25         | 250         |
| W 04041 † | 7/8" x 5/8" x 7/8"       | 0.1600   | 25         | 250         |
| W 04042 † | 7/8" x 5/8" x 3/4"       | 0.1700   | 25         | 150         |
| W 04043 † | 7/8" x 5/8" x 5/8"       | 0.1300   | 25         | 250         |
| W 04044 † | 7/8" x 5/8" x 1/2"       | 0.1200   | 25         | 250         |
| W 04045 † | 7/8" x 5/8" x 3/8"       | 0.1500   | 25         | 225         |
| W 40230 † | 7/8" x 1/2" x 7/8"       | 0.1900   | 25         | 250         |
| W 40231 † | 7/8" x 1/2" x 5/8"       | 0.1700   | 25         | 250         |
| W 40232 † | 7/8" x 1/2" x 1/2"       | 0.1200   | 25         | 250         |
| W 40101 † | 1-1/8" x 1-1/8" x 1-5/8" | 0.4700   | 5          | 50          |
| W 04082 † | 1-1/8" x 1-1/8" x 1-3/8" | 0.3100   | 5          | 50          |
| W 04049 † | 1-1/8" x 1-1/8" x 7/8"   | 0.2400   | 10         | 100         |
| W 04050 † | 1-1/8" x 1-1/8" x 3/4"   | 0.2700   | 10         | 100         |
| W 04051 † | 1-1/8" x 1-1/8" x 5/8"   | 0.2100   | 10         | 100         |

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**Tee • Reducing**  
(Continued from previous page)  
C x C x C  
Wrot Style #: WT-600



