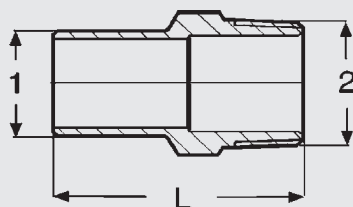
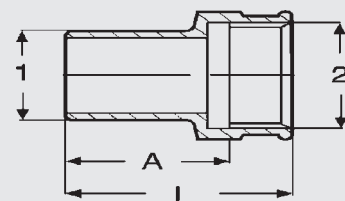


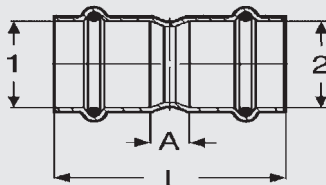
## Dimensional Documentation



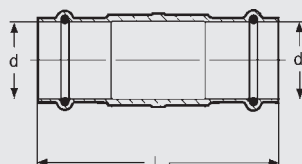
| Adapter FTG x M |                    |          |       |
|-----------------|--------------------|----------|-------|
| Stock Code      | Size               | Material | L     |
|                 | 1 2                |          | (in)  |
| 77957           | 1/2"x 3/8" NPT     | Bronze   | 1.732 |
| 77962           | 1/2"x 1/2" NPT     | Bronze   | 1.969 |
| 77967           | 1/2"x 3/4" NPT     | Bronze   | 2.047 |
| 77972           | 3/4"x 1/2" NPT     | Bronze   | 2.028 |
| 77977           | 3/4"x 3/4" NPT     | Bronze   | 2.146 |
| 14553           | 1"x 3/4" NPT       | Bronze   | 2.146 |
| 77982           | 1"x 1" NPT         | Bronze   | 2.362 |
| 77987           | 1-1/4"x 1-1/4" NPT | Bronze   | 2.657 |
| 77992           | 1-1/2"x 1-1/2" NPT | Bronze   | 3.051 |
| 77997           | 2"x 2" NPT         | Bronze   | 3.543 |



| Adapter FTG x F |                    |          |        |        |
|-----------------|--------------------|----------|--------|--------|
| Stock Code      | Size               | Material | A (in) | L (in) |
|                 | 1 2                |          |        |        |
| 78002           | 1/2"x 3/8" NPT     | Bronze   | 1.031  | 1.437  |
| 78007           | 1/2"x 1/2" NPT     | Bronze   | 1.118  | 1.654  |
| 78012           | 1/2"x 3/4" NPT     | Bronze   | 1.181  | 1.732  |
| 78017           | 3/4"x 1/2" NPT     | Bronze   | 1.217  | 1.752  |
| 78022           | 3/4"x 3/4" NPT     | Bronze   | 1.256  | 1.811  |
| 22218           | 1"x 1/2" NPT       | Bronze   | 1.433  | 1.969  |
| 22213           | 1-1/4"x 1/2" NPT   | Bronze   | 1.630  | 2.165  |
| 78027           | 1"x 1" NPT         | Bronze   | 1.307  | 1.969  |
| 78032           | 1-1/4"x 1-1/4" NPT | Bronze   | 1.484  | 2.165  |
| 78037           | 1-1/2"x 1-1/2" NPT | Bronze   | 1.878  | 2.559  |
| 78042           | 2"x 2" NPT         | Bronze   | 2.335  | 3.031  |

