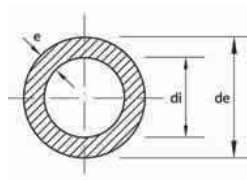


Catálogo de tubo y conexiones



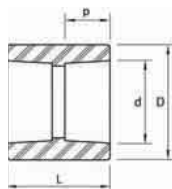
Tubos Clase 16



Agua fría y caliente

| Código | d(mm) | de | di | e | Área (cm ²) | Peso (kg/m) |
|---------|-------|-----|-------|-------|-------------------------|-------------|
| 6900120 | 20 | 20 | 14.40 | 2.80 | 1.63 | 0.147 |
| 6900125 | 25 | 25 | 18.00 | 3.50 | 2.54 | 0.228 |
| 6900132 | 32 | 32 | 23.20 | 4.40 | 4.23 | 0.366 |
| 6900140 | 40 | 40 | 29.00 | 5.50 | 6.60 | 0.568 |
| 6900150 | 50 | 50 | 36.20 | 6.90 | 10.29 | 0.885 |
| 6900163 | 63 | 63 | 45.80 | 8.60 | 16.47 | 1.391 |
| 6900175 | 75 | 75 | 54.40 | 10.30 | 23.24 | 1.980 |
| 6900190 | 90 | 90 | 65.40 | 12.30 | 33.59 | 2.850 |
| 6900110 | 110 | 110 | 79.80 | 15.10 | 50.01 | 4.270 |

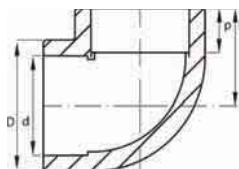
Cople



| Código | d | D | p | L | Peso |
|---------|-----|-----|----|----|------|
| 7400020 | 20 | 29 | 16 | 35 | 12 |
| 740002 | 25 | 35 | 18 | 39 | 15 |
| 7400032 | 32 | 43 | 20 | 42 | 24 |
| 7400040 | 40 | 53 | 22 | 49 | 44 |
| 7400050 | 50 | 65 | 26 | 54 | 78 |
| 7400063 | 63 | 82 | 30 | 64 | 141 |
| 7400075 | 75 | 100 | 30 | 66 | 236 |
| 7400090 | 90 | 120 | 33 | 72 | 380 |
| 7438110 | 110 | 145 | 41 | 88 | 553 |

Codos

Codo a 90°



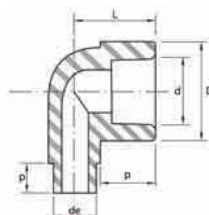
| Código | d | D | p | L | Peso |
|---------|-----|-----|----|----|------|
| 6800920 | 20 | 29 | 15 | 27 | 19 |
| 6800925 | 25 | 35 | 18 | 31 | 25 |
| 6800932 | 32 | 43 | 19 | 35 | 41 |
| 6800940 | 40 | 52 | 21 | 42 | 75 |
| 6800950 | 50 | 64 | 24 | 50 | 134 |
| 6800963 | 63 | 82 | 28 | 61 | 255 |
| 6800975 | 75 | 100 | 29 | 70 | 455 |
| 6800990 | 90 | 120 | 33 | 80 | 745 |
| 6800910 | 110 | 145 | 41 | 95 | 1181 |

Referencias: peso de las conexiones en gramos; dimensiones en milímetros.

Catálogo de tubos y conexiones

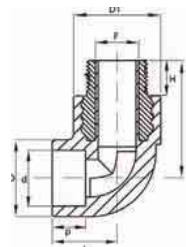


Codo macho hembra a 90°



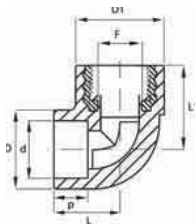
| Código | d-de | D | p | L | Peso |
|---------|------|----|----|----|------|
| 6824920 | 20 | 30 | 16 | 27 | 18 |
| 6824925 | 25 | 34 | 18 | 31 | 23 |

