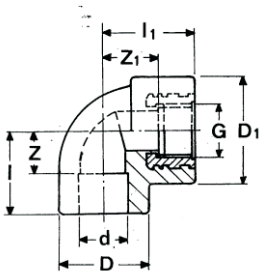
## Joelhos a 90° c/ rosca fêmea metálica

## Elbows 90° with metallic female thread

## Coudes à 90° avec filetage femelle métalique

## Codo 90° c/ rosca hembra metalica

02 10 2101 000




| d | G | l | l1 | Z | Z1 | D | D1 | Gr | Quant | Nº Código |
|---|---|---|---|---|---|---|---|---|---|---|
| 20 | " 1/2 | 28 | 28 | 12 | 14 | 31 | 36 | 55 | B 90 | 02 10 2101 005 |
| 20 | " 3/4 | 32 | 36 | 16 | 20 | 36 | 43 | 90 | B 50 | 02 10 2101 006 |
| 25 | " 1/2 | 32 | 36 | 14 | 22 | 36 | 43 | 80 | B 50 | 02 10 2101 008 |
| 25 | " 3/4 | 32 | 36 | 14 | 20 | 36 | 43 | 77 | B 50 | 02 10 2101 009 |
| | | | | | | | | | | |
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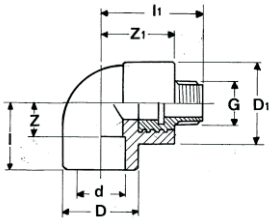
## Joelhos a 90° c/ rosca macho metálica

## Elbows 90° with metallic male thread

## Coudes à 90° avec filetage mâle metalique

## Codo 90° c/ rosca macho metalica

02 10 2154 000




| d | G | l | l1 | Z | Z1 | D | D1 | Gr | Quant | Nº Código |
|---|---|---|---|---|---|---|---|---|---|---|
| 20 | " 1/2 | 28 | 42,5 | 12 | 28 | 31 | 36 | 97 | B 40 | 02 10 2154 005 |
| 20 | " 3/4 | 32 | 48 | 16 | 36 | 36 | 43 | 138 | B 40 | 02 10 2154 006 |
| 25 | " 1/2 | 32 | 46,5 | 14 | 36 | 36 | 43 | 119 | B 40 | 02 10 2154 008 |
| 25 | " 3/4 | 32 | 48 | 14 | 36 | 36 | 43 | 142 | B 40 | 02 10 2154 009 |
| | | | | | | | | | | |
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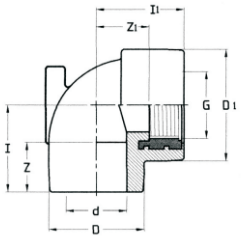
## Joelhos a 90° c/ rosca fêmea metálica e patere

## Elbows 90° with metallic female thread & wall connection

## Coudes à 90° avec filetage femelle mét. & applique murale

## Codo grifo 90° c/ rosca hembra metalica

02 10 2198 000




| d | G | l | l1 | Z | Z1 | D | D1 | Gr | Quant | Nº Código |
|---|---|---|---|---|---|---|---|---|---|---|
| 20 | " 1/2 | 28 | 28 | 12 | 14 | 31 | 36 | 63 | B 40 | 02 10 2198 005 |
| 20 | " 3/4 | 32 | 36 | 16 | 20 | 36 | 43 | | | 02 10 2198 006 |
| 25 | " 1/2 | 32 | 36 | 14 | 22 | 36 | 43 | 85 | B 30 | 02 10 2198 008 |
| 25 | " 3/4 | 32 | 36 | 14 | 20 | 36 | 43 | 100 | B 30 | 02 10 2198 009 |
| | | | | | | | | | | |
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| | | | | | | | | | | |

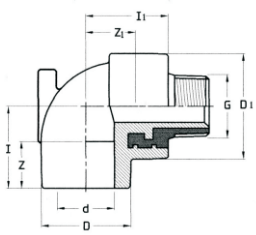
# Joelhos a 90° c/ rosca macho metálica e patere

