

# Catalogue Fittings and Valves

Juli 2012

Pressure Piping Systems  
for Water Applications







## Certification Fitting and Valves

### Italy

|   <b>Certificato di Conformità</b><br><b>n° 244 / 2010 – Rev. 2</b> |                     |    |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|----|
| Article                                                                                                                                                                                                                               | Diameter            | NP |
| BOI                                                                                                                                                                                                                                   | 16 ÷ 63             | 16 |
| TII                                                                                                                                                                                                                                   | 16 ÷ 200            | 16 |
| GYI                                                                                                                                                                                                                                   | 16 ÷ 200            | 16 |
| GOI                                                                                                                                                                                                                                   | 16 ÷ 200            | 16 |
| MAI                                                                                                                                                                                                                                   | 16 ÷ 200            | 16 |
| CAI                                                                                                                                                                                                                                   | 16 ÷ 200            | 16 |
| RCI                                                                                                                                                                                                                                   | 20 x 16 ÷ 160 x 140 | 16 |
| FLI                                                                                                                                                                                                                                   | 20 ÷ 160            | 16 |
| QRI                                                                                                                                                                                                                                   | 20 ÷ 160            | 16 |
| FFI                                                                                                                                                                                                                                   | 20 ÷ 110            | 16 |
| TII                                                                                                                                                                                                                                   | 225                 | 10 |
| GYI                                                                                                                                                                                                                                   | 225                 | 10 |
| GOI                                                                                                                                                                                                                                   | 225                 | 10 |
| MAI                                                                                                                                                                                                                                   | 225                 | 10 |
| CAI                                                                                                                                                                                                                                   | 225                 | 10 |

### Italy

|  <b>Certificato di omologazione di tipo</b><br><b>N. MAC392106CS/001</b> |           |    |      |           |    |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|----|------|-----------|----|
| Article                                                                                                                                                     | Diameter  | NP | Art. | D         | NP |
| TII                                                                                                                                                         | 16 ÷ 110  | 16 | GOF  | 3/8" ÷ 3" | 16 |
| GOI                                                                                                                                                         | 16 ÷ 110  | 16 | MAF  | 3/8" ÷ 3" | 16 |
| MAI                                                                                                                                                         | 16 ÷ 110  | 16 | RIF  | 1/2" ÷ 3" | 16 |
| CAI                                                                                                                                                         | 16 ÷ 110  | 16 | RCF  | 1/2" ÷ 3" | 16 |
| RCI                                                                                                                                                         | 20 ÷ 110  | 16 | TAF  | 3/8" ÷ 3" | 16 |
| QGI                                                                                                                                                         | 20 ÷ 110  | 16 | CAF  | 3/8" ÷ 3" | 16 |
| QRI                                                                                                                                                         | 20 ÷ 110  | 16 | FFF  | 1/2" ÷ 3" | 16 |
| FLI                                                                                                                                                         | 20 ÷ 110  | 16 | TIP  | 3/8" ÷ 3" | 16 |
| FFI                                                                                                                                                         | 20 ÷ 110  | 16 | GOP  | 3/8" ÷ 3" | 16 |
| GYI                                                                                                                                                         | 16 ÷ 110  | 16 | MAP  | 3/8" ÷ 3" | 16 |
| BOI                                                                                                                                                         | 16 ÷ 63   | 16 | AMP  | 3/8" ÷ 3" | 16 |
| TIF                                                                                                                                                         | 3/8" ÷ 3" | 16 | BOF  | 3/8" ÷ 3" | 16 |
|                                                                                                                                                             |           |    | NIF  | 3/8" ÷ 3" | 16 |

### France

|  <b>Certificat tubes et accords en PVC non plastifié rigide N° 37-1</b> |                    |    |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|----|
| Article                                                                                                                                                   | Diameter           | NP |
| TII                                                                                                                                                       | 16 ÷ 110           | 16 |
| GYI                                                                                                                                                       | 16 ÷ 110           | 16 |
| GOI                                                                                                                                                       | 16 ÷ 110           | 16 |
| MAI                                                                                                                                                       | 16 ÷ 110           | 16 |
| CAI                                                                                                                                                       | 16 ÷ 63            | 16 |
| RCI                                                                                                                                                       | 20 x 16 ÷ 110 x 90 | 16 |

### Netherlands

|  <b>Certificaat Fitting van ongeplasticeerd PVC N°K5113/02</b> |                   |    |
|--------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|----|
| Article                                                                                                                                          | Diameter          | NP |
| TII                                                                                                                                              | 16 ÷ 90           | 10 |
| GYI                                                                                                                                              | 16 ÷ 90           | 10 |
| GOI                                                                                                                                              | 16 ÷ 90           | 10 |
| MAI                                                                                                                                              | 16 ÷ 90           | 10 |
| CAI                                                                                                                                              | 16 ÷ 90           | 10 |
| RCI                                                                                                                                              | 20 x 16 ÷ 90 x 75 | 10 |

### USA

|  <b>NSF/ANSI Standard 61</b><br><div>Certified to NSF/ANSI 61-G</div> |                 |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| Article                                                                                                                                                   | Diameter        |
| VSA PVC ball valves                                                                                                                                       | From 1/2 to 4 " |

France

|  <b>Type approval certificate for thermoplastic material pipes and fittings</b><br><b>N° 12735/BO BV</b> |                                |                                                            |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|------------------------------------------------------------|
|                                                                                                          |                                |                                                            |
| Fittings                                                                                                                                                                                  | Diameter (mm)                  | Article                                                    |
| Tees                                                                                                                                                                                      | 16 ÷ 225                       | TII, TRI, TIF, TAF, TIP, TTP, TIR, TDI, TCI                |
| Elbows                                                                                                                                                                                    | 16 ÷ 225                       | GOI, GPI, GYI, GYF, GOF, GOP, GYP, GGP, GOL, GYL, GOR, GTI |
| Sockets                                                                                                                                                                                   | 16 ÷ 225                       | MAI, MRI, MAF, MRF, MGF, MAP, MFP, MMP, MAL, MRL, MAT, MAR |
| Reductions                                                                                                                                                                                | 20 x 16 ÷ 225 x 200            | RCI, RCF, RIF, RCL, RCR                                    |
| Saddles                                                                                                                                                                                   | 32 x 16 x 20 ÷ 315 x 63 x 75   | DEI, DEF, DMF                                              |
| Caps                                                                                                                                                                                      | 16 ÷ 225                       | CAI, CAF, CAL                                              |
| Unions                                                                                                                                                                                    | 16 ÷ 110                       | BOI, BOF, BOP, BMP, BOL, BOR                               |
| Flanges                                                                                                                                                                                   | 20 ÷ 225                       | FLI, FFI, FCI, FFF, FFL                                    |
| Nipples                                                                                                                                                                                   | 3/8" ÷ 4"                      | NIF, NRF                                                   |
| Adaptors                                                                                                                                                                                  | 16 x 20 x 3/8" ÷ 125 x 140 x 5 | AMP, ADP, AFP, AAP, AMR, ADR, AFR                          |
| Valves                                                                                                                                                                                    | Diameter (mm)                  | Article                                                    |
| Ball Valves                                                                                                                                                                               | 16 ÷ 110                       | VSA                                                        |
| Butterfly Valve                                                                                                                                                                           | 75 ÷ 225                       | VFA, VFK                                                   |
| Check Valve                                                                                                                                                                               | 16 ÷ 90                        | VRO, VRV, VRF                                              |

France

|  <b>Attestation de conformite sanitaire 09 MAT LI 048</b> |  |
|----------------------------------------------------------------------------------------------------------------------------------------------|--|
| Fittings                                                                                                                                     |  |
| all PVC-U Fittings                                                                                                                           |  |

UK

|  <b>Polyvinyl Chloride (PVC, PVCU, CPVC) – Components</b><br><b>Benvic 1A 608. Cold water use only</b><br><b>Test Report : M104078</b> |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Fittings                                                                                                                                                                                                                  |  |
| all dark grey moulded PVC components                                                                                                                                                                                      |  |

## Company certifications

France

|                                                                                     |  |
|-------------------------------------------------------------------------------------|--|
|  |  |
| <b>ISO 9001: 2008 Certificate Nr. IT231110</b>                                      |  |
| <b>ISO 14001: 2004 Certificate Nr. IT231635</b>                                     |  |

Copy of the product certificates could be downloaded from the TP web site:  
[www.tp-piping.com](http://www.tp-piping.com) under the section Approvals

## Packaging

| Code | Length | BOX (GP)    |        | Volume<br>m <sup>3</sup> |
|------|--------|-------------|--------|--------------------------|
|      |        | Width<br>mm | Height |                          |
| XB   | 1200   | 800         | 800    | 0,768                    |
| G    | 600    | 400         | 400    | 0,096                    |
| M    | 300    | 400         | 400    | 0,048                    |
| T    | 390    | 250         | 210    | 0,020                    |
| S    | 600    | 267         | 118    | 0,019                    |

## Meanings / Symbols / Abbreviations

|            |                                                                              |
|------------|------------------------------------------------------------------------------|
| <b>d</b>   | Pipe outside diameter (mm)                                                   |
| <b>DIN</b> | Deutsche Industrie Normen                                                    |
| <b>ISO</b> | International Standardisation Organization                                   |
| <b>DN</b>  | Nominal diameter (bore)                                                      |
| <b>G</b>   | Thread according ISO 228/1 DIN 2999 BS 21 (not pressure tight in the thread) |
| <b>NPT</b> | Taper male thread (pressure tight in the thread)                             |
| <b>R</b>   | Taper male thread according ISO 7/1 (pressure tight in the thread)           |
| <b>RP</b>  | Parallel female thread according ISO 7/1 (pressure tight in the thread)      |

|              |                                  |
|--------------|----------------------------------|
| <b>EPDM</b>  | Ethylene Propylene Rubber        |
| <b>PE</b>    | Polyethylene                     |
| <b>PN</b>    | Nominal pressure at 20° C, water |
| <b>PP-H</b>  | Polypropylene Homopolymer        |
| <b>PVC-U</b> | Polyvinyl Chlorine               |
| <b>PTFE</b>  | Polytetrafluorethylene           |
| <b>GP</b>    | Gross pack                       |
| <b>SP</b>    | Standard pack                    |

**Minimun order qty : GP when indicated, SP otherwise**

# PVC-U Fittings

## Applications

TP (formerly known as Tecno Plastic) is a dedicated brand of PVC fittings and valves for water piping systems. Each TP product is designed to meet the demands of the customers in specific application areas such as distribution, treatment and sewage water, public and private swimming pools, thermal pools and spas, aquariums and aquaculture, irrigation and fountains.

## Range

TP full range of fittings is available in following ranges: metric for solvent cement from 16 mm to 225 mm, BSP threaded from 3/8" to 6", adaptor set from 16x3/8" to 160x6".

## MECHANICAL PROPERTIES

Max working pressure in Bar

| Series           | Dimensions          | PN |
|------------------|---------------------|----|
| Solvent jointing | from d 16 to d 200  | 16 |
|                  | from d 225 to d 315 | 10 |
| Threaded         | from 3/8" to 6"     | 16 |
| Adaptor range    | from D 16 to D 160  | 16 |

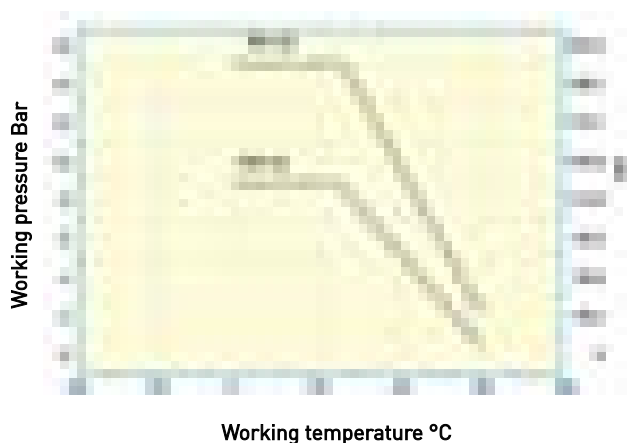
## Sanitary regulations

Our fittings, as well as applied raw material, are suitable for drinkable water and foodstuffs fluids in accordance either to the Italian National Authorities laws (D.M.174, 6th april 2004), or other international organizations.

## Materials

The PVC-U compound used by TP is stabilised unplasticized polyvinyl chloride. Material chemical resistances according to ISO/TR 10358.

## PRESSURE-TEMPERATURE RELATIONSHIP ACCORDING TO DIN 3441 BLATT 1 AND EN 1452/3/5



## Standards

The raw material applied for TP products is in compliance with international standards mentioned in the table "PHYSICAL PROPERTIES OF PVC-U".

TP fittings are in compliance with the main international standards too, like ISO EN 1452-3, NF & KIW A, so that they can be combined with pipes according to the main international standards.

## SAFETY FACTORS AT 20°C FOR PN 16 FITTINGS

| Working pressure | Hours |      | Corresponding to 50 years life |
|------------------|-------|------|--------------------------------|
|                  | 1     | 1000 |                                |
| 10 Bar           | 6,7   | 5,1  | 4,0                            |
| 16 Bar DN≤160    | 4,2   | 3,2  | 2,5                            |
| 16 Bar DN>160    | 3,36  | 2,56 | 2                              |

## Gaskets

Standard Gaskets for unions and stubs are in EPDM (ethylene - polypropylene rubber).

## PHYSICAL PROPERTIES OF PVC-U

| Characteristics                  | Standard              | Units              | PVC                  |
|----------------------------------|-----------------------|--------------------|----------------------|
| Density                          | ISO 1183              | kg/dm <sup>3</sup> | 1,40                 |
| Elongation                       | ISO R527              | %                  | 154                  |
| Modulus of elasticity            | ISO R527              | MPa                | 2.600                |
| Resistance to traction           | ISO R527              | MPa                | 40                   |
| Tensile strength                 | ISO R527              | MPa                | 44                   |
| Vicat softening point with 5 Kgs | ISO 306               | °C                 | > 76                 |
| Thermal conductivity 23°C        | ASTM C177             | $\frac{w}{mk}$     | 0,13÷0,19            |
| Coefficient of linear expansion  | ASTM D696<br>UNI 6061 | $\frac{mm}{mm °C}$ | 5÷8x10 <sup>-5</sup> |
| Water absorption                 | UNI 7449-75           | mg/cm <sup>2</sup> | < 0,1                |
| Meets fire regulations           | UL94                  |                    | V-0                  |
| Ash content                      | UNI 7449-75           | %                  | < 3                  |
| Colour                           |                       |                    | 9735                 |

# PVC-U Fittings

## PIPE-FITTINGS TOLLERANCES FOR SOLVENT JOINTING ACCORDING TO:

Fittings: ISO 727 - EN 1452/2/3 - DIN 8063 - KIWA 54  
NF T54-028

Pipes: ISO 161 - EN 1452/2 - DIN 8062 - KIWA 49  
NF T54-016

| Nominal |     | male fittings<br>outside diam. |        | female fittings<br>inside diam. |        |
|---------|-----|--------------------------------|--------|---------------------------------|--------|
| DN      | D   | Min.                           | Max.   | Min.                            | Max.   |
| 10      | 16  | 16                             | 16,20  | 16,10                           | 16,30  |
| 15      | 20  | 20                             | 20,20  | 20,10                           | 20,30  |
| 20      | 25  | 25                             | 25,20  | 25,10                           | 25,30  |
| 25      | 32  | 32                             | 32,20  | 32,10                           | 32,30  |
| 32      | 40  | 40                             | 40,20  | 40,10                           | 40,30  |
| 40      | 50  | 50                             | 50,20  | 50,10                           | 50,30  |
| 50      | 63  | 63                             | 63,20  | 63,10                           | 63,30  |
| 65      | 75  | 75                             | 75,30  | 75,10                           | 75,30  |
| 80      | 90  | 90                             | 90,30  | 90,10                           | 90,30  |
| 100     | 110 | 110                            | 110,30 | 110,10                          | 110,40 |
| 110     | 125 | 125                            | 125,30 | 125,10                          | 125,40 |
| 125     | 140 | 140                            | 140,40 | 140,20                          | 140,50 |
| 150     | 160 | 160                            | 160,40 | 160,20                          | 160,50 |
| 200     | 200 | 200                            | 200,50 | 200,20                          | 200,60 |
| 200     | 225 | 225                            | 225,50 | 225,30                          | 225,70 |

## DIMENSIONS OF THREAD ACCORDING TO:

UNI ISO 7-1 - BS 21 - DIN 2999  
(parallel threaded sockets)

| Nominal<br>diameter | Outside<br>thread<br>diameter | Pitch<br><br>n° of<br>threads/1" | mm    | Thread<br>depth | Thread<br>assembling<br>length |
|---------------------|-------------------------------|----------------------------------|-------|-----------------|--------------------------------|
| G                   |                               |                                  |       |                 |                                |
| 3/8"                | 16,66                         | 19                               | 1,337 | 0,856           | 11,4                           |
| 1/2"                | 20,95                         | 14                               | 1,814 | 1,162           | 15,0                           |
| 3/4"                | 26,44                         | 14                               | 1,814 | 1,162           | 16,3                           |
| 1"                  | 33,25                         | 11                               | 2,309 | 1,479           | 19,1                           |
| 1 1/4"              | 41,91                         | 11                               | 2,309 | 1,479           | 21,4                           |
| 1 1/2"              | 47,80                         | 11                               | 2,309 | 1,479           | 21,4                           |
| 2"                  | 59,61                         | 11                               | 2,309 | 1,479           | 25,7                           |
| 2 1/4"              | 65,71                         | 11                               | 2,309 | 1,479           | -                              |
| 2 1/2"              | 75,18                         | 11                               | 2,309 | 1,479           | 30,2                           |
| 2 3/4"              | 81,53                         | 11                               | 2,309 | 1,479           | -                              |
| 3"                  | 87,88                         | 11                               | 2,309 | 1,479           | 33,3                           |
| 4"                  | 113,03                        | 11                               | 2,309 | 1,479           | 39,3                           |
| 5"                  | 138,43                        | 11                               | 2,309 | 1,479           | 43,6                           |
| 6"                  | 163,83                        | 11                               | 2,309 | 1,479           | 43,6                           |

## Assembly instructions

### METRIC SET FOR SOLVENT CEMENT JOINTING

TP fittings in rigid PVC-UH of metric range can be glued to each other and with pipes of same material provided that the pipe dimension and tolerances are in accordance with the mentioned standard. A strong dense-type glue is recommended, especially for glueing large diameters, where the clearance may be high due to the ovalization effect; such clearance, anyhow, in order to guarantee a perfect seal, should never exceed 0,6 mm with a dense type glue and 0,3 mm with a fluid-type glue.

In order to obtain a perfect gluing it is recommended that the glue manufacturer's instructions be strictly followed. These instructions can be summarized as follows:

- remove all traces of grease, oil or simply dust from both the pipe (properly cut at 90° and bevelled at the top) and the fitting by means of a clean cloth soaked in diluent;
- apply, by a suitable brush, a uniform layer of glue, both to the fitting and to the pipe, and cover the entire surface to be glued;
- immediately (in 1 to 2 minutes) insert the part to be glued in the female fitting;
- it is recommended that all glue in excess, which flows out of the coupling, to be quickly removed.

It is also recommended that freshly glued parts should not be submitted to mechanical stresses.

The glue manufacturer's instructions concerning how long to wait before handling, sticking and pressure testing the system should be carefully followed.

Generally speaking, none of these operations should take place in the 24 hours following the gluing.

### THREADED SERIES

TP fittings in rigid PVC-UH of the threaded series or of the adaptor series can be screwed to each other or to pipe and other threaded parts in other materials in accordance with the rules given.

In order to obtain easy screwing and perfect sealing, the use of high quality PTFE tape is recommended in quantity sufficient to avoid clearance without causing too tight shutting.

The use of hemp, tow and lint, usually employed for metal fittings, should be avoided.

Such materials, contrary to what happens with PTFE, are not rejected by the coupling even when used in excess, making the female fitting expand in such a way as to cause breakages both during the assembly stage and later, during operation.

The information set forth are purely indicative, we therefore recommend to comply to laws and regulations relating to the various countries (ex: UNI 11242 Jointing by cementing pipes, fittings and valves PVC-U).



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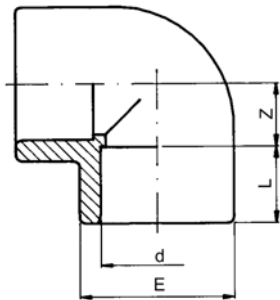
# PVC-U fittings solvent cement jointing

## Metric range

### Elbow 90° PVC-U metric

# additional bag containing 80 pieces (8 bags of 10 pieces)

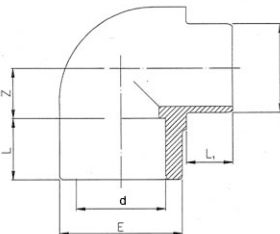
• (\*) Traded items



PF 2 01 950 010

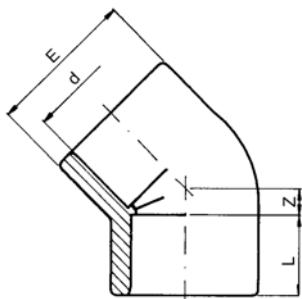
| d<br>[mm] | d<br>[inch] | PN | Code      | SP | GP  | kg     | L<br>[mm] | Z<br>[mm] | E<br>[mm] |  |
|-----------|-------------|----|-----------|----|-----|--------|-----------|-----------|-----------|--|
| # 16      |             | 16 | RV0GOI160 | 10 | 320 | 0.010  | 14.0      | 9         | 22        |  |
| # 20      |             | 16 | RV0GOI200 | 10 | 160 | 0.015  | 16.0      | 11        | 26        |  |
| # 25      |             | 16 | RV0GOI250 | 10 | 160 | 0.025  | 19.0      | 14        | 32        |  |
| 32        |             | 16 | RV0GOI320 | 10 | 80  | 0.040  | 22.0      | 17        | 40        |  |
| 40        |             | 16 | RV0GOI400 | 65 | -   | 0.095  | 26.0      | 21        | 51        |  |
| 50        |             | 16 | RV0GOI500 | 80 | -   | 0.120  | 31.0      | 26        | 61        |  |
| 63        |             | 16 | RV0GOI630 | 40 | -   | 0.206  | 38.0      | 33        | 75        |  |
| 75        | 2 1/2       | 16 | RV0GOI750 | 50 | -   | 0.386  | 44.0      | 39        | 89        |  |
| 90        |             | 16 | RV0GOI900 | 30 | -   | 0.603  | 51.0      | 47        | 106       |  |
| 110       |             | 16 | RV0GOI910 | 17 | -   | 1.078  | 61.0      | 57        | 129       |  |
| 125       |             | 16 | RV0GOI920 | 12 | -   | 1.390  | 69.0      | 66        | 145       |  |
| 140       | 5           | 16 | RV0GOI930 | 8  | -   | 2.050  | 76.0      | 72        | 163       |  |
| 160       |             | 16 | RV0GOI940 | 5  | -   | 3.105  | 86.0      | 82        | 190       |  |
| 200       |             | 16 | RV0GOI960 | 28 | -   | 4.800  | 106.0     | 102       | 228       |  |
| 225       |             | 10 | RV0GOI970 | 18 | -   | 6.600  | 119.0     | 115       | 255       |  |
| * 250     |             | 10 | RV0GOI980 | 10 | -   | 12.100 | 131.0     | 188       | 286       |  |
| * 315     |             | 10 | RV0GOI991 | 5  | -   | 23.500 | 164.0     | 239       | 358       |  |

### Elbow 90° M/F PVC-U metric



PF 2 01 950 010

| d<br>[mm] | PN | Code      | SP | GP | kg    | L<br>[mm] | L1<br>[mm] | Z<br>[mm] | E<br>[mm] |  |
|-----------|----|-----------|----|----|-------|-----------|------------|-----------|-----------|--|
| 50        | 16 | RV0GPI500 | 75 | -  | 0.155 | 31        | 31         | 26        | 61        |  |
| 63        | 16 | RV0GPI630 | 40 | -  | 0.250 | 38        | 38         | 33        | 75        |  |



PF 2 01 950 010

## Elbow 45° PVC-U metric

# additional bag containing 100 pieces (10 bags of 10 pieces)

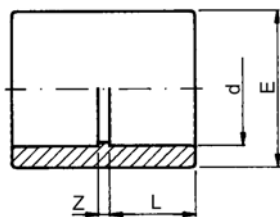
• (\*) Traded items

| d<br>[mm] | PN | d<br>[inch] | Code      | SP  | GP  | kg     | L<br>[mm] | Z<br>[mm] | E<br>[mm] |  |
|-----------|----|-------------|-----------|-----|-----|--------|-----------|-----------|-----------|--|
| # 16      | 16 |             | RV0GYI160 | 10  | 400 | 0.010  | 14.0      | 5.0       | 23        |  |
| # 20      | 16 |             | RV0GYI200 | 10  | 300 | 0.017  | 16.0      | 5.0       | 28        |  |
| # 25      | 16 |             | RV0GYI250 | 10  | 200 | 0.029  | 19.0      | 6.0       | 34        |  |
| 32        | 16 |             | RV0GYI320 | 10  | 100 | 0.047  | 22.0      | 8.0       | 42        |  |
| 40        | 16 |             | RV0GYI400 | 80  | -   | 0.076  | 26.0      | 10.0      | 51        |  |
| 50        | 16 |             | RV0GYI500 | 100 | -   | 0.110  | 31.0      | 12.0      | 61        |  |
| 63        | 16 |             | RV0GYI630 | 50  | -   | 0.180  | 38.0      | 14.0      | 75        |  |
| 75        | 16 | 2 ½         | RV0GYI750 | 65  | -   | 0.308  | 44.0      | 17.0      | 89        |  |
| 90        | 16 |             | RV0GYI900 | 40  | -   | 0.477  | 51.0      | 20.0      | 106       |  |
| 110       | 16 |             | RV0GYI910 | 22  | -   | 0.842  | 61.0      | 24.0      | 129       |  |
| 125       | 16 |             | RV0GYI920 | 14  | -   | 1.065  | 69.0      | 27.0      | 145       |  |
| 140       | 16 | 5           | RV0GYI930 | 8   | -   | 1.600  | 76.0      | 31.0      | 163       |  |
| 160       | 16 |             | RV0GYI940 | 6   | -   | 2.240  | 86.0      | 35.0      | 185       |  |
| 200       | 16 |             | RV0GYI960 | 30  | -   | 3.780  | 106.0     | 43.0      | 228       |  |
| 225       | 10 |             | RV0GYI970 | 24  | -   | 5.755  | 119.0     | 49.0      | 255       |  |
| * 250     | 10 |             | RV0GYI980 | 1   | -   | 7.680  | 131.0     | 58.0      | 287       |  |
| * 315     | 10 |             | RV0GYI991 | 8   | -   | 14.700 | 164.0     | 66.0      | 360       |  |

## Double socket PVC-U metric

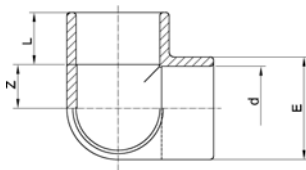
# additional bag containing 100 pieces (10 bags of 10 pieces)

• (\*) Traded items



PF 2 01 950 010

| d<br>[mm] | d<br>[inch] | PN | Code      | SP  | GP  | kg     | L<br>[mm] | Z<br>[mm] | E<br>[mm] |  |
|-----------|-------------|----|-----------|-----|-----|--------|-----------|-----------|-----------|--|
| # 16      |             | 16 | RV0MAI160 | 10  | 500 | 0.009  | 14.0      | 3         | 22        |  |
| # 20      |             | 16 | RV0MAI200 | 10  | 300 | 0.010  | 16.0      | 3         | 26        |  |
| # 25      |             | 16 | RV0MAI250 | 10  | 200 | 0.016  | 19.0      | 3         | 32        |  |
| 32        |             | 16 | RV0MAI320 | 10  | 130 | 0.026  | 22.0      | 3         | 40        |  |
| 40        |             | 16 | RV0MAI400 | 100 | -   | 0.043  | 26.0      | 3         | 48        |  |
| 50        |             | 16 | RV0MAI500 | 60  | -   | 0.075  | 31.0      | 3         | 60        |  |
| 63        |             | 16 | RV0MAI630 | 70  | -   | 0.121  | 38.0      | 3         | 74        |  |
| 75        | 2 ½         | 16 | RV0MAI750 | 48  | -   | 0.226  | 44.0      | 4         | 89        |  |
| 90        |             | 16 | RV0MAI900 | 50  | -   | 0.361  | 51.0      | 5         | 106       |  |
| 110       |             | 16 | RV0MAI910 | 36  | -   | 0.625  | 61.0      | 6         | 129       |  |
| 125       |             | 16 | RV0MAI920 | 24  | -   | 0.840  | 69.0      | 7         | 145       |  |
| 140       | 5           | 16 | RV0MAI930 | 14  | -   | 1.100  | 76.0      | 8         | 162       |  |
| 160       |             | 16 | RV0MAI940 | 9   | -   | 1.400  | 86.0      | 8         | 184       |  |
| 200       |             | 16 | RV0MAI960 | 4   | -   | 2.560  | 106.0     | 10        | 227       |  |
| 225       |             | 10 | RV0MAI970 | 2   | -   | 3.540  | 119.0     | 10        | 252       |  |
| * 250     |             | 10 | RV0MAI980 | 22  | -   | 5.250  | 131.0     | 10        | 287       |  |
| * 315     |             | 10 | RV0MAI991 | 12  | -   | 10.000 | 164.0     | 12        | 355       |  |



PF 2 01 950 010

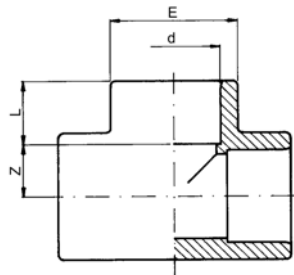
## Three way elbow PVC-U metric

| d<br>[mm] | PN | Code             | SP | GP | kg    | E<br>[mm] | L<br>[mm] | Z<br>[mm] |  |
|-----------|----|------------------|----|----|-------|-----------|-----------|-----------|--|
| 50        | 16 | <b>RV0GTI500</b> | 50 | -  | 0.155 | 61        | 31        | 26        |  |
| 63        | 16 | <b>RV0GTI630</b> | 25 | -  | 0.250 | 75        | 38        | 33        |  |

## Tee 90° PVC-U metric

# additional bag containing 100 pieces (10 bags of 10 pieces)

• (\*) Traded items

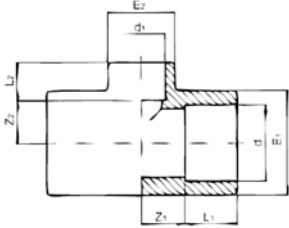


PF 2 01 950 013

| d<br>[mm] | d<br>[inch] | PN | Code             | SP | GP  | kg     | L<br>[mm] | Z<br>[mm] | E<br>[mm] |  |
|-----------|-------------|----|------------------|----|-----|--------|-----------|-----------|-----------|--|
| # 16      |             | 16 | <b>RV0TII160</b> | 10 | 300 | 0.017  | 14        | 9         | 22        |  |
| # 20      |             | 16 | <b>RV0TII200</b> | 10 | 200 | 0.029  | 16        | 11        | 26        |  |
| 25        |             | 16 | <b>RV0TII250</b> | 10 | 100 | 0.032  | 19        | 14        | 32        |  |
| 32        |             | 16 | <b>RV0TII320</b> | 10 | 130 | 0.055  | 22        | 17        | 40        |  |
| 40        |             | 16 | <b>RV0TII400</b> | 45 | -   | 0.127  | 26        | 21        | 51        |  |
| 50        |             | 16 | <b>RV0TII500</b> | 50 | -   | 0.185  | 31        | 26        | 61        |  |
| 63        |             | 16 | <b>RV0TII630</b> | 25 | -   | 0.315  | 38        | 33        | 75        |  |
| 75        | 2 ½         | 16 | <b>RV0TII750</b> | 35 | -   | 0.523  | 44        | 39        | 89        |  |
| 90        |             | 16 | <b>RV0TII900</b> | 20 | -   | 0.830  | 51        | 47        | 106       |  |
| 110       |             | 16 | <b>RV0TII910</b> | 14 | -   | 1.430  | 61        | 57        | 129       |  |
| 125       |             | 16 | <b>RV0TII920</b> | 8  | -   | 1.960  | 69        | 66        | 148       |  |
| 140       | 5           | 16 | <b>RV0TII930</b> | 6  | -   | 2.650  | 76        | 72        | 163       |  |
| 160       |             | 16 | <b>RV0TII940</b> | 4  | -   | 4.350  | 86        | 82        | 190       |  |
| 200       |             | 16 | <b>RV0TII960</b> | 20 | -   | 6.540  | 106       | 102       | 228       |  |
| 225       |             | 10 | <b>RV0TII970</b> | 15 | -   | 8.630  | 119       | 115       | 255       |  |
| * 250     |             | 10 | <b>RV0TII980</b> | 8  | -   | 12.600 | 131       | 128       | 286       |  |
| * 315     |             | 10 | <b>RV0TII991</b> | 4  | -   | 23.400 | 161       | 162       | 360       |  |