Codo a 90° con rosca macho



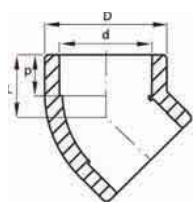
| Código | d | F | D | D1 | p | L | L1 | H | Peso |
|---------|----|-------|----|----|----|----|----|----|------|
| 6822050 | 20 | x 1/2 | 30 | 33 | 16 | 27 | 31 | 14 | 100 |
| 6822550 | 25 | x 1/2 | 36 | 40 | 18 | 30 | 37 | 14 | 122 |
| 6822575 | 25 | x 3/4 | 36 | 43 | 18 | 31 | 37 | 17 | 161 |
| 6822250 | 32 | x 1/2 | 43 | 49 | 20 | 35 | 47 | 14 | 171 |
| 6822375 | 32 | x 3/4 | 43 | 49 | 20 | 35 | 47 | 17 | 208 |
| 6822210 | 32 | x 1 | 43 | 49 | 20 | 35 | 47 | 20 | 296 |

Codo a 90° con rosca hembra



| Código | d | F | D | D1 | p | L | L1 | Peso |
|---------|----|-------|----|----|----|----|----|------|
| 6821050 | 20 | x 1/2 | 30 | 33 | 16 | 27 | 31 | 74 |
| 6821550 | 25 | x 1/2 | 36 | 40 | 18 | 30 | 37 | 86 |
| 6821575 | 25 | x 3/4 | 36 | 43 | 18 | 31 | 37 | 106 |
| 6821250 | 32 | x 1/2 | 43 | 49 | 20 | 35 | 47 | 135 |
| 6821275 | 32 | x 3/4 | 43 | 49 | 20 | 35 | 47 | 153 |
| 6821210 | 32 | x 1 | 43 | 49 | 20 | 35 | 47 | 182 |

Codo a 45°

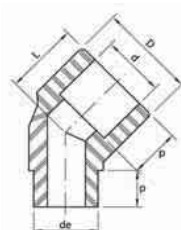


| Código | d | D | p | L | Peso |
|---------|-----|-----|----|----|------|
| 6800420 | 20 | 29 | 15 | 20 | 14 |
| 6800425 | 25 | 35 | 18 | 23 | 19 |
| 6800432 | 32 | 42 | 20 | 27 | 31 |
| 6800440 | 40 | 52 | 22 | 31 | 54 |
| 6800450 | 50 | 64 | 24 | 36 | 96 |
| 6800463 | 63 | 82 | 28 | 44 | 178 |
| 6800475 | 75 | 100 | 29 | 48 | 345 |
| 6800490 | 90 | 120 | 33 | 53 | 565 |
| 6800410 | 110 | 145 | 41 | 51 | 896 |

Catálogo de tubos y conexiones

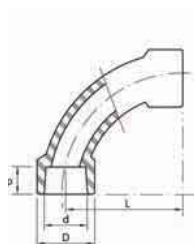


Codo macho hembra a 45°



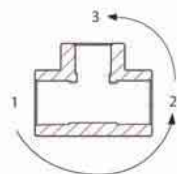
| Código | d-de | D | p | L | Peso |
|---------|-------|----|----|----|------|
| 6824420 | 20 30 | 16 | 20 | 15 | |
| 6824425 | 25 34 | 18 | 23 | 21 | |
| 6824432 | 32 42 | 20 | 27 | 33 | |

Curva a 90°



| Código | d | D | p | L | Peso |
|---------|----|----|----|------|------|
| 6700920 | 20 | 31 | 16 | 50.0 | 26 |
| 6700925 | 25 | 37 | 18 | 62.5 | 38 |
| 6700932 | 32 | 43 | 20 | 83.0 | 66 |

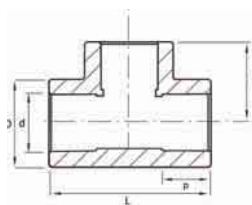
Tees



Para leer los diámetros de las Tees Tuboplus, siga esta secuencia:

- ① Extremo de diámetro mayor ② Extremo ③ Centro

Tee



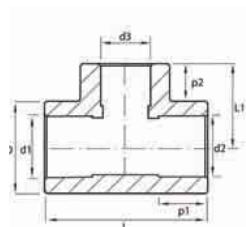
| Código | d | D | p | L | L1 | Peso |
|---------|-----|-----|----|-----|----|------|
| 7000020 | 20 | 29 | 16 | 54 | 27 | 23 |
| 7000025 | 25 | 35 | 18 | 63 | 32 | 32 |
| 7000032 | 32 | 43 | 20 | 75 | 39 | 55 |
| 7000040 | 40 | 53 | 22 | 85 | 43 | 96 |
| 7000050 | 50 | 65 | 26 | 102 | 51 | 172 |
| 7000063 | 63 | 82 | 30 | 122 | 60 | 318 |
| 7000075 | 75 | 100 | 30 | 140 | 70 | 568 |
| 7000090 | 90 | 122 | 33 | 158 | 75 | 920 |
| 7000000 | 110 | 145 | 41 | 195 | 98 | 1387 |

Referencias: peso de las conexiones en gramos; dimensiones en milímetros.