# Elbows 90° with metallic male thread & wall connection

# Coudes à 90° avec filetage mâle met.& applique murale

# Codo grifo 90° c/ rosca macho metalica

02 10 2199 000




| d | G | l | l1 | Z | Z1 | D | D1 | Gr | Quant | Nº Código |
|---|---|---|---|---|---|---|---|---|---|---|
| 20 | " 1/2 | 28 | 42,5 | 12 | 28 | 31 | 36 | 96 | B 40 | 02 10 2199 005 |
| 20 | " 3/4 | 32 | 48 | 16 | 36 | 36 | 43 | | | 02 10 2199 006 |
| 25 | " 1/2 | 32 | 46,5 | 14 | 36 | 36 | 43 | 120 | B 30 | 02 10 2199 008 |
| 25 | " 3/4 | 32 | 48 | 14 | 36 | 36 | 43 | | | 02 10 2199 009 |
| | | | | | | | | | | |
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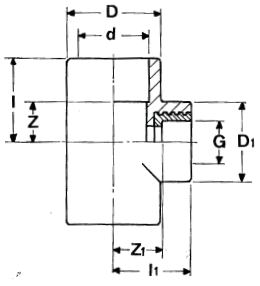
## Tês a 90° c/ rosca fêmea metálica

## Tees 90° with metallic female thread

## Tés à 90° avec filetage femelle metalique

## Tes 90° c/ rosca hembra metalica

02 10 2100 000




| d | G | l | l1 | Z | Z1 | D | D1 | Gr | Quant | Nº Código |
|---|---|---|---|---|---|---|---|---|---|---|
| 20 | " 1/2 | 28 | 28 | 12 | 14 | 31 | 36 | 61 | B 60 | 02 10 2100 005 |
| 25 | " 1/2 | 32 | 36 | 14 | 22 | 36 | 43,5 | 83 | B 40 | 02 10 2100 008 |
| 25 | " 3/4 | 32 | 36 | 14 | 20 | 36 | 43,5 | 108 | B 40 | 02 10 2100 009 |
| 32 | " 1/2 | 38 | 36 | 18 | 22 | 43 | 36 | 93 | B 30 | 02 10 2100 011 |
| 32 | " 3/4 | 38 | 36 | 18 | 20 | 43 | 43,5 | 115 | B 30 | 02 10 2100 012 |

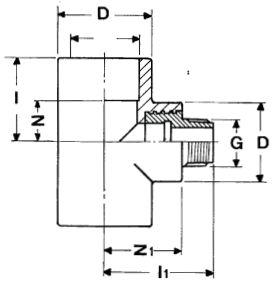
## Tês a 90° c/ rosca macho metálica

## Tees 90° with metallic male thread

## Tés à 90° avec filetage mâle metalique

## Tes 90° c/ rosca macho metalica

02 10 2153 000




| d | G | I | I1 | Z | Z1 | D | D1 | Gr | Quant | Nº Código |
|---|---|---|---|---|---|---|---|---|---|---|
| 20 | " 1/2 | 28 | 42,5 | 12 | 28 | 31 | 36 | 103 | B 50 | 02 10 2153 005 |
| 25 | " 1/2 | 32 | 50,5 | 14 | 36 | 36 | 43,5 | 125 | B 25 | 02 10 2153 008 |
| 25 | " 3/4 | 32 | 52 | 14 | 36 | 36 | 43,5 | 149 | B 25 | 02 10 2153 009 |
| 32 | " 1/2 | 38 | 50,5 | 18 | 36 | 43 | 36 | 123 | B 20 | 02 10 2153 011 |
| 32 | " 3/4 | 38 | 52 | 18 | 36 | 43 | 43,5 | 154 | B 20 | 02 10 2153 012 |

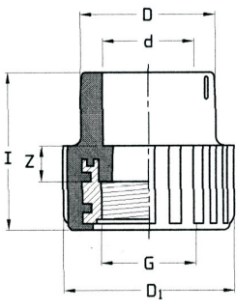
## Uniões F/F com rosca metálica

## Sockets F/F with metallic thread

## Manchons F/F avec filetage métalique

## Manguitos union H/H con rosca metallica

02 10 2102 000




| d | G | D | D1 | l | Z | Gr | Quant |
|---|---|---|---|---|---|---|---|
| 20 | " 1 /2 | 30 | 38 | 36 | 8 | 50 | B 170 |
| 20 | " 3 /4 | 30 | 45 | 38 | 9 | 74 | B 90 |
| 25 | " 1 /2 | 36 | 38 | 38 | 8 | 50 | B 80 |
| 25 | "3 /4 | 36 | 45 | 41 | 9 | 77 | B 80 |
| 32 | " 1 /2 | 43 | 38 | 45 | 11 | 57 | B 40 |
| 32 | "3 /4 | 43 | 45 | 47 | 12 | 85 | B 40 |

| Nº Código |
|---|
| 02 10 2102 005 |
| 02 10 2102 006 |
| 02 10 2102 008 |
| 02 10 2102 009 |
| 02 10 2102 011 |
| 02 10 2102 012 |