## Reduced tee 90° PVC-U metric

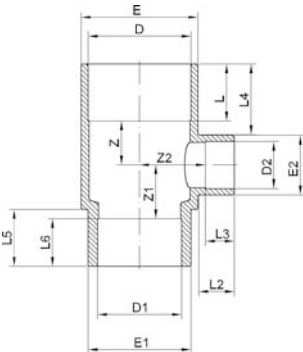
# additional bag containing 100 pieces (10 bags of 10 pieces)



| d - d1<br>[mm] | PN | Code      | SP  | GP  | kg    | L1<br>[mm] | L2<br>[mm] | Z1<br>[mm] | Z2<br>[mm] | E1<br>[mm] | E2<br>[mm] |  |
|----------------|----|-----------|-----|-----|-------|------------|------------|------------|------------|------------|------------|--|
| # 20 - 16      | 16 | RV0TRI20A | 10  | 200 | 0.016 | 16         | 14         | 11         | 11         | 28.0       | 23.0       |  |
| 25 - 16        | 16 | RV0TRI25A | 10  | 120 | 0.041 | 19         | 14         | 14         | 14         | 34.0       | 23.0       |  |
| 25 - 20        | 16 | RV0TRI25B | 10  | 120 | 0.042 | 19         | 16         | 14         | 14         | 34.0       | 28.0       |  |
| 32 - 16        | 16 | RV0TRI32A | 10  | 140 | 0.068 | 22         | 14         | 17         | 17         | 42.0       | 23.0       |  |
| 32 - 20        | 16 | RV0TRI32B | 10  | 140 | 0.066 | 22         | 16         | 17         | 17         | 42.0       | 28.0       |  |
| 32 - 25        | 16 | RV0TRI32C | 10  | 140 | 0.070 | 22         | 19         | 17         | 17         | 42.0       | 34.0       |  |
| 40 - 20        | 16 | RV0TRI40B | 100 | -   | 0.105 | 26         | 16         | 21         | 21         | 51.0       | 28.0       |  |
| 40 - 25        | 16 | RV0TRI40C | 100 | -   | 0.111 | 26         | 19         | 21         | 21         | 51.0       | 34.0       |  |
| 40 - 32        | 16 | RV0TRI40D | 100 | -   | 0.112 | 26         | 22         | 21         | 21         | 51.0       | 42.0       |  |
| 50 - 20        | 16 | RV0TRI50B | 50  | -   | 0.156 | 31         | 16         | 26         | 26         | 61.0       | 28.0       |  |
| 50 - 25        | 16 | RV0TRI50C | 50  | -   | 0.162 | 31         | 19         | 26         | 26         | 61.0       | 34.0       |  |
| 50 - 32        | 16 | RV0TRI50D | 50  | -   | 0.162 | 31         | 22         | 26         | 26         | 61.0       | 42.0       |  |
| 50 - 40        | 16 | RV0TRI50E | 50  | -   | 0.173 | 31         | 26         | 26         | 26         | 61.0       | 51.0       |  |
| 63 - 20        | 16 | RV0TRI63B | 30  | -   | 0.268 | 38         | 16         | 33         | 33         | 75.0       | 28.0       |  |
| 63 - 25        | 16 | RV0TRI63C | 30  | -   | 0.270 | 38         | 19         | 33         | 33         | 75.0       | 34.0       |  |
| 63 - 32        | 16 | RV0TRI63D | 30  | -   | 0.274 | 38         | 22         | 33         | 33         | 75.0       | 42.0       |  |
| 63 - 40        | 16 | RV0TRI63E | 30  | -   | 0.277 | 38         | 26         | 33         | 33         | 75.0       | 51.0       |  |
| 63 - 50        | 16 | RV0TRI63F | 30  | -   | 0.278 | 38         | 31         | 33         | 33         | 75.0       | 61.0       |  |
| 75 - 32        | 16 | RV0TRI75D | 18  | -   | 0.463 | 44         | 22         | 39         | 39         | 89.0       | 42.0       |  |
| 75 - 40        | 16 | RV0TRI75E | 45  | -   | 0.460 | 44         | 26         | 39         | 39         | 89.0       | 51.0       |  |
| 75 - 50        | 16 | RV0TRI75F | 18  | -   | 0.464 | 44         | 31         | 39         | 39         | 89.0       | 61.0       |  |
| 75 - 63        | 16 | RV0TRI75G | 30  | -   | 0.478 | 44         | 38         | 39         | 39         | 89.0       | 75.0       |  |
| 90 - 40        | 16 | RV0TRI90E | 30  | -   | 0.702 | 51         | 26         | 47         | 47         | 106.0      | 61.0       |  |
| 90 - 50        | 16 | RV0TRI90F | 28  | -   | 0.703 | 51         | 31         | 47         | 47         | 106.0      | 61.0       |  |
| 90 - 63        | 16 | RV0TRI90G | 24  | -   | 0.713 | 51         | 38         | 47         | 47         | 106.0      | 75.0       |  |
| 90 - 75        | 16 | RV0TRI90H | 24  | -   | 0.731 | 51         | 44         | 47         | 47         | 106.0      | 89.0       |  |
| 110 - 50       | 16 | RV0TRI91F | 16  | -   | 1.245 | 61         | 31         | 57         | 57         | 129.0      | 61.0       |  |
| 110 - 63       | 16 | RV0TRI91G | 16  | -   | 1.250 | 61         | 38         | 57         | 57         | 129.0      | 75.0       |  |
| 110 - 75       | 16 | RV0TRI91H | 16  | -   | 1.255 | 61         | 44         | 57         | 57         | 129.0      | 89.0       |  |
| 110 - 90       | 16 | RV0TRI91I | 14  | -   | 1.297 | 61         | 51         | 57         | 57         | 129.0      | 106.0      |  |
| 125 - 63       | 16 | RV0TRI92G | 9   | -   | 1.955 | 69         | 38         | 66         | 66         | 148.0      | 75.0       |  |
| 125 - 90       | 16 | RV0TRI92I | 9   | -   | 1.740 | 69         | 51         | 66         | 66         | 148.0      | 106.0      |  |
| 125 - 110      | 16 | RV0TRI92L | 8   | -   | 2.060 | 69         | 61         | 66         | 66         | 148.0      | 129.0      |  |
| 160 - 90       | 16 | RV0TRI94I | 4   | -   | 3.790 | 86         | 51         | 82         | 82         | 190.0      | 106.0      |  |
| 160 - 110      | 16 | RV0TRI94L | 4   | -   | 3.840 | 86         | 61         | 82         | 82         | 190.0      | 129.0      |  |

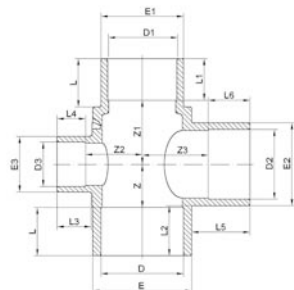
PF 2 01 950 010

## Manifold tee PVC-U metric



| E x D1 x D2<br>[mm] | PN         | Code       | SP         | GP        | kg         |            |           |            |            |           |            |            |            |
|---------------------|------------|------------|------------|-----------|------------|------------|-----------|------------|------------|-----------|------------|------------|------------|
| 90 x 63 x 40        | 16         | RV0TDI900  | 18         | -         | 0.500      |            |           |            |            |           |            |            |            |
| 140 x 110 x 50      | 16         | RV0TDI930  | 6          | -         | 0.995      |            |           |            |            |           |            |            |            |
| E x D1 x D2<br>[mm] | E<br>[mm]  | E1<br>[mm] | E2<br>[mm] | D<br>[mm] | D1<br>[mm] | D2<br>[mm] | Z<br>[mm] | Z1<br>[mm] | Z2<br>[mm] | L<br>[mm] | L2<br>[mm] | L3<br>[mm] | L4<br>[mm] |
| 90 x 63 x 40        | 90         | 75.0       | 50.0       | 75        | 63         | 40         | 39        | 58         | 51         | 44        | 31         | 26         | 46         |
| 140 x 110 x 50      | 140        | 125.0      | 63.0       | 125       | 110        | 50         | 47        | 47         | 79         | 61        | 38         | 31         | 75         |
| E x D1 x D2<br>[mm] | L5<br>[mm] | L6<br>[mm] |            |           |            |            |           |            |            |           |            |            |            |
| 90 x 63 x 40        | 44         | 38         |            |           |            |            |           |            |            |           |            |            |            |
| 140 x 110 x 50      | 61         | 61         |            |           |            |            |           |            |            |           |            |            |            |

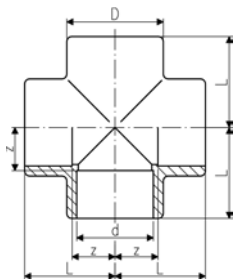
PF 2 01 950 010



## Adaptor cross PVC-U metric

| E x D2 x D3<br>[mm] | PN         | Code             | SP         | GP         | kg         |            |            |            |           |            |            |            |           |  |
|---------------------|------------|------------------|------------|------------|------------|------------|------------|------------|-----------|------------|------------|------------|-----------|--|
| 90 x 63 x 40        | 16         | <b>RV0TCI900</b> | 12         | -          | 0.570      |            |            |            |           |            |            |            |           |  |
| E x D2 x D3<br>[mm] | E<br>[mm]  | E1<br>[mm]       | E2<br>[mm] | E3<br>[mm] | D<br>[mm]  | D1<br>[mm] | D2<br>[mm] | D3<br>[mm] | Z<br>[mm] | Z1<br>[mm] | z2<br>[mm] | z3<br>[mm] | L<br>[mm] |  |
| 90 x 63 x 40        | 90         | 75.0             | 75.0       | 50.0       | 75         | 63         | 63         | 40         | 39        | 58         | 51.5       | 60         | 44        |  |
| E x D2 x D3<br>[mm] | L1<br>[mm] | L2<br>[mm]       | L3<br>[mm] | L4<br>[mm] | L5<br>[mm] | L6<br>[mm] |            |            |           |            |            |            |           |  |
| 90 x 63 x 40        | 38         | 46               | 31         | 26         | 53         | 38         |            |            |           |            |            |            |           |  |

PF 2 01 950 010



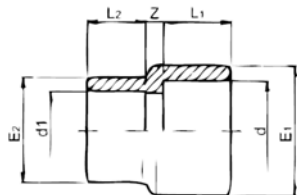
## Cross 90° PVC-U metric

• (\*) Traded items

| d<br>[mm] | PN | Code             | SP  | GP | kg    | L<br>[mm] | Z<br>[mm] | D<br>[mm] |  |
|-----------|----|------------------|-----|----|-------|-----------|-----------|-----------|--|
| * 20      | 16 | <b>RV0CRI200</b> | 120 | -  | 0.030 | 16        | 11        | 27.5      |  |
| * 25      | 16 | <b>RV0CRI250</b> | 80  | -  | 0.060 | 19        | 14        | 33.5      |  |
| * 32      | 16 | <b>RV0CRI320</b> | 130 | -  | 0.105 | 22        | 17        | 42.0      |  |
| * 40      | 16 | <b>RV0CRI400</b> | 35  | -  | 0.175 | 26        | 21        | 51.0      |  |
| * 50      | 16 | <b>RV0CRI500</b> | 35  | -  | 0.265 | 31        | 26        | 61.0      |  |
| * 63      | 16 | <b>RV0CRI630</b> | 18  | -  | 0.505 | 38        | 33        | 75.0      |  |
| * 75      | 10 | <b>RV0CRI750</b> | 24  | -  | 0.735 | 44        | 40        | 91.0      |  |
| * 90      | 10 | <b>RV0CRI900</b> | 18  | -  | 1.180 | 51        | 46        | 106.0     |  |
| * 110     | 10 | <b>RV0CRI910</b> | 9   | -  | 1.588 | 61        | 56        | 129.5     |  |

PF 2 01 950 013

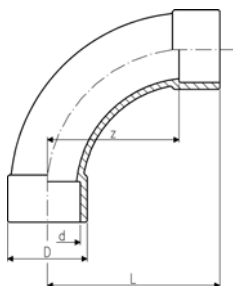
## Reducing socket PVC-U metric



PF 2 01 950 010

| d - d1<br>[mm] | PN | Code      | SP  | GP | kg    | L1<br>[mm] | L2<br>[mm] | Z<br>[mm] | E1<br>[mm] | E2<br>[mm] |  |
|----------------|----|-----------|-----|----|-------|------------|------------|-----------|------------|------------|--|
| 20 - 16        | 16 | RV0MRI20A | 270 | -  | 0.010 | 16         | 14         | 6         | 28.0       | 23.0       |  |
| 25 - 20        | 16 | RV0MRI25B | 200 | -  | 0.016 | 19         | 16         | 6         | 34.0       | 28.0       |  |
| 32 - 25        | 16 | RV0MRI32C | 150 | -  | 0.027 | 22         | 19         | 6         | 42.0       | 34.0       |  |
| 40 - 32        | 16 | RV0MRI40D | 100 | -  | 0.055 | 26         | 22         | 6         | 51.0       | 42.0       |  |
| 50 - 40        | 16 | RV0MRI50E | 60  | -  | 0.081 | 31         | 26         | 6         | 61.0       | 51.0       |  |
| 63 - 50        | 16 | RV0MRI63F | 70  | -  | 0.132 | 38         | 31         | 6         | 75.0       | 61.0       |  |
| 75 - 63        | 16 | RV0MRI75G | 50  | -  | 0.215 | 44         | 38         | 4         | 89.0       | 75.0       |  |
| 90 - 75        | 16 | RV0MRI90H | 40  | -  | 0.350 | 51         | 44         | 5         | 106.0      | 89.0       |  |
| 110 - 90       | 16 | RV0MRI91I | 48  | -  | 0.550 | 61         | 51         | 6         | 129.0      | 106.0      |  |
| 125 - 110      | 16 | RV0MRI92L | 22  | -  | 0.740 | 69         | 61         | 24        | 145.0      | 129.0      |  |
| 140 - 110      | 16 | RV0MRI93L | 18  | -  | 0.970 | 76         | 61         | 25        | 160.0      | 129.0      |  |
| 140 - 125      | 16 | RV0MRI93M | 16  | -  | 1.025 | 76         | 69         | 19        | 160.0      | 145.0      |  |
| 160 - 110      | 16 | RV0MRI94L | 12  | -  | 1.220 | 86         | 61         | 24        | 181.0      | 130.0      |  |
| 160 - 140      | 16 | RV0MRI94N | 9   | -  | 1.350 | 86         | 76         | 8         | 184.0      | 162.0      |  |
| 200 - 160      | 16 | RV0MRI96O | 6   | -  | 2.360 | 106        | 86         | 24        | 227.0      | 184.0      |  |
| 225 - 200      | 10 | RV0MRI97Q | 4   | -  | 3.220 | 119        | 106        | 10        | 255.0      | 227.0      |  |

## Bend 90° PVC-U metric

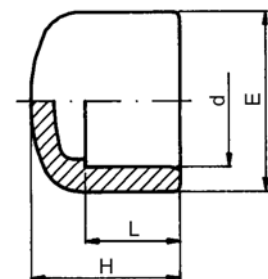


PF 2 01 950 013

| d<br>[mm] | d<br>[inch] | PN | Code      | SP  | GP | kg    | L<br>[mm] | z<br>[mm] | D<br>[mm] |  |
|-----------|-------------|----|-----------|-----|----|-------|-----------|-----------|-----------|--|
| 20        |             | 16 | RV0CUI200 | 160 | -  | 0.045 | 56        | 40        | 27        |  |
| 25        |             | 16 | RV0CUI250 | 100 | -  | 0.070 | 69        | 50        | 33        |  |
| 32        |             | 16 | RV0CUI320 | 50  | 50 | 0.070 | 86        | 64        | 38        |  |
| 40        |             | 16 | RV0CUI400 | 60  | -  | 0.210 | 106       | 80        | 47        |  |
| 50        |             | 16 | RV0CUI500 | 60  | -  | 0.318 | 131       | 100       | 61        |  |
| 63        |             | 16 | RV0CUI630 | 30  | -  | 0.550 | 164       | 126       | 76        |  |
| 75        | 2 ½         | 16 | RV0CUI750 | 20  | -  | 1.015 | 194       | 150       | 90        |  |
| 90        |             | 16 | RV0CUI900 | 12  | -  | 1.787 | 231       | 180       | 108       |  |
| 110       |             | 16 | RV0CUI910 | 6   | -  | 2.888 | 281       | 220       | 137       |  |

## Cap PVC-U metric

# additional bag containing 100 pieces (10 bags of 10 pieces)



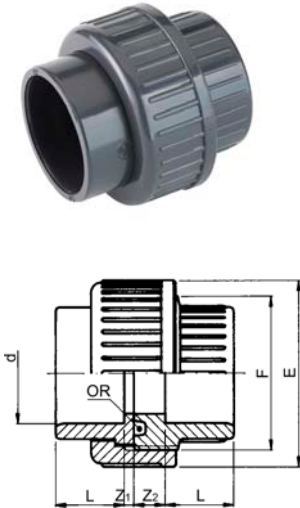
PF 2 01 950 010

| d<br>[mm] | d<br>[inch] | PN | Code      | SP  | GP  | kg    | L<br>[mm] | H<br>[mm] | E<br>[mm] |  |
|-----------|-------------|----|-----------|-----|-----|-------|-----------|-----------|-----------|--|
| # 16      |             | 16 | RV0CAI160 | 10  | 600 | 0.005 | 14.0      | 22        | 22        |  |
| # 20      |             | 16 | RV0CAI200 | 10  | 500 | 0.008 | 16.0      | 26        | 26        |  |
| # 25      |             | 16 | RV0CAI250 | 10  | 400 | 0.013 | 19.0      | 30        | 32        |  |
| # 32      |             | 16 | RV0CAI320 | 10  | 200 | 0.022 | 22.0      | 33        | 40        |  |
| 40        |             | 16 | RV0CAI400 | 100 | -   | 0.047 | 26.0      | 41        | 51        |  |
| 50        |             | 16 | RV0CAI500 | 80  | -   | 0.070 | 31.0      | 46        | 61        |  |
| 63        |             | 16 | RV0CAI630 | 50  | -   | 0.118 | 38.0      | 55        | 75        |  |
| 75        | 2 ½         | 16 | RV0CAI750 | 25  | -   | 0.187 | 44.0      | 64        | 89        |  |
| 90        |             | 16 | RV0CAI900 | 20  | -   | 0.301 | 51.0      | 73        | 106       |  |
| 110       |             | 16 | RV0CAI910 | 25  | -   | 0.510 | 61.0      | 87        | 129       |  |
| 125       |             | 16 | RV0CAI920 | 36  | -   | 0.665 | 69.0      | 98        | 145       |  |
| 140       | 5           | 16 | RV0CAI930 | 30  | -   | 0.915 | 76.0      | 108       | 162       |  |
| 160       |             | 16 | RV0CAI940 | 18  | -   | 1.195 | 86.0      | 123       | 182       |  |
| 200       |             | 16 | RV0CAI960 | 8   | -   | 2.115 | 106.0     | 149       | 228       |  |
| 225       |             | 10 | RV0CAI970 | 6   | -   | 2.835 | 119.0     | 165       | 256       |  |



## Union with o-ring PVC-U metric

# additional bag containing 100 pieces (10 bags of 10 pieces)

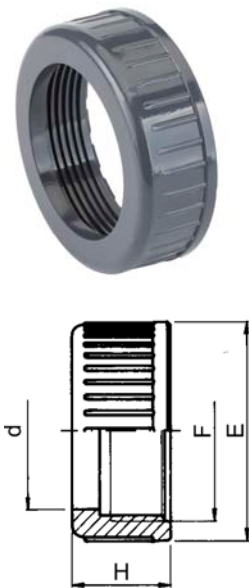


PF 2 01 950 010

| d<br>[mm] | d<br>[inch] | PN | EPDM<br>Code     | SP  | GP  | kg    | L<br>[mm] | Z1<br>[mm] | Z2<br>[mm] | E<br>[mm] | F<br>[inch] |  |
|-----------|-------------|----|------------------|-----|-----|-------|-----------|------------|------------|-----------|-------------|--|
| # 16      |             | 16 | <b>RV0BOI160</b> | 10  | 300 | 0.025 | 14.0      | 3          | 10         | 34        | ¾           |  |
| # 20      |             | 16 | <b>RV0BOI200</b> | 10  | 200 | 0.042 | 16.0      | 3          | 10         | 42        | 1           |  |
| 25        |             | 16 | <b>RV0BOI250</b> | 10  | 100 | 0.066 | 19.0      | 3          | 10         | 52        | 1 ¼         |  |
| 32        |             | 16 | <b>RV0BOI320</b> | 10  | 60  | 0.093 | 22.0      | 3          | 10         | 59        | 1 ½         |  |
| 40        |             | 16 | <b>RV0BOI400</b> | 100 | -   | 0.160 | 26.0      | 3          | 12         | 73        | 2           |  |
| 50        |             | 16 | <b>RV0BOI500</b> | 60  | -   | 0.200 | 31.0      | 3          | 14         | 82        | 2 ¼         |  |
| 63        |             | 16 | <b>RV0BOI630</b> | 36  | -   | 0.355 | 38.0      | 3          | 18         | 100       | 2 ¾         |  |
| 75        | 2 ½         | 16 | <b>RV0BOI750</b> | 10  | -   | 0.575 | 44.0      | 3          | 18         | 119       | 3 ½         |  |
| 90        |             | 16 | <b>RV0BOI900</b> | 15  | -   | 0.765 | 51.0      | 5          | 18         | 134       | 4           |  |
| 110       |             | 16 | <b>RV0BOI910</b> | 18  | -   | 1.285 | 61.0      | 5          | 18         | 163       | 5           |  |

## Nut PVC-U

Suitable for BOI/BOF/BOP



PF 2 01 950 010

| d<br>[mm] | PN | Code             | SP  | GP | kg    | d<br>[mm] | H<br>[mm] | F<br>[inch] | E<br>[mm] |  |
|-----------|----|------------------|-----|----|-------|-----------|-----------|-------------|-----------|--|
| 16        | 16 | <b>RV0BGO160</b> | 450 | -  | 0.013 | 22.1      | 21        | ¾           | 34        |  |
| 20        | 16 | <b>RV0BGO200</b> | 400 | -  | 0.015 | 27.6      | 23        | 1           | 42        |  |
| 25        | 16 | <b>RV0BGO250</b> | 170 | -  | 0.025 | 36.1      | 25        | 1 ¼         | 52        |  |
| 32        | 16 | <b>RV0BGO320</b> | 180 | -  | 0.035 | 41.6      | 27        | 1 ½         | 59        |  |
| 40        | 16 | <b>RV0BGO400</b> | 100 | -  | 0.060 | 53.1      | 30        | 2           | 72        |  |
| 50        | 16 | <b>RV0BGO500</b> | 125 | -  | 0.080 | 59.1      | 34        | 2 ¼         | 79        |  |
| 63        | 16 | <b>RV0BGO630</b> | 100 | -  | 0.130 | 74.1      | 38        | 2 ¾         | 96        |  |
| 75        | 16 | <b>RV0BGO750</b> | 50  | -  | 0.200 | 92.6      | 45        | 3 ½         | 119       |  |
| 90        | 16 | <b>RV0BGO900</b> | 80  | -  | 0.285 | 105.1     | 52        | 4           | 134       |  |
| 110       | 16 | <b>RV0BGO910</b> | 50  | -  | 0.445 | 129.2     | 60        | 5           | 163       |  |

## Union bush PVC-U

Suitable for BOI



PF 2 01 950 010

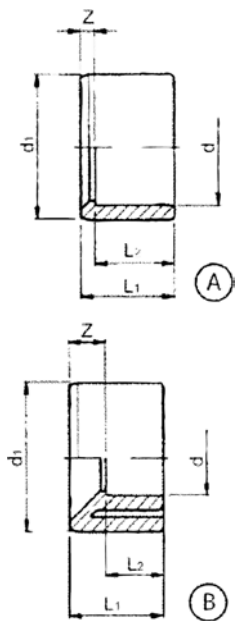
| d<br>[mm] | d<br>[inch] | PN | Code             | SP  | GP | kg    | L<br>[mm] | Z<br>[mm] | F<br>[inch] |  |
|-----------|-------------|----|------------------|-----|----|-------|-----------|-----------|-------------|--|
| 16        |             | 16 | <b>RV0BFI160</b> | 600 | -  | 0.009 | 14.0      | 10.0      | ¾           |  |
| 20        |             | 16 | <b>RV0BFI200</b> | 350 | -  | 0.015 | 16.0      | 10.0      | 1           |  |
| 25        |             | 16 | <b>RV0BFI250</b> | 250 | -  | 0.024 | 19.0      | 10.0      | 1 ¼         |  |
| 32        |             | 16 | <b>RV0BFI320</b> | 160 | -  | 0.034 | 22.0      | 10.0      | 1 ½         |  |
| 40        |             | 16 | <b>RV0BFI400</b> | 75  | -  | 0.057 | 26.0      | 12.0      | 2           |  |
| 50        |             | 16 | <b>RV0BFI500</b> | 50  | -  | 0.078 | 31.0      | 14.0      | 2 ¼         |  |
| 63        |             | 16 | <b>RV0BFI630</b> | 60  | -  | 0.134 | 38.0      | 18.0      | 2 ¾         |  |
| 75        | 2 ½         | 16 | <b>RV0BFI750</b> | 125 | -  | 0.205 | 44.0      | 18.0      | 3 ½         |  |
| 90        |             | 16 | <b>RV0BFI900</b> | 80  | -  | 0.270 | 51.0      | 18.0      | 4           |  |
| 110       |             | 16 | <b>RV0BFI910</b> | 48  | -  | 0.465 | 61.0      | 18.0      | 5           |  |



## Reducing bush PVC-U metric

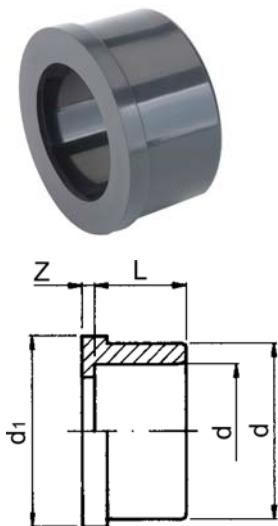
# additional bag containing 100 pieces (10 bags of 10 pieces)

• (\*) Traded items



| d - d1<br>[mm] | PN | Code       | SP  | GP  | kg    | L1<br>[mm] | L2<br>[mm] | Z<br>[mm] |  |
|----------------|----|------------|-----|-----|-------|------------|------------|-----------|--|
| # A 20 - 16    | 16 | RV0RCI20A  | 10  | 800 | 0.003 | 16         | 14         | 2         |  |
| # B 25 - 16    | 16 | RV0RCI25A  | 10  | 600 | 0.008 | 19         | 14         | 5         |  |
| # A 25 - 20    | 16 | RV0RCI25B  | 10  | 600 | 0.005 | 19         | 16         | 3         |  |
| # B 32 - 16    | 16 | RV0RCI32A  | 10  | 400 | 0.015 | 22         | 14         | 8         |  |
| # B 32 - 20    | 16 | RV0RCI32B  | 10  | 400 | 0.015 | 22         | 16         | 6         |  |
| # A 32 - 25    | 16 | RV0RCI32C  | 10  | 400 | 0.010 | 22         | 19         | 3         |  |
| # B 40 - 20    | 16 | RV0RCI40B  | 10  | 200 | 0.025 | 26         | 16         | 10        |  |
| # B 40 - 25    | 16 | RV0RCI40C  | 10  | 200 | 0.027 | 26         | 19         | 7         |  |
| # A 40 - 32    | 16 | RV0RCI40D  | 10  | 200 | 0.016 | 26         | 22         | 4         |  |
| B 50 - 25      | 16 | RV0RCI50C  | 180 | -   | 0.045 | 31         | 19         | 12        |  |
| B 50 - 32      | 16 | RV0RCI50D  | 180 | -   | 0.042 | 31         | 22         | 9         |  |
| A 50 - 40      | 16 | RV0RCI50E  | 180 | -   | 0.030 | 31         | 26         | 5         |  |
| B 63 - 32      | 16 | RV0RCI63D  | 100 | -   | 0.083 | 38         | 22         | 16        |  |
| B 63 - 40      | 16 | RV0RCI63E  | 100 | -   | 0.081 | 38         | 26         | 12        |  |
| A 63 - 50      | 16 | RV0RCI63F  | 100 | -   | 0.062 | 38         | 31         | 7         |  |
| B 75 - 40      | 16 | RV0RCI75E  | 60  | -   | 0.120 | 44         | 26         | 18        |  |
| B 75 - 50      | 16 | RV0RCI75F  | 60  | -   | 0.122 | 44         | 31         | 13        |  |
| A 75 - 63      | 16 | RV0RCI75G  | 60  | -   | 0.082 | 44         | 38         | 6         |  |
| B 90 - 50      | 16 | RV0RCI90F  | 30  | -   | 0.210 | 51         | 31         | 20        |  |
| B 90 - 63      | 16 | RV0RCI90G  | 30  | -   | 0.195 | 51         | 38         | 13        |  |
| A 90 - 75      | 16 | RV0RCI90H  | 30  | -   | 0.140 | 51         | 44         | 7         |  |
| B 110 - 63     | 16 | RV0RCI91G  | 20  | -   | 0.365 | 61         | 38         | 23        |  |
| B 110 - 75     | 16 | RV0RCI91H  | 20  | -   | 0.365 | 61         | 44         | 17        |  |
| A 110 - 90     | 16 | RV0RCI91I  | 20  | -   | 0.273 | 61         | 51         | 10        |  |
| B 125 - 75     | 16 | RV0RCI92H  | 30  | -   | 0.412 | 69         | 44         | 25        |  |
| B 125 - 90     | 16 | RV0RCI92I  | 30  | -   | 0.450 | 69         | 51         | 18        |  |
| A 125 - 110    | 16 | RV0RCI92L  | 30  | -   | 0.273 | 69         | 61         | 8         |  |
| B 140 - 90     | 16 | RV0RCI93I  | 22  | -   | 0.550 | 76         | 51         | 25        |  |
| B 140 - 110    | 16 | RV0RCI93L  | 22  | -   | 0.475 | 76         | 61         | 15        |  |
| A 140 - 125    | 16 | RV0RCI93M  | 22  | -   | 0.340 | 76         | 69         | 7         |  |
| B 160 - 110    | 16 | RV0RCI94L  | 13  | -   | 0.795 | 86         | 61         | 25        |  |
| B 160 - 125    | 16 | RV0RCI94M  | 13  | -   | 0.725 | 86         | 69         | 17        |  |
| A 160 - 140    | 16 | RV0RCI94N  | 13  | -   | 0.545 | 86         | 76         | 10        |  |
| A 180 - 160    | 16 | RV0RCI95O  | 20  | -   | 0.710 | 96         | 86         | 10        |  |
| A 200 - 160    | 16 | RV0RCI96O  | 15  | -   | 1.645 | 106        | 86         | 10        |  |
| A 200 - 180    | 16 | RV0RCI96P  | 15  | -   | 0.870 | 106        | 96         | 10        |  |
| B 225 - 160    | 10 | RV0RCI97O  | 9   | -   | 2.300 | 119        | 86         | 33        |  |
| A 225 - 200    | 10 | RV0RCI97Q  | 9   | -   | 1.360 | 119        | 106        | 13        |  |
| *B 250 - 160   | 10 | RV0RCI98O  | 8   | -   | 3.300 | 134        | 87         | 47        |  |
| *B 250 - 200   | 10 | RV0RCI98Q  | 1   | -   | 2.735 | 134        | 107        | 27        |  |
| *A 250 - 225   | 10 | RV0RCI98R  | 8   | -   | 1.700 | 132        | 120        | 12        |  |
| *B 315 - 200   | 10 | RV0RCI991Q | 3   | -   | 5.000 | 165        | 107        | 58        |  |
| *B 315 - 225   | 10 | RV0RCI991R | 3   | -   | 4.500 | 165        | 132        | 33        |  |
| *B 315 - 250   | 10 | RV0RCI991S | 3   | -   | 4.100 | 165        | 132        | 33        |  |

PF 2 01 950 010

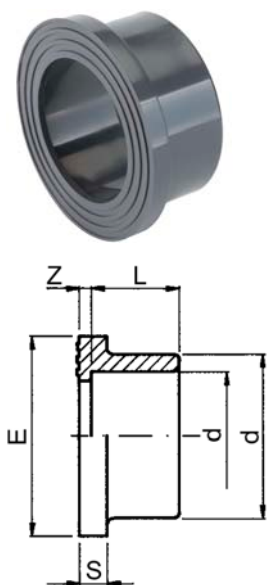


## Union end PVC-U

Suitable for BOI/BOP

| d<br>[mm] | d<br>[inch] | PN | Code      | SP  | GP   | kg    | L<br>[mm] | Z<br>[mm] | d<br>[mm] | d1<br>[mm] |  |
|-----------|-------------|----|-----------|-----|------|-------|-----------|-----------|-----------|------------|--|
| 16        |             | 16 | RV0BLI160 | 10  | 1000 | 0.006 | 14.0      | 3.0       | 22.0      | 24.0       |  |
| 20        |             | 16 | RV0BLI200 | 10  | 500  | 0.009 | 16.0      | 3.0       | 27.5      | 30.1       |  |
| 25        |             | 16 | RV0BLI250 | 10  | 300  | 0.016 | 19.0      | 3.0       | 36.0      | 38.8       |  |
| 32        |             | 16 | RV0BLI320 | 215 | -    | 0.022 | 22.0      | 3.0       | 41.5      | 44.7       |  |
| 40        |             | 16 | RV0BLI400 | 120 | -    | 0.040 | 26.0      | 3.0       | 53.0      | 56.5       |  |
| 50        |             | 16 | RV0BLI500 | 110 | -    | 0.041 | 31.0      | 3.0       | 59.0      | 62.6       |  |
| 63        |             | 16 | RV0BLI630 | 130 | -    | 0.080 | 38.0      | 3.0       | 74.0      | 78.4       |  |
| 75        | 2 ½         | 16 | RV0BLI750 | 165 | -    | 0.150 | 44.0      | 3.0       | 92.5      | 97.2       |  |
| 90        |             | 16 | RV0BLI900 | 100 | -    | 0.195 | 51.0      | 5.0       | 105.0     | 110.0      |  |
| 110       |             | 16 | RV0BLI910 | 66  | -    | 0.350 | 61.0      | 5.0       | 129.0     | 135.4      |  |

PF 2 01 950 010



## Flange adaptor serrated PVC-U metric

- DN indicates the nominal diameter of the PVC pipe
- (\*) Traded items

| d<br>[mm] | d<br>[inch] | DN<br>[mm] | PN | Code      | SP  | GP  | kg    | L<br>[mm] | Z<br>[mm] | d<br>[mm] | S<br>[mm] | E<br>[mm] |  |
|-----------|-------------|------------|----|-----------|-----|-----|-------|-----------|-----------|-----------|-----------|-----------|--|
| 20        |             | 15         | 16 | RV0QRI200 | 10  | 360 | 0.010 | 16.0      | 3.0       | 27        | 6         | 34        |  |
| 25        |             | 20         | 16 | RV0QRI250 | 10  | 300 | 0.017 | 19.0      | 3.0       | 33        | 7         | 41        |  |
| 32        |             | 25         | 16 | RV0QRI320 | 10  | 200 | 0.026 | 22.0      | 3.0       | 41        | 7         | 50        |  |
| 40        |             | 32         | 16 | RV0QRI400 | 140 | -   | 0.040 | 26.0      | 3.0       | 50        | 8         | 61        |  |
| 50        |             | 40         | 16 | RV0QRI500 | 140 | -   | 0.060 | 31.0      | 3.0       | 61        | 8         | 73        |  |
| 63        |             | 50         | 16 | RV0QRI630 | 90  | -   | 0.105 | 38.0      | 3.0       | 76        | 9         | 90        |  |
| 75        | 2 ½         | 65         | 16 | RV0QRI750 | 50  | -   | 0.170 | 44.0      | 3.0       | 90        | 10        | 106       |  |
| 90        |             | 80         | 16 | RV0QRI900 | 38  | -   | 0.279 | 51.0      | 5.0       | 108       | 11        | 125       |  |
| 110       |             | 100        | 16 | RV0QRI910 | 24  | -   | 0.444 | 61.0      | 5.0       | 131       | 12        | 150       |  |
| 125       |             | 110        | 16 | RV0QRI920 | 25  | -   | 0.560 | 69.0      | 5.0       | 147       | 13        | 168       |  |
| 140       | 5           | 125        | 16 | RV0QRI930 | 20  | -   | 0.750 | 76.0      | 5.0       | 165       | 14        | 188       |  |
| 160       |             | 150        | 16 | RV0QRI940 | 15  | -   | 1.030 | 86.0      | 5.0       | 188       | 16        | 213       |  |
| 200       |             | 200        | 16 | RV0QRI960 | 8   | -   | 2.000 | 106.0     | 7.0       | 232       | 18        | 254       |  |
| 225       |             | 200        | 10 | RV0QRI970 | 6   | -   | 1.775 | 119.0     | 7.0       | 248       | 19        | 274       |  |
| * 250     |             | 250        | 10 | RV0QRI980 | 4   | -   | 2.325 | 131.0     | 10.0      | 273       | 20        | 307       |  |
| * 315     |             | 300        | 10 | RV0QRI991 | 3   | -   | 4.834 | 164.0     | 11.0      | 346       | 27        | 379       |  |