Catálogo de tubos y conexiones

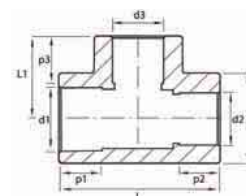


Tee reducida central



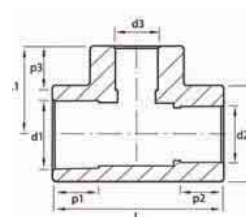
| Código | d1 | d2 | d3 | D | P1 | P2 | L | L1 | Peso | Correspondencia Pulgadas |
|---------|----|----|----|-----|----|----|-----|----|------|-----------------------------|
| 7027220 | 25 | 25 | 20 | 35 | 18 | 16 | 63 | 32 | 35 | 3/4 x 3/4 x 1/2 |
| 7027320 | 32 | 32 | 20 | 43 | 20 | 16 | 75 | 39 | 63 | 1 x 1 x 1/2 |
| 7027325 | 32 | 32 | 25 | 43 | 20 | 18 | 75 | 39 | 61 | 1 x 1 x 3/4 |
| 7027425 | 40 | 40 | 25 | 53 | 22 | 18 | 85 | 43 | 114 | 1 1/4 x 1 1/4 x 3/4 |
| 7027432 | 40 | 40 | 32 | 53 | 22 | 20 | 85 | 43 | 105 | 1 1/4 x 1 1/4 x 1 |
| 7027532 | 50 | 50 | 32 | 65 | 26 | 20 | 102 | 51 | 201 | 1 1/2 x 1 1/2 x 1 |
| 7027540 | 50 | 50 | 40 | 65 | 26 | 22 | 102 | 51 | 193 | 1 1/2 x 1 1/2 x 1 1/4 |
| 7027640 | 63 | 63 | 40 | 82 | 30 | 22 | 122 | 60 | 373 | 2 x 2 x 1 1/4 |
| 7027650 | 63 | 63 | 50 | 82 | 30 | 26 | 122 | 60 | 357 | 2 x 2 x 1 1/2 |
| 7027750 | 75 | 75 | 50 | 100 | 30 | 26 | 140 | 70 | 428 | 2 1/2 x 2 1/2 x 1 1/2 |
| 7027763 | 75 | 75 | 63 | 100 | 30 | 30 | 140 | 70 | 492 | 2 1/2 x 2 1/2 x 2 |
| 7027963 | 90 | 90 | 63 | 122 | 33 | 30 | 158 | 75 | 692 | 3 x 3 x 2 |
| 7027975 | 90 | 90 | 75 | 122 | 33 | 30 | 158 | 75 | 838 | 3 x 3 x 2 1/2 |

Tee reducida extrema



| Código | d1 | d2 | d3 | D | p1 | p2 | p3 | L | L1 | Peso | Correspondencia Pulgadas |
|---------|----|----|----|----|----|----|----|----|----|------|-----------------------------|
| 7028225 | 25 | 20 | 20 | 35 | 18 | 16 | 16 | 63 | 32 | 40 | 3/4 x 1/2 x 1/2 |
| 7028233 | 32 | 20 | 20 | 43 | 20 | 16 | 16 | 75 | 39 | 83 | 1 x 1/2 x 1/2 |
| 7028220 | 25 | 20 | 25 | 35 | 18 | 16 | 18 | 63 | 32 | 36 | 3/4 x 1/2 x 3/4 |
| 7028232 | 32 | 25 | 25 | 43 | 20 | 18 | 18 | 75 | 39 | 74 | 1 x 3/4 x 3/4 |
| 7028320 | 32 | 20 | 32 | 42 | 20 | 16 | 20 | 75 | 39 | 68 | 1 x 1/2 x 1 |
| 7028325 | 32 | 25 | 32 | 42 | 20 | 18 | 20 | 75 | 39 | 69 | 1 x 3/4 x 1 |