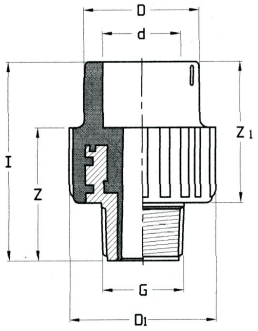
# Uniões F/M com rosca metálica

## Sockets F/M with metallic thread

## Manchons F/M avec filetage métalique

## Manguitos union H/M con rosca metalica

02 10 2191 000




| d | G | D | D1 | I | Z | Z1 | Gr | Quant | Nº Código |
|---|---|---|---|---|---|---|---|---|---|
| 20 | " 1 /2 | 30 | 38 | 50 | 34 | 36 | 84 | B 90 | 02 10 2191 005 |
| 20 | " 3 /4 | 30 | 45 | 54 | 38 | 38 | 118 | B 90 | 02 10 2191 006 |
| 25 | " 1 /2 | 36 | 38 | 53 | 34 | 38 | 87 | B 80 | 02 10 2191 008 |
| 25 | " 3 /4 | 36 | 45 | 57 | 38 | 41 | 121 | B 80 | 02 10 2191 009 |
| 32 | " 1 /2 | 43 | 38 | 60 | 34 | 46 | 91 | B 40 | 02 10 2191 011 |
| 32 | " 3 /4 | 43 | 45 | 64 | 38 | 48 | 128 | B 40 | 02 10 2191 012 |

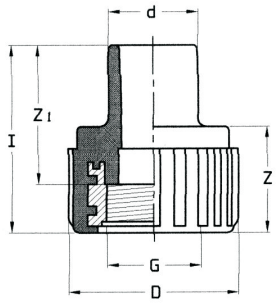
## Uniões M/F com rosca metálica

## Sockets M/F with metallic thread

## Manchons M/F avec filetage métalique

## Manguitos union M/H con rosca metallica

02 10 2201 000




| d | G | D | I | Z | Z 1 | Gr | Quant |
|---|---|---|---|---|---|---|---|
| 20 | " 1 /2 | 38 | 43 | 24 | 31 | 47 | B 90 |
| 20 | " 3 /4 | 45 | 45 | 27 | 33 | 74 | B 90 |
| 25 | " 1 /2 | 38 | 45 | 24 | 32 | 48 | B 120 |
| 25 | "3 /4 | 45 | 48 | 27 | 35 | 76 | B 90 |
| 32 | " 1 /2 | 38 | 43 | 24 | 32 | 52 | |
| 32 | "3 /4 | 45 | 46 | 27 | 33 | 78 | |

| Nº Código |
|---|
| 02 10 2201 005 |
| 02 10 2201 006 |
| 02 10 2201 008 |
| 02 10 2201 009 |
| 02 10 2201 011 |
| 02 10 2201 012 |

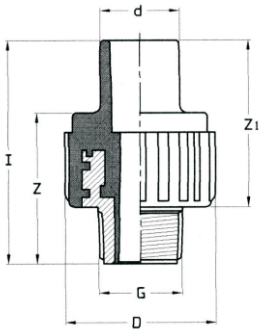
## Uniões M/M com rosca metálica

## Sockets M/M with metallic thread

## Manchons M/M avec filetage métalique

## Manguitos union M/M con rosca metalica

02 10 2202 000




| d | G | D | I | Z | Z1 | Gr | Quant | Nº Código |
|---|---|---|---|---|---|---|---|---|
| 20 | " 1 /2 | 38 | 57 | 39 | 43 | 82 | | 02 10 2202 005 |
| 20 | " 3 /4 | 45 | 61 | 43 | 45 | 118 | | 02 10 2202 006 |
| 25 | " 1 /2 | 38 | 60 | 39 | 45 | 85 | B 120 | 02 10 2202 008 |
| 25 | " 3 /4 | 45 | 64 | 43 | 48 | 120 | B 90 | 02 10 2202 009 |
| 32 | " 1 /2 | 38 | 58 | 39 | 43 | 89 | | 02 10 2202 011 |
| 32 | " 3 /4 | 45 | 62 | 43 | 46 | 123 | | 02 10 2202 012 |