PF 2 01 950 010

## Flat gasket

Suitable for flange adaptor RV0QRI

- (\*) Traded items

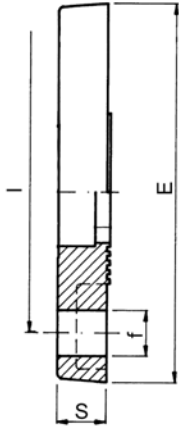


| d<br>[mm] | EPDM<br>Code | SP |  |
|-----------|--------------|----|--|
| * 16      | 2GRNPD160    | 10 |  |
| * 20      | 2GRNPD200    | 10 |  |
| * 25      | 2GRNPD250    | 10 |  |
| * 32      | 2GRNPD320    | 10 |  |
| * 40      | 2GRNPD400    | 10 |  |
| * 50      | 2GRNPD500    | 10 |  |
| * 63      | 2GRNPD630    | 10 |  |
| * 75      | 2GRNPD750    | 10 |  |
| * 90      | 2GRNPD900    | 10 |  |
| * 110     | 2GRNPD910    | 10 |  |
| * 125     | 2GRNPD920    | 10 |  |
| * 140     | 2GRNPD930    | 10 |  |
| * 160     | 2GRNPD940    | 10 |  |
| * 200     | 2GRNPD960    | 10 |  |
| * 225     | 2GRNPD970    | 6  |  |

## Backing flange PVC-U metric

Bolt holes PN10

- DN indicates the nominal diameter of the PVC pipe
- (\*\*) Special flange with bolt holes for DN 140
- (\*) Traded items

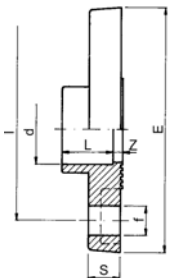


| d<br>[mm] | DN<br>[mm] | PN | Code      | SP  | GP | kg    | d<br>[mm] | E<br>[mm] | S<br>[mm] | I<br>[mm] | f<br>[mm] |  |
|-----------|------------|----|-----------|-----|----|-------|-----------|-----------|-----------|-----------|-----------|--|
| 20        | 15         | 16 | RV0FLI200 | 120 | -  | 0.067 | 28        | 95        | 11        | 65        | 14        |  |
| 25        | 20         | 16 | RV0FLI250 | 100 | -  | 0.090 | 34        | 105       | 12        | 75        | 14        |  |
| 32        | 25         | 16 | RV0FLI320 | 50  | -  | 0.116 | 42        | 115       | 14        | 85        | 14        |  |
| 40        | 32         | 16 | RV0FLI400 | 35  | -  | 0.185 | 51        | 140       | 15        | 100       | 18        |  |
| 50        | 40         | 16 | RV0FLI500 | 70  | -  | 0.215 | 62        | 150       | 16        | 110       | 18        |  |
| 63        | 50         | 16 | RV0FLI630 | 45  | -  | 0.300 | 78        | 165       | 18        | 125       | 18        |  |
| 75        | 65         | 16 | RV0FLI750 | 50  | -  | 0.355 | 92        | 185       | 19        | 145       | 18        |  |
| 90        | 80         | 16 | RV0FLI900 | 38  | -  | 0.435 | 110       | 200       | 20        | 160       | 18        |  |
| 110       | 100        | 16 | RV0FLI910 | 24  | -  | 0.520 | 133       | 220       | 22        | 180       | 18        |  |
| 125       | 110        | 16 | RV0FLI920 | 25  | -  | 0.570 | 149       | 230       | 24        | 190       | 18        |  |
| ** 125    | 125        | 16 | RV0FAI920 | 20  | -  | 0.819 | 149       | 250       | 26        | 210       | 18        |  |
| 140       | 125        | 16 | RV0FLI930 | 20  | -  | 0.700 | 167       | 250       | 26        | 210       | 18        |  |
| 160       | 150        | 16 | RV0FLI940 | 15  | -  | 0.975 | 190       | 285       | 28        | 240       | 22        |  |
| 200       | 200        | 10 | RV0FLI960 | 8   | -  | 1.230 | 235       | 340       | 30        | 295       | 22        |  |
| 225       | 200        | 10 | RV0FLI970 | 6   | -  | 1.315 | 250       | 340       | 30        | 295       | 22        |  |
| * 250     | 250        | 10 | RV0FLI980 | 8   | -  | 1.800 | 280       | 395       | 34        | 350       | 22        |  |
| * 315     | 300        | 10 | RV0FLI991 | 4   | -  | 3.180 | 349       | 445       | 31        | 400       | 22        |  |

PF 2 01 950 010

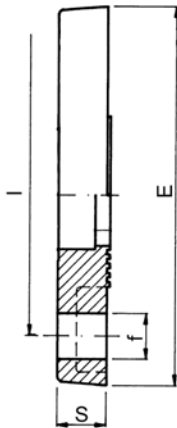
## Fixed flange PVC-U metric

- DN indicates the nominal diameter of the PVC pipe



| d<br>[mm] | d<br>[inch] | DN<br>[mm] | PN | Code      | SP  | GP | kg    | L<br>[mm] | Z<br>[mm] | E<br>[mm] | S<br>[mm] | I<br>[mm] | f<br>[mm] |  |
|-----------|-------------|------------|----|-----------|-----|----|-------|-----------|-----------|-----------|-----------|-----------|-----------|--|
| 20        |             | 15         | 16 | RV0FFI200 | 100 | -  | 0.070 | 16.0      | 4.5       | 95        | 11        | 65        | 14        |  |
| 25        |             | 20         | 16 | RV0FFI250 | 70  | -  | 0.105 | 19.0      | 4.5       | 105       | 12        | 75        | 14        |  |
| 32        |             | 25         | 16 | RV0FFI320 | 120 | -  | 0.145 | 22.0      | 4.5       | 115       | 14        | 85        | 14        |  |
| 40        |             | 32         | 16 | RV0FFI400 | 60  | -  | 0.220 | 26.0      | 4.5       | 140       | 15        | 100       | 18        |  |
| 50        |             | 40         | 16 | RV0FFI500 | 50  | -  | 0.270 | 31.0      | 4.5       | 150       | 16        | 110       | 18        |  |
| 63        |             | 50         | 16 | RV0FFI630 | 40  | -  | 0.380 | 38.0      | 4.5       | 165       | 18        | 125       | 18        |  |
| 75        | 2 1/2       | 65         | 16 | RV0FFI750 | 20  | -  | 0.505 | 44.0      | 6.0       | 185       | 19        | 145       | 18        |  |
| 90        |             | 80         | 16 | RV0FFI900 | 15  | -  | 0.685 | 51.0      | 7.0       | 200       | 20        | 160       | 18        |  |
| 110       |             | 100        | 16 | RV0FFI910 | 10  | -  | 0.940 | 61.0      | 8.0       | 220       | 22        | 180       | 18        |  |
| 125       |             | 110        | 10 | RV0FFI920 | 6   | -  | 1.033 | 69.0      | 7.0       | 230       | 24        | 190       | 18        |  |
| 140       | 5           | 125        | 10 | RV0FFI930 | 6   | -  | 1.335 | 76.0      | 7.0       | 250       | 26        | 210       | 18        |  |
| 160       |             | 140        | 10 | RV0FFI940 | 5   | -  | 1.853 | 86.0      | 7.0       | 285       | 28        | 240       | 18        |  |

PF 2 01 950 010



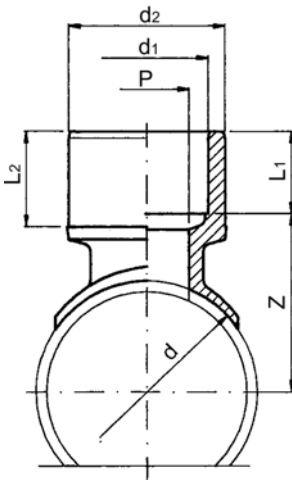
## Blind flange PVC-U metric

Bolt holes PN10

• DN indicates the nominal diameter of the PVC pipe

| d<br>[mm] | DN<br>[mm] | PN | Code      | SP  | GP | kg    | E<br>[mm] | S<br>[mm] | I<br>[mm] | f<br>[mm] |  |
|-----------|------------|----|-----------|-----|----|-------|-----------|-----------|-----------|-----------|--|
| 20        | 15         | 16 | RV0FCI200 | 120 | -  | 0.073 | 95        | 11        | 65        | 14        |  |
| 25        | 20         | 16 | RV0FCI250 | 100 | -  | 0.095 | 105       | 12        | 75        | 14        |  |
| 32        | 25         | 16 | RV0FCI320 | 140 | -  | 0.135 | 115       | 14        | 85        | 14        |  |
| 40        | 32         | 16 | RV0FCI400 | 100 | -  | 0.220 | 140       | 15        | 100       | 18        |  |
| 50        | 40         | 16 | RV0FCI500 | 70  | -  | 0.270 | 150       | 16        | 110       | 18        |  |
| 63        | 50         | 16 | RV0FCI630 | 50  | -  | 0.370 | 165       | 18        | 125       | 18        |  |
| 75        | 65         | 16 | RV0FCI750 | 45  | -  | 0.495 | 185       | 19        | 145       | 18        |  |
| 90        | 80         | 16 | RV0FCI900 | 38  | -  | 0.630 | 200       | 20        | 160       | 18        |  |
| 110       | 100        | 16 | RV0FCI910 | 25  | -  | 0.840 | 220       | 22        | 180       | 18        |  |
| 125       | 110        | 16 | RV0FCI920 | 20  | -  | 0.890 | 230       | 24        | 190       | 18        |  |
| 140       | 125        | 16 | RV0FCI930 | 18  | -  | 1.000 | 250       | 26        | 210       | 18        |  |
| 160       | 150        | 16 | RV0FCI940 | 14  | -  | 1.620 | 285       | 28        | 240       | 22        |  |
| 200       | 200        | 10 | RV0FCI960 | 8   | -  | 2.480 | 340       | 30        | 295       | 22        |  |
| 225       | 200        | 10 | RV0FCI970 | 8   | -  | 2.480 | 340       | 30        | 295       | 22        |  |

PF 2 01 950 010

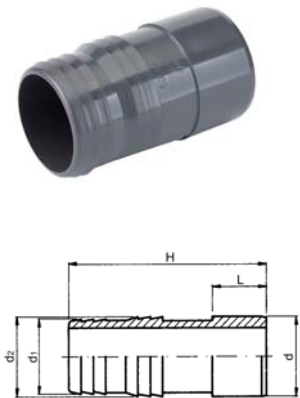


## Saddle socket M/F PVC-U metric

| d<br>[mm] | d1<br>[mm] | d2<br>[mm] | PN | Code      | SP  | GP  | kg    | L1<br>[mm] | L2<br>[mm] | Z<br>[mm] | P<br>[mm] |  |
|-----------|------------|------------|----|-----------|-----|-----|-------|------------|------------|-----------|-----------|--|
| 50        | 20         | 25         | 10 | DV0DEI50B | 15  | 150 | 0.012 | 16         | 19         | 43        | 14        |  |
| 50        | 32         | 40         | 10 | DV0DEI50D | 10  | 50  | 0.035 | 22         | 26         | 45        | 24        |  |
| 63        | 20         | 25         | 10 | DV0DEI63B | 15  | 150 | 0.013 | 16         | 19         | 49        | 14        |  |
| 63        | 25         | 32         | 10 | DV0DEI63C | 10  | 100 | 0.021 | 19         | 22         | 50        | 19        |  |
| 63        | 32         | 40         | 10 | DV0DEI63D | 10  | 50  | 0.035 | 22         | 26         | 51        | 24        |  |
| 75        | 50         | 63         | 10 | DV0DEI75F | 110 | 24  | 0.101 | 31         | 38         | 63        | 38        |  |
| 90        | 50         | 63         | 10 | DV0DEI90F | 1   | 24  | 0.108 | 31         | 38         | 71        | 38        |  |
| 90        | 63         | 75         | 10 | DV0DEI90G | 1   | 12  | 0.142 | 38         | 44         | 70        | 48        |  |
| 110       | 40         | 50         | 10 | DV0DEI91E | 1   | 30  | 0.058 | 26         | 31         | 78        | 30        |  |
| 110       | 50         | 63         | 10 | DV0DEI91F | 1   | 24  | 0.108 | 31         | 38         | 81        | 38        |  |
| 110       | 63         | 75         | 10 | DV0DEI91G | 1   | 12  | 0.137 | 38         | 44         | 80        | 48        |  |
| 125       | 50         | 63         | 10 | DV0DEI92F | 1   | 24  | 0.108 | 31         | 38         | 88        | 38        |  |
| 140       | 40         | 50         | 10 | DV0DEI93E | 1   | 30  | 0.059 | 26         | 31         | 93        | 30        |  |
| 140       | 63         | 75         | 10 | DV0DEI93G | 1   | 12  | 0.140 | 38         | 44         | 95        | 48        |  |
| 160       | 63         | 75         | 10 | DV0DEI94G | 1   | 12  | 0.137 | 38         | 44         | 105       | 48        |  |
| 200       | 63         | 75         | 10 | DV0DEI96G | 1   | 12  | 0.137 | 38         | 44         | 125       | 48        |  |
| 225       | 63         | 75         | 10 | DV0DEI97G | 1   | 12  | 0.137 | 38         | 44         | 138       | 48        |  |

PF 2 01 950 011

# Solvent cement hose adaptor PVC-U

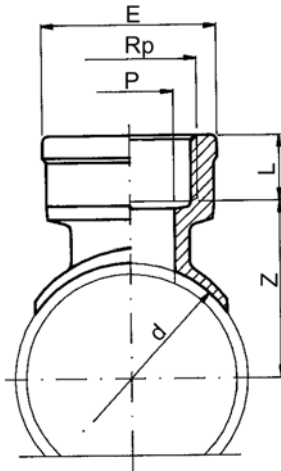


PF 2 01 950 010

| d-d2-d1<br>[mm] | PN | Code             | SP  | GP  | kg    | L<br>[mm] | H<br>[mm] | d1<br>[mm] | d2<br>[mm] |  |
|-----------------|----|------------------|-----|-----|-------|-----------|-----------|------------|------------|--|
| 16 - 18 - 16    | 16 | <b>RV0PGI160</b> | 10  | 400 | 0.007 | 14.0      | 60        | 16         | 18         |  |
| 20 - 22 - 20    | 16 | <b>RV0PGI200</b> | 10  | 300 | 0.013 | 16.0      | 67        | 20         | 22         |  |
| 25 - 27 - 25    | 16 | <b>RV0PGI250</b> | 10  | 200 | 0.021 | 19.0      | 74        | 25         | 27         |  |
| 32 - 32 - 30    | 16 | <b>RV0PGI320</b> | 10  | 130 | 0.032 | 22.0      | 80        | 30         | 32         |  |
| 40 - 42 - 40    | 16 | <b>RV0PGI400</b> | 100 | -   | 0.055 | 26.0      | 92        | 40         | 42         |  |
| 50 - 52 - 50    | 16 | <b>RV0PGI500</b> | 100 | -   | 0.081 | 31.0      | 101       | 50         | 52         |  |
| 63 - 64 - 60    | 16 | <b>RV0PGI630</b> | 60  | -   | 0.142 | 38.0      | 111       | 60         | 64         |  |

# PVC-U fittings B.S.P. threaded range

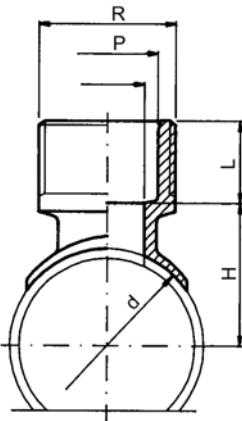
## Saddle with female thread Rp PVC-U



PF 2 01 950 011

| d<br>[mm] | Rp<br>[inch] | PN | Code      | SP  | GP  | kg    | L<br>[mm] | Z<br>[mm] | P<br>[mm] | E<br>[mm] |  |
|-----------|--------------|----|-----------|-----|-----|-------|-----------|-----------|-----------|-----------|--|
| 32        | 1/4          | 10 | DV0DEF32Z | 500 | 150 | 0.010 | 12.9      | 28.9      | 11        | 24.2      |  |
| 40        | 3/8          | 10 | DV0DEF40A | 15  | 150 | 0.009 | 14.0      | 32.0      | 11        | 24.2      |  |
| 50        | 1/4          | 10 | DV0DEF50Z | 15  | 150 | 0.010 | 12.9      | 37.9      | 11        | 24.2      |  |
| 50        | 3/8          | 10 | DV0DEF50A | 15  | 150 | 0.015 | 14.0      | 37.0      | 11        | 24.2      |  |
| 50        | 1/2          | 10 | DV0DEF50B | 15  | 150 | 0.015 | 15.0      | 42.0      | 14        | 30.0      |  |
| 50        | 3/4          | 10 | DV0DEF50C | 10  | 100 | 0.024 | 16.3      | 43.0      | 19        | 36.0      |  |
| 63        | 3/8          | 10 | DV0DEF63A | 15  | 150 | 0.015 | 14.0      | 43.5      | 11        | 24.2      |  |
| 63        | 1/2          | 10 | DV0DEF63B | 15  | 150 | 0.015 | 15.0      | 48.0      | 14        | 30.0      |  |
| 63        | 3/4          | 10 | DV0DEF63C | 10  | 100 | 0.023 | 16.3      | 49.0      | 19        | 36.0      |  |
| 75        | 3/8          | 10 | DV0DEF75A | 15  | 150 | 0.016 | 14.0      | 49.5      | 11        | 24.2      |  |
| 75        | 3/4          | 10 | DV0DEF75C | 10  | 100 | 0.023 | 16.3      | 55.0      | 19        | 36.0      |  |
| 75        | 1            | 10 | DV0DEF75D | 10  | 50  | 0.036 | 19.1      | 56.0      | 24        | 45.0      |  |
| 90        | 1/2          | 10 | DV0DEF90B | 15  | 150 | 0.013 | 15.0      | 62.0      | 14        | 30.0      |  |
| 90        | 1            | 10 | DV0DEF90D | 10  | 50  | 0.037 | 19.1      | 64.0      | 24        | 45.0      |  |
| 90        | 1 1/2        | 10 | DV0DEF90F | 1   | 24  | 0.095 | 21.4      | 66.0      | 38        | 64.0      |  |
| 110       | 1/2          | 10 | DV0DEF91B | 15  | 150 | 0.010 | 15.0      | 72.0      | 14        | 30.0      |  |

## Saddle with male thread R PVC-U

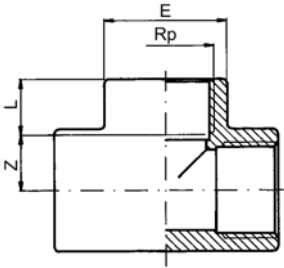


PF 2 01 950 011

| d<br>[mm] | R<br>[inch] | PN | Code      | SP | GP  | kg    | L<br>[mm] | H<br>[mm] | P<br>[mm] |  |
|-----------|-------------|----|-----------|----|-----|-------|-----------|-----------|-----------|--|
| 50        | 1/2         | 10 | DV0DMF50B | 15 | 150 | 0.012 | 15.0      | 42        | 14        |  |
| 90        | 1 1/2       | 10 | DV0DMF90F | 1  | 24  | 0.065 | 21.4      | 66        | 38        |  |
| 110       | 1           | 10 | DV0DMF91D | 10 | 50  | 0.036 | 19.1      | 74        | 24        |  |
| 140       | 1 1/2       | 10 | DV0DMF93F | 1  | 24  | 0.060 | 21.4      | 91        | 38        |  |



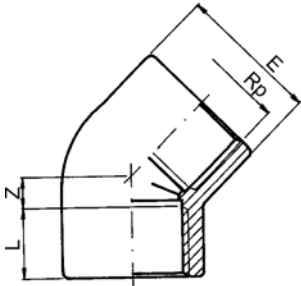
## Threaded tee 90° Rp PVC-U



| Rp<br>[inch] | PN | Code      | SP | GP  | kg    | L<br>[mm] | Z<br>[mm] | E<br>[mm] |  |
|--------------|----|-----------|----|-----|-------|-----------|-----------|-----------|--|
| 3/8          | 16 | RV0TIF160 | 10 | 280 | 0.018 | 11.4      | 11.6      | 23        |  |
| 1/2          | 16 | RV0TIF200 | 10 | 150 | 0.029 | 15.0      | 12.0      | 28        |  |
| 3/4          | 16 | RV0TIF250 | 10 | 100 | 0.050 | 16.3      | 16.7      | 34        |  |
| 1            | 16 | RV0TIF320 | 10 | 130 | 0.076 | 19.1      | 19.9      | 42        |  |
| 1 1/4        | 16 | RV0TIF400 | 90 | -   | 0.125 | 21.4      | 25.6      | 51        |  |
| 1 1/2        | 16 | RV0TIF500 | 50 | -   | 0.240 | 21.4      | 35.6      | 61        |  |
| 2            | 16 | RV0TIF630 | 25 | -   | 0.435 | 25.7      | 45.3      | 75        |  |
| 1 1/2        | 16 | RV0TIF750 | 35 | -   | 0.575 | 30.2      | 52.8      | 89        |  |
| 3            | 16 | RV0TIF900 | 24 | -   | 0.965 | 33.3      | 64.7      | 106       |  |
| 4            | 16 | RV0TIF910 | 14 | -   | 1.310 | 39.3      | 75.7      | 129       |  |

PF 2 01 951 010

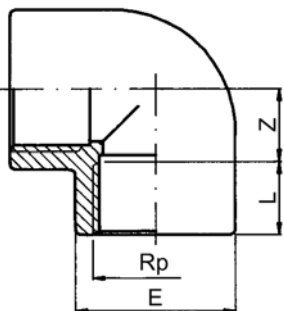
## Threaded elbow 45° Rp PVC-U



| Rp<br>[inch] | PN | Code      | SP  | GP  | kg    | L<br>[mm] | Z<br>[mm] | E<br>[mm] |  |
|--------------|----|-----------|-----|-----|-------|-----------|-----------|-----------|--|
| 3/8          | 16 | RV0GYF160 | 10  | 400 | 0.010 | 11.4      | 11.6      | 23        |  |
| 1/2          | 16 | RV0GYF200 | 10  | 260 | 0.018 | 15.0      | 12.0      | 28        |  |
| 3/4          | 16 | RV0GYF250 | 10  | 150 | 0.031 | 16.3      | 16.7      | 34        |  |
| 1            | 16 | RV0GYF320 | 10  | 100 | 0.051 | 19.1      | 19.9      | 42        |  |
| 1 1/4        | 16 | RV0GYF400 | 80  | -   | 0.075 | 21.4      | 25.6      | 51        |  |
| 1 1/2        | 16 | RV0GYF500 | 100 | -   | 0.155 | 21.4      | 35.6      | 61        |  |
| 2            | 16 | RV0GYF630 | 50  | -   | 0.275 | 25.7      | 45.3      | 75        |  |
| 1 1/2        | 16 | RV0GYF750 | 65  | -   | 0.360 | 30.2      | 52.8      | 89        |  |
| 3            | 16 | RV0GYF900 | 40  | -   | 0.620 | 33.3      | 64.7      | 106       |  |
| 4            | 16 | RV0GYF910 | 22  | -   | 0.830 | 39.3      | 78.7      | 129       |  |

PF 2 01 951 010

## Threaded elbow 90° Rp PVC-U

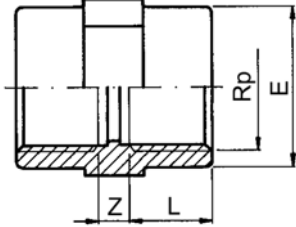


| Rp<br>[inch] | PN | Code      | SP  | GP  | kg    | L<br>[mm] | Z<br>[mm] | E<br>[mm] |  |
|--------------|----|-----------|-----|-----|-------|-----------|-----------|-----------|--|
| 3/8          | 16 | RV0GOF160 | 10  | 360 | 0.015 | 11.4      | 44.6      | 23        |  |
| 1/2          | 16 | RV0GOF200 | 10  | 200 | 0.022 | 15.0      | 12.0      | 28        |  |
| 3/4          | 16 | RV0GOF250 | 10  | 160 | 0.037 | 16.3      | 16.7      | 34        |  |
| 1            | 16 | RV0GOF320 | 10  | 80  | 0.059 | 19.1      | 19.9      | 42        |  |
| 1 1/4        | 16 | RV0GOF400 | 130 | -   | 0.094 | 21.4      | 25.6      | 51        |  |
| 1 1/2        | 16 | RV0GOF500 | 80  | -   | 0.184 | 21.4      | 35.6      | 61        |  |
| 2            | 16 | RV0GOF630 | 40  | -   | 0.320 | 25.7      | 45.3      | 75        |  |
| 2 1/2        | 16 | RV0GOF750 | 50  | -   | 0.425 | 30.2      | 52.8      | 89        |  |
| 3            | 16 | RV0GOF900 | 30  | -   | 0.770 | 33.3      | 64.7      | 106       |  |
| 4            | 16 | RV0GOF910 | 17  | -   | 1.050 | 39.3      | 78.7      | 129       |  |

PF 2 01 951 010



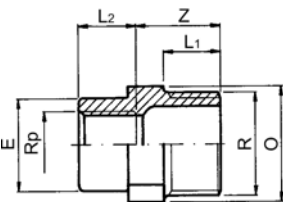
## Threaded double socket Rp PVC-U



PF 2 01 951 010

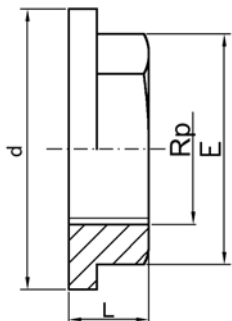
| Rp<br>[inch] | PN | Code      | SP  | GP  | kg    | L<br>[mm] | Z<br>[mm] | E<br>[mm] |  |
|--------------|----|-----------|-----|-----|-------|-----------|-----------|-----------|--|
| 3/8          | 16 | RV0MAF160 | 10  | 500 | 0.008 | 11.4      | 6         | 23        |  |
| 1/2          | 16 | RV0MAF200 | 10  | 250 | 0.017 | 15.0      | 7         | 28        |  |
| 3/4          | 16 | RV0MAF250 | 10  | 180 | 0.024 | 16.3      | 7         | 34        |  |
| 1            | 16 | RV0MAF320 | 10  | 130 | 0.042 | 19.1      | 8         | 42        |  |
| 1 1/4        | 16 | RV0MAF400 | 220 | -   | 0.060 | 21.4      | 8         | 51        |  |
| 1 1/2        | 16 | RV0MAF500 | 180 | -   | 0.073 | 21.4      | 8         | 58        |  |
| 2            | 16 | RV0MAF630 | 100 | -   | 0.123 | 25.7      | 8         | 72        |  |
| 2 1/2        | 16 | RV0MAF750 | 120 | -   | 0.200 | 30.2      | 9         | 89        |  |
| 3            | 16 | RV0MAF900 | 84  | -   | 0.280 | 33.3      | 10        | 103       |  |
| 4            | 16 | RV0MAF910 | 44  | -   | 0.441 | 39.3      | 11        | 130       |  |
| 6            | 16 | RV0MAF940 | 9   | -   | 1.400 | 48.0      | 84        | 182       |  |

## Threaded reducer R/Rp PVC-U



PF 2 01 951 010

| R<br>[inch] | Rp<br>[inch] | PN | Code      | SP  | GP  | kg    | L1<br>[mm] | L2'<br>[mm] | Z<br>[mm] | E<br>[mm] | O<br>[mm] |  |
|-------------|--------------|----|-----------|-----|-----|-------|------------|-------------|-----------|-----------|-----------|--|
| 1/2         | 3/8          | 16 | RV0RIF20A | 10  | 400 | 0.012 | 15.0       | 11.4        | 24        | 32        | 24        |  |
| 3/4         | 3/8          | 16 | RV0RIF25A | 10  | 280 | 0.016 | 16.3       | 11.4        | 25        | 23        | 30        |  |
| 3/4         | 1/2          | 16 | RV0RIF25B | 10  | 280 | 0.018 | 16.3       | 15.0        | 26        | 28        | 30        |  |
| 1           | 3/8          | 16 | RV0RIF32A | 10  | 160 | 0.024 | 19.1       | 11.4        | 28        | 23        | 36        |  |
| 1           | 1/2          | 16 | RV0RIF32B | 10  | 160 | 0.026 | 19.1       | 15.0        | 29        | 28        | 36        |  |
| 1           | 3/4          | 16 | RV0RIF32C | 10  | 160 | 0.026 | 19.1       | 16.3        | 30        | 34        | 36        |  |
| 1 1/4       | 1/2          | 16 | RV0RIF40B | 150 | -   | 0.042 | 21.4       | 15.0        | 33        | 28        | 46        |  |
| 1 1/4       | 3/4          | 16 | RV0RIF40C | 150 | -   | 0.045 | 21.4       | 16.3        | 33        | 34        | 46        |  |
| 1 1/4       | 1            | 16 | RV0RIF40D | 150 | -   | 0.047 | 21.4       | 19.1        | 33        | 42        | 46        |  |
| 1 1/2       | 3/4          | 16 | RV0RIF50C | 120 | -   | 0.050 | 21.4       | 16.3        | 34        | 34        | 50        |  |
| 1 1/2       | 1            | 16 | RV0RIF50D | 100 | -   | 0.050 | 21.4       | 19.1        | 34        | 42        | 50        |  |
| 1 1/2       | 1 1/4        | 16 | RV0RIF50E | 100 | -   | 0.060 | 21.4       | 21.4        | 34        | 51        | 55        |  |
| 2           | 1            | 16 | RV0RIF63D | 140 | -   | 0.086 | 25.7       | 19.1        | 37        | 42        | 65        |  |
| 2           | 1 1/4        | 16 | RV0RIF63E | 140 | -   | 0.085 | 25.7       | 21.4        | 37        | 51        | 65        |  |
| 2           | 1 1/2        | 16 | RV0RIF63F | 130 | -   | 0.087 | 25.7       | 21.4        | 37        | 58        | 65        |  |
| 2 1/2       | 1 1/4        | 16 | RV0RIF75E | 170 | -   | 0.140 | 30.2       | 21.4        | 43        | 51        | 80        |  |
| 2 1/2       | 1 1/2        | 16 | RV0RIF75F | 170 | -   | 0.138 | 30.2       | 21.4        | 43        | 58        | 80        |  |
| 2 1/2       | 2            | 16 | RV0RIF75G | 150 | -   | 0.142 | 30.2       | 25.7        | 43        | 72        | 80        |  |
| 3           | 1 1/2        | 16 | RV0RIF90F | 150 | -   | 0.200 | 33.3       | 21.4        | 47        | 58        | 95        |  |
| 3           | 2            | 16 | RV0RIF90G | 125 | -   | 0.205 | 33.3       | 25.7        | 47        | 72        | 95        |  |
| 3           | 2 1/2        | 16 | RV0RIF90H | 115 | -   | 0.215 | 33.3       | 30.2        | 47        | 89        | 95        |  |
| 4           | 2            | 16 | RV0RIF91G | 85  | -   | 0.330 | 39.3       | 25.7        | 53        | 72        | 120       |  |
| 4           | 2 1/2        | 16 | RV0RIF91H | 42  | -   | 0.330 | 39.3       | 30.2        | 53        | 89        | 120       |  |
| 4           | 3            | 16 | RV0RIF91I | 60  | -   | 0.350 | 39.3       | 33.3        | 53        | 103       | 120       |  |

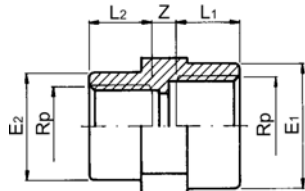


PF 2 01 950 013

## Threaded nut Rp PVC-U

• (\*) Traded items

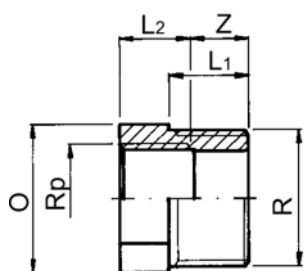
| Rp<br>[inch] | PN | Code      | SP  | GP   | kg    | d<br>[mm] | L<br>[mm] | E<br>[mm] |  |
|--------------|----|-----------|-----|------|-------|-----------|-----------|-----------|--|
| * 1/2        | 16 | RV0DAF200 | 10  | 800  | 0.009 | 38        | 13        | 29        |  |
| * 3/4        | 16 | RV0DAF250 | 10  | 1250 | 0.011 | 43        | 14        | 34        |  |
| * 1          | 16 | RV0DAF320 | 10  | 600  | 0.026 | 56        | 16        | 46        |  |
| * 1 1/4      | 16 | RV0DAF400 | 10  | 450  | 0.029 | 65        | 18        | 50        |  |
| * 1 1/2      | 16 | RV0DAF500 | 300 | -    | 0.043 | 72        | 19        | 60        |  |
| * 2          | 16 | RV0DAF630 | 150 | -    | 0.089 | 94        | 21        | 80        |  |
| * 2 1/2      | 16 | RV0DAF750 | 120 | -    | 0.094 | 115       | 24        | 94        |  |
| * 3          | 16 | RV0DAF900 | 80  | -    | 0.138 | 130       | 27        | 108       |  |
| * 4          | 16 | RV0DAF910 | 45  | -    | 0.205 | 162       | 30        | 135       |  |



PF 2 01 951 010

## Threaded reducing socket Rp PVC-U

| Rp<br>[inch] | Rp<br>[inch] | PN | Code      | SP  | GP  | kg    | L1<br>[mm] | L2<br>[mm] | Z<br>[mm] | E1<br>[mm] | E2<br>[mm] |  |
|--------------|--------------|----|-----------|-----|-----|-------|------------|------------|-----------|------------|------------|--|
| 1/2          | 3/8          | 16 | RV0MRF20A | 10  | 250 | 0.017 | 15.0       | 11.4       | 6         | 28.0       | 23.0       |  |
| 3/4          | 1/2          | 16 | RV0MRF25B | 10  | 200 | 0.024 | 16.3       | 15.0       | 7         | 34.0       | 28.0       |  |
| 1            | 3/4          | 16 | RV0MRF32C | 10  | 120 | 0.040 | 19.1       | 16.3       | 7         | 42.0       | 34.0       |  |
| 1 1/4        | 1            | 16 | RV0MRF40D | 190 | -   | 0.060 | 21.4       | 19.1       | 8         | 51.0       | 42.0       |  |
| 1 1/2        | 1 1/4        | 16 | RV0MRF50E | 165 | -   | 0.072 | 21.4       | 21.4       | 8         | 58.0       | 51.0       |  |
| 2            | 1 1/2        | 16 | RV0MRF63F | 80  | -   | 0.115 | 25.7       | 21.4       | 8         | 72.0       | 58.0       |  |
| 2 1/2        | 2            | 16 | RV0MRF75G | 130 | -   | 0.128 | 30.2       | 25.7       | 8         | 89.0       | 72.0       |  |
| 3            | 2 1/2        | 16 | RV0MRF90H | 80  | -   | 0.286 | 33.3       | 30.2       | 9         | 103.0      | 89.0       |  |
| 4            | 3            | 16 | RV0MRF91I | 54  | -   | 0.436 | 39.3       | 33.3       | 10        | 130.0      | 103.0      |  |