| Item No.  | Diameter                 | Each Wt. | Inner Qty. | Master Qty. |
|-----------|--------------------------|----------|------------|-------------|
| W 04052 † | 1-1/8" x 1-1/8" x 1/2"   | 0.1900   | 10         | 100         |
| W 04055 † | 1-1/8" x 7/8" x 1-1/8"   | 0.3000   | 10         | 100         |
| W 04056 † | 1-1/8" x 7/8" x 7/8"     | 0.2500   | 10         | 100         |
| W 04057 † | 1-1/8" x 7/8" x 3/4"     | 0.4300   | 10         | 90          |
| W 04058 † | 1-1/8" x 7/8" x 5/8"     | 0.2300   | 10         | 100         |
| W 04059 † | 1-1/8" x 7/8" x 1/2"     | 0.2100   | 10         | 100         |
| W 40233 † | 1-1/8" x 3/4" x 1-1/8"   | 0.3300   | 10         | 100         |
| W 40234 † | 1-1/8" x 3/4" x 7/8"     | 0.3000   | 10         | 90          |
| W 40235 † | 1-1/8" x 3/4" x 3/4"     | 0.3100   | 10         | 100         |
| W 40236 † | 1-1/8" x 3/4" x 5/8"     | 0.3500   | 10         | 90          |
| W 40061 † | 1-1/8" x 5/8" x 1-1/8"   | 0.3000   | 10         | 100         |
| W 40062 † | 1-1/8" x 5/8" x 7/8"     | 0.2800   | 10         | 100         |
| W 40063 † | 1-1/8" x 5/8" x 5/8"     | 0.2100   | 10         | 100         |
| W 40122 † | 1-3/8" x 1-3/8" x 2-1/8" | 0.8900   | 2          | 20          |
| W 40100 † | 1-3/8" x 1-3/8" x 1-5/2" | 0.4900   | 5          | 50          |
| W 40069 † | 1-3/8" x 1-3/8" x 1-1/8" | 0.4100   | 5          | 50          |
| W 40070 † | 1-3/8" x 1-3/8" x 7/8"   | 0.3500   | 5          | 50          |
| W 40071 † | 1-3/8" x 1-3/8" x 5/8"   | 0.3200   | 5          | 50          |
| W 40072 † | 1-3/8" x 1-3/8" x 1/2"   | 0.2900   | 5          | 50          |
| W 40073 † | 1-3/8" x 1-1/8" x 1-3/8" | 0.4800   | 5          | 50          |
| W 40074 † | 1-3/8" x 1-1/8" x 1-1/8" | 0.4600   | 5          | 50          |
| W 40075 † | 1-3/8" x 1-1/8" x 7/8"   | 0.3800   | 5          | 50          |
| W 40076 † | 1-3/8" x 1-1/8" x 5/8"   | 0.3600   | 5          | 50          |
| W 40078 † | 1-3/8" x 7/8" x 1-3/8"   | 0.4500   | 5          | 50          |
| W 40079 † | 1-3/8" x 7/8" x 1-1/8"   | 0.4600   | 5          | 50          |
| W 40080 † | 1-3/8" x 7/8" x 7/8"     | 0.3700   | 5          | 50          |
| W 40081 † | 1-3/8" x 7/8" x 5/8"     | 0.3400   | 5          | 50          |
| W 40083 † | 1-3/8" x 5/8" x 1-3/8"   | 0.5700   | 5          | 50          |
| W 40121 † | 1-5/8" x 1-5/8" x 2-1/8" | 1.2100   | 2          | 20          |
| W 40085 † | 1-5/8" x 1-5/8" x 1-3/8" | 0.5700   | 5          | 50          |
| W 40086 † | 1-5/8" x 1-5/8" x 1-1/8" | 0.5200   | 5          | 50          |
| W 40087 † | 1-5/8" x 1-5/8" x 7/8"   | 0.4700   | 5          | 50          |
| W 40088 † | 1-5/8" x 1-5/8" x 5/8"   | 0.4200   | 5          | 50          |
| W 40089 † | 1-5/8" x 1-5/8" x 1/2"   | 0.4100   | 5          | 50          |
| W 40090 † | 1-5/8" x 1-3/8" x 1-5/8" | 0.6800   | 5          | 50          |
| W 40091 † | 1-5/8" x 1-3/8" x 1-3/8" | 0.6900   | 5          | 50          |
| W 40092 † | 1-5/8" x 1-3/8" x 1-1/8" | 0.5700   | 5          | 50          |
| W 40093 † | 1-5/8" x 1-3/8" x 7/8"   | 0.5700   | 5          | 50          |
| W 40094 † | 1-5/8" x 1-3/8" x 5/8"   | 0.4500   | 5          | 50          |
| W 40095 † | 1-5/8" x 1-1/8" x 1-5/8" | 0.6800   | 5          | 50          |
| W 40096 † | 1-5/8" x 1-1/8" x 1-3/8" | 0.6500   | 5          | 50          |
| W 40097 † | 1-5/8" x 1-1/8" x 1-1/8" | 0.6100   | 5          | 50          |
| W 40098 † | 1-5/8" x 1-1/8" x 7/8"   | 0.5600   | 5          | 50          |
| W 40237 † | 1-5/8" x 1-1/8" x 5/8"   | 0.4500   | 5          | 30          |
| W 40099 † | 1-5/8" x 7/8" x 1-5/8"   | 0.6700   | 5          | 50          |
| W 40239 † | 1-5/8" x 7/8" x 1-3/8"   | 0.7500   | 5          | 50          |
| W 40240 † | 1-5/8" x 7/8" x 1-1/8"   | 0.5200   | 5          | 50          |
| W 40238 † | 1-5/8" x 7/8" x 7/8"     | 0.5500   | 5          | 50          |
| W 40243 † | 1-5/8" x 7/8" x 5/8"     | 0.4700   | 5          | 50          |
| W 40244 † | 1-5/8" x 5/8" x 1-5/8"   | 0.6600   | 5          | 50          |
| W 40153 † | 2-1/8" x 2-1/8" x 3-1/8" | 2.5500   | 1          | 10          |
| W 40144 † | 2-1/8" x 2-1/8" x 2-5/8" | 1.4600   | 1          | 10          |
| W 40103 † | 2-1/8" x 2-1/8" x 1-5/8" | 0.9900   | 5          | 50          |
| W 40104 † | 2-1/8" x 2-1/8" x 1-3/8" | 0.8500   | 5          | 50          |
| W 40105 † | 2-1/8" x 2-1/8" x 1-1/8" | 0.8800   | 5          | 50          |
| W 40106 † | 2-1/8" x 2-1/8" x 7/8"   | 0.8300   | 5          | 50          |
| W 40107 † | 2-1/8" x 2-1/8" x 5/8"   | 0.6700   | 5          | 50          |
| W 40108 † | 1-1/8" x 7/8" x 1/2"     | 0.6800   | 2          | 20          |
| W 40109 † | 1-1/8" x 1-5/8" x 2-1/8" | 1.3100   | 2          | 20          |