Tee reducida extrema y central



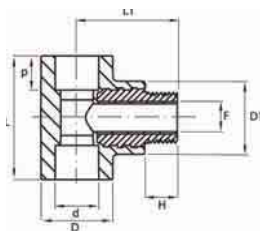
| Código | d1 | d2 | d3 | D | p1 | p2 | p3 | L | L1 | Peso | Correspondencia Pulgadas |
|---------|----|----|----|----|----|----|----|----|----|------|-----------------------------|
| 7029520 | 32 | 25 | 20 | 20 | 20 | 18 | 16 | 75 | 39 | 78 | 1 x 3/4 x 1/2 |
| 7029025 | 32 | 20 | 25 | 20 | 20 | 16 | 18 | 75 | 39 | 77 | 1 x 1/2 x 3/4 |

Referencias: peso de las conexiones en gramos; dimensiones en milímetros.

Catálogo de tubos y conexiones

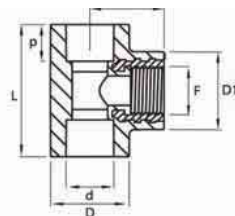


Tee con rosca central macho



| Código | d | F | D | D1 | p | L | L1 | H | Peso |
|---------|----------|----|----|----|----|----|----|-----|------|
| 7026050 | 20 x 1/2 | 29 | 36 | 16 | 54 | 45 | 12 | 107 | |
| 7026550 | 25 x 1/2 | 33 | 43 | 18 | 63 | 51 | 12 | 121 | |
| 7026575 | 25 x 3/4 | 33 | 43 | 18 | 63 | 54 | 15 | 124 | |
| 7026250 | 32 x 1/2 | 42 | 54 | 20 | 74 | 57 | 12 | 161 | |
| 7026275 | 32 x 3/4 | 42 | 54 | 20 | 74 | 60 | 15 | 204 | |
| 7026210 | 32 x 1 | 42 | 54 | 20 | 74 | 65 | 20 | 294 | |

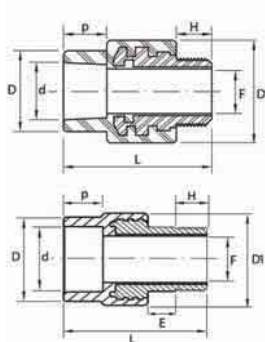
Tee con rosca central hembra



| Código | d | F | D | D1 | p | L | L1 | Peso |
|---------|----------|----|----|----|----|----|-----|------|
| 7025050 | 20 x 1/2 | 29 | 37 | 16 | 54 | 33 | 71 | |
| 7025550 | 25 x 1/2 | 33 | 43 | 18 | 63 | 39 | 85 | |
| 7025575 | 25 x 3/4 | 33 | 43 | 18 | 63 | 39 | 105 | |
| 7025250 | 32 x 1/2 | 42 | 54 | 20 | 74 | 44 | 127 | |
| 7025275 | 32 x 3/4 | 42 | 54 | 20 | 74 | 44 | 149 | |
| 7025210 | 32 x 1 | 42 | 54 | 20 | 74 | 44 | 180 | |

Conectores rectos

Conector macho



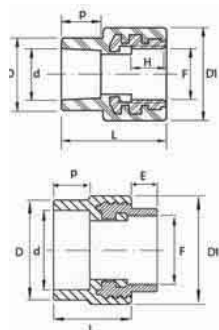
| Código | d | f | D | D1 | p | L | H | E | Peso |
|---------|------------|-----|-----|----|-----|----|----|------|------|
| 7537050 | 20 x 1/2 | 27 | 38 | 16 | 53 | 12 | | 95 | |
| 7537075 | 20 x 3/4 | 32 | 41 | 17 | 60 | 18 | | 150 | |
| 7537550 | 25 x 1/2 | 36 | 41 | 17 | 62 | 15 | | 106 | |
| 7537575 | 25 x 3/4 | 36 | 41 | 17 | 65 | 18 | | 148 | |
| 7537275 | 32 x 3/4 | 43 | 48 | 19 | 73 | 18 | | 180 | |
| 7537210 | 32 x 1 | 43 | 48 | 19 | 75 | 20 | | 270 | |
| 7537125 | 40 x 1 1/4 | 53 | 66 | 21 | 92 | 20 | 22 | 510 | |
| 7537150 | 50 x 1 1/2 | 58 | 74 | 24 | 97 | 22 | 20 | 585 | |
| 7537320 | 63 x 2 | 78 | 85 | 29 | 102 | 20 | 22 | 744 | |
| 7537250 | 75 x 2 1/2 | 100 | 109 | 31 | 108 | 21 | 77 | 1926 | |
| 7537031 | 90 x 3 | 120 | 128 | 34 | 115 | 27 | 90 | 1503 | |

Referencias: peso de las conexiones en gramos; dimensiones en milímetros.