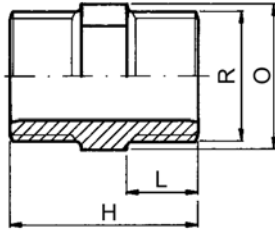


PF 2 01 951 010

## Threaded reducing bush R/Rp PVC-U

| R<br>[inch] | Rp<br>[inch] | PN | Code      | SP  | GP  | kg    | L1'<br>[mm] | L2'<br>[mm] | Z<br>[mm] | O<br>[mm] |  |
|-------------|--------------|----|-----------|-----|-----|-------|-------------|-------------|-----------|-----------|--|
| 3/4         | 1/2          | 16 | RV0RCF25B | 10  | 300 | 0.013 | 16.3        | 15.0        | 13.3      | 30        |  |
| 1           | 3/4          | 16 | RV0RCF32C | 10  | 250 | 0.019 | 19.1        | 16.3        | 14.8      | 36        |  |
| 1 1/4       | 1            | 16 | RV0RCF40D | 200 | -   | 0.033 | 21.4        | 19.1        | 16.3      | 46        |  |
| 1 1/2       | 1 1/4        | 16 | RV0RCF50E | 160 | -   | 0.028 | 21.4        | 21.4        | 14.0      | 50        |  |
| 2           | 1 1/2        | 16 | RV0RCF63F | 200 | -   | 0.067 | 25.7        | 21.4        | 18.3      | 65        |  |
| 2 1/2       | 2            | 16 | RV0RCF75G | 200 | -   | 0.135 | 30.2        | 25.7        | 20.5      | 80        |  |
| 3           | 2 1/2        | 16 | RV0RCF90H | 165 | -   | 0.160 | 33.3        | 30.2        | 20.1      | 95        |  |
| 4           | 3            | 16 | RV0RCF91I | 90  | -   | 0.290 | 39.3        | 33.3        | 24.0      | 120       |  |

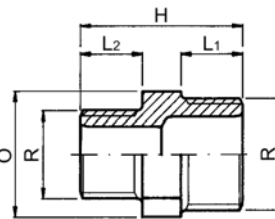
## Threaded nipple R PVC-U



PF 2 01 951 010

| R<br>[inch] | PN | Code      | SP  | GP  | kg    | L<br>[mm] | H<br>[mm] | O<br>[mm] |  |
|-------------|----|-----------|-----|-----|-------|-----------|-----------|-----------|--|
| 3/8         | 16 | RV0NIF160 | 10  | 600 | 0.007 | 11.4      | 33        | 22        |  |
| 1/2         | 16 | RV0NIF200 | 10  | 400 | 0.011 | 15.0      | 42        | 24        |  |
| 3/4         | 16 | RV0NIF250 | 10  | 280 | 0.018 | 16.3      | 44        | 30        |  |
| 1           | 16 | RV0NIF320 | 10  | 160 | 0.028 | 19.1      | 50        | 36        |  |
| 1 1/4       | 16 | RV0NIF400 | 130 | -   | 0.049 | 21.4      | 58        | 46        |  |
| 1 1/2       | 16 | RV0NIF500 | 90  | -   | 0.051 | 21.4      | 58        | 50        |  |
| 2           | 16 | RV0NIF630 | 125 | -   | 0.095 | 25.7      | 66        | 65        |  |
| 2 1/2       | 16 | RV0NIF750 | 140 | -   | 0.142 | 30.2      | 76        | 80        |  |
| 3           | 16 | RV0NIF900 | 90  | -   | 0.221 | 33.3      | 85        | 95        |  |
| 4           | 16 | RV0NIF910 | 45  | -   | 0.345 | 39.3      | 96        | 120       |  |

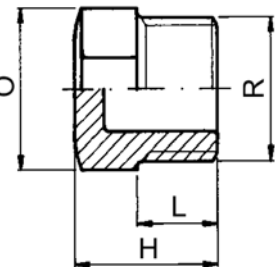
## Threaded reducing nipple R PVC-U



PF 2 01 951 010

| R<br>[inch] | R<br>[inch] | PN | Code      | SP  | GP  | kg    | L1<br>[mm] | L2'<br>[mm] | H<br>[mm] | O<br>[mm] |  |
|-------------|-------------|----|-----------|-----|-----|-------|------------|-------------|-----------|-----------|--|
| 1/2         | 3/8         | 16 | RV0NRF20A | 10  | 400 | 0.011 | 15.0       | 11.4        | 38        | 24        |  |
| 3/4         | 1/2         | 16 | RV0NRF25B | 10  | 280 | 0.017 | 16.3       | 15.0        | 43        | 30        |  |
| 1           | 3/4         | 16 | RV0NRF32C | 10  | 180 | 0.026 | 19.1       | 16.3        | 47        | 36        |  |
| 1 1/4       | 1           | 16 | RV0NRF40D | 150 | -   | 0.043 | 21.4       | 19.1        | 56        | 46        |  |
| 1 1/2       | 1 1/4       | 16 | RV0NRF50E | 100 | -   | 0.048 | 21.4       | 21.4        | 58        | 50        |  |
| 2           | 1 1/2       | 16 | RV0NRF63F | 130 | -   | 0.081 | 25.7       | 21.4        | 62        | 65        |  |
| 2 1/2       | 2           | 16 | RV0NRF75G | 110 | -   | 0.140 | 30.2       | 25.7        | 73        | 80        |  |
| 3           | 2 1/2       | 16 | RV0NRF90H | 50  | -   | 0.208 | 33.3       | 30.2        | 82        | 95        |  |
| 4           | 3           | 16 | RV0NRF91I | 36  | -   | 0.339 | 39.3       | 33.3        | 90        | 120       |  |

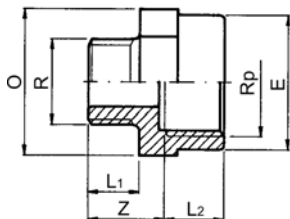
## Threaded plug R PVC-U



PF 2 01 951 010

| R<br>[inch] | PN | Code      | SP  | GP  | kg    | L<br>[mm] | H<br>[mm] | O<br>[mm] |  |
|-------------|----|-----------|-----|-----|-------|-----------|-----------|-----------|--|
| 3/8         | 16 | RV0TAF160 | 10  | 700 | 0.008 | 11.4      | 24        | 22        |  |
| 1/2         | 16 | RV0TAF200 | 10  | 500 | 0.009 | 15.0      | 29        | 24        |  |
| 3/4         | 16 | RV0TAF250 | 10  | 320 | 0.016 | 16.3      | 30        | 30        |  |
| 1           | 16 | RV0TAF320 | 10  | 250 | 0.023 | 19.1      | 33        | 36        |  |
| 1 1/4       | 16 | RV0TAF400 | 200 | -   | 0.041 | 21.4      | 39        | 46        |  |
| 1 1/2       | 16 | RV0TAF500 | 150 | -   | 0.045 | 21.4      | 39        | 50        |  |
| 2           | 16 | RV0TAF630 | 180 | -   | 0.080 | 25.7      | 43        | 65        |  |
| 2 1/2       | 16 | RV0TAF750 | 100 | -   | 0.140 | 30.2      | 51        | 80        |  |
| 3           | 16 | RV0TAF900 | 65  | -   | 0.210 | 33.3      | 55        | 95        |  |
| 4           | 16 | RV0TAF910 | 40  | -   | 0.340 | 39.3      | 61        | 120       |  |

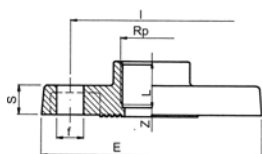
## Threaded increaser R/Rp PVC-U



PF 2 01 951 010

| R<br>[inch] | Rp<br>[inch] | PN | Code      | SP  | GP | kg    | L1<br>[mm] | L2<br>[mm] | Z<br>[mm] | O<br>[mm] | E<br>[mm] |  |
|-------------|--------------|----|-----------|-----|----|-------|------------|------------|-----------|-----------|-----------|--|
| 3/8         | 1/2          | 16 | RV0MGF16B | 500 | -  | 0.016 | 11.4       | 15.0       | 22        | 30        | 28        |  |
| 1/2         | 3/4          | 16 | RV0MGF20C | 300 | -  | 0.020 | 15.0       | 16.3       | 24        | 36        | 34        |  |
| 3/4         | 1            | 16 | RV0MGF25D | 350 | -  | 0.037 | 16.3       | 19.1       | 26        | 46        | 42        |  |
| 1           | 1 1/4        | 16 | RV0MGF32E | 250 | -  | 0.059 | 19.1       | 21.4       | 30        | 55        | 51        |  |
| 1 1/4       | 1 1/2        | 16 | RV0MGF40F | 180 | -  | 0.074 | 21.4       | 21.4       | 33        | 60        | 58        |  |
| 1 1/2       | 2            | 16 | RV0MGF50G | 100 | -  | 0.113 | 21.4       | 25.7       | 34        | 75        | 72        |  |
| 2           | 2 1/2        | 16 | RV0MGF63H | 60  | -  | 0.187 | 25.7       | 30.2       | 38        | 90        | 89        |  |
| 2 1/2       | 3            | 16 | RV0MGF75I | 54  | -  | 0.262 | 30.2       | 33.3       | 44        | 105       | 103       |  |
| 3           | 4            | 16 | RV0MGF90L | 34  | -  | 0.416 | 33.3       | 39.3       | 48        | 130       | 128       |  |

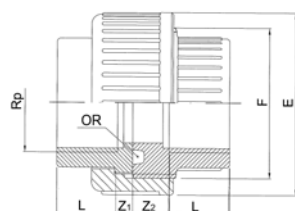
## Threaded fixed flange Rp PVC-U



PF 2 01 951 010

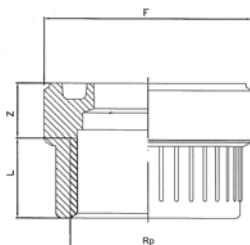
| Rp<br>[inch] | DN<br>[mm] | PN | Code      | SP  | GP | kg    | L<br>[mm] | Z<br>[mm] | E<br>[mm] | S<br>[mm] | I<br>[mm] | f<br>[mm] |  |
|--------------|------------|----|-----------|-----|----|-------|-----------|-----------|-----------|-----------|-----------|-----------|--|
| 1/2          | 15         | 16 | RV0FFF200 | 100 | -  | 0.070 | 15.0      | 5.5       | 95        | 11        | 65        | 14        |  |
| 3/4          | 20         | 16 | RV0FFF250 | 70  | -  | 0.105 | 16.3      | 7.5       | 105       | 12        | 75        | 14        |  |
| 1            | 25         | 16 | RV0FFF320 | 120 | -  | 0.148 | 19.1      | 7.5       | 115       | 14        | 85        | 14        |  |
| 1 1/4        | 32         | 16 | RV0FFF400 | 60  | -  | 0.220 | 21.4      | 9.0       | 140       | 15        | 100       | 18        |  |
| 1 1/2        | 40         | 16 | RV0FFF500 | 50  | -  | 0.285 | 21.4      | 14.0      | 150       | 16        | 110       | 18        |  |
| 2            | 50         | 16 | RV0FFF630 | 40  | -  | 0.420 | 25.7      | 17.0      | 165       | 18        | 125       | 18        |  |
| 2 1/2        | 65         | 16 | RV0FFF750 | 20  | -  | 0.520 | 30.2      | 20.0      | 185       | 19        | 145       | 18        |  |
| 3            | 80         | 16 | RV0FFF900 | 15  | -  | 0.735 | 30.3      | 25.0      | 200       | 20        | 160       | 18        |  |
| 4            | 100        | 16 | RV0FFF910 | 10  | -  | 0.923 | 39.9      | 30.0      | 220       | 22        | 180       | 18        |  |

## Threaded union Rp with o-ring PVC-U



PF 2 01 951 010

| Rp<br>[inch] | PN | EPDM<br>Code | SP | GP  | kg    | L<br>[mm] | Z1<br>[mm] | Z2<br>[mm] | F<br>[inch] | E<br>[mm] |  |
|--------------|----|--------------|----|-----|-------|-----------|------------|------------|-------------|-----------|--|
| 3/8          | 16 | RV0BOF160    | 10 | 250 | 0.027 | 11.4      | 5.6        | 13.6       | 3/4         | 34        |  |
| 1/2          | 16 | RV0BOF200    | 10 | 150 | 0.042 | 15.0      | 4.0        | 11.0       | 1           | 42        |  |
| 3/4          | 16 | RV0BOF250    | 10 | 100 | 0.068 | 16.3      | 5.7        | 12.7       | 1 1/4       | 52        |  |
| 1            | 16 | RV0BOF320    | 10 | 60  | 0.095 | 19.1      | 5.9        | 12.9       | 1 1/2       | 59        |  |
| 1 1/4        | 16 | RV0BOF400    | 90 | -   | 0.165 | 21.4      | 7.6        | 16.6       | 2           | 72        |  |
| 1 1/2        | 16 | RV0BOF500    | 60 | -   | 0.230 | 21.4      | 12.6       | 23.6       | 2 1/4       | 79        |  |
| 2            | 16 | RV0BOF630    | 36 | -   | 0.410 | 25.7      | 15.3       | 30.3       | 2 3/4       | 96        |  |
| 2 1/2        | 16 | RV0BOF750    | 20 | -   | 0.600 | 30.2      | 16.8       | 31.8       | 3 1/2       | 119       |  |
| 3            | 16 | RV0BOF900    | 15 | -   | 0.770 | 33.3      | 22.7       | 35.7       | 4           | 134       |  |
| 4            | 16 | RV0BOF910    | 18 | -   | 1.280 | 39.3      | 26.7       | 39.7       | 5           | 163       |  |

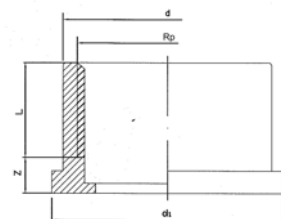


## Union bush Rp PVC-U

Suitable for BOF/BOP

| Rp<br>[inch] | PN | Code      | SP  | GP | kg    | L<br>[mm] | Z<br>[mm] | F<br>[inch] |  |
|--------------|----|-----------|-----|----|-------|-----------|-----------|-------------|--|
| 3/8          | 16 | RV0BFF160 | 600 | -  | 0.010 | 11.4      | 13.6      | 3/4         |  |
| 1/2          | 16 | RV0BFF200 | 300 | -  | 0.016 | 15.0      | 11.0      | 1           |  |
| 3/4          | 16 | RV0BFF250 | 180 | -  | 0.027 | 16.3      | 12.7      | 1 1/4       |  |
| 1            | 16 | RV0BFF320 | 500 | -  | 0.036 | 19.1      | 12.9      | 1 1/2       |  |
| 1 1/4        | 16 | RV0BFF400 | 160 | -  | 0.060 | 21.4      | 16.6      | 2           |  |
| 1 1/2        | 16 | RV0BFF500 | 50  | -  | 0.104 | 21.4      | 23.6      | 2 1/4       |  |
| 2            | 16 | RV0BFF630 | 60  | -  | 0.168 | 25.7      | 30.3      | 2 3/4       |  |
| 2 1/2        | 16 | RV0BFF750 | 125 | -  | 0.235 | 30.2      | 31.8      | 3 1/2       |  |
| 3            | 16 | RV0BFF900 | 80  | -  | 0.335 | 33.3      | 35.7      | 4           |  |
| 4            | 16 | RV0BFF910 | 48  | -  | 0.470 | 39.3      | 39.7      | 5           |  |

PF 2 01 951 010

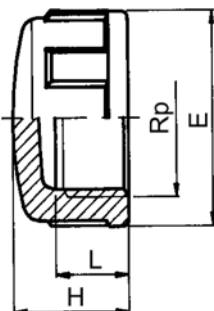


## Union end Rp PVC-U

Suitable for BOF

| Rp<br>[inch] | PN | Code      | SP   | GP | kg    | L<br>[mm] | Z<br>[mm] | d<br>[mm] | d1<br>[mm] |  |
|--------------|----|-----------|------|----|-------|-----------|-----------|-----------|------------|--|
| 3/8          | 16 | RV0BLF160 | 1000 | -  | 0.007 | 11.4      | 5.6       | 22.0      | 24.0       |  |
| 1/2          | 16 | RV0BLF200 | 600  | -  | 0.010 | 15.0      | 4.0       | 27.5      | 30.1       |  |
| 3/4          | 16 | RV0BLF250 | 300  | -  | 0.017 | 16.3      | 5.7       | 36.0      | 38.8       |  |
| 1            | 16 | RV0BLF320 | 650  | -  | 0.023 | 19.1      | 5.9       | 41.5      | 44.7       |  |
| 1 1/4        | 16 | RV0BLF400 | 125  | -  | 0.042 | 21.4      | 7.6       | 53.0      | 56.5       |  |
| 1 1/2        | 16 | RV0BLF500 | 85   | -  | 0.065 | 21.4      | 12.6      | 59.0      | 62.6       |  |
| 2            | 16 | RV0BLF630 | 45   | -  | 0.120 | 25.7      | 15.3      | 74.0      | 78.4       |  |
| 2 1/2        | 16 | RV0BLF750 | 165  | -  | 0.160 | 30.2      | 16.8      | 92.5      | 97.2       |  |
| 3            | 16 | RV0BLF900 | 100  | -  | 0.235 | 33.3      | 22.7      | 105.0     | 110.0      |  |
| 4            | 16 | RV0BLF910 | 66   | -  | 0.340 | 39.3      | 26.7      | 129.0     | 135.4      |  |

PF 2 01 951 010

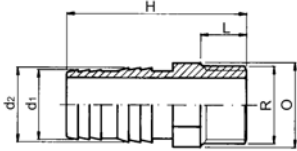


## Threaded cap Rp PVC-U

| Rp<br>[inch] | PN | Code      | SP  | GP  | kg    | L<br>[mm] | H<br>[mm] | E<br>[mm] |  |
|--------------|----|-----------|-----|-----|-------|-----------|-----------|-----------|--|
| 3/8          | 16 | RV0CAF160 | 10  | 600 | 0.008 | 11.4      | 22.0      | 23        |  |
| 1/2          | 16 | RV0CAF200 | 10  | 500 | 0.008 | 15.0      | 21.0      | 28        |  |
| 3/4          | 16 | RV0CAF250 | 10  | 400 | 0.013 | 16.3      | 23.0      | 34        |  |
| 1            | 16 | RV0CAF320 | 10  | 250 | 0.022 | 19.1      | 26.0      | 42        |  |
| 1 1/4        | 16 | RV0CAF400 | 160 | -   | 0.035 | 21.4      | 29.0      | 51        |  |
| 1 1/2        | 16 | RV0CAF500 | 80  | -   | 0.050 | 21.4      | 32.0      | 61        |  |
| 2            | 16 | RV0CAF630 | 50  | -   | 0.080 | 25.7      | 37.0      | 75        |  |
| 2 1/2        | 16 | RV0CAF750 | 90  | -   | 0.190 | 30.2      | 50.0      | 89        |  |
| 3            | 16 | RV0CAF900 | 60  | -   | 0.270 | 33.3      | 53.0      | 103       |  |
| 4            | 16 | RV0CAF910 | 34  | -   | 0.435 | 39.3      | 59.0      | 130       |  |

PF 2 01 951 010

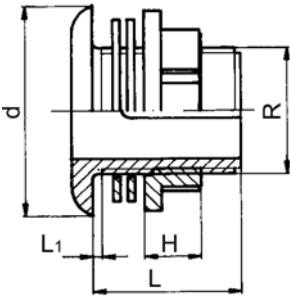
## Threaded hose adaptor R PVC-U



PF 2 01 951 010

| R<br>[inch] | d1<br>[mm] | d2<br>[mm] | PN | Code             | SP  | GP  | kg    | L<br>[mm] | H<br>[mm] | d1<br>[mm] | d2<br>[mm] | O<br>[mm] |  |
|-------------|------------|------------|----|------------------|-----|-----|-------|-----------|-----------|------------|------------|-----------|--|
| 3/8         | 16         | 18         | 16 | <b>RV0PGF160</b> | 10  | 400 | 0.009 | 11.4      | 56.0      | 16         | 18         | 22        |  |
| 1/2         | 20         | 22         | 16 | <b>RV0PGF200</b> | 10  | 280 | 0.016 | 15.0      | 66.0      | 20         | 22         | 24        |  |
| 3/4         | 25         | 27         | 16 | <b>RV0PGF250</b> | 10  | 180 | 0.024 | 16.3      | 71.3      | 25         | 27         | 30        |  |
| 1           | 30         | 32         | 16 | <b>RV0PGF320</b> | 10  | 130 | 0.035 | 19.1      | 77.1      | 30         | 32         | 36        |  |
| 1 1/4       | 40         | 42         | 16 | <b>RV0PGF400</b> | 85  | -   | 0.061 | 21.4      | 87.4      | 40         | 42         | 46        |  |
| 1 1/2       | 50         | 52         | 16 | <b>RV0PGF500</b> | 130 | -   | 0.074 | 21.4      | 91.4      | 50         | 52         | 50        |  |
| 2           | 60         | 64         | 16 | <b>RV0PGF630</b> | 70  | -   | 0.126 | 25.7      | 98.7      | 60         | 64         | 65        |  |

## Tank connector R PP



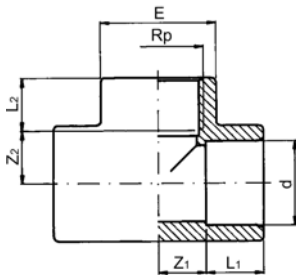
PF 2 01 951 010

| R<br>[inch] | PN | Code             | SP | GP  | kg    | D<br>[mm] | L<br>[mm] | L1<br>[mm] | H<br>[mm] |  |
|-------------|----|------------------|----|-----|-------|-----------|-----------|------------|-----------|--|
| 1/2         | 10 | <b>RP0ATS200</b> | 10 | 400 | 0.019 | 41.0      | 47        | 4          | 18        |  |
| 3/4         | 10 | <b>RP0ATS250</b> | 10 | 300 | 0.028 | 49.0      | 47        | 4          | 18        |  |
| 1           | 10 | <b>RP0ATS320</b> | 10 | 180 | 0.038 | 58.0      | 49        | 5          | 18        |  |
| 1 1/4       | 10 | <b>RP0ATS400</b> | 10 | 120 | 0.057 | 70.0      | 49        | 5          | 18        |  |
| 1 1/2       | 10 | <b>RP0ATS500</b> | 10 | 150 | 0.056 | 79.5      | 49        | 9          | 25        |  |



# PVC-U adaptor fittings range

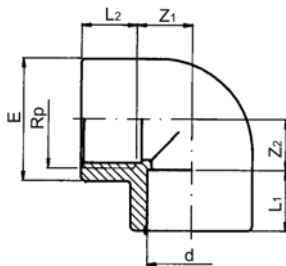
## Threaded central offtake tee Rp PVC-U



| d<br>[mm] | Rp<br>[inch] | d<br>[inch] | PN | Code      | SP | GP  | kg    | L1<br>[mm] | L2<br>[mm] | Z1<br>[mm] | Z2<br>[mm] | E<br>[mm] |  |
|-----------|--------------|-------------|----|-----------|----|-----|-------|------------|------------|------------|------------|-----------|--|
| 16        | 3/8          |             | 16 | RV0TIP16A | 10 | 280 | 0.017 | 14         | 11.4       | 9          | 11.6       | 23        |  |
| 20        | 1/2          |             | 16 | RV0TIP20B | 10 | 150 | 0.028 | 16         | 15.0       | 11         | 12.0       | 28        |  |
| 25        | 3/4          |             | 16 | RV0TIP25C | 10 | 100 | 0.046 | 19         | 16.3       | 14         | 16.7       | 34        |  |
| 32        | 1            |             | 16 | RV0TIP32D | 10 | 130 | 0.076 | 22         | 19.1       | 17         | 19.9       | 42        |  |
| 40        | 1 1/4        |             | 16 | RV0TIP40E | 90 | -   | 0.120 | 26         | 21.4       | 21         | 25.6       | 51        |  |
| 50        | 1 1/2        |             | 16 | RV0TIP50F | 50 | -   | 0.200 | 31         | 21.4       | 26         | 35.6       | 61        |  |
| 63        | 2            |             | 16 | RV0TIP63G | 25 | -   | 0.355 | 38         | 25.7       | 33         | 45.3       | 75        |  |
| 75        | 2 1/2        | 2 1/2       | 16 | RV0TIP75H | 35 | -   | 0.540 | 44         | 30.2       | 39         | 52.8       | 89        |  |
| 90        | 3            |             | 16 | RV0TIP90I | 24 | -   | 0.850 | 51         | 33.3       | 47         | 64.7       | 106       |  |
| 110       | 4            |             | 16 | RV0TIP91L | 14 | -   | 1.440 | 61         | 39.3       | 57         | 78.7       | 129       |  |

PF 2 01 951 011

## Plain/threaded elbow 90° Rp PVC-U

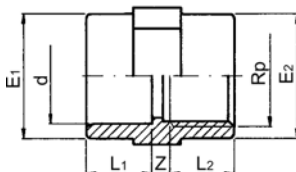


| d<br>[mm] | Rp<br>[inch] | d<br>[inch] | PN | Code      | SP  | GP  | kg    | L1<br>[mm] | L2<br>[mm] | Z1<br>[mm] | Z2<br>[mm] | E<br>[mm] |  |
|-----------|--------------|-------------|----|-----------|-----|-----|-------|------------|------------|------------|------------|-----------|--|
| 16        | 3/8          |             | 16 | RV0GOP16A | 10  | 360 | 0.013 | 14.0       | 11.4       | 9.0        | 11.6       | 23        |  |
| 20        | 1/2          |             | 16 | RV0GOP20B | 10  | 200 | 0.021 | 16.0       | 15.0       | 11.0       | 12.0       | 28        |  |
| 25        | 3/4          |             | 16 | RV0GOP25C | 10  | 160 | 0.034 | 19.0       | 16.3       | 14.0       | 16.7       | 34        |  |
| 32        | 1            |             | 16 | RV0GOP32D | 10  | 80  | 0.056 | 22.0       | 19.1       | 17.0       | 19.9       | 42        |  |
| 40        | 1 1/4        |             | 16 | RV0GOP40E | 130 | -   | 0.093 | 26.0       | 21.4       | 21.0       | 25.6       | 51        |  |
| 50        | 1 1/2        |             | 16 | RV0GOP50F | 80  | -   | 0.160 | 31.0       | 21.4       | 26.0       | 35.6       | 61        |  |
| 63        | 2            |             | 16 | RV0GOP63G | 40  | -   | 0.275 | 38.0       | 25.7       | 33.0       | 45.3       | 75        |  |
| 75        | 2 1/2        | 2 1/2       | 16 | RV0GOP75H | 50  | -   | 0.420 | 44.0       | 30.2       | 39.0       | 52.8       | 89        |  |
| 90        | 3            |             | 16 | RV0GOP90I | 30  | -   | 0.710 | 51.0       | 33.3       | 47.0       | 64.7       | 106       |  |
| 110       | 4            |             | 16 | RV0GOP91L | 17  | -   | 1.065 | 61.0       | 39.3       | 57.0       | 78.7       | 129       |  |

PF 2 01 951 011

## Plain/threaded socket Rp PVC-U

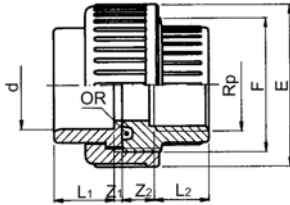
• (\*) Without octagon



| d<br>[mm] | Rp<br>[inch] | d<br>[inch] | PN | Code      | SP  | GP  | kg    | L1<br>[mm] | L2<br>[mm] | Z1<br>[mm] | E1<br>[mm] | E2<br>[mm] |  |
|-----------|--------------|-------------|----|-----------|-----|-----|-------|------------|------------|------------|------------|------------|--|
| 16        | 3/8          |             | 16 | RV0MAP16A | 10  | 500 | 0.010 | 14.0       | 11.4       | 6.0        | 23.0       | 23.0       |  |
| 20        | 1/2          |             | 16 | RV0MAP20B | 10  | 250 | 0.017 | 16.0       | 15.0       | 6.0        | 28.0       | 28.0       |  |
| 25        | 3/4          |             | 16 | RV0MAP25C | 10  | 200 | 0.024 | 19.0       | 16.3       | 6.0        | 34.0       | 34.0       |  |
| 32        | 1            |             | 16 | RV0MAP32D | 10  | 130 | 0.042 | 22.0       | 19.1       | 6.0        | 42.0       | 42.0       |  |
| 40        | 1 1/4        |             | 16 | RV0MAP40E | 100 | -   | 0.060 | 26.0       | 21.4       | 4.0        | 51.0       | 51.0       |  |
| 50        | 1 1/2        |             | 16 | RV0MAP50F | 60  | -   | 0.087 | 31.0       | 21.4       | 7.0        | 61.0       | 58.0       |  |
| 63        | 2            |             | 16 | RV0MAP63G | 80  | -   | 0.134 | 38.0       | 25.7       | 7.0        | 75.0       | 72.0       |  |
| 75        | 2 1/2        | 2 1/2       | 16 | RV0MAP75H | 110 | -   | 0.215 | 44.0       | 30.2       | 8.0        | 89.0       | 89.0       |  |
| 90        | 3            |             | 16 | RV0MAP90I | 64  | -   | 0.345 | 51.0       | 33.3       | 9.0        | 106.0      | 103.0      |  |
| 110       | 4            |             | 16 | RV0MAP91L | 35  | -   | 0.550 | 61.0       | 39.3       | 10.0       | 129.0      | 130.0      |  |
| * 125     | 5            |             | 16 | RV0MAP92N | 16  | -   | 1.060 | 69.0       | 43.6       | 51.0       | 160.0      |            |  |
| * 140     | 5            | 5           | 16 | RV0MAP93N | 9   | -   | 1.120 | 76.0       | 43.6       | 40.0       | 162.0      |            |  |
| * 160     | 6            |             | 16 | RV0MAP94O | 9   | -   | 1.400 | 86.0       | 48.0       | 46.0       | 184.0      |            |  |

PF 2 01 951 011

## Plain/threaded union with o-ring Rp PVC-U

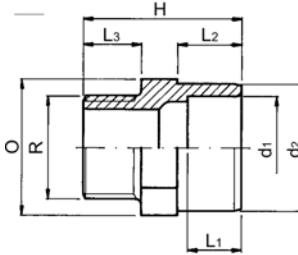


| d<br>[mm] | Rp<br>[inch] | d<br>[inch] | PN | EPDM<br>Code | SP | GP  | kg    | L1<br>[mm] | L2<br>[mm] | Z1<br>[mm] | Z2<br>[mm] | F<br>[inch] | E<br>[mm] |
|-----------|--------------|-------------|----|--------------|----|-----|-------|------------|------------|------------|------------|-------------|-----------|
| 16        | 3/8          |             | 16 | RV0BOP16A    | 10 | 250 | 0.031 | 14.0       | 11.4       | 3.0        | 13.6       | 3/4         | 34        |
| 20        | 1/2          |             | 16 | RV0BOP20B    | 10 | 150 | 0.042 | 16.0       | 15.0       | 3.0        | 11.0       | 1           | 42        |
| 25        | 3/4          |             | 16 | RV0BOP25C    | 10 | 100 | 0.070 | 19.0       | 16.3       | 3.0        | 12.7       | 1 1/4       | 52        |
| 32        | 1            |             | 16 | RV0BOP32D    | 10 | 60  | 0.094 | 22.0       | 19.1       | 3.0        | 12.9       | 1 1/2       | 59        |
| 40        | 1 1/4        |             | 16 | RV0BOP40E    | 90 | -   | 0.155 | 26.0       | 21.4       | 3.0        | 16.6       | 2           | 72        |
| 50        | 1 1/2        |             | 16 | RV0BOP50F    | 60 | -   | 0.237 | 31.0       | 21.4       | 3.0        | 23.6       | 2 1/4       | 79        |
| 63        | 2            |             | 16 | RV0BOP63G    | 36 | -   | 0.382 | 38.0       | 25.7       | 3.0        | 30.3       | 2 3/4       | 96        |
| 75        | 2 1/2        | 2 1/2       | 16 | RV0BOP75H    | 20 | -   | 0.625 | 44.0       | 30.2       | 3.0        | 31.8       | 3 1/2       | 119       |
| 90        | 3            |             | 16 | RV0BOP90I    | 15 | -   | 0.865 | 51.0       | 33.3       | 5.0        | 35.7       | 4           | 134       |
| 110       | 4            |             | 16 | RV0BOP91L    | 18 | -   | 1.340 | 61.0       | 39.3       | 5.0        | 39.7       | 5           | 163       |

PF 2 01 951 011

## Threaded adaptor R PVC-U 3 diameters

# additional bag containing 100 pieces (10 bags of 10 pieces)

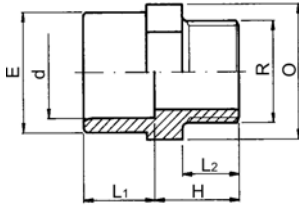


| d1-d2<br>[mm] | R<br>[inch] | PN | Code      | SP  | GP  | kg    | L1<br>[mm] | L2<br>[mm] | L3<br>[mm] | H<br>[mm] | O<br>[mm] |
|---------------|-------------|----|-----------|-----|-----|-------|------------|------------|------------|-----------|-----------|
| # 12 - 16     | 3/8         | 16 | RV0AMP12A | 10  | 600 | 0.008 |            | 14         | 11.4       | 36        | 22        |
| # 16 - 20     | 3/8         | 16 | RV0AMP16A | 10  | 500 | 0.009 | 14.0       | 16         | 11.4       | 40        | 24        |
| # 16 - 20     | 1/2         | 16 | RV0AMP16B | 10  | 400 | 0.010 | 14.0       | 16         | 15.0       | 43        | 24        |
| # 20 - 25     | 3/8         | 16 | RV0AMP20A | 10  | 300 | 0.014 | 16.0       | 19         | 11.4       | 43        | 30        |
| # 20 - 25     | 1/2         | 16 | RV0AMP20B | 10  | 300 | 0.014 | 16.0       | 19         | 15.0       | 46        | 30        |
| # 20 - 25     | 3/4         | 16 | RV0AMP20C | 10  | 300 | 0.015 | 16.0       | 19         | 16.3       | 47        | 30        |
| # 25 - 32     | 1/2         | 16 | RV0AMP25B | 10  | 200 | 0.025 | 19.0       | 22         | 15.0       | 49        | 36        |
| # 25 - 32     | 3/4         | 16 | RV0AMP25C | 10  | 200 | 0.026 | 19.0       | 22         | 16.3       | 50        | 36        |
| # 25 - 32     | 1           | 16 | RV0AMP25D | 10  | 200 | 0.029 | 19.0       | 22         | 19.1       | 53        | 36        |
| 32 - 40       | 3/4         | 16 | RV0AMP32C | 10  | 140 | 0.036 | 22.0       | 26         | 16.3       | 54        | 42        |
| 32 - 40       | 1           | 16 | RV0AMP32D | 10  | 120 | 0.040 | 22.0       | 26         | 19.1       | 57        | 42        |
| 32 - 40       | 1 1/4       | 16 | RV0AMP32E | 10  | 100 | 0.049 | 22.0       | 26         | 21.4       | 60        | 46        |
| 40 - 50       | 1           | 16 | RV0AMP40D | 90  | -   | 0.070 | 26.0       | 31         | 19.1       | 64        | 55        |
| 40 - 50       | 1 1/4       | 16 | RV0AMP40E | 50  | -   | 0.075 | 26.0       | 31         | 21.4       | 67        | 55        |
| 40 - 50       | 1 1/2       | 16 | RV0AMP40F | 80  | -   | 0.074 | 26.0       | 31         | 21.4       | 67        | 55        |
| 50 - 63       | 1 1/4       | 16 | RV0AMP50E | 50  | -   | 0.116 | 31.0       | 38         | 21.4       | 74        | 65        |
| 50 - 63       | 1 1/2       | 16 | RV0AMP50F | 110 | -   | 0.113 | 31.0       | 38         | 21.4       | 74        | 65        |
| 50 - 63       | 2           | 16 | RV0AMP50G | 100 | -   | 0.125 | 31.0       | 38         | 25.7       | 78        | 65        |
| 63 - 75       | 1 1/2       | 16 | RV0AMP63F | 35  | -   | 0.145 | 38.0       | 44         | 21.4       | 80        | 80        |
| 63 - 75       | 2           | 16 | RV0AMP63G | 70  | -   | 0.150 | 38.0       | 44         | 25.7       | 84        | 80        |
| 63 - 75       | 2 1/2       | 16 | RV0AMP63H | 50  | -   | 0.170 | 38.0       | 44         | 30.2       | 91        | 80        |
| 75 - 90       | 2           | 16 | RV0AMP75G | 54  | -   | 0.270 | 44.0       | 51         | 25.7       | 94        | 95        |
| 75 - 90       | 2 1/2       | 16 | RV0AMP75H | 60  | -   | 0.275 | 44.0       | 51         | 30.2       | 99        | 95        |
| 75 - 90       | 3           | 16 | RV0AMP75I | 36  | -   | 0.285 | 44.0       | 51         | 33.3       | 102       | 95        |
| 90 - 110      | 2 1/2       | 16 | RV0AMP90H | 25  | -   | 0.470 | 51.0       | 61         | 30.2       | 110       | 115       |
| 90 - 110      | 3           | 16 | RV0AMP90I | 25  | -   | 0.486 | 51.0       | 61         | 33.3       | 113       | 115       |
| 90 - 110      | 4           | 16 | RV0AMP90L | 16  | -   | 0.485 | 51.0       | 61         | 39.3       | 118       | 115       |
| 110 - 125     | 3           | 10 | RV0AMP91I | 40  | -   | 0.490 | 61.0       | 66         | 33.3       | 115       | 130       |
| 110 - 125     | 4           | 10 | RV0AMP91L | 32  | -   | 0.492 | 61.0       | 66         | 39.3       | 120       | 130       |
| 110 - 125     | 5           | 10 | RV0AMP91N | 32  | -   | 0.535 | 61.0       | 66         | 40.0       | 120       | 130       |
| 125 - 140     | 5           | 10 | RV0AMP92N | 24  | -   | 0.740 | 69.0       | 71         | 74.0       | 145       |           |