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(CONTINUED FROM PREVIOUS COLUMN)

| Item No.  | Diameter                 | Each Wt. | Inner Qty. | Master Qty. |
|-----------|--------------------------|----------|------------|-------------|
| W 40110 † | 1-1/8" x 1-5/8" x 1-5/8" | 1.1500   | 2          | 20          |
| W 40111 † | 1-1/8" x 1-5/8" x 1-3/8" | 0.8600   | 2          | 20          |
| W 40112 † | 1-1/8" x 1-5/8" x 1-1/8" | 1.0600   | 2          | 20          |
| W 40113 † | 1-1/8" x 1-5/8" x 7/8"   | 0.7500   | 2          | 20          |
| W 40114 † | 1-1/8" x 1-5/8" x 5/8"   | 0.7700   | 5          | 50          |
| W 40115 † | 1-1/8" x 1-3/8" x 2-1/8" | 1.3000   | 2          | 20          |
| W 40116 † | 1-1/8" x 1-3/8" x 1-5/8" | 1.1400   | 2          | 20          |
| W 40117 † | 1-1/8" x 1-3/8" x 1-3/8" | 1.0900   | 2          | 20          |
| W 40118 † | 1-1/8" x 1-3/8" x 1-1/8" | 0.9500   | 2          | 20          |
| W 40119 † | 1-1/8" x 1-3/8" x 7/8"   | 0.7600   | 5          | 50          |
| W 40120 † | 1-1/8" x 1-3/8" x 5/8"   | 0.7800   | 5          | 20          |
| W 40245 † | 1-1/8" x 1-1/8" x 2-1/8" | 1.6400   | 5          | 25          |
| W 40247 † | 1-1/8" x 1-1/8" x 1-1/8" | 1.0600   | 5          | 50          |
| W 40248 † | 1-1/8" x 7/8" x 2-1/8"   | 1.7100   | 5          | 25          |
| W 40249 † | 1-1/8" x 5/8" x 2-1/8"   | 1.6600   | 5          | 25          |
| W 40124 † | 2-5/8" x 2-5/8" x 2-1/8" | 1.5900   | 2          | 20          |
| W 40125 † | 2-5/8" x 2-5/8" x 1-5/8" | 1.4900   | 2          | 20          |
| W 40126 † | 2-5/8" x 2-5/8" x 1-3/8" | 1.8700   | 2          | 20          |
| W 40127 † | 2-5/8" x 2-5/8" x 1-1/8" | 1.8300   | 2          | 20          |
| W 40128 † | 2-5/8" x 2-5/8" x 7/8"   | 1.8300   | 1          | 10          |
| W 40129 † | 2-5/8" x 2-5/8" x 5/8"   | 2.0500   | 1          | 10          |
| W 40130 † | 2-5/8" x 2-1/8" x 2-5/8" | 2.3000   | 4          | 20          |
| W 40131 † | 2-5/8" x 2-1/8" x 2-1/8" | 1.8400   | 2          | 20          |
| W 40132 † | 2-5/8" x 2-1/8" x 1-5/8" | 2.0900   | 4          | 20          |
| W 40133 † | 2-5/8" x 2-1/8" x 1-3/8" | 2.1200   | 4          | 20          |
| W 40134 † | 2-5/8" x 2-1/8" x 1-1/8" | 2.1000   | 4          | 20          |
| W 40135 † | 2-5/8" x 2-1/8" x 7/8"   | 2.0600   | 4          | 20          |
| W 40136 † | 2-5/8" x 2-1/8" x 5/8"   | 2.2000   | 4          | 20          |
| W 40137 † | 2-5/8" x 1-5/8" x 2-5/8" | 2.3200   | 4          | 20          |
| W 40138 † | 2-5/8" x 1-5/8" x 2-1/8" | 1.8400   | 4          | 20          |
| W 40139 † | 2-5/8" x 1-5/8" x 1-5/8" | 2.1100   | 4          | 20          |