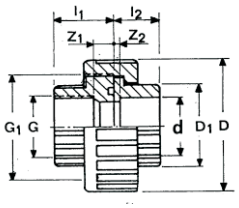
# Junções

# Unions

# Manchons union

# Enlaces 3 piezas

02 10 2114 000




| G | d | G1 | D | D1 | l1 | l2 | Z1 | Z2 | Gr | Quant | Nº Código |
|---|---|---|---|---|---|---|---|---|---|---|---|
| " 1/2 | 20 | 40x10 | 46 | 28 | 26 | 20 | 10 | 3 | 31,5 | B 60 | 02 10 2114 055 |
| " 3/4 | 25 | 47x10 | 56 | 36 | 28 | 23 | 10 | 3 | 55 | B 40 | 02 10 2114 056 |
| 1" | 32 | 53x8 | 67 | 42 | 30 | 26 | 10 | 3 | 79 | B 20 | 02 10 2114 057 |
| 1" 1/4 | 40 | 66x8 | 82 | 52 | 41 | 31 | 13 | 3 | 129 | C 60 | 02 10 2114 058 |
| 1" 1/2 | 50 | 74x8 | 88 | 63 | 45 | 35 | 14 | 3 | 160 | C 45 | 02 10 2114 059 |
| 2" | 63 | 90x8 | 106 | 77 | 52 | 42 | 14 | 3 | 259 | C 30 | 02 10 2114 060 |

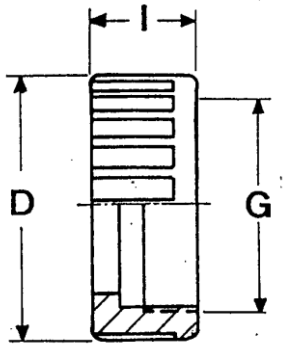
## Porcas de junção

## Union nuts

## Ecrous

## Tuercas enlace

02 01 2118 000




| d | G | l | D | Gr | Nº Código |
|---|---|---|---|---|---|
| 20 | 40x10 | 22 | 46 | 12 | 02 01 2118 012 |
| 25 | 47x10 | 26 | 56 | 23 | 02 01 2118 034 |
| 32 | 53x8 | 28 | 67 | 36 | 02 01 2118 100 |
| 40 | 66x8 | 30 | 82 | 52 | 02 01 2118 114 |
| 50 | 74x8 | 31 | 88 | 56 | 02 01 2118 150 |
| 63 | 90x8 | 38 | 106 | 94 | 02 01 2118 200 |

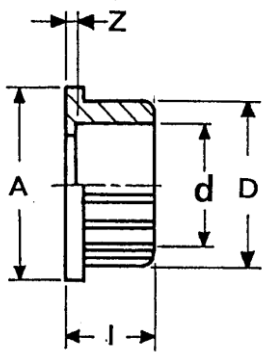
## Terminais de junção lisos

## Union ends

## Pièces folles

## Manguitos enlace

02 05 2116 000




| d | A | D | l | Z | Gr | Nº Código |
|---|---|---|---|---|---|---|
| 20 | 36 | 28 | 20 | 3 | 7 | 02 05 2116 020 |
| 25 | 43 | 36 | 23 | 3 | 13 | 02 05 2116 025 |
| 32 | 50 | 42 | 26 | 3 | 17 | 02 05 2116 032 |
| 40 | 63 | 52 | 31 | 3 | 28 | 02 05 2116 040 |
| 50 | 69 | 63 | 35 | 10 | 38 | 02 05 2116 050 |
| 63 | 83 | 77 | 42 | 14 | 63 | 02 05 2116 063 |

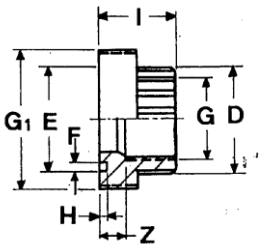
# Terminais de junção roscados

# Union bushes

# Pièces folles filletées

# Manguitos enlace rosca macho

02 01 2117 000




| G | G1 | I | Z | E | F | H | D | Gr | Nº Código |
|---|---|---|---|---|---|---|---|---|---|
| " 1/2 | 40x10 | 26 | 10 | 28,4 | 4,3 | 2,5 | 28 | 12 | 02 01 2117 012 |
| " 3/4 | 47x10 | 28 | 10 | 35,5 | 4,8 | 2,5 | 36 | 18 | 02 01 2117 034 |
| 1 " | 53x8 | 30 | 10 | 39,6 | 4,6 | 2,5 | 42 | 25 | 02 01 2117 100 |
| 1" 1/4 | 66x8 | 41 | 13 | 51,8 | 7 | 4 | 52 | 46 | 02 01 2117 114 |
| 1" 1/2 | 74x8 | 45 | 22 | 57 | 7 | 4 | 63 | 68 | 02 01 2117 150 |
| 2 " | 90x8 | 52 | 18 | 70 | 7 | 4 | 77 | 113 | 02 01 2117 200 |