PF 2 01 951 011



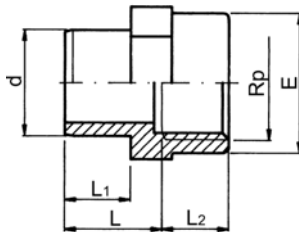
## Threaded adaptor R PVC-U 2 diameters



PF 2 01 951 011

| d<br>[mm] | R<br>[inch] | d<br>[inch] | PN | Code      | SP | GP | kg    | L1<br>[mm] | L2<br>[mm] | E<br>[mm] | L<br>[mm] | O<br>[mm] |  |
|-----------|-------------|-------------|----|-----------|----|----|-------|------------|------------|-----------|-----------|-----------|--|
| 75        | 2 ½         | 2 ½         | 16 | RV0ADP75H | 72 | -  | 0.210 | 44         | 30.2       | 89        | 42        | 90        |  |
| 90        | 3           |             | 16 | RV0ADP90I | 40 | -  | 0.336 | 51         | 33.3       | 106       | 46        | 110       |  |
| 110       | 4           |             | 16 | RV0ADP91L | 35 | -  | 0.530 | 61         | 39.3       | 129       | 51        | 130       |  |

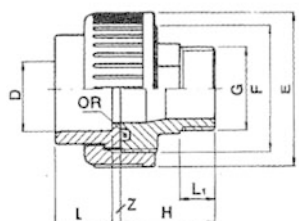
## Threaded adaptor Rp PVC-U



PF 2 01 951 011

| d<br>[mm] | Rp<br>[inch] | d<br>[inch] | PN | Code      | SP  | GP  | kg    | L1<br>[mm] | L2<br>[mm] | E<br>[mm] | L<br>[mm] |  |
|-----------|--------------|-------------|----|-----------|-----|-----|-------|------------|------------|-----------|-----------|--|
| 16        | ¾            |             | 16 | RV0AFP16A | 10  | 600 | 0.016 | 14         | 11.4       | 23        | 22        |  |
| 20        | ½            |             | 16 | RV0AFP20B | 10  | 300 | 0.017 | 16         | 15.0       | 28        | 24        |  |
| 20        | ¾            |             | 16 | RV0AFP20C | 10  | 240 | 0.024 | 16         | 16.3       | 34        | 24        |  |
| 25        | ½            |             | 16 | RV0AFP25B | 10  | 220 | 0.019 | 19         | 15.0       | 28        | 27        |  |
| 25        | ¾            |             | 16 | RV0AFP25C | 10  | 200 | 0.026 | 19         | 16.3       | 34        | 27        |  |
| 25        | 1            |             | 16 | RV0AFP25D | 10  | 140 | 0.039 | 19         | 19.1       | 42        | 27        |  |
| 32        | ¾            |             | 16 | RV0AFP32C | 10  | 180 | 0.032 | 22         | 16.3       | 34        | 30        |  |
| 32        | 1            |             | 16 | RV0AFP32D | 10  | 120 | 0.041 | 22         | 19.1       | 42        | 30        |  |
| 40        | 1            |             | 16 | RV0AFP40D | 100 | -   | 0.050 | 26         | 19.1       | 42        | 36        |  |
| 40        | 1 ¼          |             | 16 | RV0AFP40E | 90  | -   | 0.065 | 26         | 21.4       | 51        | 36        |  |
| 50        | 1 ¼          |             | 16 | RV0AFP50E | 70  | -   | 0.070 | 31         | 21.4       | 51        | 41        |  |
| 50        | 1 ½          |             | 16 | RV0AFP50F | 60  | -   | 0.080 | 31         | 21.4       | 58        | 41        |  |
| 50        | 2            |             | 16 | RV0AFP50G | 100 | -   | 0.122 | 31         | 25.7       | 72        | 41        |  |
| 63        | 2            |             | 16 | RV0AFP63G | 80  | -   | 0.135 | 38         | 25.7       | 72        | 48        |  |
| 75        | 2            |             | 16 | RV0AFP75G | 72  | -   | 0.175 | 44         | 25.7       | 72        | 53        |  |
| 75        | 2 ½          | 2 ½         | 16 | RV0AFP75H | 90  | -   | 0.225 | 44         | 30.2       | 89        | 58        |  |
| 75        | 3            |             | 16 | RV0AFP75I | 100 | -   | 0.295 | 44         | 33.3       | 103       | 58        |  |
| 90        | 2 ½          |             | 16 | RV0AFP90H | 90  | -   | 0.275 | 51         | 30.2       | 89        | 65        |  |
| 90        | 3            |             | 16 | RV0AFP90I | 60  | -   | 0.310 | 51         | 33.3       | 103       | 65        |  |
| 90        | 4            |             | 16 | RV0AFP90L | 52  | -   | 0.450 | 51         | 39.3       | 130       | 65        |  |
| 110       | 3            |             | 16 | RV0AFP91I | 45  | -   | 0.385 | 61         | 33.3       | 103       | 76        |  |
| 110       | 4            |             | 16 | RV0AFP91L | 45  | -   | 0.480 | 61         | 39.3       | 130       | 76        |  |

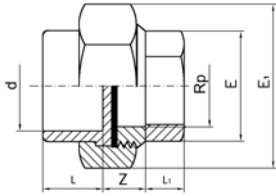
## Plain threaded union R PVC-U



PF 2 01 951 011

| d<br>[mm] | R<br>[inch] | PN | Code      | SP | GP  | kg    | L<br>[mm] | L1<br>[mm] | H<br>[mm] | Z<br>[mm] | F<br>[inch] | E<br>[mm] |  |
|-----------|-------------|----|-----------|----|-----|-------|-----------|------------|-----------|-----------|-------------|-----------|--|
| 25        | ¾           | 16 | RV0BMP25C | 10 | 100 | 0.078 | 19        | 16.3       | 44        | 3         | 1 ¼         | 52        |  |
| 32        | 1           | 16 | RV0BMP32D | 40 | -   | 0.102 | 22        | 19.1       | 48        | 3         | 1 ½         | 59        |  |
| 40        | 1 ¼         | 16 | RV0BMP40E | 40 | -   | 0.163 | 26        | 21.4       | 54        | 3         | 2           | 72        |  |
| 50        | 1 ½         | 16 | RV0BMP50F | 60 | -   | 0.220 | 31        | 22.0       | 58        | 3         | 2 ¼         | 79        |  |
| 50        | 2           | 16 | RV0BMP50G | 60 | -   | 0.260 | 31        | 26.0       | 58        | 3         | 2 ¼         | 79        |  |
| 63        | 2           | 16 | RV0BMP63G | 36 | -   | 0.375 | 38        | 26.0       | 66        | 3         | 2 ¾         | 96        |  |

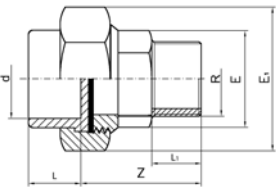
## Union PVC-U/brass threaded Rp



PF 2 01 950 013

| d<br>[mm] | Rp<br>[inch] | PN | Code      | SP  | GP | kg    | L<br>[mm] | L1<br>[mm] | Z<br>[mm] | E<br>[mm] | E1<br>[mm] |  |
|-----------|--------------|----|-----------|-----|----|-------|-----------|------------|-----------|-----------|------------|--|
| 16        | 3/8          | 16 | RV0BMF16A | 170 | -  | 0.085 | 14        | 11         | 10        | 20        | 30.0       |  |
| 20        | 1/2          | 16 | RV0BMF20B | 70  | -  | 0.145 | 16        | 15         | 11        | 25        | 38.0       |  |
| 25        | 3/4          | 16 | RV0BMF25C | 50  | -  | 0.215 | 19        | 15         | 14        | 32        | 47.0       |  |
| 32        | 1            | 16 | RV0BMF32D | 40  | -  | 0.280 | 22        | 16         | 12        | 38        | 55.0       |  |
| 40        | 1 1/4        | 16 | RV0BMF40E | 25  | -  | 0.380 | 26        | 19         | 13        | 48        | 65.0       |  |
| 50        | 1 1/2        | 16 | RV0BMF50F | 25  | -  | 0.500 | 31        | 21         | 13        | 54        | 72.0       |  |
| 63        | 2            | 16 | RV0BMF63G | 15  | -  | 1.200 | 38        | 25         | 14        | 66        | 88.0       |  |

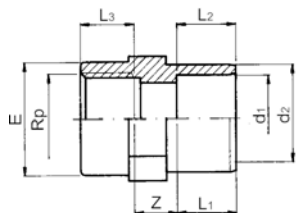
## Union PVC-U/brass threaded R



PF 2 01 950 013

| d<br>[mm] | R<br>[inch] | PN | Code      | SP  | GP | kg    | L<br>[mm] | L1<br>[mm] | Z<br>[mm] | E<br>[mm] | E1<br>[mm] |  |
|-----------|-------------|----|-----------|-----|----|-------|-----------|------------|-----------|-----------|------------|--|
| 16        | 3/8         | 16 | RV0BMM16A | 115 | -  | 0.110 | 14        | 11         | 35        | 20        | 30.0       |  |
| 20        | 1/2         | 16 | RV0BMM20B | 95  | -  | 0.165 | 16        | 12         | 41        | 25        | 38.0       |  |
| 25        | 3/4         | 16 | RV0BMM25C | 50  | -  | 0.245 | 19        | 15         | 45        | 32        | 47.0       |  |
| 32        | 1           | 16 | RV0BMM32D | 40  | -  | 0.325 | 22        | 19         | 47        | 38        | 55.0       |  |
| 40        | 1 1/4       | 16 | RV0BMM40E | 25  | -  | 0.460 | 26        | 21         | 55        | 48        | 65.0       |  |
| 50        | 1 1/2       | 16 | RV0BMM50F | 24  | -  | 0.610 | 31        | 21         | 57        | 54        | 72.0       |  |
| 63        | 2           | 16 | RV0BMM63G | 15  | -  | 0.975 | 38        | 25         | 68        | 66        | 88.0       |  |

## Adaptor socket Rp PVC-U 3 diameters



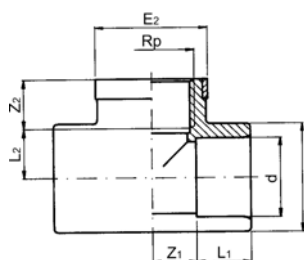
PF 2 01 951 011

| d1-d2<br>[mm] | Rp<br>[inch] | PN | Code      | SP  | GP  | kg    | L1<br>[mm] | L2<br>[mm] | L3<br>[mm] | Z<br>[mm] | E<br>[mm] |  |
|---------------|--------------|----|-----------|-----|-----|-------|------------|------------|------------|-----------|-----------|--|
| 20 - 25       | 1/2          | 16 | RV0MFP25B | 10  | 200 | 0.015 | 16         | 19         | 15.0       | 12        | 28        |  |
| 25 - 32       | 3/4          | 16 | RV0MFP32C | 10  | 150 | 0.027 | 19         | 22         | 16.3       | 13        | 34        |  |
| 32 - 40       | 1            | 16 | RV0MFP40D | 130 | -   | 0.050 | 22         | 26         | 19.1       | 14        | 42        |  |
| 40 - 50       | 1 1/4        | 16 | RV0MFP50E | 110 | -   | 0.070 | 26         | 31         | 21.4       | 16        | 51        |  |
| 50 - 63       | 1 1/2        | 16 | RV0MFP63F | 80  | -   | 0.120 | 31         | 38         | 21.4       | 18        | 58        |  |
| 63 - 75       | 2            | 16 | RV0MFP75G | 70  | -   | 0.180 | 38         | 44         | 25.7       | 18        | 72        |  |
| 75 - 90       | 2 1/2        | 16 | RV0MFP90H | 90  | -   | 0.284 | 44         | 51         | 30.2       | 21        | 89        |  |
| 90 - 110      | 3            | 16 | RV0MFP91I | 50  | -   | 0.490 | 51         | 61         | 33.3       | 25        | 103       |  |

# PVC-U adaptor fittings range

## With metal ring reinforced

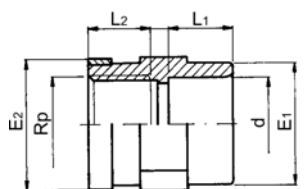
### Threaded central offtake tee Rp PVC-U



PF 2 01 951 012

| d<br>[mm] | Rp<br>[inch] | PN | Code      | SP | GP  | kg    | L1<br>[mm] | L2<br>[mm] | Z1<br>[mm] | Z2<br>[mm] | E1<br>[mm] | E2<br>[mm] |  |
|-----------|--------------|----|-----------|----|-----|-------|------------|------------|------------|------------|------------|------------|--|
| 16        | 3/8          | 16 | RV0TTP16A | 10 | 280 | 0.018 | 14         | 11.4       | 9          | 11.6       | 23.0       | 25.0       |  |
| 20        | 1/2          | 16 | RV0TTP20B | 10 | 150 | 0.030 | 16         | 15.0       | 11         | 12.0       | 28.0       | 30.0       |  |
| 25        | 3/4          | 16 | RV0TTP25C | 10 | 100 | 0.048 | 19         | 13.3       | 14         | 16.7       | 34.0       | 35.0       |  |
| 32        | 1            | 16 | RV0TTP32D | 10 | 100 | 0.076 | 22         | 19.1       | 17         | 19.9       | 42.0       | 45.0       |  |
| 40        | 1 1/4        | 16 | RV0TTP40E | 80 | -   | 0.124 | 26         | 21.4       | 21         | 25.6       | 51.0       | 55.0       |  |
| 50        | 1 1/2        | 16 | RV0TTP50F | 50 | -   | 0.200 | 31         | 21.4       | 26         | 35.6       | 61.0       | 65.0       |  |
| 63        | 2            | 16 | RV0TTP63G | 20 | -   | 0.365 | 38         | 25.7       | 33         | 45.3       | 75.0       | 75.0       |  |

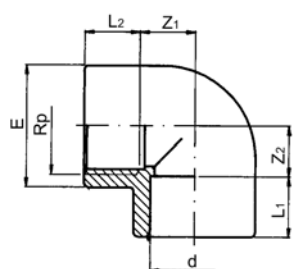
### Plain/threaded socket Rp PVC-U



PF 2 01 951 012

| d<br>[mm] | Rp<br>[inch] | PN | Code      | SP  | GP  | kg    | L1<br>[mm] | L2<br>[mm] | E1<br>[mm] | E2<br>[mm] |  |
|-----------|--------------|----|-----------|-----|-----|-------|------------|------------|------------|------------|--|
| 16        | 3/8          | 16 | RV0MMP16A | 10  | 500 | 0.010 | 14         | 11.4       | 23.0       | 25.0       |  |
| 20        | 1/2          | 16 | RV0MMP20B | 10  | 250 | 0.020 | 16         | 15.0       | 28.0       | 30.0       |  |
| 25        | 3/4          | 16 | RV0MMP25C | 10  | 200 | 0.026 | 19         | 16.3       | 34.0       | 35.0       |  |
| 32        | 1            | 16 | RV0MMP32D | 10  | 120 | 0.044 | 22         | 19.1       | 42.0       | 45.0       |  |
| 40        | 1 1/4        | 16 | RV0MMP40E | 100 | -   | 0.070 | 26         | 21.4       | 51.0       | 55.0       |  |
| 50        | 1 1/2        | 16 | RV0MMP50F | 60  | -   | 0.092 | 31         | 21.4       | 61.0       | 65.0       |  |
| 63        | 2            | 16 | RV0MMP63G | 80  | -   | 0.140 | 38         | 25.7       | 75.0       | 75.0       |  |

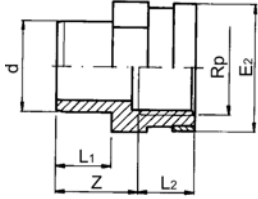
### Plain/threaded elbow 90° Rp PVC-U



PF 2 01 951 012

| d<br>[mm] | Rp<br>[inch] | PN | Code      | SP  | GP  | kg    | L1<br>[mm] | L2<br>[mm] | Z1<br>[mm] | Z2<br>[mm] | E1<br>[mm] | E2<br>[mm] |  |
|-----------|--------------|----|-----------|-----|-----|-------|------------|------------|------------|------------|------------|------------|--|
| 16        | 3/8          | 16 | RV0GGP16A | 10  | 360 | 0.014 | 14         | 11.4       | 9          | 11.6       | 23.0       | 25.0       |  |
| 20        | 1/2          | 16 | RV0GGP20B | 10  | 200 | 0.021 | 16         | 15.0       | 11         | 12.0       | 28.0       | 30.0       |  |
| 25        | 3/4          | 16 | RV0GGP25C | 10  | 160 | 0.038 | 19         | 16.3       | 14         | 16.7       | 34.0       | 35.0       |  |
| 32        | 1            | 16 | RV0GGP32D | 10  | 80  | 0.062 | 22         | 19.1       | 17         | 19.9       | 42.0       | 45.0       |  |
| 40        | 1 1/4        | 16 | RV0GGP40E | 130 | -   | 0.095 | 26         | 21.4       | 21         | 25.6       | 51.0       | 55.0       |  |
| 50        | 1 1/2        | 16 | RV0GGP50F | 70  | -   | 0.160 | 31         | 21.4       | 26         | 35.6       | 61.0       | 65.0       |  |
| 63        | 2            | 16 | RV0GGP63G | 40  | -   | 0.290 | 38         | 25.7       | 33         | 45.3       | 75.0       | 75.0       |  |

## Threaded adaptor Rp PVC-U



PF 2 01 951 012

| d<br>[mm] | Rp<br>[inch] | PN | Code      | SP  | GP  | kg    | L1<br>[mm] | L2<br>[mm] | Z<br>[mm] | E2<br>[mm] |  |
|-----------|--------------|----|-----------|-----|-----|-------|------------|------------|-----------|------------|--|
| 16        | 3/8          | 16 | RV0AAP16A | 10  | 600 | 0.204 | 14         | 11.4       | 22        | 25.0       |  |
| 20        | 1/2          | 16 | RV0AAP20B | 10  | 300 | 0.020 | 14         | 15.0       | 22        | 30.0       |  |
| 20        | 3/4          | 16 | RV0AAP20C | 10  | 240 | 0.025 | 16         | 15.0       | 24        | 30.0       |  |
| 25        | 1/2          | 16 | RV0AAP25B | 10  | 220 | 0.022 | 16         | 16.3       | 24        | 35.0       |  |
| 25        | 3/4          | 16 | RV0AAP25C | 10  | 200 | 0.028 | 19         | 15.0       | 27        | 30.0       |  |
| 25        | 1            | 16 | RV0AAP25D | 10  | 140 | 0.041 | 19         | 16.3       | 27        | 35.0       |  |
| 32        | 3/4          | 16 | RV0AAP32C | 10  | 180 | 0.034 | 19         | 19.1       | 27        | 45.0       |  |
| 32        | 1            | 16 | RV0AAP32D | 10  | 120 | 0.047 | 22         | 16.3       | 30        | 35.0       |  |
| 40        | 1            | 16 | RV0AAP40D | 100 | -   | 0.053 | 22         | 19.1       | 30        | 45.0       |  |
| 40        | 1 1/4        | 16 | RV0AAP40E | 90  | -   | 0.068 | 26         | 19.1       | 36        | 45.0       |  |
| 50        | 1 1/4        | 16 | RV0AAP50E | 70  | -   | 0.074 | 26         | 21.4       | 36        | 55.0       |  |
| 50        | 1 1/2        | 16 | RV0AAP50F | 60  | -   | 0.107 | 31         | 21.4       | 41        | 55.0       |  |
| 50        | 2            | 16 | RV0AAP50G | 90  | -   | 0.135 | 31         | 21.4       | 41        | 60.0       |  |
| 63        | 2            | 16 | RV0AAP63G | 80  | -   | 0.150 | 31         | 25.7       | 41        | 75.0       |  |
| 75        | 2            | 16 | RV0AAP75G | 160 | -   | 0.140 | 38         | 25.7       | 48        | 75.0       |  |

## Polypropylene pipe clip

- (\*) Traded items



| d<br>[mm] | Code      | SP | GP   | kg    |  |
|-----------|-----------|----|------|-------|--|
| * 16      | APOSPT160 | 20 | 500  | 0.006 |  |
| * 20      | APOSPT200 | 20 | 1100 | 0.008 |  |
| * 25      | APOSPT250 | 20 | 1000 | 0.009 |  |
| * 32      | APOSPT320 | 20 | 800  | 0.013 |  |
| * 40      | APOSPT400 | 10 | 250  | 0.026 |  |
| * 50      | APOSPT500 | 10 | 400  | 0.033 |  |
| * 63      | APOSPT630 | 10 | 250  | 0.047 |  |
| * 75      | APOSPT750 | 10 | 150  | 0.085 |  |
| * 90      | APOSPT900 | 10 | 120  | 0.110 |  |
| * 110     | APOSPT910 | 10 | 100  | 0.137 |  |
| * 125     | APOSPT920 | 10 | 50   | 0.105 |  |
| * 140     | APOSPT930 | 10 | 30   | 0.114 |  |
| * 160     | APOSPT940 | 10 | 20   | 0.124 |  |

PF 2 01 950 013

## O-ring

Suitable for unions

- (\*) Traded items



| d<br>[mm] | EPDM<br>Code | SP |  |
|-----------|--------------|----|--|
| * 16      | 1ORD03062    | 10 |  |
| * 20      | 1ORD04081    | 10 |  |
| * 25      | 1ORD04112    | 10 |  |
| 32        | 1ORD04131    | 10 |  |
| * 40      | 1ORD06162    | 10 |  |
| * 50      | 1ORD06187    | 10 |  |
| * 63      | 1ORD06237    | 10 |  |
| * 75      | 1ORD06312    | 10 |  |
| * 90      | 1ORD06362    | 10 |  |
| * 110     | 1ORD06450    | 10 |  |

# PVC-U Safeblock water ball valves

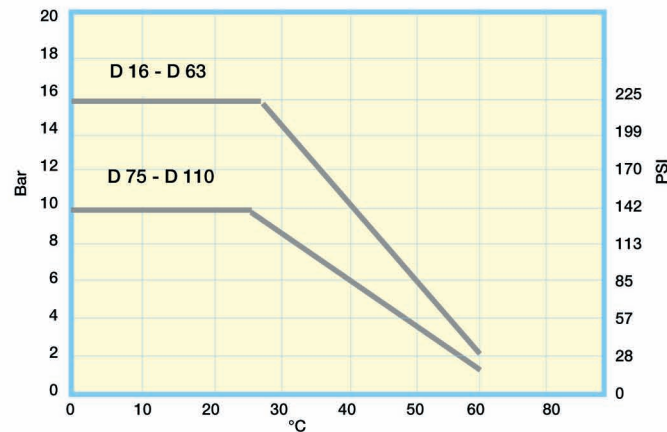
## General characteristics

Single and Double Union Ball Valve - compact type - characterized by optimal handling, full flow, axial pipe load block with microadjustment of ball seat. Moreover in closed position the pipeline can be disconnected downstream from the valve.

Features outlined make TP valves particularly suited for the following applications: distribution, treatment and sewage water, swimming pools, water parks and aquaculture.

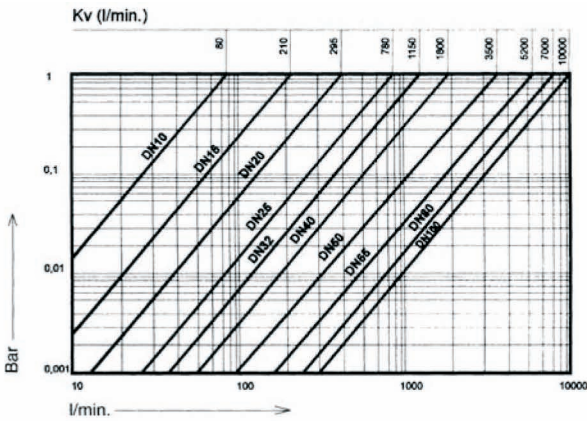
## MAX WORKING PRESSURE

The a. m. technical information should be used as a guide. Please consult our Technical dpt for specific queries.



Pressure temperature rating for water and harmless liquid.

## CHARGE LOSS



With water at 20°C and the valve in open position

## TORQUE

| D     | G         | Nm  |
|-------|-----------|-----|
| 16-20 | 3/8"-1/2" | 0,7 |
| 25    | 3/4"      | 2   |
| 32    | 1"        | 3,5 |
| 40    | 1" 1/4    | 7   |
| 50    | 1" 1/2    | 9   |
| 63    | 2"        | 13  |
| 75    | 2" 1/2    | 24  |
| 90    | 3"        | 30  |
| 110   | 4"        | 48  |

Max torque at max working pressure.

## Installation and use

When glueing the end connector of the pipe, care must be taken to prevent the glue or solvent from coming in contact with the valve seats or ball.

Threaded ends should not be connected with cone-shaped male threads and the use of hemp or similar materials should be carefully avoided. A special attention should be paid to the correct line-up of the installation. Tighten the union nut handtight only. The use of wrench is not allowed. It is important that the unions are not used to pull the system together.

If there is any leakage from the union nuts, please check

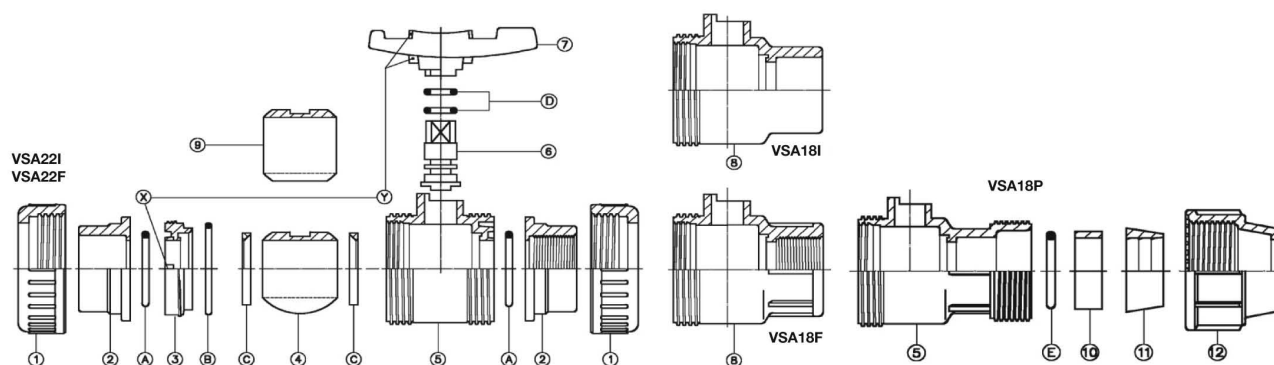
the correct line-up of the system and the pipe length. An excessive tightening of the unions could finally break them.

Before the valve is cycled, all dirt, sand or other material should be flushed from the system. This is to prevent scarring of the ball and/or seats.

It is important to avoid rapid closures/opening of the valve to eliminate the possibility of water hammer causing damage to the pipeline.

It is necessary that all installation and maintenance personnel become familiar with the proper solvent cement and thread joining procedure.

# PVC-U Safeblock water ball valves



## VALVE COMPONENTS

| Pos | Components           | n°    |       |        | Material |
|-----|----------------------|-------|-------|--------|----------|
|     |                      | VSA22 | VSA18 | VSA18P |          |
| 1   | Union nut            | 2     | 1     | 1      | PVC      |
| 2   | End connector        | 2     | 1     | 1      | PVC      |
| 3   | Adjustable support   | 1     | 1     | 1      | PVC      |
| 4   | Ball DN 40 a 100     | 1     | -     | 1      | PVC      |
| 5   | Body                 | 1     | -     | 1      | PVC      |
| 6   | Stem                 | 1     | 1     | 1      | PVC      |
| 7   | Handle               | 1     | 1     | 1      | PVC      |
| 8   | Single union body    | -     | 1     | -      | PVC      |
| 9   | Ball DN 10 a 32      | 1     | -     | -      | PVC      |
| 9   | Ball                 | -     | 1     | -      | PVC      |
| 10  | Packing presser bush | -     | -     | 1      | PVC      |
| 11  | Clip ring            | -     | -     | 1      | POM      |
| 12  | Quick joint nut      | -     | -     | 1      | PVC      |
| A   | O-ring body          | 2     | 1     | 1      | EPDM     |
| B   | O-ring support       | 1     | 1     | 1      | EPDM     |
| C   | Ball sea             | 2     | 2     | 1      | PTFE+PE  |
| D   | O-ring stem          | 2     | 2     | 2      | EPDM     |
| E   | Quick joint O-ring   | -     | -     | 1      | EPDM     |

PVC: Polyvinyl chloride

EPDM: Ethylene-propylene

PTFE+PE: Polytetrafluoroethylene+polyethylene

POM: Polyacetale

## DISASSEMBLING AND REASSEMBLING IN CASE OF MAINTENANCE DOUBLE UNION VSA.22. ...

Screwing the union nut (1) it is possible to take out radially from the system the whole body of the valve.

To reach the internal parts of the valve act as follows:

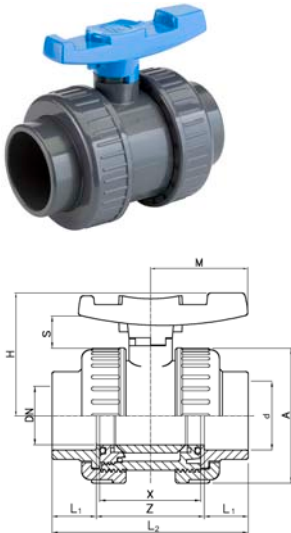
- 1- Set the valve on open position.
- 2- Withdraw the handle (7) from control stem (6).
- 3- Screw the support (3) of the body (5) using the two teeth (Y) of the handle (7) screwing operation should be done counter-clockwise.
- 4- After having screwed the support (3) and taken out the O-ring B which was inside (5), it is possible to reach all the internal parts of the valve to check the O-rings and in case substitute them.
  - to disassemble the ball (4)-(9) turn it using the control stem (6) setting it in closing position to withdraw the ballonet coupling through the control stem (6);
  - to disassemble the control stem (6) of the body (5) push it downwards as far as its complete outcome.

To assemble the valve act in the opposite way being careful to set the O-ring properly and greased it with silicon grease. Screw threaded support 3 straight to the hand taking care not to block the ball (4)-(9).