| W 40140 † | 2-5/8" x 1-5/8" x 1-3/8" | 2.1700   | 4          | 20          |
| W 40141 † | 2-5/8" x 1-5/8" x 1-1/8" | 1.8300   | 4          | 20          |
| W 40142 † | 2-5/8" x 1-5/8" x 7/8"   | 2.3600   | 4          | 20          |
| W 40143 † | 2-5/8" x 1-5/8" x 5/8"   | 2.3600   | 4          | 20          |
| W 40220 † | 2-5/8" x 1-3/8" x 2-5/8" | 2.3500   | 4          | 20          |
| W 40250 † | 2-5/8" x 1-3/8" x 2-1/8" | 1.8200   | 4          | 20          |
| W 40251 † | 2-5/8" x 1-3/8" x 1-5/8" | 2.4700   | 4          | 20          |
| W 40252 † | 2-5/8" x 1-3/8" x 1-3/8" | 1.9600   | 4          | 20          |
| W 40253 † | 2-5/8" x 1-3/8" x 1-1/8" | 2.4700   | 4          | 20          |
| W 40254 † | 2-5/8" x 1-3/8" x 7/8"   | 2.1800   | 4          | 20          |
| W 40255 † | 2-5/8" x 1-3/8" x 5/8"   | 2.4700   | 4          | 20          |
| W 40221 † | 2-5/8" x 1-1/8" x 2-5/8" | 2.3900   | 4          | 20          |
| W 40256 † | 2-5/8" x 1-1/8" x 2-1/8" | 1.9700   | 4          | 20          |
| W 40257 † | 2-5/8" x 1-1/8" x 1-5/8" | 2.1500   | 4          | 20          |
| W 40258 † | 2-5/8" x 1-1/8" x 1-3/8" | 2.0400   | 4          | 20          |
| W 40259 † | 2-5/8" x 1-1/8" x 1-1/8" | 2.2700   | 4          | 20          |
| W 40222 † | 2-5/8" x 7/8" x 2-5/8"   | 2.4100   | 4          | 20          |
| W 40151   | 3-1/8" x 3-1/8" x 2-5/8" | 2.4500   | 2          | 10          |
| W 40150   | 3-1/8" x 3-1/8" x 2-1/8" | 2.3000   | 2          | 20          |
| W 40149   | 3-1/8" x 3-1/8" x 1-5/8" | 2.1800   | 2          | 10          |
| W 40148   | 3-1/8" x 3-1/8" x 1-3/8" | 2.3800   | 2          | 10          |
| W 40147   | 3-1/8" x 3-1/8" x 1-1/8" | 1.9600   | 2          | 20          |
| W 40146   | 3-1/8" x 3-1/8" x 7/8"   | 1.4900   | 2          | 20          |
| W 40145   | 3-1/8" x 3-1/8" x 5/8"   | 1.3800   | 2          | 20          |
| W 40159   | 3-1/8" x 2-5/8" x 3-1/8" | 2.9600   | 2          | 10          |
| W 40158   | 3-1/8" x 2-5/8" x 2-5/8" | 4.5200   | 2          | 10          |
| W 40157   | 3-1/8" x 2-5/8" x 2-1/8" | 2.6800   | 2          | 10          |
| W 40156   | 3-1/8" x 2-5/8" x 1-5/8" | 2.6300   | 2          | 10          |
| W 40155   | 3-1/8" x 2-5/8" x 1-3/8" | 2.6200   | 2          | 10          |
| W 40154   | 3-1/8" x 2-5/8" x 1-1/8" | 2.0200   | 2          | 20          |
| W 40167   | 3-1/8" x 2-1/8" x 3-1/8" | 3.0700   | 2          | 10          |
| W 40165   | 3-1/8" x 2-5/8" x 2-5/8" | 4.6400   | 2          | 10          |
| W 40164   | 3-1/8" x 2-5/8" x 2-1/8" | 2.7500   | 2          | 10          |
| W 40163   | 3-1/8" x 2-5/8" x 1-5/8" | 2.5700   | 2          | 10          |