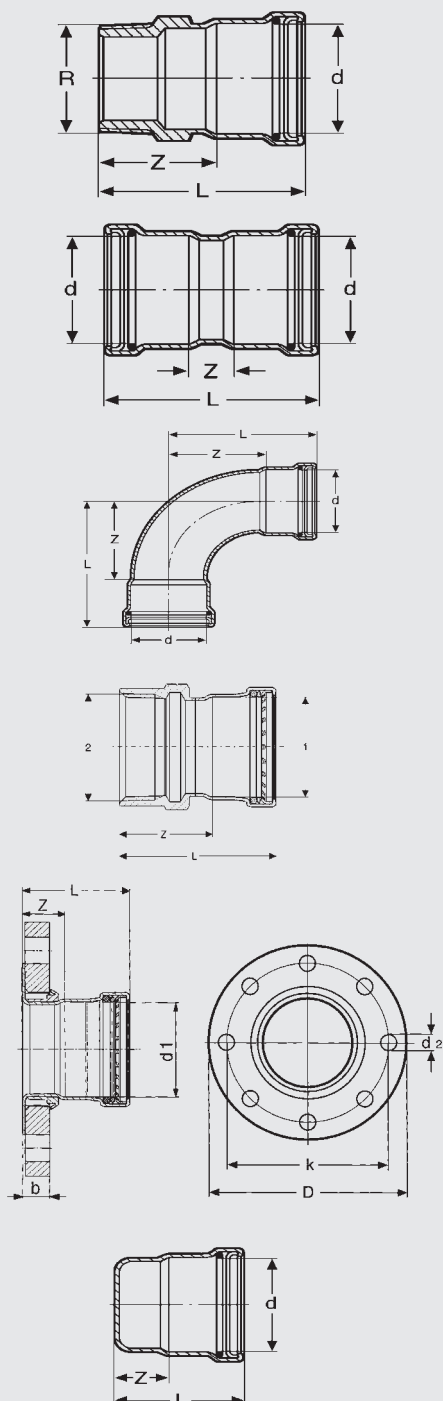


| Coupling C x C with Stop |        |          |        |        |
|--------------------------|--------|----------|--------|--------|
| Stock Code               | Size   | Material | A (in) | L (in) |
|                          | 1 2    |          |        |        |
| 78047                    | 1/2"   | Copper   | 0.236  | 1.732  |
| 78052                    | 3/4"   | Copper   | 0.394  | 2.205  |
| 78057                    | 1"     | Copper   | 0.394  | 2.205  |
| 78062                    | 1-1/4" | Copper   | 0.394  | 2.441  |
| 78067                    | 1-1/2" | Copper   | 0.394  | 3.307  |
| 78072                    | 2"     | Copper   | 0.472  | 3.622  |



| Coupling C x C No Stop |        |          |        |
|------------------------|--------|----------|--------|
| Stock Code             | Size   | Material | L (in) |
|                        | 1 2    |          |        |
| 78172                  | 1/2"   | Copper   | 1.732  |
| 78177                  | 3/4"   | Copper   | 2.205  |
| 78182                  | 1"     | Copper   | 2.205  |
| 78187                  | 1-1/4" | Copper   | 2.441  |
| 78192                  | 1-1/2" | Copper   | 3.307  |
| 78197                  | 2"     | Copper   | 3.622  |

## Dimensional Documentation



| Adapter C x M |          |                     |        |        |
|---------------|----------|---------------------|--------|--------|
| Stock Code    | Material | Size                | Z (in) | L (in) |
|               |          | d R                 |        |        |
| 20823         | Copper   | 2-1/2" x 2-1/2" NPT | 2.520  | 4.213  |
| 20828         | Copper   | 3" x 3" NPT         | 2.598  | 4.567  |
| 20838         | Copper   | 4" x 4" NPT         | 2.736  | 5.098  |

| Coupling C x C with Stop |          |        |        |        |
|--------------------------|----------|--------|--------|--------|
| Stock Code               | Material | Size   | Z (in) | L (in) |
|                          |          | d      |        |        |
| 20728                    | Copper   | 2-1/2" | 0.945  | 4.331  |
| 20733                    | Copper   | 3"     | 0.984  | 4.921  |
| 20738                    | Copper   | 4"     | 1.063  | 5.787  |

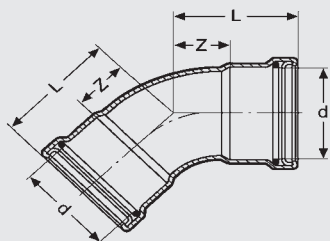
| Elbow 90° C x C |          |        |        |        |
|-----------------|----------|--------|--------|--------|
| Stock Code      | Material | Size   | Z (in) | L (in) |
|                 |          | d      |        |        |
| 20623           | Copper   | 2-1/2" | 3.189  | 4.882  |
| 20628           | Copper   | 3"     | 3.760  | 5.728  |
| 20633           | Copper   | 4"     | 4.902  | 7.264  |

| Adaptor C x F |          |                     |       |       |
|---------------|----------|---------------------|-------|-------|
| Stock Code    | Material | Size                | Z(in) | L(in) |
|               |          | 1 2                 |       |       |
| 20819         | Copper   | 2 1/2" x 2 1/2" NPT | 2.46  | 4.15  |
| 20829         | Copper   | 3" x 3" NPT         | 2.60  | 4.57  |
| 20839         | Copper   | 4" x 4" NPT         | 2.78  | 5.14  |