# PVC-U safeblock water ball valves

## Double union safeblock ISO PVC-U Ball valve with solvent cement sockets



| d<br>[mm] | d<br>[inch] | DN<br>[mm] | PN | EPDM<br>Code | SP | GP | kg    |  |
|-----------|-------------|------------|----|--------------|----|----|-------|--|
| 16        |             | 10         | 16 | VSA22I160    | 50 | -  | 0.130 |  |
| 20        |             | 15         | 16 | VSA22I200    | 50 | -  | 0.130 |  |
| 25        |             | 20         | 16 | VSA22I250    | 45 | -  | 0.205 |  |
| 32        |             | 25         | 16 | VSA22I320    | 50 | -  | 0.295 |  |
| 40        |             | 32         | 16 | VSA22I400    | 36 | -  | 0.435 |  |
| 50        |             | 40         | 16 | VSA22I500    | 24 | -  | 0.680 |  |
| 63        |             | 50         | 16 | VSA22I630    | 13 | -  | 1.160 |  |
| 75        | 2 ½         | 65         | 10 | VSA22I750    | 8  | -  | 2.200 |  |
| 90        |             | 80         | 10 | VSA22I900    | 4  | -  | 3.310 |  |
| 110       |             | 100        | 10 | VSA22I910    | 2  | -  | 5.925 |  |

| d<br>[mm] | A<br>[mm] | H<br>[mm] | M<br>[mm] | S<br>[mm] | X<br>[mm] | L1<br>[mm] | Z<br>[mm] | L2<br>[mm] |  |
|-----------|-----------|-----------|-----------|-----------|-----------|------------|-----------|------------|--|
| 16        | 50        | 53        | 40        | 19        | 42        | 14         | 48        | 76         |  |
| 20        | 50        | 53        | 40        | 19        | 41        | 16         | 48        | 80         |  |
| 25        | 59        | 60        | 45        | 19        | 48        | 19         | 53        | 91         |  |
| 32        | 68        | 67        | 51        | 21        | 54        | 22         | 58        | 102        |  |
| 40        | 80        | 79        | 59        | 25        | 62        | 26         | 68        | 120        |  |
| 50        | 94        | 90        | 70        | 27        | 72        | 31         | 78        | 140        |  |
| 63        | 115       | 107       | 84        | 29        | 86        | 38         | 93        | 169        |  |
| 75        | 145       | 129       | 103       | 32        | 110       | 44         | 118       | 206        |  |
| 90        | 168       | 143       | 120       | 36        | 128       | 51         | 140       | 242        |  |
| 110       | 210       | 169       | 141       | 43        | 150       | 61         | 160       | 282        |  |

PF 2 02 956 010

## Double union safeblock B.S.P. PVC-U Ball valve with threaded sockets Rp

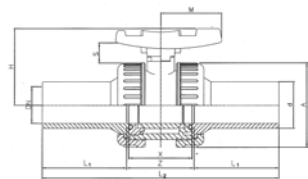


| Rp<br>[inch] | DN<br>[mm] | PN | EPDM<br>Code | SP  | GP | kg    |  |
|--------------|------------|----|--------------|-----|----|-------|--|
| ¾            | 10         | 16 | VSA22F160    | 150 | -  | 0.130 |  |
| ½            | 15         | 16 | VSA22F200    | 150 | -  | 0.130 |  |
| ¾            | 20         | 16 | VSA22F250    | 100 | -  | 0.205 |  |
| 1            | 25         | 16 | VSA22F320    | 60  | -  | 0.295 |  |
| 1 ¼          | 32         | 16 | VSA22F400    | 36  | -  | 0.430 |  |
| 1 ½          | 40         | 16 | VSA22F500    | 24  | -  | 0.655 |  |
| 2            | 50         | 16 | VSA22F630    | 16  | -  | 1.160 |  |
| 2 ½          | 65         | 10 | VSA22F750    | 8   | -  | 2.045 |  |
| 3            | 80         | 10 | VSA22F900    | 4   | -  | 3.250 |  |
| 4            | 100        | 10 | VSA22F910    | 2   | -  | 5.820 |  |

| Rp<br>[inch] | A<br>[mm] | H<br>[mm] | M<br>[mm] | S<br>[mm] | X<br>[mm] | L1<br>[mm] | Z<br>[mm] | L2<br>[mm] |  |
|--------------|-----------|-----------|-----------|-----------|-----------|------------|-----------|------------|--|
| ¾            | 50        | 53        | 40        | 19        | 42        | 14         | 48        | 76         |  |
| ½            | 50        | 53        | 40        | 19        | 42        | 16         | 48        | 80         |  |
| ¾            | 59        | 60        | 45        | 19        | 48        | 19         | 53        | 91         |  |
| 1            | 68        | 67        | 51        | 21        | 54        | 22         | 58        | 102        |  |
| 1 ¼          | 80        | 79        | 59        | 25        | 62        | 26         | 68        | 120        |  |
| 1 ½          | 94        | 90        | 70        | 27        | 72        | 31         | 78        | 140        |  |
| 2            | 115       | 107       | 84        | 29        | 86        | 38         | 93        | 169        |  |
| 2 ½          | 145       | 129       | 103       | 32        | 110       | 44         | 118       | 206        |  |
| 3            | 168       | 143       | 120       | 36        | 128       | 51         | 140       | 242        |  |
| 4            | 210       | 169       | 141       | 43        | 150       | 61         | 160       | 282        |  |

PF 2 02 956 010

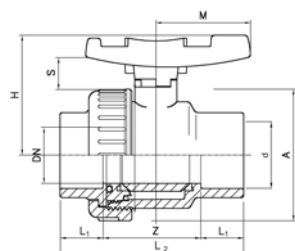




PF 2 02 956 010

## Double union safeblock PVC-U Ball valve with spigots PE100 SDR11

| d<br>[mm] | PN | EPDM<br>Code | SP | GP | kg    | D<br>[mm] | H<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] | L3<br>[mm] | e<br>[mm] |  |
|-----------|----|--------------|----|----|-------|-----------|-----------|-----------|------------|------------|------------|-----------|--|
| 20        | 16 | VSA22B200    | 30 | -  | 0.210 | 95        | 53        | 175       | 67         | 42         | 40         | 1.8       |  |
| 25        | 16 | VSA22B250    | 20 | -  | 0.210 | 105       | 60        | 195       | 77         | 48         | 45         | 2.3       |  |
| 32        | 16 | VSA22B320    | 10 | -  | 0.310 | 115       | 67        | 147       | 87         | 54         | 51         | 2.9       |  |
| 40        | 16 | VSA22B400    | 10 | -  | 0.450 | 140       | 79        | 233       | 102        | 62         | 59         | 3.6       |  |
| 50        | 16 | VSA22B500    | 6  | -  | 0.800 | 150       | 90        | 265       | 119        | 72         | 70         | 4.5       |  |
| 63        | 16 | VSA22B630    | 3  | -  | 1.255 | 165       | 107       | 278       | 146        | 86         | 84         | 5.7       |  |
| 75        | 16 | VSA22B750    | 1  | -  | 2.400 | 185       | 129       | 348       | 179        | 110        | 103        | 6.8       |  |
| 90        | 10 | VSA22B900    | 1  | -  | 3.625 | 200       | 143       | 350       | 209        | 128        | 120        | 8.2       |  |
| 110       | 10 | VSA22B910    | 1  | -  | 6.100 | 220       | 169       | 412       | 250        | 150        | 141        | 10.0      |  |

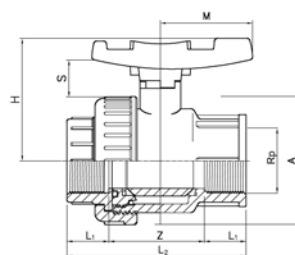


PF 2 02 956 010

## Single union safeblock ISO PVC-U Ball valve with solvent cement sockets

| d<br>[mm] | d<br>[inch] | DN<br>[mm] | PN | Code      | SP  | GP | kg    |  |
|-----------|-------------|------------|----|-----------|-----|----|-------|--|
| 16        |             | 10         | 16 | VSA18I160 | 180 | -  | 0.100 |  |
| 20        |             | 15         | 16 | VSA18I200 | 180 | -  | 0.100 |  |
| 25        |             | 20         | 16 | VSA18I250 | 120 | -  | 0.160 |  |
| 32        |             | 25         | 16 | VSA18I320 | 75  | -  | 0.230 |  |
| 40        |             | 32         | 16 | VSA18I400 | 45  | -  | 0.340 |  |
| 50        |             | 40         | 16 | VSA18I500 | 30  | -  | 0.525 |  |
| 63        |             | 50         | 16 | VSA18I630 | 16  | -  | 0.890 |  |
| 75        | 2 1/2       | 65         | 10 | VSA18I750 | 8   | -  | 1.640 |  |
| 90        |             | 80         | 10 | VSA18I900 | 5   | -  | 2.450 |  |
| 110       |             | 100        | 10 | VSA18I910 | 2   | -  | 4.100 |  |

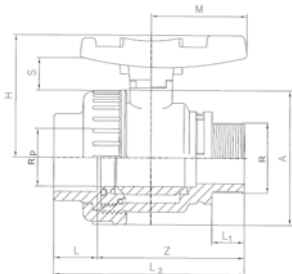
| d<br>[mm] | A<br>[mm] | H<br>[mm] | M<br>[mm] | S<br>[mm] | L1<br>[mm] | Z<br>[mm] | L2<br>[mm] |  |
|-----------|-----------|-----------|-----------|-----------|------------|-----------|------------|--|
| 16        | 50        | 53        | 40        | 19        | 14         | 48        | 76         |  |
| 20        | 50        | 53        | 40        | 19        | 16         | 48        | 80         |  |
| 25        | 59        | 60        | 45        | 19        | 19         | 53        | 91         |  |
| 32        | 68        | 67        | 51        | 21        | 22         | 58        | 102        |  |
| 40        | 80        | 79        | 59        | 25        | 26         | 68        | 120        |  |
| 50        | 94        | 90        | 70        | 28        | 31         | 78        | 140        |  |
| 63        | 115       | 107       | 84        | 29        | 38         | 93        | 169        |  |
| 75        | 145       | 129       | 103       | 32        | 44         | 118       | 206        |  |
| 90        | 168       | 143       | 120       | 36        | 51         | 140       | 242        |  |
| 110       | 210       | 169       | 141       | 43        | 61         | 160       | 282        |  |



PF 2 02 956 010

## Single union safeblock B.S.P. PVC-U Ball valve with threaded sockets Rp

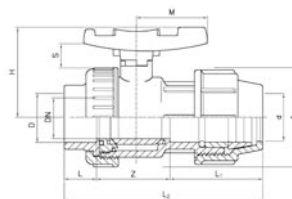
| Rp<br>[inch] | DN<br>[mm] | PN | EPDM<br>Code | SP  | GP | kg    | A<br>[mm] | H<br>[mm] | M<br>[mm] | S<br>[mm] | L1<br>[mm] | Z<br>[mm] | L2<br>[mm] |  |
|--------------|------------|----|--------------|-----|----|-------|-----------|-----------|-----------|-----------|------------|-----------|------------|--|
| 3/8          | 10         | 16 | VSA18F160    | 180 | -  | 0.100 | 50        | 53        | 40        | 19        | 14         | 48        | 76         |  |
| 1/2          | 15         | 16 | VSA18F200    | 180 | -  | 0.100 | 50        | 53        | 40        | 19        | 16         | 48        | 80         |  |
| 3/4          | 20         | 16 | VSA18F250    | 120 | -  | 0.160 | 59        | 60        | 45        | 19        | 19         | 53        | 91         |  |
| 1            | 25         | 16 | VSA18F320    | 75  | -  | 0.230 | 68        | 67        | 51        | 21        | 22         | 58        | 102        |  |
| 1 1/4        | 32         | 16 | VSA18F400    | 45  | -  | 0.335 | 80        | 79        | 59        | 25        | 26         | 68        | 120        |  |
| 1 1/2        | 40         | 16 | VSA18F500    | 30  | -  | 0.515 | 94        | 90        | 70        | 27        | 31         | 78        | 140        |  |
| 2            | 50         | 16 | VSA18F630    | 18  | -  | 0.890 | 115       | 107       | 84        | 29        | 38         | 93        | 169        |  |
| 2 1/2        | 65         | 10 | VSA18F750    | 8   | -  | 1.620 | 145       | 129       | 103       | 32        | 44         | 118       | 206        |  |
| 3            | 80         | 10 | VSA18F900    | 5   | -  | 2.420 | 168       | 143       | 120       | 36        | 51         | 140       | 242        |  |
| 4            | 100        | 10 | VSA18F910    | 2   | -  | 4.015 | 210       | 169       | 141       | 43        | 61         | 160       | 282        |  |



PF 2 02 956 010

## Single union safeblock B.S.P. PVC-U Ball valve with female threaded socket Rp/male thread R

| R / Rp<br>[inch] | PN | EPDM<br>Code | SP  | GP | kg    | A<br>[mm] | H<br>[mm] | M<br>[mm] | S<br>[mm] | L<br>[mm] | Z<br>[mm] | L1<br>[mm] | L2<br>[mm] |
|------------------|----|--------------|-----|----|-------|-----------|-----------|-----------|-----------|-----------|-----------|------------|------------|
| 3/8              | 16 | VSA18S160    | 180 | -  | 0.095 | 50        | 53        | 40        | 19        | 14        | 53        | 12.0       | 67         |
| 1/2              | 16 | VSA18S200    | 180 | -  | 0.095 | 50        | 53        | 40        | 19        | 16        | 55        | 15.0       | 71         |
| 3/4              | 16 | VSA18S250    | 120 | -  | 0.150 | 59        | 60        | 45        | 19        | 19        | 61        | 16.5       | 80         |
| 1                | 16 | VSA18S320    | 75  | -  | 0.210 | 68        | 67        | 51        | 21        | 22        | 68        | 19.5       | 90         |
| 1 1/4            | 16 | VSA18S400    | 45  | -  | 0.320 | 80        | 79        | 59        | 25        | 26        | 84        | 21.5       | 110        |
| 1 1/2            | 16 | VSA18S500    | 30  | -  | 0.500 | 94        | 90        | 70        | 27        | 31        | 97        | 21.5       | 128        |
| 2                | 16 | VSA18S630    | 18  | -  | 0.845 | 115       | 107       | 84        | 29        | 38        | 119       | 25.5       | 157        |



PF 2 02 956 010

## Single union safeblock PVC-U Ball valve with compression fitting

| d-d<br>[mm] | DN<br>[mm] | PN        | EPDM<br>Code | SP        | GP         | kg        |            |           |  |  |  |  |  |  |
|-------------|------------|-----------|--------------|-----------|------------|-----------|------------|-----------|--|--|--|--|--|--|
| 50 - 50     | 40         | 16        | VSA18P500    | 18        | -          | 0.515     |            |           |  |  |  |  |  |  |
| d-d<br>[mm] | A<br>[mm]  | H<br>[mm] | M<br>[mm]    | S<br>[mm] | L1<br>[mm] | Z<br>[mm] | L2<br>[mm] | L<br>[mm] |  |  |  |  |  |  |
| 50 - 50     | 94         | 90        | 69.5         | 27        | 88         | 63        | 182        | 31        |  |  |  |  |  |  |

# Spare parts for manual valves

## Blue handle

Suitable for VSA22 - VSA18



| d<br>[mm] | DN<br>[mm] | Code      | SP | GP |  |
|-----------|------------|-----------|----|----|--|
| 16 - 20   | 15         | 3VMNG0D20 | -  | -  |  |
| 25        | 20         | 3VMNG0D25 | -  | -  |  |
| 32        | 25         | 3VMNG0D32 | -  | -  |  |
| 40        | 32         | 3VMNG0D40 | -  | -  |  |
| 50        | 40         | 3VMNG0D50 | -  | -  |  |
| 63        | 50         | 3VMNG0D63 | -  | -  |  |
| 75        | 65         | 3VMNG0D75 | -  | -  |  |
| 90        | 80         | 3VMNG0D90 | -  | -  |  |
| 110       | 100        | 3VMNG0D91 | -  | -  |  |

## Grey handle

Suitable for VSA11 - VSA21



| d<br>[mm] | DN<br>[mm] | Code      | SP | GP |  |
|-----------|------------|-----------|----|----|--|
| 16 - 20   | 10 - 15    | 3VMNG0A20 | -  | -  |  |
| 25        | 20         | 3VMNG0A25 | -  | -  |  |
| 32        | 25         | 3VMNG0A32 | -  | -  |  |
| 40        | 32         | 3VMNG0A40 | -  | -  |  |
| 50        | 40         | 3VMNG0A50 | -  | -  |  |
| 63        | 50         | 3VMNG0A63 | -  | -  |  |
| 75        | 65         | 3VMNG0A75 | -  | -  |  |
| 90        | 80         | 3VMNG0A90 | -  | -  |  |
| 110       | 100        | 3VMNG0A91 | -  | -  |  |

## Plain socket PVC-U metric

Suitable for VSA



| d<br>[mm] | d<br>[inch] | PN | Code      | SP | GP |  |
|-----------|-------------|----|-----------|----|----|--|
| 16        |             | 16 | 3VCLV1116 | -  | -  |  |
| 20        |             | 16 | 3VCLV1120 | -  | -  |  |
| 25        |             | 16 | 3VCLV1125 | -  | -  |  |
| 32        |             | 16 | 3VCLV1132 | -  | -  |  |
| 40        |             | 16 | 3VCLV1140 | -  | -  |  |
| 50        |             | 16 | 3VCLV1150 | -  | -  |  |
| 63        |             | 16 | 3VCLV1163 | -  | -  |  |
| 75        | 2 ½         | 10 | 3VCLV1175 | -  | -  |  |
| 90        |             | 10 | 3VCLV1190 | -  | -  |  |
| 110       |             | 10 | 3VCLV1191 | -  | -  |  |

## Gasket set

Suitable for VSA



| d<br>[mm] | EPDM/PTFE/PE<br>Code | SP | GP | kg    |  |
|-----------|----------------------|----|----|-------|--|
| 16        | XSASED160            | 10 | -  | 0.010 |  |
| 20        | XSASED200            | 10 | -  | 0.010 |  |
| 25        | XSASED250            | 10 | -  | 0.010 |  |
| 32        | XSASED320            | 10 | -  | 0.010 |  |
| 40        | XSASED400            | 10 | -  | 0.015 |  |
| 50        | XSASED500            | 10 | -  | 0.025 |  |
| 63        | XSASED630            | 10 | -  | 0.035 |  |
| 75        | XSASED750            | 10 | -  | 0.045 |  |
| 90        | XSASED900            | 10 | -  | 0.070 |  |
| 110       | XSASED910            | 10 | -  | 0.080 |  |

PF 2 02 962 010



## Nut PVC-U

Suitable for VSA - VSI - VRO - VRI

| d<br>[mm] | DN<br>[mm] | Code      | SP | GP |  |
|-----------|------------|-----------|----|----|--|
| 16 - 20   | 10 - 15    | 3VGHR0A20 | -  | -  |  |
| 25        | 20         | 3VGHR0A25 | -  | -  |  |
| 32        | 25         | 3VGHR0A32 | -  | -  |  |
| 40        | 32         | 3VGHR0A40 | -  | -  |  |
| 50        | 40         | 3VGHR0A50 | -  | -  |  |
| 63        | 50         | 3VGHR0A63 | -  | -  |  |
| 75        | 65         | 3VGHR0A75 | -  | -  |  |
| 90        | 80         | 3VGHR0A90 | -  | -  |  |
| 110       | 100        | 3VGHR0A91 | -  | -  |  |



## Threaded socket B.S.P. Rp PVC-U

Suitable for VSA

| G<br>[inch] | PN | Code      | SP | GP |  |
|-------------|----|-----------|----|----|--|
| 3/8         | 16 | 3VCLV1F16 | -  | -  |  |
| 1/2         | 16 | 3VCLV1F20 | -  | -  |  |
| 3/4         | 16 | 3VCLV1F25 | -  | -  |  |
| 1           | 16 | 3VCLV1F32 | -  | -  |  |
| 1 1/4       | 16 | 3VCLV1F40 | -  | -  |  |
| 1 1/2       | 16 | 3VCLV1F50 | -  | -  |  |
| 2           | 16 | 3VCLV1F63 | -  | -  |  |
| 2 1/2       | 10 | 3VCLV1F75 | -  | -  |  |
| 3           | 10 | 3VCLV1F90 | -  | -  |  |
| 4           | 10 | 3VCLV1F91 | -  | -  |  |



## Socket PE100

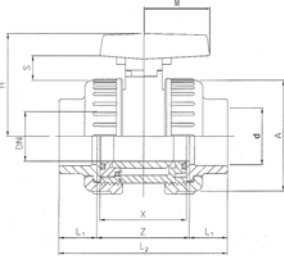
Suitable for VSA - VRO - VRV - VRI

• (\*) Traded items

| d<br>[mm] | DN<br>[mm] | PN | Code     | SP | GP |  |
|-----------|------------|----|----------|----|----|--|
| * 20      | 15         | 10 | 3ECLV200 | -  | -  |  |
| * 25      | 20         | 10 | 3ECLV250 | -  | -  |  |
| * 32      | 25         | 10 | 3ECLV320 | -  | -  |  |
| * 40      | 32         | 10 | 3ECLV400 | -  | -  |  |
| * 50      | 40         | 10 | 3ECLV500 | -  | -  |  |
| * 63      | 50         | 10 | 3ECLV630 | -  | -  |  |
| * 75      | 65         | 10 | 3ECLV750 | -  | -  |  |
| * 90      | 80         | 10 | 3ECLV900 | -  | -  |  |
| * 110     | 100        | 10 | 3ECLV910 | -  | -  |  |

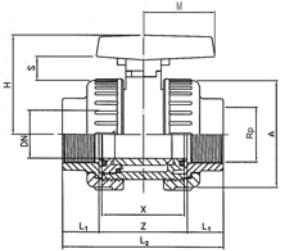
# PVC-U non safeblock water ball valves

## Double union ball valve ISO PVC-U With solvent cement sockets



PF 2 02 956 010

| d<br>[mm] | DN<br>[mm] | PN | EPDM<br>Code     | SP  | GP | kg    | A<br>[mm] | H<br>[mm] | M<br>[mm] | S<br>[mm] | X<br>[mm] | L1<br>[mm] | Z<br>[mm] | L2<br>[mm] |
|-----------|------------|----|------------------|-----|----|-------|-----------|-----------|-----------|-----------|-----------|------------|-----------|------------|
| 20        | 15         | 16 | <b>VSA21I200</b> | 150 | -  | 0.130 | 50        | 51        | 36        | 12        | 42        | 16         | 48        | 80         |
| 25        | 20         | 16 | <b>VSA21I250</b> | 100 | -  | 0.205 | 59        | 58        | 39        | 15        | 48        | 19         | 53        | 91         |
| 32        | 25         | 16 | <b>VSA21I320</b> | 60  | -  | 0.300 | 68        | 65        | 45        | 16        | 54        | 22         | 58        | 102        |
| 40        | 32         | 16 | <b>VSA21I400</b> | 38  | -  | 0.430 | 80        | 76        | 51        | 18        | 62        | 26         | 68        | 120        |
| 50        | 40         | 16 | <b>VSA21I500</b> | 24  | -  | 0.655 | 94        | 88        | 57        | 21        | 72        | 31         | 78        | 140        |
| 63        | 50         | 16 | <b>VSA21I630</b> | 13  | -  | 1.120 | 115       | 103       | 66        | 23        | 86        | 38         | 93        | 169        |



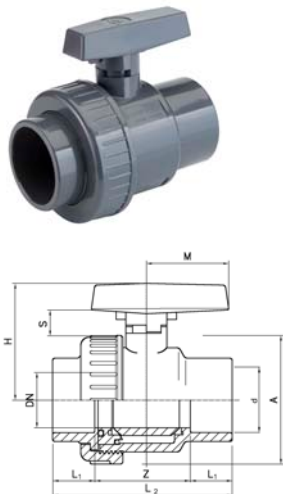
PF 2 02 956 010

## Double union ball valve B.S.P PVC-U With threaded sockets Rp

| Rp<br>[inch] | DN<br>[mm] | PN | EPDM<br>Code     | SP  | GP | kg    |  |  |  |  |  |  |  |  |
|--------------|------------|----|------------------|-----|----|-------|--|--|--|--|--|--|--|--|
| ½            | 15         | 16 | <b>VSA21F200</b> | 150 | -  | 0.130 |  |  |  |  |  |  |  |  |
| ¾            | 20         | 16 | <b>VSA21F250</b> | 100 | -  | 0.205 |  |  |  |  |  |  |  |  |
| 1            | 25         | 16 | <b>VSA21F320</b> | 60  | -  | 0.300 |  |  |  |  |  |  |  |  |
| 1 ¼          | 32         | 16 | <b>VSA21F400</b> | 38  | -  | 0.430 |  |  |  |  |  |  |  |  |
| 1 ½          | 40         | 16 | <b>VSA21F500</b> | 24  | -  | 0.655 |  |  |  |  |  |  |  |  |
| 2            | 50         | 16 | <b>VSA21F630</b> | 16  | -  | 1.120 |  |  |  |  |  |  |  |  |

| Rp<br>[inch] | A<br>[mm] | H<br>[mm] | M<br>[mm] | S<br>[mm] | X<br>[mm] | L1<br>[mm] | Z<br>[mm] | L2<br>[mm] |  |  |  |  |  |  |
|--------------|-----------|-----------|-----------|-----------|-----------|------------|-----------|------------|--|--|--|--|--|--|
| ½            | 50        | 51        | 36        | 12        | 42        | 16         | 48.0      | 80         |  |  |  |  |  |  |
| ¾            | 59        | 58        | 39        | 15        | 48        | 19         | 53.0      | 91         |  |  |  |  |  |  |
| 1            | 68        | 65        | 45        | 16        | 54        | 22         | 58.0      | 102        |  |  |  |  |  |  |
| 1 ¼          | 80        | 76        | 51        | 18        | 62        | 26         | 68.0      | 120        |  |  |  |  |  |  |
| 1 ½          | 94        | 88        | 57        | 21        | 72        | 31         | 78.0      | 140        |  |  |  |  |  |  |
| 2            | 115       | 103       | 66        | 23        | 86        | 38         | 93.0      | 169        |  |  |  |  |  |  |

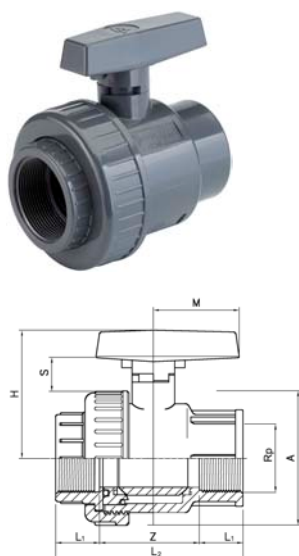


## Single union ball valve ISO PVC-U With solvent cement sockets

| d<br>[mm] | DN<br>[mm] | PN | EPDM<br>Code     | SP  | GP | kg    |  |  |  |
|-----------|------------|----|------------------|-----|----|-------|--|--|--|
| 20        | 15         | 16 | <b>VSA11I200</b> | 180 | -  | 0.103 |  |  |  |
| 25        | 20         | 16 | <b>VSA11I250</b> | 120 | -  | 0.160 |  |  |  |
| 32        | 25         | 16 | <b>VSA11I320</b> | 75  | -  | 0.230 |  |  |  |
| 40        | 32         | 16 | <b>VSA11I400</b> | 48  | -  | 0.340 |  |  |  |
| 50        | 40         | 16 | <b>VSA11I500</b> | 30  | -  | 0.525 |  |  |  |
| 63        | 50         | 16 | <b>VSA11I630</b> | 16  | -  | 0.890 |  |  |  |
| 75        | 65         | 10 | <b>VSA11I750</b> | 8   | -  | 1.645 |  |  |  |
| 90        | 80         | 10 | <b>VSA11I900</b> | 5   | -  | 2.450 |  |  |  |
| 110       | 100        | 10 | <b>VSA11I910</b> | 2   | -  | 4.100 |  |  |  |

| d<br>[mm] | A<br>[mm] | H<br>[mm] | M<br>[mm] | S<br>[mm] | X<br>[mm] | L1<br>[mm] | Z<br>[mm] | L2<br>[mm] |  |  |
|-----------|-----------|-----------|-----------|-----------|-----------|------------|-----------|------------|--|--|
| 20        | 50        | 51        | 36        | 12        | 42        | 16         | 48        | 80         |  |  |
| 25        | 59        | 58        | 39        | 15        | 48        | 19         | 53        | 91         |  |  |
| 32        | 68        | 65        | 45        | 16        | 54        | 22         | 58        | 102        |  |  |
| 40        | 80        | 76        | 51        | 18        | 62        | 26         | 68        | 120        |  |  |
| 50        | 94        | 88        | 57        | 21        | 72        | 31         | 78        | 140        |  |  |
| 63        | 115       | 103       | 66        | 23        | 86        | 38         | 93        | 169        |  |  |
| 75        | 145       | 124       | 78        | 24        | 110       | 44         | 118       | 206        |  |  |
| 90        | 168       | 137       | 84        | 26        | 128       | 51         | 140       | 242        |  |  |
| 110       | 210       | 162       | 96        | 28        | 150       | 61         | 160       | 282        |  |  |

PF 2 02 956 010



## Single union ball valve B.S.P. PVC-U With threaded sockets Rp

| Rp<br>[inch] | DN<br>[mm] | PN | EPDM<br>Code     | SP  | GP | kg    | A<br>[mm] | H<br>[mm] | M<br>[mm] | S<br>[mm] | X<br>[mm] | L1<br>[mm] | Z<br>[mm] | L2<br>[mm] |
|--------------|------------|----|------------------|-----|----|-------|-----------|-----------|-----------|-----------|-----------|------------|-----------|------------|
| ½            | 15         | 16 | <b>VSA11F200</b> | 180 | -  | 0.105 | 50        | 51        | 36        | 12        | 42        | 16         | 48        | 80         |
| ¾            | 20         | 16 | <b>VSA11F250</b> | 120 | -  | 0.160 | 59        | 58        | 39        | 15        | 48        | 19         | 53        | 91         |
| 1            | 25         | 16 | <b>VSA11F320</b> | 75  | -  | 0.230 | 68        | 65        | 45        | 16        | 54        | 22         | 58        | 102        |
| 1 ¼          | 32         | 16 | <b>VSA11F400</b> | 48  | -  | 0.335 | 80        | 76        | 51        | 18        | 62        | 26         | 68        | 120        |
| 1 ½          | 40         | 16 | <b>VSA11F500</b> | 30  | -  | 0.515 | 94        | 88        | 57        | 21        | 72        | 31         | 78        | 140        |
| 2            | 50         | 16 | <b>VSA11F630</b> | 18  | -  | 0.893 | 115       | 103       | 66        | 23        | 86        | 38         | 93        | 169        |

PF 2 02 956 010

# PVC-U VSA Electrical actuated ball valves for water

## General characteristics of ball valves

Double Union Ball Valve - compact type - characterized by an optimal handling (low torque).

The ideal valve to be used upon contact with water.

## Installation and use

Make sure you are using the correct voltage.

Special attention should be paid to the correct line up of the installation and to the pipe length to obtain the best possible welding.

Please refer to the specific instructions for assembling the double union ball valve VSA type.

Tecno Plastic technical Dept. will be glad to support you with installation instructions leaflets.

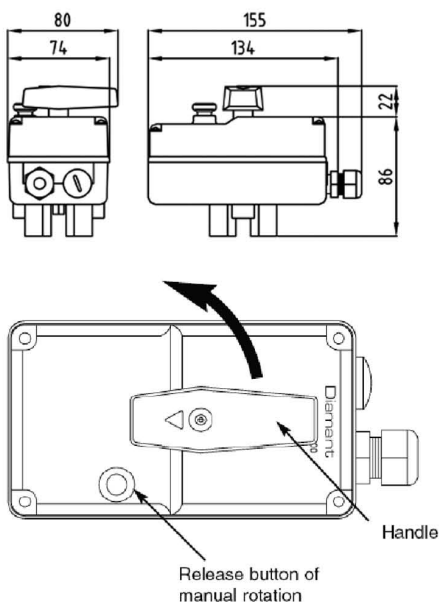
## Electrical servocontrols technical features

|                               |                                                                |                                              |
|-------------------------------|----------------------------------------------------------------|----------------------------------------------|
| Valve:                        | DN<br>From 10 up to 40                                         | DN<br>50                                     |
| Servocontrol model:           | DIAMANT2000                                                    | COMPACT                                      |
| Type:                         | Dual-direction<br>Manual opening                               | Dual-direction<br>Manual opening             |
| Electrical power supply:      | 24V* 50Hz                                                      | 24V* 50Hz                                    |
| Permanent service:            | 100%                                                           | 100%                                         |
| Absorbed power:               | from 6,1 up to 16,7 VA ( 230V)<br>from 6,1 up to 7,5 VA ( 24V) | 12 VA                                        |
| Manoeuvre time:               | 35 sec. ( 90°)                                                 | 50 sec. ( 90°)                               |
| Degree electrical protection: | IP 65                                                          | IP 65                                        |
| Torque:                       | 11 Nm                                                          | 35Nm                                         |
| Working temperature:          | -10 + 50°C                                                     | -10 + 50°C                                   |
| Servocontrol:                 | 3 points without relay<br>1 additional micro                   | 3 points without relay<br>2 additional micro |
| Base connection:              | ISO5211 F03 – F05 q 9-11                                       | ISO5211 F05 q 11                             |

\* Upon request versions 230V 50Hz available

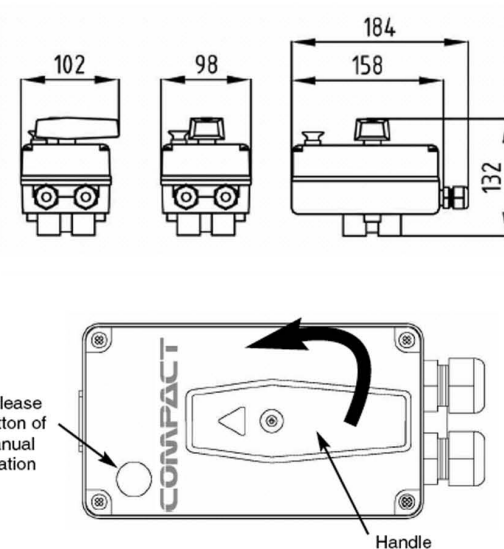
### DIAMANT

#### OVERAL DIMENSIONS (mm) BASIC MODEL



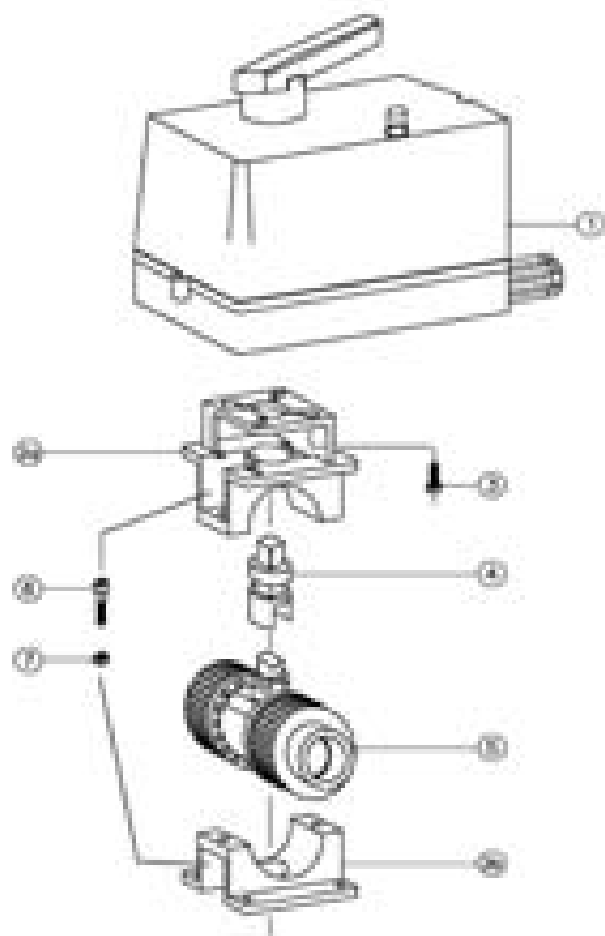
### COMPACT

#### OVERAL DIMENSIONS (mm) BASIC MODEL WITH ISO 5211 ATTACHMENT





# PVC-U VSA Electrical actuated ball valves for water



## COMPONENTS

| Pos | Components          | n° | Material |
|-----|---------------------|----|----------|
| 1   | Actuator            | 1  | -        |
| 2a  | Top half bracket    | 1  | PVC      |
| 2b  | Bottom half bracket | 1  | PVC      |
| 3   | Tightening bolt     | 4  | INOX     |
| 4   | Stem                | 1  | INOX     |
| 5   | VSA valve           | 1  | PVC      |
| 6   | Tightening screws   | 2  | INOX     |

PVC: Polyvinyl chloride  
INOX: Stainless steel

## DISASSEMBLING AND REASSEMBLING IN CASE OF MAINTENANCE

Our valve is sold fully assembled and ready to be installed.  
For maintenance of the components please proceed as follows:

- 1- Switch off the actuator from the power supply according to the electrical scheme.
- 2- Unscrew the connecting bolts (6) which fix the actuator brackets (2).
- 3- It is now possible to take out the stem (4) and operate upon the valve or the actuator itself.
  - For disassembling the valve please follow the specific instruction (cf. VSA)
  - For maintenance or substitution of the engine unscrew the bolts (3) to separate the top half bracket (2) a from the body of the actuator (1).

To reassemble the valve act in the opposite way being careful to clean and tight properly all components.