(CONTINUED NEXT COLUMN)

## COPPER FITTINGS

(CONTINUED FROM PREVIOUS COLUMN)

| Item No. | Diameter                 | Each Wt. | Inner Qty. | Master Qty. |
|----------|--------------------------|----------|------------|-------------|
| W 40162  | 3-1/8" x 2-5/8" x 1-3/8" | 2.6100   | 2          | 10          |
| W 40161  | 3-1/8" x 2-5/8" x 1-1/8" | 2.0400   | 2          | 20          |
| W 40174  | 3-1/8" x 1-5/8" x 3-1/8" | 2.9700   | 2          | 10          |
| W 40181  | 3-1/8" x 1-3/8" x 3-1/8" | 3.1400   | 2          | 10          |
| W 40178  | 3-1/8" x 1-1/8" x 3-1/8" | 3.0200   | 2          | 10          |
| W 40179  | 3-1/8" x 7/8" x 3-1/8"   | 3.0300   | 2          | 10          |
| W 40198  | 4-1/8" x 4-1/8" x 3-1/8" | 4.9400   | 1          | 5           |
| W 40197  | 4-1/8" x 4-1/8" x 2-5/8" | 5.1600   | 1          | 5           |
| W 40196  | 4-1/8" x 4-1/8" x 2-1/8" | 4.5200   | 1          | 10          |
| W 40195  | 4-1/8" x 4-1/8" x 1-5/8" | 4.4700   | 1          | 10          |
| W 40194  | 4-1/8" x 4-1/8" x 1-3/8" | 4.5500   | 1          | 10          |
| W 40193  | 4-1/8" x 4-1/8" x 1-1/8" | 3.0500   | 1          | 10          |
| W 40192  | 4-1/8" x 4-1/8" x 7/8"   | 2.8900   | 1          | 10          |
| W 40191  | 4-1/8" x 4-1/8" x 5/8"   | 2.8900   | 1          | 10          |
| W 40208  | 4-1/8" x 3-1/8" x 4-1/8" | 8.6600   | 1          | 5           |
| W 40206  | 4-1/8" x 3-1/8" x 3-1/8" | 5.1200   | 1          | 5           |
| W 40205  | 4-1/8" x 3-1/8" x 2-5/8" | 5.6100   | 1          | 5           |
| W 40204  | 4-1/8" x 3-1/8" x 2-1/8" | 4.7600   | 1          | 5           |
| W 40212  | 4-1/8" x 2-5/8" x 4-1/8" | 7.7900   | 1          | 5           |
| W 40216  | 4-1/8" x 2-1/8" x 4-1/8" | 8.9500   | 1          | 5           |
| W 40215  | 4-1/8" x 1-5/8" x 4-1/8" | 8.5100   | 1          | 5           |
| W 40214  | 4-1/8" x 1-3/8" x 4-1/8" | 8.5700   | 1          | 5           |
| W 40213  | 4-1/8" x 1-1/8" x 4-1/8" | 9.3300   | 1          | 5           |
| W 40503  | 6-1/8" x 6-1/8" x 3-1/8" | 11.0000  | —          | 1           |
| W 40504  | 6-1/8" x 6-1/8" x 2-5/8" | 11.1000  | —          | 1           |
| W 40505  | 6-1/8" x 6-1/8" x 2-1/8" | 9.5400   | —          | 1           |