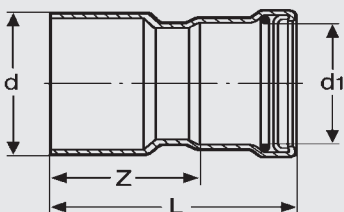
| Adapter Flange C x Flange (new version) |              |        |        |        |        |        |        |         |
|-----------------------------------------|--------------|--------|--------|--------|--------|--------|--------|---------|
| Stock Code                              | Material     | Size   | Z (in) | L (in) | b (in) | k (in) | D (in) | d2 (in) |
|                                         |              | d1     |        |        |        |        |        |         |
| 20853                                   | Copper/Steel | 2-1/2" | 1.102  | 2.795  | .787   | 5.512  | 7.087  | .748    |
| 20858                                   | Copper/Steel | 3"     | 1.201  | 3.169  | .787   | 5.984  | 7.480  | .748    |
| 20863                                   | Copper/Steel | 4"     | 1.204  | 3.602  | .807   | 7.520  | 9.055  | .748    |

| Cap C      |          |        |        |        |
|------------|----------|--------|--------|--------|
| Stock Code | Material | Size   | Z (in) | L (in) |
|            |          | d      |        |        |
| 20623      | Copper   | 2-1/2" | 1.339  | 3.031  |
| 20628      | Copper   | 3"     | 1.358  | 3.327  |
| 20633      | Copper   | 4"     | 1.398  | 3.760  |

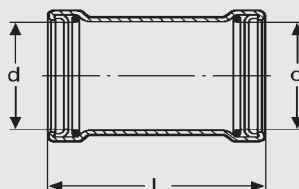
## Dimensional Documentation



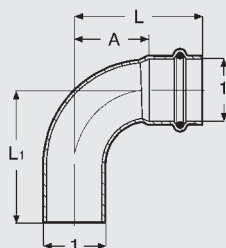
| Elbow 45° C x C |          |        |        |        |
|-----------------|----------|--------|--------|--------|
| Stock Code      | Material | Size   | Z (in) | L (in) |
|                 |          | d      |        |        |
| 20653           | Copper   | 2-1/2" | 1.476  | 3.169  |
| 20658           | Copper   | 3"     | 1.732  | 3.701  |
| 20663           | Copper   | 4"     | 2.224  | 4.587  |



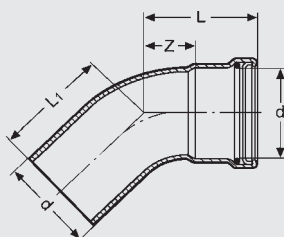
| Reducer FTG X C |          |                 |        |        |
|-----------------|----------|-----------------|--------|--------|
| Stock Code      | Material | Size            | Z (in) | L (in) |
|                 |          | d d1            |        |        |
| 20758           | Copper   | 2-1/2" x 2"     | 2.264  | 3.858  |
| 20763           | Copper   | 3" x 2"         | 2.815  | 4.409  |
| 20768           | Copper   | 3" x 2-1/2"     | 2.559  | 4.252  |
| 20773           | Copper   | 4" x 2"         | 4.232  | 5.807  |
| 20778           | Copper   | 4" x 2-1/2"     | 4.173  | 5.787  |
| 20783           | Copper   | 4" x 3"         | 3.957  | 5.846  |
| 20813           | Copper   | 2-1/2" x 1-1/2" | 2.480  | 3.937  |
| 20818           | Copper   | 3" x 1-1/2"     | 3.346  | 4.803  |



| Coupling C x C No Stop |          |        |        |
|------------------------|----------|--------|--------|
|                        | Material | Size   | L (in) |
|                        |          | d      |        |
| 20743                  | Copper   | 2-1/2" | 4.331  |
| 20748                  | Copper   | 3"     | 4.921  |
| 20753                  | Copper   | 4"     | 5.787  |

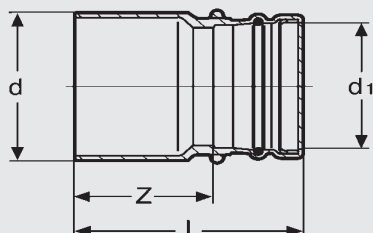


| Elbow 90° FTG X C |          |        |        |        |         |
|-------------------|----------|--------|--------|--------|---------|
| Stock Code        | Material | Size   | A (in) | L (in) | L1 (in) |
|                   |          | 1      |        |        |         |
| 20638             | Copper   | 2-1/2" | 3.189  | 4.882  | 4.803   |
| 20643             | Copper   | 3"     | 3.760  | 5.728  | 5.630   |
| 20648             | Copper   | 4"     | 4.902  | 7.264  | 7.126   |