# PVC-U electrical actuated ball valves

## For water

### Ball valve electric 24V AC PVC-U

- VSE22I... = ISO Solvent cement
- VSE22F... = Rp threaded



| Rp<br>[inch] | d<br>[mm] | DN<br>[mm] | PN | EPDM<br>Code | SP | GP | kg    |  |
|--------------|-----------|------------|----|--------------|----|----|-------|--|
|              | 16        | 10         | 6  | VSE22I160    | -  | -  | 1.420 |  |
|              | 20        | 15         | 6  | VSE22I200    | -  | -  | 1.420 |  |
|              | 25        | 20         | 6  | VSE22I250    | -  | -  | 1.500 |  |
|              | 32        | 25         | 6  | VSE22I320    | -  | -  | 1.518 |  |
|              | 40        | 32         | 6  | VSE22I400    | 1  | -  | 2.550 |  |
|              | 50        | 40         | 6  | VSE22I500    | 1  | -  | 2.800 |  |
|              | 63        | 50         | 6  | VSE22I630    | 1  | -  | 3.400 |  |
| 3/8          |           | 10         | 6  | VSE22F160    | -  | -  | 1.420 |  |
| 1/2          |           | 15         | 6  | VSE22F200    | 1  | -  | 1.420 |  |
| 3/4          |           | 20         | 6  | VSE22F250    | -  | -  | 1.500 |  |
| 1            |           | 25         | 6  | VSE22F320    | -  | -  | 1.518 |  |
| 1 1/4        |           | 32         | 6  | VSE22F400    | -  | -  | 2.550 |  |
| 1 1/2        |           | 40         | 6  | VSE22F500    | -  | -  | 2.800 |  |
| 2            |           | 50         | 6  | VSE22F630    | -  | -  | 3.400 |  |

| Rp<br>[inch] | I<br>[mm] | I1<br>[mm] | E<br>[mm] | E1<br>[mm] | E2<br>[mm] | E3<br>[mm] | E4<br>[mm] | H<br>[mm] | H1<br>[mm] |  |
|--------------|-----------|------------|-----------|------------|------------|------------|------------|-----------|------------|--|
|              | 59        | 41         | 74        | 56.0       | 79.0       | 112.0      | 50         | 228       | 32         |  |
|              | 59        | 41         | 74        | 56.0       | 79.0       | 112.0      | 50         | 228       | 32         |  |
|              | 61        | 41         | 76        | 56.0       | 79.0       | 112.0      | 50         | 228       | 37         |  |
|              | 71        | 41         | 86        | 56.0       | 79.0       | 112.0      | 50         | 228       | 43         |  |
|              | 82        | 45         | 97        | 60.0       | 79.0       | 112.0      | 50         | 228       | 49         |  |
|              | 95        | 49         | 110       | 64.0       | 79.0       | 112.0      | 50         | 228       | 57         |  |
|              | 113       | 55         | 128       | 70.0       | 79.0       | 112.0      | 50         | 228       | 68         |  |
| 3/8          | 59        | 41         | 74        | 56.0       | 79.0       | 112.0      | 50         | 228       | 32         |  |
| 1/2          | 59        | 41         | 74        | 56.0       | 79.0       | 112.0      | 50         | 228       | 32         |  |
| 3/4          | 61        | 41         | 76        | 56.0       | 79.0       | 112.0      | 50         | 228       | 37         |  |
| 1            | 71        | 41         | 86        | 56.0       | 79.0       | 112.0      | 50         | 228       | 43         |  |
| 1 1/4        | 82        | 45         | 97        | 60.0       | 79.0       | 112.0      | 50         | 228       | 49         |  |
| 1 1/2        | 95        | 49         | 110       | 64.0       | 79.0       | 112.0      | 50         | 228       | 57         |  |
| 2            | 113       | 55         | 128       | 70.0       | 79.0       | 112.0      | 50         | 228       | 68         |  |

PF 2 02 959 011

# Spare parts for actuated valves

## Stainless steel For ball valve electric



Suitable for VSA

- ELECTRICAL ACTUATED Ø 8x8 & Ø 11x11 :  
The square head Ø 8x8 is at 45°.  
For other dimensions, please keep in contact with our sales Dept.  
The square head Ø 11x11 is at 45°.  
For other dimensions, please keep in contact with our sales Dept.
- (\*) Traded items

| d<br>[mm] | Code             | SP | GP | A<br>[mm] | H<br>[mm] |  |
|-----------|------------------|----|----|-----------|-----------|--|
| * 20      | <b>2AST04200</b> | -  | -  | 88        | 16.0      |  |
| * 25      | <b>2AST04250</b> | -  | -  | 8         | 16.0      |  |
| * 32      | <b>2AST04320</b> | -  | -  | 8         | 8.0       |  |
| * 40      | <b>2AST02400</b> | -  | -  | 11        | 12.0      |  |
| * 50      | <b>2AST02500</b> | -  | -  | 11        | 12.0      |  |
| * 63      | <b>2AST02630</b> | -  | -  | 11        | 12.0      |  |



## Ball valve bracket With 6 bolts + 2 nuts

Suitable for VSA

| d<br>[mm] | DN<br>[mm] | Code             | SP   | GP | kg    | E<br>[mm] | E1<br>[mm] | I<br>[mm] | I1<br>[mm] | I2<br>[mm] | I3<br>[mm] | H1<br>[mm] |  |
|-----------|------------|------------------|------|----|-------|-----------|------------|-----------|------------|------------|------------|------------|--|
| 16        | 10         | <b>AVSSVM160</b> | -    | -  | 0.454 | 74        | 56.0       | 59        | 41         | 25         | 35         | 106        |  |
| 20        | 15         | <b>AVSSVM200</b> | -    | -  | 0.334 | 74        | 56.0       | 59        | 41         | 25         | 35         | 106        |  |
| 25        | 20         | <b>AVSSVM250</b> | -    | -  | 0.342 | 76        | 56.0       | 61        | 41         | 25         | 35         | 116        |  |
| 32        | 25         | <b>AVSSVM320</b> | -    | -  | 0.342 | 86        | 56.0       | 71        | 41         | 25         | 35         | 127        |  |
| 40        | 32         | <b>AVSSVM400</b> | 1424 | -  | 0.377 | 97        | 60.0       | 82        | 45         | 25         | 35         | 140        |  |
| 50        | 40         | <b>AVSSVM500</b> | -    | -  | 0.426 | 110       | 64.0       | 95        | 49         | 25         | 35         | 156        |  |
| 63        | 50         | <b>AVSSVM630</b> | -    | -  | 0.506 | 124       | 70.0       | 113       | 55         | 25         | 35         | 177        |  |

PF 2 02 962 011



## Ball valve bracket With 2 bolts + 2 nuts

Suitable for VSA

| d<br>[mm] | Code             | kg    |  |
|-----------|------------------|-------|--|
| 20        | <b>AVSSTF200</b> | 0.132 |  |
| 25        | <b>AVSSTF250</b> | 0.142 |  |
| 32        | <b>AVSSTF320</b> | 0.152 |  |
| 40        | <b>AVSSTF400</b> | 0.197 |  |
| 50        | <b>AVSSTF500</b> | 0.256 |  |
| 63        | <b>AVSSTF630</b> | 0.356 |  |

PF 2 02 962 011

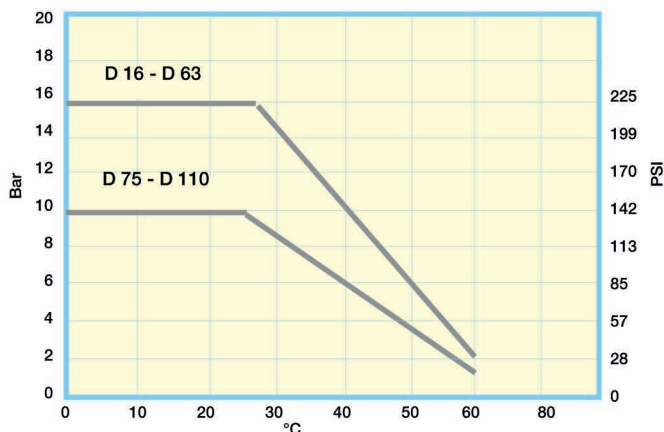
# PVC-U Irrigation black ball valves

## General characteristics

Black PVC ball valve - economy type - recommended for outdoor installation and irrigation system mainly. It is available with F/F - M/F, quick joint and double quick joint end connection.

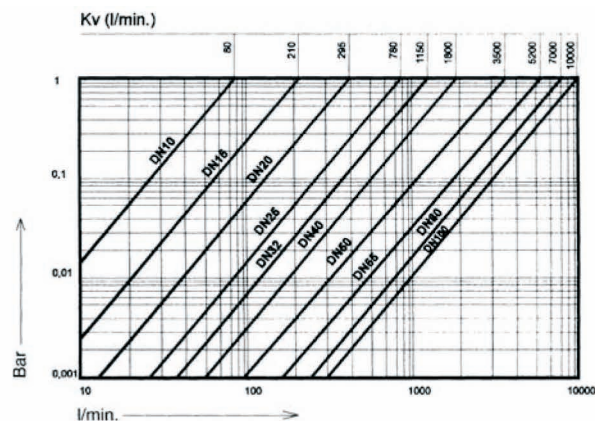
## MAX WORKING PRESSURE

The a. m. technical information should be used as a guide. Please consult our Technical dpt for specific queries.



Pressure temperature rating for water an harmless liquid.

## CHARGE LOSS



With water at 20°C and the valve in open position

## TORQUE

| D     | G         | Nm  |
|-------|-----------|-----|
| 16-20 | 3/8"-1/2" | 0,8 |
| 25    | 3/4"      | 2,5 |
| 32    | 1"        | 4   |
| 40    | 1" 1/4    | 8   |
| 50    | 1" 1/2    | 10  |
| 63    | 2"        | 14  |
| 75    | 2" 1/2    | 25  |
| 90    | 3"        | 32  |
| 110   | 4"        | 50  |

Max torque at max working pressure.

## Installation and use

For a perfect sealing it is recommended to wind up completely the threaded male end with a good quality PTFE tape.

All connection with cone-shaped male threads should be carefully avoided as they can finally break the female socket during jointing or running procedures.

Avoid use of keys to screw the nuts because they can produce breakings.

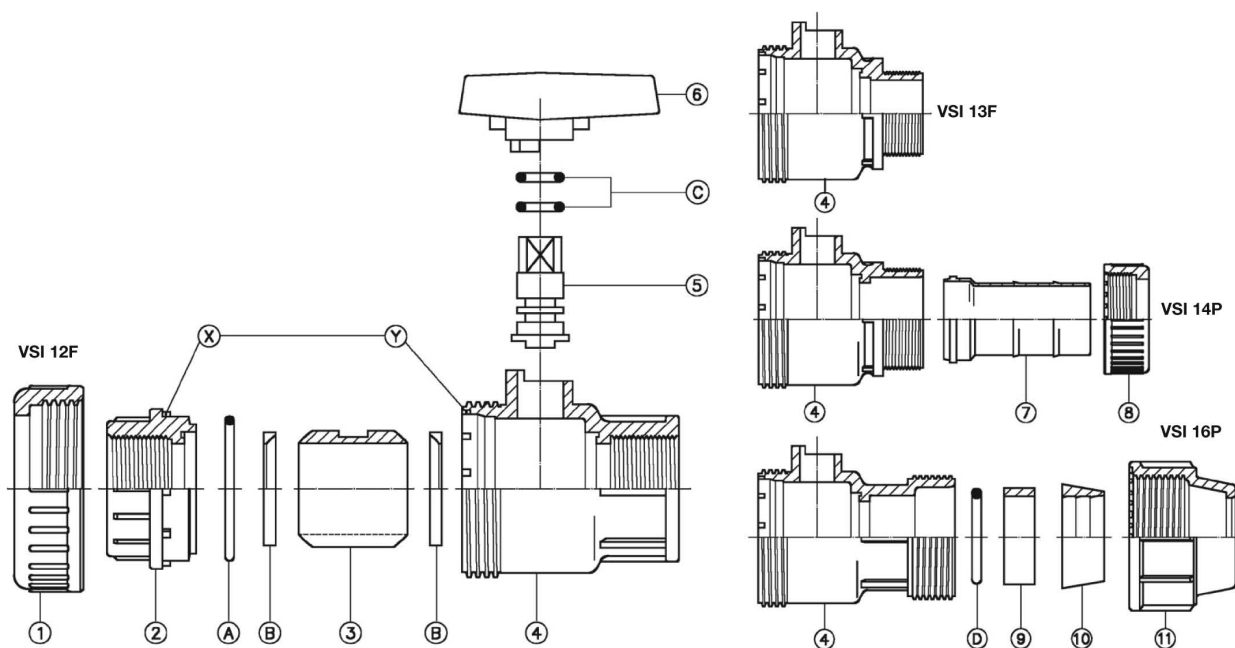
Sand or other impurities must be absent before starting the installation because they can damage the ball or the seat.

The use of wrench is not allowed. It is important to avoid rapid closure/opening of the valve to eliminate the possibility of water hammer causing damage to the pipeline.

It is necessary that all installation and maintenance personnel become familiar with the proper solvent cement and thread joining procedures.

TP technical dept. will be glad to support you with installation instruction leaflets.

# PVC-U Irrigation black ball valves



## VALVE COMPONENTS

| Pos | Components           | n° | Material |
|-----|----------------------|----|----------|
| 1   | Union nut            | 1  | PVC      |
| 2   | Support              | 1  | PVC      |
| 3   | Ball                 | 1  | PVC      |
| 4   | Body                 | 1  | PVC      |
| 5   | Stem                 | 1  | PVC      |
| 6   | Handle               | 1  | PVC      |
| 7   | Hose adaptor         | 1  | PP       |
| 8   | Hose adaptor nut     | 1  | PVC      |
| 9   | Packing presser bush | 1  | PVC      |
| 10  | Clip-ring            | 1  | POM      |
| 11  | Quick joint nut      | 1  | PVC      |
| A   | O-ring support       | 1  | EPDM     |
| B   | Ball seal            | 2  | PTFE+PE  |
| C   | O-ring stem          | 2  | EPDM     |
| D   | Quick joint O-ring   | 1  | EPDM     |

PVC: Cloruro di polivinile rigido

EPDM: Ethylene-propylene

PTFE+PE: Polytetrafluoroethylene+polyethylene

POM: Polyacetale

PP: Polypropylene homopolymere thermoresistant

## DISASSEMBLING AND REASSEMBLING IN CASE OF MAINTENANCE

Single union VSI cannot be radially disassembled from the installation.

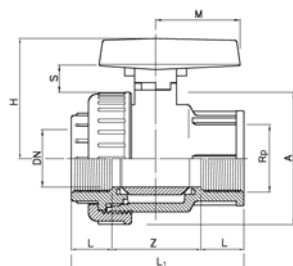
TP does not recommend to take out the support (2) from its seat when making up the connction. In any case if the valve is disassembled, be sure that the socket O-ring (A) does not come out of its groove and insert the teeth (X) of the support (2) in their correct seat (Y).

After taking out the support (2) it is possible to reach the internal parts of the valve in order to check the state of the O-ring and substitute them if necessary.

To reassemble the valve please act the other way taking care of replacing the O-ring correctly into their seats duly cleaned.

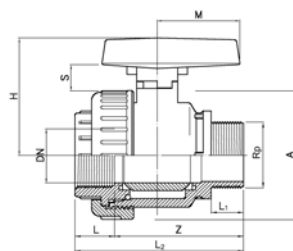
# PVC-U irrigation black ball valves

## Single union ball valve B.S.P PVC-U With threaded sockets Rp



PF 2 02 958 010

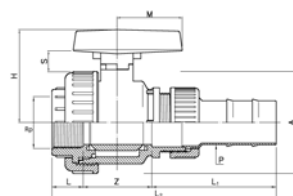
| Rp<br>[inch] | PN | EPDM<br>Code | SP  | GP | kg    | A<br>[mm] | H<br>[mm] | M<br>[mm] | S<br>[mm] | L<br>[mm] | Z<br>[mm] | L1<br>[mm] |  |
|--------------|----|--------------|-----|----|-------|-----------|-----------|-----------|-----------|-----------|-----------|------------|--|
| 1/2          | 16 | VSI12F200    | 200 | -  | 0.095 | 50        | 51        | 36        | 12        | 16        | 36        | 68         |  |
| 3/4          | 16 | VSI12F250    | 120 | -  | 0.150 | 59        | 58        | 39        | 15        | 19        | 42        | 80         |  |
| 1            | 16 | VSI12F320    | 75  | -  | 0.220 | 68        | 65        | 45        | 16        | 22        | 46        | 90         |  |
| 1 1/4        | 16 | VSI12F400    | 50  | -  | 0.320 | 80        | 76        | 51        | 18        | 24        | 53        | 101        |  |
| 1 1/2        | 16 | VSI12F500    | 30  | -  | 0.490 | 94        | 88        | 57        | 21        | 24        | 63        | 111        |  |
| 2            | 16 | VSI12F630    | 18  | -  | 0.830 | 115       | 103       | 66        | 23        | 28        | 78        | 134        |  |
| 2 1/2        | 10 | VSI12F750    | 10  | -  | 1.525 | 145       | 124       | 78        | 24        | 33        | 96        | 162        |  |
| 3            | 10 | VSI12F900    | 6   | -  | 2.260 | 168       | 137       | 84        | 26        | 36        | 108       | 180        |  |
| 4            | 10 | VSI12F910    | 2   | -  | 4.370 | 210       | 162       | 96        | 28        | 42        | 139       | 223        |  |



PF 2 02 958 010

## Single union ball valve B.S.P. PVC-U With threaded socket Rp/male thread R

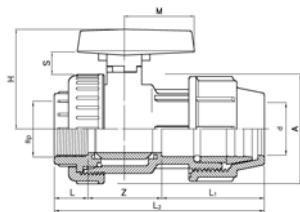
| R/Rp<br>[inch] | PN | EPDM<br>Code | SP  | GP | kg    | A<br>[mm] | H<br>[mm] | M<br>[mm] | S<br>[mm] | L<br>[mm] | Z<br>[mm] | L1<br>[mm] | L2<br>[mm] |  |
|----------------|----|--------------|-----|----|-------|-----------|-----------|-----------|-----------|-----------|-----------|------------|------------|--|
| 1/2            | 16 | VSI13F200    | 200 | -  | 0.095 | 50        | 51        | 36        | 12        | 16        | 55        | 15.0       | 71         |  |
| 3/4            | 16 | VSI13F250    | 120 | -  | 0.150 | 59        | 58        | 39        | 15        | 19        | 61        | 16.5       | 80         |  |
| 1              | 16 | VSI13F320    | 75  | -  | 0.210 | 68        | 65        | 45        | 16        | 22        | 68        | 19.5       | 90         |  |
| 1 1/4          | 16 | VSI13F400    | 50  | -  | 0.320 | 80        | 76        | 51        | 18        | 24        | 84        | 21.5       | 108        |  |
| 1 1/2          | 16 | VSI13F500    | 30  | -  | 0.495 | 94        | 88        | 57        | 21        | 24        | 97        | 21.5       | 121        |  |
| 2              | 16 | VSI13F630    | 18  | -  | 0.845 | 115       | 103       | 66        | 23        | 28        | 119       | 25.5       | 147        |  |



PF 2 02 958 010

## Valve with nut and hose adaptor PVC-U

| d<br>[mm] | Rp<br>[inch] | PN | EPDM<br>Code | SP | GP | kg    | A<br>[mm] | H<br>[mm] | M<br>[mm] | S<br>[mm] | L<br>[mm] | Z<br>[mm] | L1<br>[mm] | L2<br>[mm] |  |
|-----------|--------------|----|--------------|----|----|-------|-----------|-----------|-----------|-----------|-----------|-----------|------------|------------|--|
| 32        | 1            | 16 | VSI14P32D    | 50 | -  | 0.260 | 115       | 103       | 66        | 23        | 22        | 68        | 75         | 165        |  |



## Valve with compression fitting PVC-U

| d<br>[mm] | Rp<br>[inch] | PN | EPDM<br>Code     | SP  | GP | kg    | A<br>[mm] | H<br>[mm] | M<br>[mm] | S<br>[mm] | L<br>[mm] | Z<br>[mm] | L1<br>[mm] | L2<br>[mm] |
|-----------|--------------|----|------------------|-----|----|-------|-----------|-----------|-----------|-----------|-----------|-----------|------------|------------|
| 20        | ½            | 16 | <b>VSI16P200</b> | 130 | -  | 0.135 | 50        | 514       | 36        | 12        | 16        | 36        | 50         | 102        |
| 25        | ¾            | 16 | <b>VSI16P250</b> | 90  | -  | 0.200 | 59        | 58        | 39        | 15        | 19        | 42        | 57         | 118        |
| 32        | 1            | 16 | <b>VSI16P320</b> | 50  | -  | 0.300 | 68        | 65        | 45        | 16        | 22        | 46        | 64         | 132        |
| 40        | 1 ¼          | 16 | <b>VSI16P400</b> | 10  | -  | 0.460 | 80        | 76        | 51        | 18        | 24        | 53        | 76         | 153        |
| 50        | 1 ½          | 16 | <b>VSI16P500</b> | 20  | -  | 0.730 | 94        | 88        | 57        | 21        | 24        | 63        | 88         | 175        |
| 63        | 2            | 16 | <b>VSI16P630</b> | 12  | -  | 1.200 | 115       | 103       | 66        | 23        | 28        | 78        | 100        | 206        |

PF 2 02 958 010



# PVC-U One flow direction valves

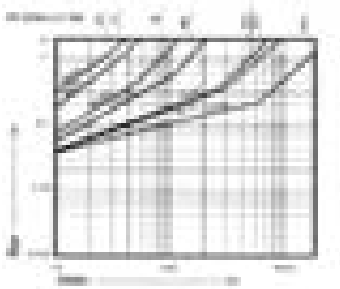
## General characteristics

Compact double type ball valve: all types are realized with the same dimensions of our ball valves VSA and can be disassembled from the network simply by unscrewing the two unions nuts.  
VRO allows the passage of the liquid in one direction only. VRO type orientated as a foot valve allows the passage of the liquid acting as a foot valve. As an air release valve

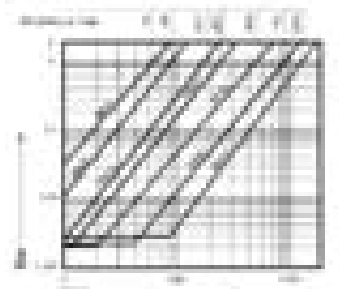
acts releasing the air until the liquid reaches the floating wedge closing the valve and maintaining therefore the liquid under pressure.  
Materials chemical resistances according to ISO/TR 10358.  
Please consult the supplier about applications and details.

## VRO CHARGE LOSS

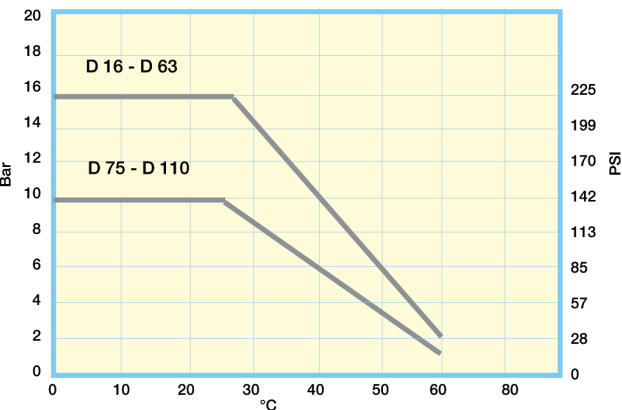
The a. m. technical information should be used as a guide. Please consult our Technical dpt for specific questions.



With water at 20°C (valve with spring)



With water at 20°C (valve without spring)



Pressure temperature rating for water an harmless liquid.

## PRESSURE

| D  | G      | VRO<br>mm H <sub>2</sub> O | VRV/VRF<br>mm H <sub>2</sub> O | Weight<br>g |
|----|--------|----------------------------|--------------------------------|-------------|
| 16 | 3/8"   | 150                        | 23                             | 4           |
| 20 | 1/2"   | 150                        | 23                             | 4           |
| 25 | 3/4"   | 70                         | 25                             | 8           |
| 32 | 1"     | 32                         | 22                             | 11          |
| 40 | 1 1/4" | 40                         | 21                             | 17          |
| 50 | 1 1/2" | 38                         | 24                             | 30          |
| 63 | 2"     | 44                         | 29                             | 56          |

Min. opening pressure of spring and own weight (water column).

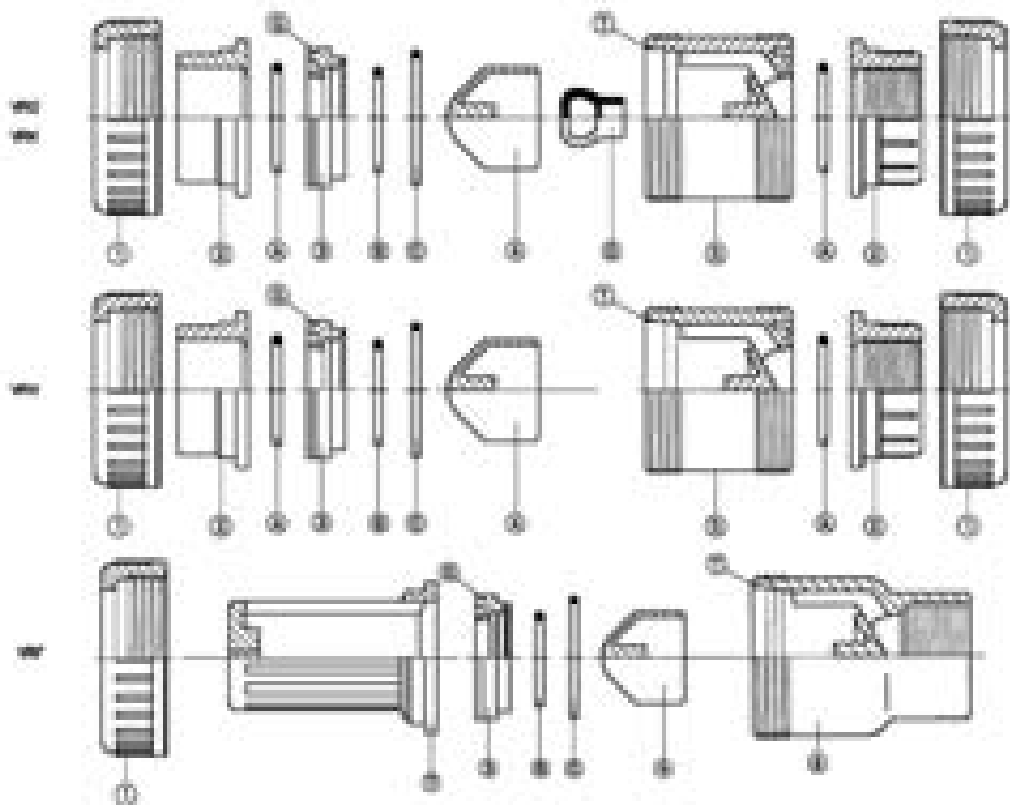
## Installation and use

Be careful during the glueing of the end connector of the pipes; the glue or solvent must absolutely not run into the wedgw or O' ring of the valve. Threaded ends should not be connected with cone-shaped male threads and the use of hemp or similar materials should be carefully avoided. A special attention should be paid to the correct line-up of the installation and to the pipe lenght. Tighten the union nut handtight only.  
The use of wrench is not allowed. It is important that the

unions are not used to pull the system together. If there is any leakage from the union nuts, please check the correct line-up of the system and the pipe length. An excessive tightening of the unions could finally break them.  
Before the valve is cycled, all dirt, sand or other material should be flushed from the system. This is to prevent scarring of the ball and/or seats. It is necessary that all installation and maintenance personnel become familiar with the proper solvent cement and thead joining procedure.



# PVC-U One flow direction valves



## PRESSURE

| Pos | Components     | VRO | n°<br>VRV | VRF | Material |
|-----|----------------|-----|-----------|-----|----------|
| 1   | Union nut      | 2   | 2         | 1   | PVC      |
| 2   | End connector  | 2   | 2         | -   | PVC      |
| 3   | Support        | 1   | 1         | 1   | PVC      |
| 4   | Wedge          | 1   | 1         | 1   | PVC      |
| 5   | Body           | 1   | 1         | -   | PVC      |
| 6   | Threaded body  | -   | -         | 1   | PVC      |
| 7   | Screen         | -   | -         | 1   | PP       |
| A   | O-ring body    | 2   | 2         | 1   | EPDM     |
| B   | O-ring wedge   | 1   | 2         | 1   | EPDM     |
| C   | O-ring support | 1   | 1         | 1   | EPDM     |
| D   | Spring wedge   | 1   | -         | -   | EPDM     |

PVC: Polyvinyl chloride  
 EPDM: Ethylene-propylene (DUTRAL®)

## Disassembling and reassembling in case of maintenance

Unscrewing the union nut (1) it is possible to take out radially from the system the whole central group of the valve.

To reach the internal parts of the valve act as follows:

- 1 Take out the support (3) from the body (5) levering with a screwdriver between the two gates T of the body and the groove G of the support.

- 2 After disassembling the support (3) and taking out the O-ring C that has stayed inside the body (5), it is possible to reach all the parts of the valve and check the O-rings and in case substitute them.

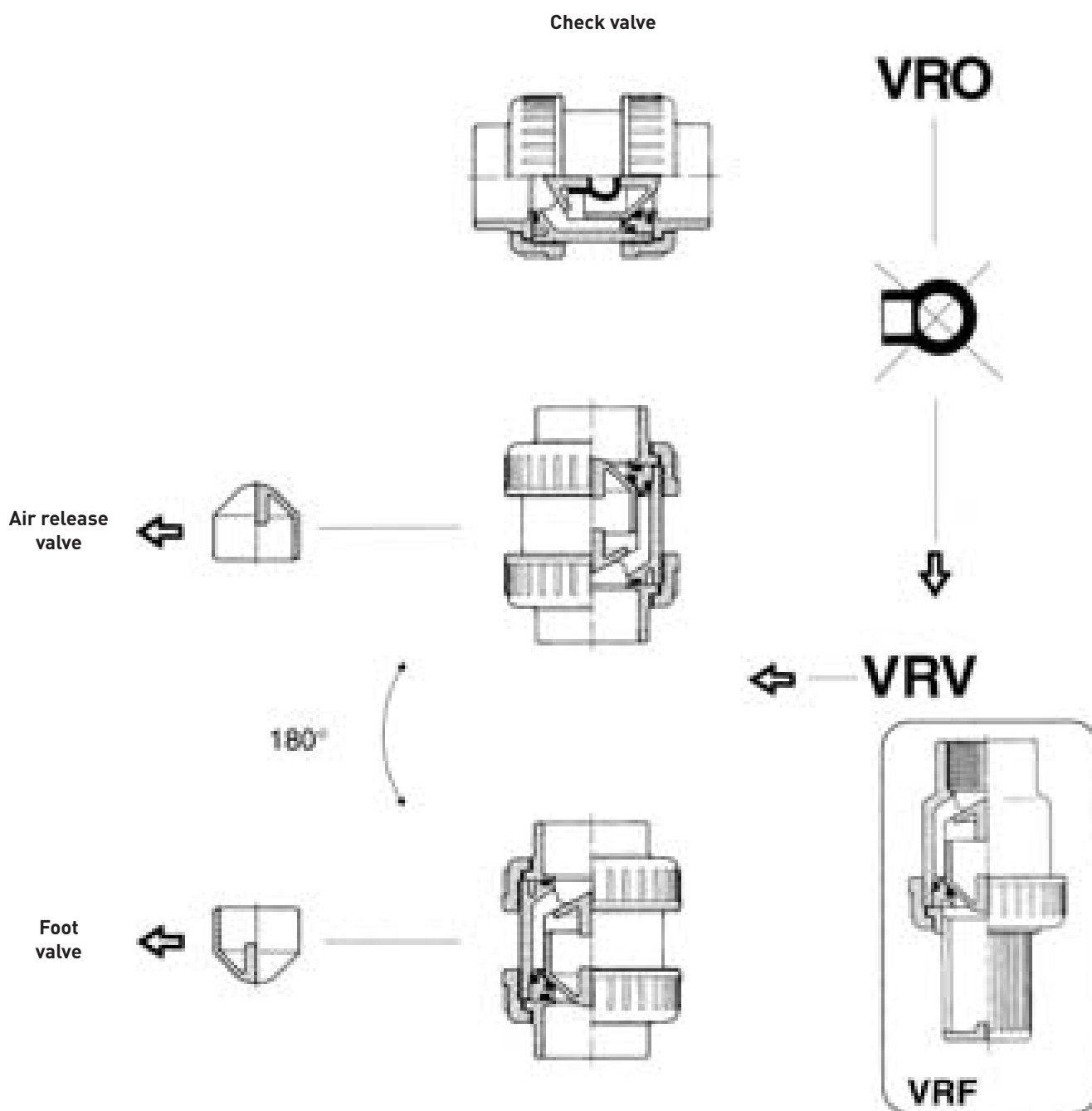
To assemble the valve act in the opposite way being careful to set the O-ring properly and greased it with silicon grease.

## PVC-U One flow direction valves

### New

The VRO type has an internal rubber spring. Taking out the internal spring and orientating the valve in the right way, it is become either a foot valve or an air release.

The valve VR range has the same dimensions as the ball valves VSA, allowing this way a unique way of fixing to the wall thanks to the same type of clamping (cf. STF).