### Tee • Forged Brass

C x C x F  
Wrot Style #: WT-602



| Item No. | Diameter           | Each Wt. | Inner Qty. | Master Qty. |
|----------|--------------------|----------|------------|-------------|
| W 04208  | 1/4" x 1/4" x 1/4" | 0.0900   | 50         | 450         |
| W 04209  | 1/4" x 1/4" x 1/8" | 0.0400   | 50         | 1,200       |
| W 04228  | 3/8" x 3/8" x 3/8" | 0.1500   | 25         | 350         |
| W 04229  | 3/8" x 3/8" x 1/4" | 0.1000   | 25         | 400         |
| W 04230  | 3/8" x 3/8" x 1/8" | 0.1100   | 10         | 400         |
| W 04259  | 1/2" x 1/2" x 3/8" | 0.1500   | 10         | 240         |
| W 04283  | 5/8" x 5/8" x 1/2" | 0.3300   | 10         | 150         |



### Tee

C x FTG x C  
Wrot Style #: WT-600F



| Item No.  | Diameter | Each Wt. | Inner Qty. | Master Qty. |
|-----------|----------|----------|------------|-------------|
| W 04106 † | 5/8"     | 0.1000   | 50         | 300         |
| W 04131 † | 7/8"     | 0.1900   | 25         | 150         |



### Union

C x C  
Wrot Style #: WC-407



| Item No. | Diameter | Each Wt. | Inner Qty. | Master Qty. |
|----------|----------|----------|------------|-------------|
| W 08001  | 3/8"     | 0.1200   | 25         | 250         |
| W 08002  | 1/2"     | 0.1100   | 25         | 250         |
| W 08003  | 5/8"     | 0.1600   | 25         | 250         |
| W 08004  | 7/8"     | 0.3700   | 25         | 150         |
| W 08005  | 1-1/8"   | 0.5200   | 10         | 100         |



### Copper Tube Strap • Two-Hole

Wrot Style #: WS-1100



| Item No. | Diameter | Each Wt. | Inner Qty. | Master Qty. |
|----------|----------|----------|------------|-------------|
| A 01203  | 1/4"     | 0.0100   | 100        | 4,000       |
| A 01278  | 3/8"     | 0.0100   | 100        | 5,600       |
| A 01366  | 1/2"     | 0.0100   | 100        | 3,400       |
| A 02529  | 5/8"     | 0.0100   | 100        | 1,500       |
| A 01467  | 3/4"     | 0.0100   | 100        | 2,000       |
| A 02574  | 7/8"     | 0.0100   | 50         | 750         |
| A 02614  | 1-1/8"   | 0.0200   | 50         | 750         |
| A 02650  | 1-3/8"   | 0.0400   | 50         | 500         |
| A 02675  | 1-5/8"   | 0.0500   | 50         | 500         |
| A 02708  | 2-1/8"   | 0.0600   | 50         | 500         |



### 25 ft. Roll Copper Tube Strap Perforated

Wrot Style #: WS-1101



| Item No. | Diameter   | Each Wt. | Inner Qty. | Master Qty. |
|----------|------------|----------|------------|-------------|
| A 01211  | 25 Ft.Roll | 1.6300   | 1          | 10          |

# COPPER FITTING • DATA

| TEMPERATURE - PRESSURE RATINGS OF SOLDER JOINTS <sup>1</sup>       |                                                               |                                         |            |            |        |
|--------------------------------------------------------------------|---------------------------------------------------------------|-----------------------------------------|------------|------------|--------|
| ALLOYS USED FOR JOINTS                                             | SERVICE TEMPERATURE °F                                        | STANDARD TUBE SIZE, TYPES K, L, AND M   |            |            |        |
|                                                                    |                                                               | WATER AND NON-CORROSIVE LIQUIDS & GASES |            |            |        |
|                                                                    |                                                               | 1/4 to 1                                | 1-1/4 to 2 | 2-1/2 to 4 | 5 to 8 |
| 50 / 50 Tin Lead Solder<br>Not to be used in potable water systems | 100                                                           | 200                                     | 175        | 150        | 135    |
|                                                                    | 150                                                           | 150                                     | 125        | 100        | 90     |
|                                                                    | 200                                                           | 100                                     | 90         | 75         | 70     |
|                                                                    | 250                                                           | 85                                      | 75         | 50         | 45     |
| 95 / 5 Tin-Antimony Solder                                         | 100                                                           | 1090                                    | 850        | 705        | 660    |
|                                                                    | 150                                                           | 625                                     | 485        | 405        | 375    |
|                                                                    | 200                                                           | 505                                     | 395        | 325        | 305    |
|                                                                    | 250                                                           | 270                                     | 210        | 175        | 165    |
| Alloy E Solder                                                     | 100                                                           | 710                                     | 555        | 460        | 430    |
|                                                                    | 150                                                           | 475                                     | 370        | 305        | 285    |
|                                                                    | 200                                                           | 375                                     | 290        | 240        | 225    |
|                                                                    | 250                                                           | 320                                     | 250        | 205        | 195    |
| Alloy HB Solder                                                    | 100                                                           | 1035                                    | 805        | 670        | 625    |
|                                                                    | 150                                                           | 710                                     | 555        | 460        | 430    |
|                                                                    | 200                                                           | 440                                     | 345        | 285        | 265    |
|                                                                    | 250                                                           | 430                                     | 335        | 275        | 260    |
| Brazing Alloys (melting at or above 1000°F)                        | Pressure-temperature ratings is that of the tubing being used |                                         |            |            |        |