Catálogo de tubos y conexiones



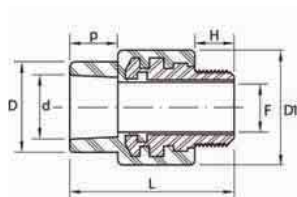
Conector hembra



| Código | d | f | D | D1 | p | L | H | E | Peso |
|---------|----------|---|----|----|----|----|----|---|------|
| 7536050 | 20 x 1/2 | | 27 | 41 | 16 | 53 | 12 | | 59 |
| 7536075 | 20 x 3/4 | | 32 | 41 | 17 | 42 | 16 | | 96 |
| 7536550 | 25 x 1/2 | | 36 | 41 | 17 | 47 | 12 | | 69 |
| 7536575 | 25 x 3/4 | | 36 | 41 | 17 | 47 | 16 | | 94 |
| 7534275 | 32 x 3/4 | | 43 | 47 | 19 | 55 | 17 | | 125 |
| 7536210 | 32 x 1 | | 43 | 48 | 19 | 55 | 17 | | 157 |

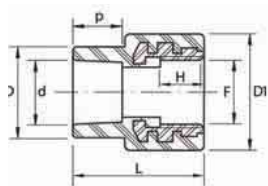
| | | | | | | | | | |
|---------|-----------------------|--|-----|-----|----|----|----|----|------|
| 7536125 | 40 x 1 ^{1/4} | | 53 | 67 | 21 | 70 | 22 | 20 | 408 |
| 7536150 | 50 x 1 ^{1/2} | | 64 | 73 | 25 | 75 | 24 | 20 | 481 |
| 7536320 | 63 x 2 | | 78 | 85 | 29 | 80 | 24 | 20 | 613 |
| 7536250 | 75 x 2 ^{1/2} | | 100 | 109 | 31 | 84 | 22 | 82 | 945 |
| 7536030 | 90 x 3 | | 120 | 128 | 34 | 91 | 25 | 95 | 1204 |

Conector macho con espiga para Termofusión



| Código | d | F | D | D1 | p | L | H | Peso |
|---------|----------|---|----|----|----|----|----|------|
| 7532050 | 20 x 1/2 | | 20 | 38 | 16 | 53 | 12 | 94 |

Conector hembra con espiga para Termofusión



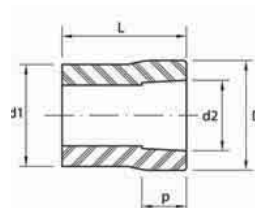
| Código | d | F | D | D1 | p | L | H | Peso |
|---------|----------|---|----|----|----|----|----|------|
| 7531012 | 20 x 1/2 | | 20 | 38 | 16 | 53 | 12 | 58 |



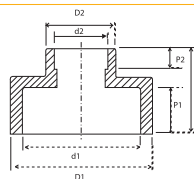
Referencias: peso de las conexiones en gramos; dimensiones en milímetros.



Reducción



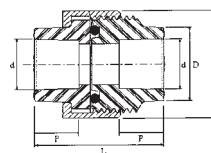
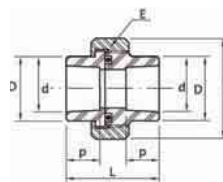
| Código | d1 | d2 | D | p | L | Peso |
|---------|----|----|-----|----|----|------|
| 7300220 | 25 | 20 | 29 | 16 | 39 | 11 |
| 7300320 | 32 | 20 | 29 | 18 | 44 | 21 |
| 7300325 | 32 | 25 | 35 | 18 | 46 | 18 |
| 7300425 | 40 | 25 | 35 | 18 | 48 | 26 |
| 7300432 | 40 | 32 | 43 | 20 | 48 | 27 |
| 7300532 | 50 | 32 | 43 | 20 | 56 | 41 |
| 7300540 | 50 | 40 | 52 | 22 | 56 | 50 |
| 7300640 | 63 | 40 | 52 | 22 | 64 | 75 |
| 7300650 | 63 | 50 | 64 | 25 | 64 | 86 |
| 7300750 | 75 | 50 | 64 | 22 | 68 | 119 |
| 7300763 | 75 | 63 | 82 | 29 | 74 | 173 |
| 7300963 | 90 | 63 | 82 | 29 | 78 | 186 |
| 7300975 | 90 | 75 | 100 | 29 | 82 | 264 |