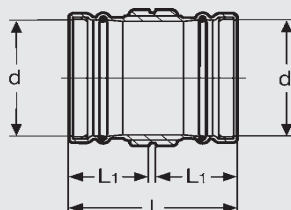


| Elbow 45° FTG x C |          |        |        |        |         |
|-------------------|----------|--------|--------|--------|---------|
| Stock Code        | Material | Size   | Z (in) | L (in) | L1 (in) |
|                   |          | d      |        |        |         |
| 20668             | Copper   | 2-1/2" | 1.476  | 3.169  | 3.091   |
| 20673             | Copper   | 3"     | 1.732  | 3.701  | 3.602   |
| 20678             | Copper   | 4"     | 2.224  | 4.587  | 4.449   |

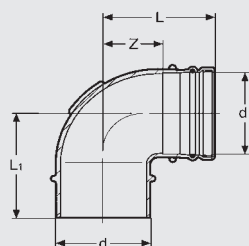
## Dimensional Documentation



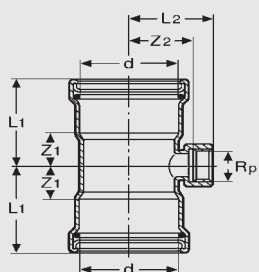
| Reducer FTG x C |          |                |        |        |
|-----------------|----------|----------------|--------|--------|
| Stock Code      | Material | Size           | Z (in) | L (in) |
|                 |          | d d1           |        |        |
| 91452           | Bronze   | 3"x 2"         | 3.031  | 4.606  |
| 91457           | Bronze   | 3"x 2-1/2"     | 2.819  | 4.921  |
| 17593           | Bronze   | 4"x 2-1/2"     | 3.543  | 5.650  |
| 91472           | Bronze   | 2-1/2"x 1-1/2" | 3.150  | 4.567  |



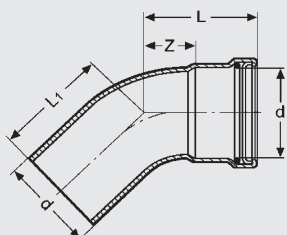
| Coupling C x C No Stop |          |        |        |         |
|------------------------|----------|--------|--------|---------|
| Stock Code             | Material | Size   | L (in) | L1 (in) |
|                        |          | d      |        |         |
| 91477                  | Bronze   | 2-1/2" | 4.528  | 2.185   |
| 91482                  | Bronze   | 3"     | 4.528  | 2.185   |
| 91487                  | Bronze   | 4"     | 5.315  | 2.579   |



| Elbow 90° FTG x C |          |        |        |        |         |
|-------------------|----------|--------|--------|--------|---------|
| Stock Code        | Material | Size   | Z (in) | L (in) | L1 (in) |
|                   |          | d      |        |        |         |
| 91492             | Bronze   | 2-1/2" | 2.224  | 4.331  | 4.606   |
| 91497             | Bronze   | 3"     | 2.559  | 4.685  | 4.803   |
| 91502             | Bronze   | 4"     | 2.972  | 5.472  | 5.591   |



| Tee C x C x F |          |                    |         |         |         |         |
|---------------|----------|--------------------|---------|---------|---------|---------|
| Stock Code    | Material | Size               | Z1 (in) | Z2 (in) | L1 (in) | L2 (in) |
|               |          | d d Rp             |         |         |         |         |
| 91507         | Bronze   | 4"x4"x2"           | 1.535   | 2.717   | 4.035   | 3.583   |
| 91512         | Bronze   | 4"x4"x3/4"         | 1.220   | 2.520   | 3.740   | 3.209   |
| 91517         | Bronze   | 2-1/2"x2-1/2"x2"   | 1.929   | 1.929   | 4.035   | 2.795   |
| 91522         | Bronze   | 2-1/2"x2-1/2"x3/4" | 1.240   | 1.772   | 3.346   | 2.461   |
| 91527         | Bronze   | 3"x3"x2"           | 1.929   | 2.205   | 4.035   | 3.071   |
| 91532         | Bronze   | 3"x3"x3/4"         | 1.220   | 2.047   | 3.346   | 2.756   |



| Elbow 45° FTG x C |          |        |        |        |         |
|-------------------|----------|--------|--------|--------|---------|
| Stock Code        | Material | Size   | Z (in) | L (in) | L1 (in) |
|                   |          | d      |        |        |         |
| 91537             | Bronze   | 2-1/2" | 1.142  | 3.248  | 3.819   |
| 91542             | Bronze   | 3"     | 1.240  | 3.346  | 4.094   |
| 91547             | Bronze   | 4"     | 1.417  | 3.898  | 4.921   |