Note: Ratings are those given in ASME B 16.22 "Wrought Copper and Copper Alloy Solder Joint Pressure Fittings." (a) Solder alloys are covered by ASTM Standard Specification B32. The Safe Drinking Water Act Amendment of 1986 prohibits the use of any solder having a lead content in excess of 02% for potable water systems.

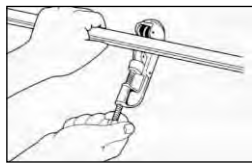
| PRESSURE LOSS IN FITTINGS EXPRESSED AS EQUIVALENT LENGTH OF TUBE, FEET |                      |               |                  |                 |          |                 |
|------------------------------------------------------------------------|----------------------|---------------|------------------|-----------------|----------|-----------------|
| Normal or Standard in Inches                                           | Wrot Copper Fittings |               |                  |                 |          |                 |
|                                                                        | 90 Degree Ell        | 45 Degree Ell | Tee Straight Run | Tee Side Branch | Coupling | 180 Degree Bend |
| 3/8                                                                    | 0.5                  | 0.5           | 0.5              | 1               | -        | 0.5             |
| 1/2                                                                    | 0.5                  | 0.5           | 0.5              | 1               | -        | 1               |
| 5/8                                                                    | 0.5                  | 0.5           | 0.5              | 2               | -        | 1               |
| 3/4                                                                    | 1                    | 0.5           | 0.5              | 2               | -        | 2               |
| 1                                                                      | 1                    | 1             | 0.5              | 3               | -        | 2               |
| 1-1/4                                                                  | 2                    | 1             | 0.5              | 4               | 0.5      | 3               |
| 1-1/2                                                                  | 2                    | 2             | 1                | 5               | 0.5      | 4               |
| 2                                                                      | 2                    | 2             | 1                | 7               | 0.5      | 8               |
| 2-1/2                                                                  | 2                    | 3             | 2                | 9               | 0.5      | 16              |
| 3                                                                      | 3                    | 4             | -                | -               | 1        | 20              |

<sup>1</sup>Temperature – Pressure Ratings above are according to industry-wide standards at ASTM and ASME. For higher pressure applications, review page 31 for Mueller Industries' specific ratings and unique UL Recognized status.

# COPPER TUBE AND SOLDER TYPE FITTINGS

1. Cut tube square with the cutter or fine hack saw (32 tooth blade is recommended). Remove Burr.
2. Clean outside end of copper tube thoroughly with sand cloth or sandpaper equal depth of fitting. Leave no dark spots.
3. Clean inside of fitting carefully to tube stop with wire brush. Note: Sand cloth or sandpaper may also be used.
4. Using a brush, apply light uniform coat of soldering flux to the outside of the tube and inside of the fitting.
5. Slip tube into fitting to tube stop. Turn tube back and forth once or twice to distribute flux evenly.
6. Apply heat uniformly around the fitting with torch. When solder melts upon contact with heated fitting, the proper soldering temperature has been reached. Remove flame and feed solder slightly off center at the bottom of the joint. Proceed across the bottom of the fitting and up to the top center position. Return to the starting point, and then proceed up the incomplete side to the top, again, overlapping the solder metal. Wipe off surplus solder with a piece of cloth.