| Código | d1 | d2 | D1 | D2 | P1 | P2 | L | Peso |
|---------|-----|----|-----|-----|----|----|----|------|
| 7300150 | 110 | 50 | 145 | 66 | 41 | 23 | 72 | 438 |
| 7300163 | 110 | 63 | 145 | 82 | 41 | 26 | 75 | 470 |
| 7300175 | 110 | 75 | 145 | 98 | 41 | 31 | 81 | 508 |
| 7300190 | 110 | 90 | 145 | 119 | 41 | 38 | 88 | 562 |

Tuercas

Tuerca unión

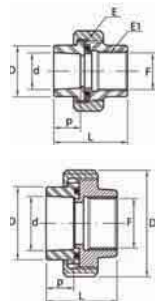


| Código | d | D | E | L | D1 | Peso |
|---------|----|----|----|----|----|------|
| 7833020 | 20 | 29 | 42 | 46 | 46 | 93 |
| 7833525 | 25 | 34 | 47 | 49 | 51 | 132 |
| 7833232 | 32 | 43 | 64 | 50 | 68 | 232 |

Referencias: peso de las conexiones en gramos; dimensiones en milímetros.



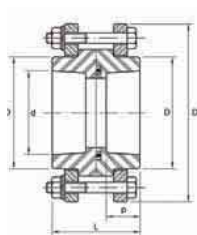
Tuerca unión mixta



| Código | d | F | D | L | D1 | E | E1 | Peso |
|---------|----------|----|----|----|----|----|-----|------|
| 7833050 | 20 x 1/2 | 29 | 43 | 46 | 42 | 27 | 181 | |
| 7833575 | 25 x 3/4 | 34 | 45 | 51 | 47 | 32 | 236 | |
| 7833210 | 32 x 1 | 42 | 49 | 68 | 64 | 41 | 434 | |

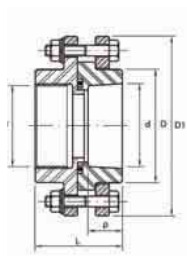
Uniones

Unión bridada



| Código | d | D | p | L | D1 | Peso |
|---------|-----|-----|----|-----|-----|------|
| 7934040 | 40 | 53 | 22 | 53 | 96 | 752 |
| 7934050 | 50 | 67 | 25 | 60 | 108 | 780 |
| 7934363 | 63 | 84 | 28 | 66 | 138 | 1079 |
| 7934575 | 75 | 100 | 30 | 80 | 160 | 2800 |
| 7934090 | 90 | 122 | 33 | 90 | 180 | 320 |
| 7934110 | 110 | 138 | 43 | 112 | 200 | 3800 |

Unión bridada mixta

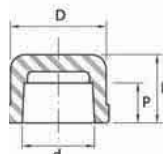


| Código | d | F | D | p | L | D1 | Peso |
|---------|-----------------------|-----|----|----|-----|------|------|
| 7934125 | 40 x 1 ^{1/4} | 53 | 22 | 60 | 96 | 980 | |
| 7934150 | 50 x 1 ^{1/2} | 67 | 25 | 64 | 108 | 1085 | |
| 7934320 | 63 x 2 | 84 | 28 | 67 | 138 | 1475 | |
| 7934250 | 75 x 2 ^{1/2} | 100 | 30 | 76 | 160 | 3400 | |
| 7934030 | 90 x 3 | 122 | 33 | 78 | 180 | 4000 | |
| 7934100 | 110 x 4 | 138 | 43 | 98 | 200 | 4450 | |

Referencias: peso de las conexiones en gramos; dimensiones en milímetros.