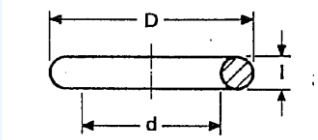
# Vedantes

# «O» ring gaskets

# Joints toriques

# Juntas

*40 90 8093 000




| D | d | l | Nº Código |
|---|---|---|---|
| 28,86 | 21,80 | 3,53 | 40 90 8093 011 |
| 35,23 | 28,17 | 3,53 | 40 90 8093 014 |
| 39.96 | 32.90 | 3,53 | 40 90 8093 016 |
| 51,30 | 40,64 | 5,33 | 40 90 8093 018 |
| 57,65 | 46,99 | 5,33 | 40 90 8093 024 |
| 70,35 | 59,69 | 5,33 | 40 90 8093 030 |

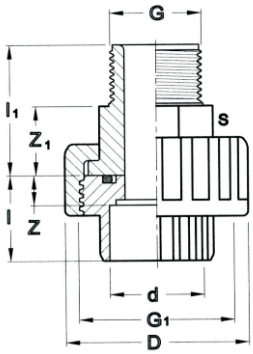
## Junções fêmea/macho

## Unions female/male

## Manchons union femelle/mâle

## Enlaces 3 piezas hembra/macho

02 10 2207 000




| G | d | G1 | D | l | Z | l1 | Z1 | S | Gr | Quant | Nº Código |
|---|---|---|---|---|---|---|---|---|---|---|---|
| "1/2 | 20 | 40x10 | 46 | 26 | 10 | 36 | 21 | 22 | 34 | B 60 | 02 10 2207 055 |
| "3/4 | 25 | 47x10 | 56 | 28 | 10 | 40 | 24 | 28 | 56 | B 30 | 02 10 2207 056 |
| 1" | 32 | 53x8 | 67 | 30 | 10 | 45 | 26 | 36 | 86 | B 20 | 02 10 2207 057 |
| 1"1/4 | 40 | 66x8 | 82 | 41 | 13 | 48 | 27 | 46 | 141 | C 60 | 02 10 2207 058 |
| 1"1/2 | 50 | 74x8 | 88 | 45 | 14 | 52 | 30 | 50 | 170 | C 45 | 02 10 2207 059 |
| 2" | 63 | 90x8 | 106 | 52 | 14 | 61 | 35 | 65 | 285 | C 24 | 02 10 2207 060 |

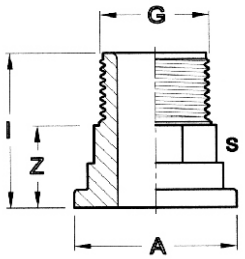
# Terminais de junção lisos macho

# Male union ends

# Pièces folles mâle

# Manguitos enlace macho

02 01 2205 000




| G | l | A | S | Z | Gr | Nº Código |
|---|---|---|---|---|---|---|
| " 1/2 | 36 | 36 | 22 | 21 | 9 | 02 01 2204 012 |
| " 3/4 | 40 | 43 | 28 | 24 | 15 | 02 01 2205 034 |
| 1 " | 45 | 50 | 36 | 26 | 24 | 02 01 2204 100 |
| 1" 1/4 | 48 | 63 | 46 | 27 | 38 | 02 01 2205 114 |
| 1" 1/2 | 52 | 69 | 50 | 30 | 48 | 02 01 2205 150 |
| 2 " | 61 | 83 | 65 | 35 | 89 | 02 01 2205 200 |

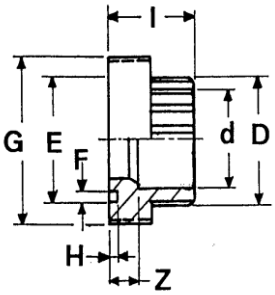
## Terminais de junção roscados

## Union bushes

## Pièces folles filetées

## Manguitos enlace rosca macho

02 05 2117 000




| d | G | I | Z | E | F | H | D | Gr | Nº Código |
|---|---|---|---|---|---|---|---|---|---|
| 20 | 40x10 | 26 | 10 | 28.4 | 4.3 | 2.5 | 28 | 12 | 02 05 2117 020 |
| 25 | 47x10 | 28 | 10 | 35.5 | 4.8 | 2.5 | 36 | 19 | 02 05 2117 025 |
| 32 | 53x8 | 30 | 10 | 39.6 | 4.6 | 2.5 | 42 | 26 | 02 05 2117 032 |
| 40 | 66x8 | 41 | 13 | 51.8 | 7 | 4 | 52 | 46 | 02 05 2117 040 |
| 50 | 74x8 | 45 | 14 | 57.4 | 7 | 4 | 63 | 61 | 02 05 2117 050 |
| 63 | 90x8 | 52 | 14 | 70 | 6.5 | 4 | 77 | 96 | 02 05 2117 063 |