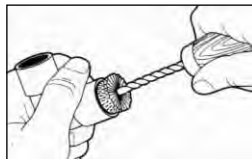
**CAUTION:** Do not overheat the joint or direct the flame into the face of the fitting cup. Overheating could burn the flux, which will destroy its effectiveness and the solder will not enter the joint properly.



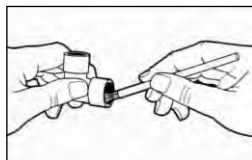
1. Cut tube to length & remove burr with file or scraper.



2. Clean outside of tube with sandpaper or sand cloth.



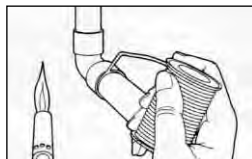
3. Clean inside of fitting with wire brush, sand cloth or sandpaper.



4. Apply flux thoroughly to inside of fitting.



5. Apply flux thoroughly to outside of tube - assemble tube and fitting.



6. Apply heat with torch. When solder melts upon contact with heated fitting, the proper temp for soldering has been reached. Remove flame and feed solder to the joint at one or two points until a ring of solder appears at the end of the fitting.

# HIGH-PRESSURE APPLICATIONS



## Copper Tube & Fittings R-410A/CO2 Refrigerant Applications

Mueller Streamline Co. proudly offers copper tube and fittings in compliance with the applicable ASTM/ASME specifications. Also, following years of additional testing, the company is able to offer the industry's first copper tube and fittings UL Recognized to 700 PSI (48 Bar), as identified in Table A below. The testing and third-party certification validates performance of these products to operating pressures of 700 PSI at 250°F.

**TABLE A: Copper Products UL Recognized to 700PSI (48 Bar)**

| Product Line    | Product Type                           | Diameter      |
|-----------------|----------------------------------------|---------------|
| Copper Tube     | Streamline Refrigeration Service Coils | 1/8" – 1-1/8" |
|                 | Streamline Line Sets & Mini-Splits     | 1/8" – 1-1/8" |
|                 | Streamline ACR - Type L (Hard Lengths) | 1/8" – 1-3/8" |
|                 | Streamline ACR - Type K (Hard Lengths) | 1/8" – 2-5/8" |
| Copper Fittings | Streamline Wrot Solder-Joint Pressure  | 1/8" – 2-5/8" |

For your most demanding applications, Mueller Streamline Co. is able to provide the operating pressure ratings beyond 700PSI (48 Bar) across key refrigerant piping sizes, as identified in Table B below.

**TABLE B: Operating Pressures for Hard Tube and Wrot Fittings**

| Diameter     | PSI (Bar) @ ≤ 68°F | PSI (Bar) @ 180°F | PSI (Bar) @ 250°F |
|--------------|--------------------|-------------------|-------------------|
| 1/8" to 1/2" | 1370 (94.5)        | 1320 (91.0)       | 1170 (80.6)       |
| 5/8"         | 1370 (94.5)        | 1320 (91.0)       | 1170 (80.6)       |
| 7/8"         | 1000 (68.9)        | 975 (67.2)        | 850 (58.6)        |
| 1-1/8"       | 840 (57.9)         | 800 (55.1)        | 720 (49.6)        |
| 1-3/8"       | 800 (55.1)         | 770 (53.1)        | 700 (48.3)        |

As new technologies and refrigerants emerge, Mueller Streamline Co. is committed to being a resource to our customers and ensuring that our products are safe and reliable.

► **FOR MORE INFORMATION** Please visit [www.streamlinecopperquality.com](http://www.streamlinecopperquality.com)

*Streamline*<sup>®</sup>  
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Mueller Streamline Co. • 8285 Tournament Drive, Suite 150 • Memphis, TN 38125 • [www.muellerindustries.com](http://www.muellerindustries.com)

U.S. Customer Service: 800.846.9750 • International Customer Service: [intlsales@muellerindustries.com](mailto:intlsales@muellerindustries.com)