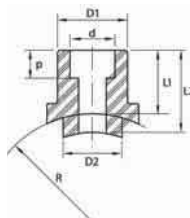


Tapón



| Código | d | D | t | L | Peso |
|---------|-----|-----|----|----|------|
| 7600020 | 20 | 30 | 16 | 20 | 9 |
| 7600025 | 25 | 33 | 18 | 23 | 12 |
| 7600032 | 32 | 42 | 20 | 26 | 20 |
| 7600040 | 40 | 52 | 22 | 30 | 41 |
| 7600050 | 50 | 66 | 27 | 35 | 75 |
| 7600063 | 63 | 83 | 32 | 42 | 142 |
| 7600075 | 75 | 100 | 29 | 60 | 250 |
| 7600090 | 90 | 120 | 33 | 68 | 391 |
| 7600110 | 110 | 145 | 41 | 75 | 560 |

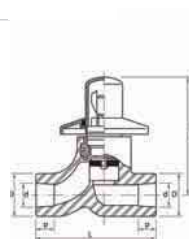
Montura de derivación o sileta



| Código | T | d | D1 | D2 | p | R | L1 | L2 |
|---------|-----|----|----|----|----|----|----|----|
| 7130620 | 63 | 20 | 28 | 25 | 16 | 32 | 28 | 37 |
| 7130720 | 75 | 20 | 28 | 25 | 16 | 38 | 28 | 39 |
| 7130920 | 90 | 20 | 28 | 25 | 16 | 45 | 28 | 41 |
| 7130120 | 110 | 20 | 28 | 25 | 16 | 55 | 28 | 45 |
| 7130625 | 63 | 25 | 34 | 25 | 18 | 32 | 31 | 39 |
| 7130725 | 75 | 25 | 34 | 25 | 18 | 38 | 31 | 42 |
| 7130925 | 90 | 25 | 34 | 25 | 18 | 45 | 30 | 43 |
| 7130125 | 110 | 25 | 34 | 25 | 18 | 55 | 30 | 47 |
| 7130732 | 75 | 32 | 43 | 33 | 20 | 38 | 34 | 46 |
| 7130932 | 90 | 32 | 43 | 33 | 20 | 45 | 34 | 48 |
| 7130132 | 110 | 32 | 43 | 33 | 20 | 55 | 34 | 51 |

Válvulas

Llave de empotrar (pasajetotal) 20 mm



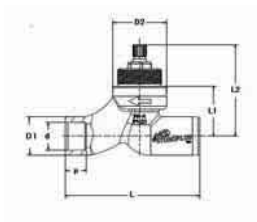
| Código | d | D | p | L | L1 | Peso |
|---------|----|----|----|----|----|------|
| 8300020 | 20 | 35 | 16 | 86 | 70 | 124 |
| 8300025 | 25 | 35 | 18 | 86 | 70 | 119 |

Referencias: peso de las conexiones en gramos; dimensiones en milímetros.

Catálogo de tubos y conexiones

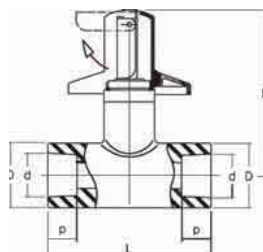


Llave de empotrar para regadera de 20mm



| Código | d | D1 | D2 | p | L | L1 | L2 | Peso |
|-------------|----|----|----|----|----|----|----|------|
| 08162020020 | 20 | 27 | 38 | 16 | 95 | 35 | 64 | 155 |

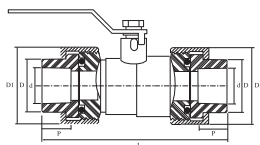
Válvula de esfera



| Código | d | D | p | L | L1 | Peso |
|---------|----|----|----|----|----|------|
| 7200020 | 20 | 37 | 16 | 96 | 94 | 55 |
| 7200025 | 25 | 37 | 18 | 96 | 94 | 49 |

84

Válvula de esfera desmontable



| Código | d | D | D1 | p | L | Peso |
|---------|----|----|-----|----|-----|------|
| 7215020 | 20 | 26 | 42 | 12 | 82 | 300 |
| 7215025 | 25 | 34 | 50 | 16 | 94 | 425 |
| 7215032 | 32 | 42 | 60 | 18 | 105 | 675 |
| 7215040 | 40 | 52 | 73 | 21 | 127 | 1150 |
| 7215050 | 50 | 65 | 91 | 23 | 147 | 1850 |
| 7215063 | 63 | 82 | 115 | 28 | 169 | 3050 |

Referencias: peso de las conexiones en gramos; dimensiones en milímetros.