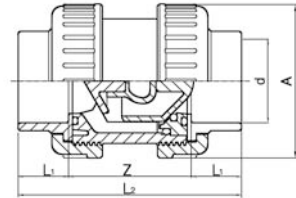


# PVC-U one flow direction

## Valves & spare parts

### Check valve ISO PVC-U

#### With solvent cement sockets



#### Model:

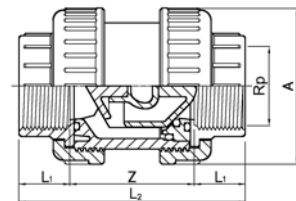
- Rubber spring
- Standards: ISO 727, EN 1452, DIN 8063, NF T54-028, BS 4346/1
- (\*)Body and dimensions = 3"

| d<br>[mm] | d<br>[inch] | PN | DN<br>[mm] | EPDM<br>Code | SP | GP | kg    | A<br>[mm] | X<br>[mm] | L1<br>[mm] | Z<br>[mm] | L2<br>[mm] |
|-----------|-------------|----|------------|--------------|----|----|-------|-----------|-----------|------------|-----------|------------|
| 16        |             | 16 | 10         | VRO21I160    | 32 | -  | 0.100 | 50        | 42        | 14         | 48        | 76         |
| 20        |             | 16 | 15         | VRO21I200    | 32 | -  | 0.100 | 50        | 42        | 16         | 48        | 80         |
| 25        |             | 16 | 20         | VRO21I250    | 32 | -  | 0.175 | 59        | 48        | 19         | 53        | 91         |
| 32        |             | 16 | 25         | VRO21I320    | 20 | -  | 0.245 | 68        | 54        | 22         | 58        | 102        |
| 40        |             | 16 | 32         | VRO21I400    | 15 | -  | 0.375 | 80        | 62        | 26         | 68        | 120        |
| 50        |             | 16 | 40         | VRO21I500    | 6  | -  | 0.580 | 94        | 72        | 31         | 78        | 140        |
| 63        |             | 16 | 50         | VRO21I630    | 4  | -  | 1.000 | 115       | 86        | 38         | 93        | 169        |
| * 75      | 2 ½         | 10 | 65         | VRO21I750    | 2  | -  | 2.950 | 168       | 110       | 44         | 118       | 206        |
| 90        |             | 10 | 80         | VRO21I900    | 2  | -  | 3.000 | 168       | 128       | 51         | 140       | 242        |

PF 2 02 961 010

### Check valve B.S.P. PVC-U

#### With threaded sockets Rp



#### Model:

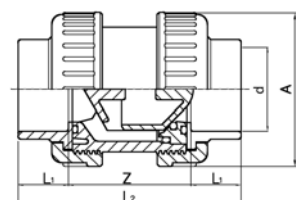
- Rubber spring
- Standards: UNI ISO 228/1, DIN 2999, BS21
- (\*)Body and dimensions = 3"

| Rp<br>[inch] | DN<br>[mm] | PN | EPDM<br>Code | SP | GP | kg    | A<br>[mm] | X<br>[mm] | L1<br>[mm] | Z<br>[mm] | L2<br>[mm] |
|--------------|------------|----|--------------|----|----|-------|-----------|-----------|------------|-----------|------------|
| ¾            | 10         | 16 | VRO21F160    | 32 | -  | 0.110 | 50        | 42        | 14         | 48        | 76         |
| ½            | 15         | 16 | VRO21F200    | 32 | -  | 0.110 | 50        | 42        | 16         | 48        | 80         |
| ¾            | 20         | 16 | VRO21F250    | 32 | -  | 0.175 | 59        | 48        | 19         | 53        | 91         |
| 1            | 25         | 16 | VRO21F320    | 20 | -  | 0.245 | 68        | 54        | 22         | 58        | 102        |
| 1 ¼          | 32         | 16 | VRO21F400    | 15 | -  | 0.370 | 80        | 62        | 24         | 68        | 116        |
| 1 ½          | 40         | 16 | VRO21F500    | 6  | -  | 0.565 | 94        | 72        | 24         | 78        | 126        |
| 2            | 50         | 16 | VRO21F630    | 4  | -  | 0.995 | 115       | 86        | 28         | 93        | 149        |
| * 2 ½        | 65         | 10 | VRO21F750    | 2  | -  | 2.845 | 168       | 128       | 33         | 118       | 184        |
| 3            | 80         | 10 | VRO21F900    | 2  | -  | 2.960 | 168       | 128       | 36         | 140       | 212        |

PF 2 02 961 010

### Air release/foot valve ISO PVC-U

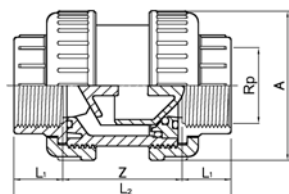
#### With solvent cement sockets



- Standards: ISO 727, EN 1452, DIN 8063, NF T54-028, BS 4346/1
- (\*)Body and dimensions = 3"

| d<br>[mm] | d<br>[inch] | DN<br>[mm] | PN | EPDM<br>Code | SP | GP | kg    | A<br>[mm] | L1<br>[mm] | Z<br>[mm] | L2<br>[mm] |
|-----------|-------------|------------|----|--------------|----|----|-------|-----------|------------|-----------|------------|
| 16        |             | 10         | 16 | VRV21I160    | 32 | -  | 0.110 | 50        | 14         | 48        | 76         |
| 20        |             | 15         | 16 | VRV21I200    | 32 | -  | 0.110 | 50        | 16         | 48        | 80         |
| 25        |             | 20         | 16 | VRV21I250    | 32 | -  | 0.175 | 59        | 19         | 53        | 91         |
| 32        |             | 25         | 16 | VRV21I320    | 20 | -  | 0.245 | 68        | 22         | 58        | 102        |
| 40        |             | 32         | 16 | VRV21I400    | 15 | -  | 0.375 | 80        | 26         | 68        | 120        |
| 50        |             | 40         | 16 | VRV21I500    | 6  | -  | 0.575 | 94        | 31         | 78        | 140        |
| 63        |             | 50         | 16 | VRV21I630    | 4  | -  | 0.990 | 115       | 38         | 93        | 169        |
| * 75      | 2 ½         | 65         | 10 | VRV21I750    | 2  | -  | 2.845 | 168       | 44         | 118       | 206        |
| 90        |             | 80         | 10 | VRV21I900    | 2  | -  | 2.900 | 168       | 51         | 140       | 242        |

PF 2 02 961 010

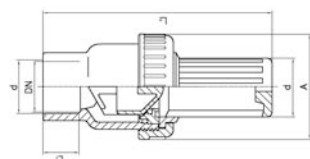
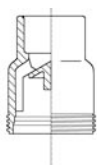


PF 2 02 961 010

## Air release/foot valve B.S.P. PVC-U With threaded sockets Rp

- Standards: UNI ISO 228/1, DIN 2999, BS21
- (\*) Body and dimensions = 3"

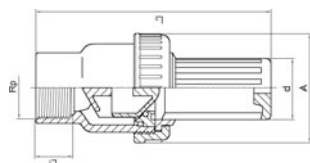
| Rp<br>[inch] | DN<br>[mm] | PN | EPDM<br>Code | SP | GP | kg    | A<br>[mm] | L1<br>[mm] | Z<br>[mm] | L2<br>[mm] |  |
|--------------|------------|----|--------------|----|----|-------|-----------|------------|-----------|------------|--|
| 3/8          | 10         | 16 | VRV21F160    | 32 | -  | 0.110 | 50        | 14         | 48        | 76         |  |
| 1/2          | 15         | 16 | VRV21F200    | 32 | -  | 0.110 | 50        | 16         | 48        | 80         |  |
| 3/4          | 20         | 16 | VRV21F250    | 32 | -  | 0.175 | 59        | 19         | 53        | 91         |  |
| 1            | 25         | 16 | VRV21F320    | 20 | -  | 0.240 | 68        | 22         | 58        | 102        |  |
| 1 1/4        | 32         | 16 | VRV21F400    | 15 | -  | 0.370 | 80        | 24         | 68        | 116        |  |
| 1 1/2        | 40         | 16 | VRV21F500    | 6  | -  | 0.555 | 94        | 24         | 78        | 126        |  |
| 2            | 50         | 16 | VRV21F630    | 4  | -  | 0.985 | 115       | 28         | 93        | 149        |  |
| * 2 1/2      | 65         | 10 | VRV21F750    | 2  | -  | 2.870 | 168       | 33         | 118       | 184        |  |
| 3            | 80         | 10 | VRV21F900    | 2  | -  | 2.870 | 168       | 36         | 140       | 212        |  |



PF 2 02 961 010

## Foot valve S/W PVC-U with PP screen

| d<br>[mm] | DN<br>[mm] | PN | EPDM<br>Code | SP  | GP | kg    | A<br>[mm] | d<br>[mm] | L1<br>[mm] | L2<br>[mm] |  |
|-----------|------------|----|--------------|-----|----|-------|-----------|-----------|------------|------------|--|
| 20        | 15         | 16 | VRF11I200    | 200 | -  | 0.074 | 50        | 23        | 16         | 110        |  |
| 25        | 20         | 16 | VRF11I250    | 120 | -  | 0.120 | 59        | 30        | 19         | 130        |  |
| 32        | 25         | 16 | VRF11I320    | 60  | -  | 0.175 | 68        | 38        | 22         | 145        |  |
| 40        | 32         | 16 | VRF11I400    | 40  | -  | 0.259 | 80        | 48        | 26         | 162        |  |
| 50        | 40         | 16 | VRF11I500    | 21  | -  | 0.399 | 94        | 57        | 31         | 187        |  |
| 63        | 50         | 16 | VRF11I630    | 15  | -  | 0.690 | 115       | 71        | 38         | 215        |  |
| 90        | 80         | 10 | VRF11I900    | 5   | -  | 2.045 | 168       | 110       | 51         | 275        |  |



PF 2 02 961 010

## Foot valve B.S.P. PVC-U threaded with PP screen

| Rp<br>[inch] | PN | EPDM<br>Code | SP  | GP | kg    | A<br>[mm] | d<br>[mm] | L1<br>[mm] | L2<br>[mm] |  |
|--------------|----|--------------|-----|----|-------|-----------|-----------|------------|------------|--|
| 1/2          | 16 | VRF11F200    | 200 | -  | 0.074 | 50        | 23        | 16         | 110        |  |
| 3/4          | 16 | VRF11F250    | 120 | -  | 0.120 | 59        | 30        | 19         | 130        |  |
| 1            | 16 | VRF11F320    | 60  | -  | 0.175 | 68        | 38        | 22         | 145        |  |
| 1 1/4        | 16 | VRF11F400    | 40  | -  | 0.259 | 80        | 48        | 24         | 160        |  |
| 1 1/2        | 16 | VRF11F500    | 21  | -  | 0.399 | 94        | 57        | 24         | 180        |  |
| 2            | 16 | VRF11F630    | 15  | -  | 0.690 | 115       | 71        | 28         | 205        |  |
| 3            | 10 | VRF11F900    | 5   | -  | 2.045 | 168       | 110       | 36         | 260        |  |



## Rubber spring

Suitable for VRO

- (\*) Traded items

| d<br>[mm] | EPDM<br>Code | SP | GP |  |
|-----------|--------------|----|----|--|
| * 20      | 2MLL01D20    | -  | 60 |  |
| * 25      | 2MLL01D25    | -  | 60 |  |
| * 32      | 2MLL01D32    | -  | 60 |  |
| * 40      | 2MLL01D40    | -  | 60 |  |
| * 50      | 2MLL01D50    | -  | 60 |  |
| * 63      | 2MLL01D63    | -  | 60 |  |
| * 75 - 90 | 2MLL01D90    | -  | 60 |  |



## Foot valve PP screen

Suitable for VRF

| d<br>[mm] | Rp<br>[inch] | PN | Code      | SP | GP | kg    |  |
|-----------|--------------|----|-----------|----|----|-------|--|
| 20        | ½            | 16 | ARVSCPF20 | -  | -  | 0.010 |  |
| 25        | ¾            | 16 | ARVSCPF25 | 1  | -  | 0.012 |  |
| 32        | 1            | 16 | ARVSCPF32 | -  | -  | 0.019 |  |
| 40        | 1 ¼          | 16 | ARVSCPF40 | -  | -  | 0.030 |  |
| 50        | 1 ½          | 16 | ARVSCPF50 | -  | -  | 0.045 |  |
| 63        | 2            | 16 | ARVSCPF63 | -  | -  | 0.072 |  |
| 90        | 3            | 16 | ARVSCPF90 | -  | -  | 0.165 |  |

PF 2 02 962 010



## Wafer check valve standard PVC-U Without spring

- Other diameters on request
- (\*) Traded items

| d<br>[mm] | DN<br>[mm] | PN | EPDM<br>Code | SP | GP | kg    |  |
|-----------|------------|----|--------------|----|----|-------|--|
| * 75      | 65         | 10 | VVCLP750     | 30 | -  | 0.406 |  |
| * 90      | 80         | 10 | VVCLP900     | 24 | -  | 0.468 |  |
| * 110     | 100        | 10 | VVCLP910     | 15 | -  | 0.660 |  |
| * 125     | 125        | 10 | VVCLP920     | 15 | -  | 0.850 |  |
| * 160     | 150        | 10 | VVCLP940     | 5  | -  | 1.250 |  |
| * 200     | 200        | 10 | VVCLP960     | 4  | -  | 2.230 |  |

PF 2 02 956 013

# PVC-U Butterfly Valves

## General description

The new VFA Butterfly Valves are designed to guarantee reliability, safety, top level performance and simple operation. The rational, compact shape and the construction concept simplify assembly and routine maintenance operations. The new VFA valves are ideally suited for water and neutral fluids.

## Technical features

### Available versions

- Lever-operated
- Handwheel-operated
- Pre-assembled with flanges
- With pneumatic actuators
- With electric actuators

### Dimensions

- All versions from DN65 to DN200

### Body material

- PVC-U

### Gasket material

- EPDM disk gasket - Orings
- SANTOPRENE™ flange gaskets

### Stem material

- Zinc plated steel
- Stainless steel (optional)

## Applications

The new VFA Butterfly Valves have been designed to be used mainly in contact with water and neutral fluids in different applications such as public and private swimming pools, water parks, thermal pools, Spa's, irrigation and aquaculture.

### Pressure

- From DN65 to DN150: PN 10
- DN200: PN 6

### Temperature

- 0 °C + 60 °C

### Flange Connecting Standards

- ISO - DIN - BS - ANSI

### Conformity

- Ministerial Decree 174

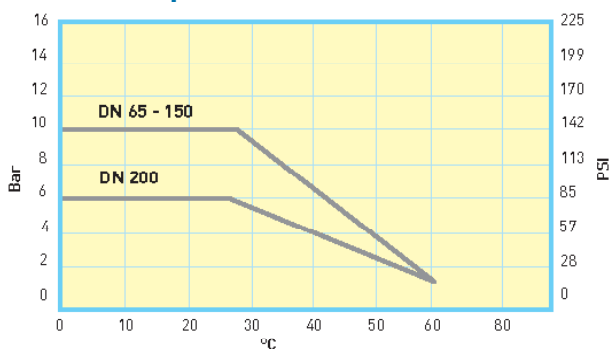
### Actuators

- 24/230 V electric actuators
- Single/double-acting pneumatic actuators

### Valve standards

- Conform to ISO 16136 - Pr EN 1452 - ISO 9393

## Operating Pressure versus temperature

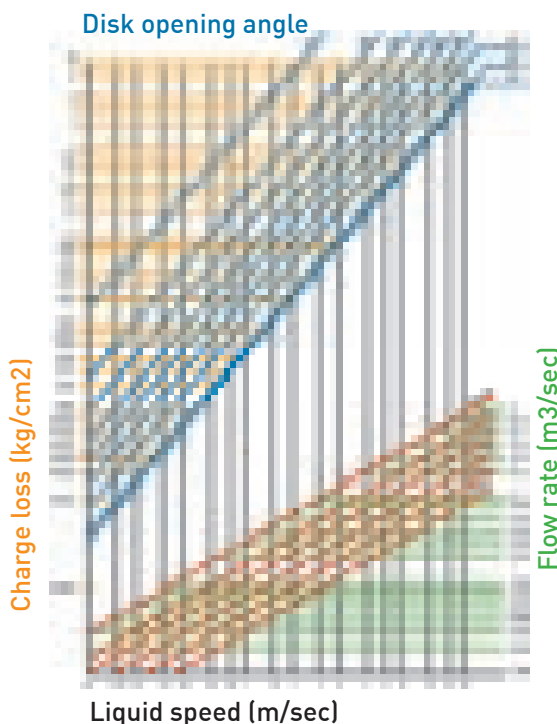


## Functional Features

| VALVE SIZE |        | OPERATING TORQUE          | TIGHTENING TORQUE           |
|------------|--------|---------------------------|-----------------------------|
| DN         | Inch   | New Valve at operating PN | (with PVC-U /Metal Flanges) |
| 65         | 2" 1/2 | 11 Nm *                   | 15 Nm                       |
| 80         | 3"     | 14 Nm *                   | 20 Nm                       |
| 100        | 4"     | 16 Nm *                   | 23 Nm                       |
| 125        | 5"     | 26 Nm *                   | 30 Nm                       |
| 150        | 6"     | 35 Nm *                   | 30 Nm                       |
| 200        | 8"     | 50 Nm *                   | 50 Nm                       |

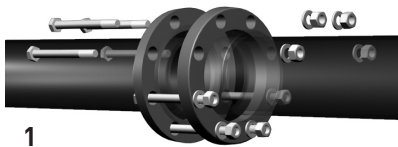
\* Reference value: These values can change, depending on the specific application and also over time

## Charge Loss

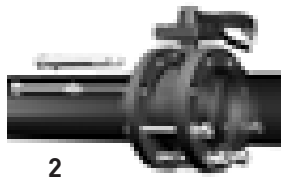




# PVC-U Butterfly Valves - Assembly instructions



1. Insert the bolts, washers and nuts without tightening in the lower part between the flanges. Take the valve out of its package, carefully checking its integrity and that it is perfectly clean.



2. Insert the valve in the “CLOSED” position between the flanges until the slots in the lower part of the body rest directly on the bolts, taking care to maintain parallelism with the flanges.



3. Insert the remaining bolts, washers and nuts in the upper part between the flanges. Tighten the nuts/bolts in across pattern until the tightening torque indicated is reached. (TAB. A) We recommend that you use a torque wrench.



- 4-5. Check that:
- the flanges adhere perfectly to the valve body
  - correct parallelism is maintained between the valve and the flanges
  - an axial position is maintained relative to the pipe.

6. Use the safety stop if necessary

Operate the valve with no load, checking that movements are smooth and there are no abnormal stresses.

## BUTTERFLY VALVE DISASSEMBLY INSTRUCTIONS

- Before proceeding, make sure that:
- All valves upstream and downstream of the one to be worked on are closed.
  - The system has been depressurised.
  - The pipe has been completely emptied.

Carry out the assembly operations described in reverse order.

***We recommend to clean the internal components of the valve as well as to open and close the valve itself regularly.  
By complete disassembling of the valve, please pay attention to put the gaskets in the correct positioning***

TAB. A

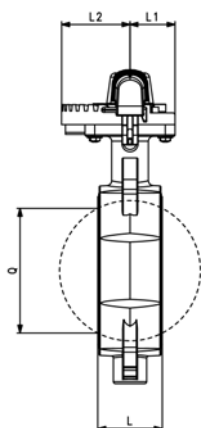
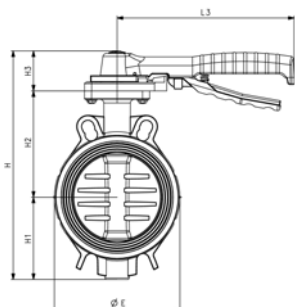
| VALVE DN   | TIGHTENING TORQUE* |
|------------|--------------------|
| 65 – 2”1/2 | 15 Nm              |
| 80 – 3”    | 20 Nm              |
| 100 – 4”   | 23 Nm              |
| 125 – 5”   | 30 Nm              |
| 150 – 6”   | 30 Nm              |
| 200 – 8”   | 50 Nm              |

\*WITH PVCU/METAL FLANGES

# PVC-U butterfly valves & kits

## Lever-operated butterfly valve PVC-U With EPDM/SANTOPRENE™ gaskets

- On request:
  - stem and guide bushing in stainless steel
  - bare shaft + fixing actuator bracket



| d<br>[mm] | DN<br>[mm] | DN<br>[inch] | PN | Code      | SP | GP | kg    |
|-----------|------------|--------------|----|-----------|----|----|-------|
| 75        | 65         | 2 ½          | 10 | VFA02D750 | 1  | -  | 1.300 |
| 90        | 80         | 3            | 10 | VFA02D900 | 1  | -  | 1.294 |
| 110       | 100        | 4            | 10 | VFA02D910 | 1  | -  | 1.500 |
| 125 - 140 | 125        | 5            | 10 | VFA02D920 | 1  | -  | 2.300 |
| 160       | 150        | 6            | 10 | VFA02D940 | 1  | -  | 3.346 |
| 200 - 225 | 200        | 8            | 6  | VFA02D960 | 1  | -  | 5.400 |

| d<br>[mm] | E<br>[mm] | Q<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | H4<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] | L3<br>[mm] |
|-----------|-----------|-----------|-----------|------------|------------|------------|------------|-----------|------------|------------|------------|
| 75        | 112       | 46        | 246       | 76         | 115        | 55         | 43         | 46        | 46         | 70         | 220        |
| 90        | 128       | 64        | 267       | 92         | 120        | 55         | 43         | 48        | 46         | 70         | 220        |
| 110       | 152       | 84        | 291       | 106        | 130        | 55         | 43         | 54        | 46         | 70         | 220        |
| 125 - 140 | 177       | 108       | 321       | 116        | 150        | 55         | 43         | 63        | 46         | 70         | 250        |
| 160       | 212       | 133       | 356       | 131        | 169        | 55         | 43         | 63        | 46         | 70         | 250        |
| 200 - 225 | 260       | 180       | 433       | 163        | 209        | 61         | 43         | 74        | 46         | 70         | 282        |

PF 2 02 960 010

## Lever-operated butterfly valve PVC-U With free flanges kit With EPDM/SANTOPRENE™ gaskets



| d<br>[mm] | DN<br>[mm] | DN<br>[inch] | PN | Code      | SP | GP | kg     |
|-----------|------------|--------------|----|-----------|----|----|--------|
| 75        | 65         | 2 ½          | 10 | VFA02D75K | 1  | -  | 4.650  |
| 90        | 80         | 3            | 10 | VFA02D90K | 1  | -  | 4.879  |
| 110       | 100        | 4            | 10 | VFA02D91K | 1  | -  | 5.858  |
| 125       | 125        | 5            | 10 | VFA02D92K | 1  | -  | 7.100  |
| 140       | 125        | 5            | 10 | VFA02D93K | 1  | -  | 10.850 |
| 160       | 150        | 6            | 10 | VFA02D94K | 1  | -  | 11.930 |
| 200       | 200        | 8            | 6  | VFA02D96K | 1  | -  | 13.950 |
| 225       | 200        | 8            | 6  | VFA02D97K | 1  | -  | 13.950 |

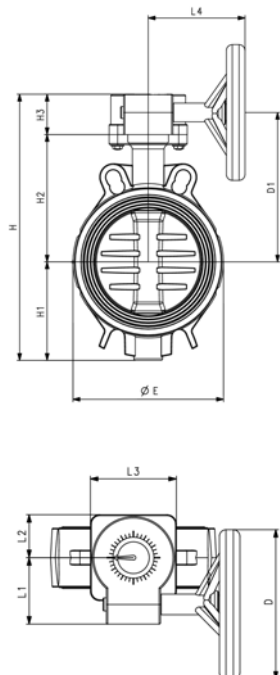
PF 2 02 960 010



## Butterfly valve reduction gear With handwheel PVC-U With EPDM/SANTOPRENE gaskets

\* with metal reduction gear

| d<br>[mm]   | DN<br>[mm] | DN<br>[inch] | PN | Code      | SP | GP | kg    |
|-------------|------------|--------------|----|-----------|----|----|-------|
| 75          | 65         | 2 ½          | 10 | VFA11D750 | 1  | -  | 1.500 |
| 90          | 80         | 3            | 10 | VFA11D900 | 1  | -  | 1.276 |
| 110         | 100        | 4            | 10 | VFA11D910 | 1  | -  | 1.916 |
| 125 - 140   | 125        | 5            | 10 | VFA11D920 | 1  | -  | 2.600 |
| 160         | 150        | 6            | 10 | VFA11D940 | 1  | -  | 3.600 |
| * 200 - 225 | 200        | 8            | 6  | VFA11D960 | 1  | -  | 5.600 |



| d<br>[mm]   | E<br>[mm] | Q<br>[mm] | H<br>[mm] | H1<br>[mm] | H2<br>[mm] | H3<br>[mm] | H4<br>[mm] | L<br>[mm] | L1<br>[mm] | L2<br>[mm] | L3<br>[mm] | L4<br>[mm] | D<br>[mm] |
|-------------|-----------|-----------|-----------|------------|------------|------------|------------|-----------|------------|------------|------------|------------|-----------|
| 75          | 112       | 46        | 240       | 76.0       | 115.0      | 49         | 43         | 46        | 71         | 46         | 92         | 113        | 160       |
| 90          | 128       | 64        | 261       | 92.0       | 120.0      | 49         | 43         | 48        | 71         | 46         | 92         | 113        | 160       |
| 110         | 152       | 84        | 285       | 106.0      | 130.0      | 49         | 43         | 54        | 71         | 46         | 92         | 113        | 160       |
| 125 - 140   | 177       | 108       | 315       | 116.0      | 150.0      | 49         | 43         | 63        | 71         | 46         | 92         | 113        | 160       |
| 160         | 212       | 133       | 350       | 131.5      | 169.5      | 49         | 43         | 69        | 71         | 46         | 92         | 113        | 160       |
| * 200 - 225 | 260       | 180       | 421       | 163.0      | 209.0      | 49         | 43         | 74        | 71         | 46         | 92         | 113        | 160       |

| d<br>[mm]   | D1<br>[mm] |
|-------------|------------|
| 75          | 142.00     |
| 90          | 147.00     |
| 110         | 157.00     |
| 125 - 140   | 177.00     |
| 160         | 196.50     |
| * 200 - 225 | 236.00     |

PF 2 02 960 010



## Kit including backing flanges PVC-U Stub and screws

• (\*) On request

| d<br>[mm] | DN<br>[mm] | DN<br>[inch] | PN | Code      | SP | GP | kg    |
|-----------|------------|--------------|----|-----------|----|----|-------|
| 75        | 65         | 2 ½          | 10 | XVFFLIZ75 | 1  | -  | 3.350 |
| 90        | 80         | 3            | 10 | XVFFLIZ90 | 1  | -  | 3.585 |
| 110       | 100        | 4            | 10 | XVFFLIZ91 | 1  | -  | 4.358 |
| 125       | 125        | 5            | 10 | XVFFLIZ92 | 1  | -  | 4.800 |
| 140       | 125        | 5            | 10 | XVFFLIZ93 | 1  | -  | 4.800 |
| 160       | 150        | 6            | 10 | XVFFLIZ94 | 1  | -  | 7.500 |
| * 200     | 200        | 8            | 6  | XVFFLIZ96 | 1  | -  | 8.550 |
| * 225     | 200        | 8            | 6  | XVFFLIZ97 | 1  | -  | 8.550 |

PF 2 02 960 010

# Spare parts for butterfly valves

## Handwheel



Suitable for VFA

| d<br>[mm] | DN<br>[mm] | Code             | SP | GP |  |
|-----------|------------|------------------|----|----|--|
| 75 - 160  | 65 - 150   | <b>3V0VFVD01</b> | 1  | 10 |  |



## Coloured handle

Suitable for VFA02D

| d-d<br>[mm] | DN-DN<br>[mm] | DN-DN<br>[inch] | Code             | SP | GP |  |
|-------------|---------------|-----------------|------------------|----|----|--|
| 75 - 110    | 65 - 100      | 2 ½ - 4         | <b>3V0VFMD04</b> | 1  | 15 |  |
| 125 - 160   | 125 - 150     | 5 - 6           | <b>3V0VFMD05</b> | 1  | 15 |  |
| 200 - 225   | 200 - 200     | 8 - 8           | <b>3V0VFMD06</b> | 1  | 10 |  |



## Handwheel gear box kit

Suitable for VFA

| d-d<br>[mm] | DN-DN<br>[mm] | DN-DN<br>[inch] | Code             | SP | GP |  |
|-------------|---------------|-----------------|------------------|----|----|--|
| 75 - 110    | 65 - 100      | 2 ½ - 4         | <b>3V0VFRG01</b> | 1  | 20 |  |
| 125 - 160   | 125 - 150     | 5 - 6           | <b>3V0VFRG02</b> | 1  | 20 |  |



## Disk seal

Suitable for VFA02D and VFA11

• (\*) Traded items

| d<br>[mm]   | DN<br>[mm] | DN<br>[inch] | EPDM<br>Code      | SP | GP |  |
|-------------|------------|--------------|-------------------|----|----|--|
| * 75        | 65         | 2 ½          | <b>2G0VF1OD75</b> | -  | -  |  |
| * 90        | 80         | 3            | <b>2G0VF1OD90</b> | -  | -  |  |
| * 110       | 100        | 4            | <b>2G0VF1OD91</b> | -  | -  |  |
| * 125 - 140 | 125        | 5            | <b>2G0VF1OD92</b> | -  | -  |  |
| * 160       | 150        | 6            | <b>2G0VF1OD94</b> | -  | -  |  |
| * 200 - 225 | 200        | 8            | <b>2G0VF1OD96</b> | -  | -  |  |



## External gasket kit in EPDM/SANTOPRENE™

Suitable for VFA02D and VFA11

• (\*) Traded items

| d<br>[mm]   | DN<br>[mm] | DN<br>[inch] | Code              | GP |  |
|-------------|------------|--------------|-------------------|----|--|
| * 75        | 65         | 2 ½          | <b>2G0VF1ED75</b> | 8  |  |
| * 90        | 80         | 3            | <b>2G0VF1ED90</b> | 10 |  |
| * 110       | 100        | 4            | <b>2G0VF1ED91</b> | 10 |  |
| * 125 - 140 | 125        | 5            | <b>2G0VF1ED92</b> | 10 |  |
| * 160       | 150        | 6            | <b>2G0VF1ED94</b> | 10 |  |
| * 200 - 225 | 200        | 8            | <b>2G0VF1ED96</b> | 10 |  |



## Actuator fixing bracket

Suitable for VFA

| DN<br>[mm] | Code             | SP | GP |  |
|------------|------------------|----|----|--|
| 65 - 150   | <b>3V0VFSG01</b> | 1  | 30 |  |
| 200        | <b>3V0VFSG02</b> | 1  | 30 |  |

# PVC-U Actuated Butterfly Valves

The range of new VFA valves are also available in pneumatic and electric actuated versions from DN 65 to DN 200. The design and operating features of the new VFA valves allow extremely reduced operating torques, supporting the choice of compact, cost effective actuators.

## VFK50

**Butterfly valve with 24V AC electric actuator  
EPDM/SANTOPRENE™ gaskets**

### Electric actuator features:

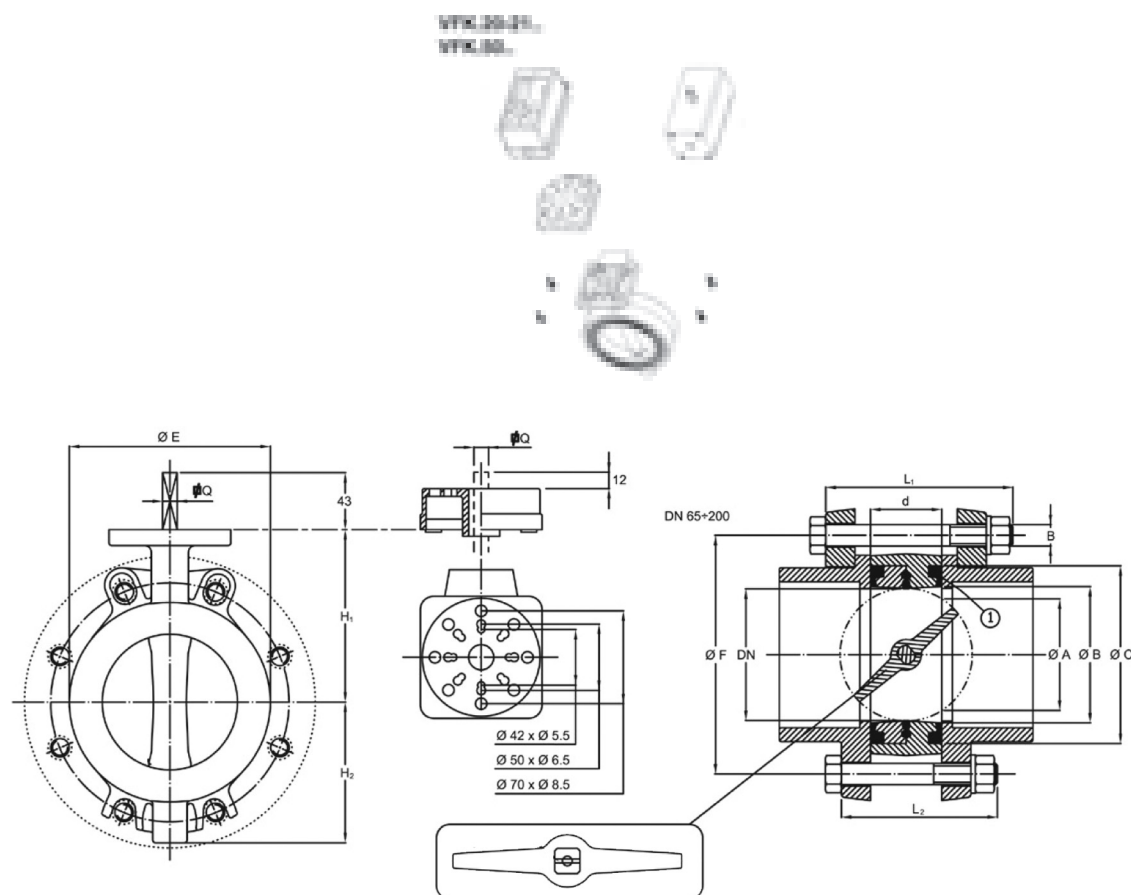
- Power supply: 24/230V at 50 Hz.
- Operating time: DN 65-80: 50 sec  
DN 100-125: 1 min.  
DN 150-200: 150 sec.
- Fail-safe open: standard
- Auxiliary contacts: 2 standard
- Protection: IP 65
- Connection standard: ISO 5211

## VFK2....

**Butterfly valve with pneumatic actuator  
EPDM/SANTOPRENE™ gaskets**

### Pneumatic actuator features:

- *Versions: single/double-acting*
- Power supply: filtered compressed air, not necessarily lubricated
- Operating pressure: 6 bar
- Operating temperature for actuator only: from 0°C to + 80°C (from – 20°C to + 80°C in dry air)
- Connection standard: ISO 5211
- Angle of rotation: 90°C
- Namur connector for accessories



|    | ISO<br>UNI-DIN<br>PN 10 | ISO<br>UNI-DIN<br>PN 16 | BS4504<br>TAB. 16/3<br>TAB. 10/3 | ANSI<br>150<br>lbs | JIS | DN  | G    | D       | ØA  | ØB  | ØC  | d  | L <sub>1</sub> | L <sub>2</sub> | B  | ØE  | Q  | H <sub>1</sub> | H <sub>2</sub> |
|----|-------------------------|-------------------------|----------------------------------|--------------------|-----|-----|------|---------|-----|-----|-----|----|----------------|----------------|----|-----|----|----------------|----------------|
| ØF | 145                     | 145                     | 145                              | 140                | 140 | 65  | 2" ½ | 75      | 49  | 73  | 98  | 46 | 130            | 120            | 16 | 112 | 11 | 115            | 76             |
|    | 160                     | 160                     | 160                              | 152                | -   | 80  | 3"   | 90      | 64  | 83  | 112 | 48 | 130            | 120            | 16 | 128 | 11 | 120            | 86             |
|    | 180                     | 180                     | 181                              | 190                | -   | 100 | 4"   | 110     | 85  | 103 | 134 | 54 | 150            | 120            | 16 | 152 | 11 | 130            | 106            |
|    | 210                     | 210                     | 210                              | 216                | 210 | 125 | 5"   | 125/140 | 108 | 129 | 158 | 63 | 160            | 160            | 16 | 177 | 14 | 150            | 116            |
|    | 240                     | 240                     | 241                              | 241                | 240 | 150 | 6"   | 160     | 134 | 154 | 190 | 69 | 180            | 180            | 20 | 212 | 14 | 170            | 132            |
|    | 295                     | 295                     | 295                              | 298                | -   | 200 | 8"   | 200/225 | 180 | 198 | 232 | 72 | 200            | 200            | 20 | 262 | 17 | 209            | 163            |

# PVC-U actuated butterfly valves

## Butterfly valve electric 24V AC PVC-U With EPDM/SANTOPRENE™ gaskets



PF 2 02 959 010

| d<br>[mm]   | DN<br>[mm] | DN<br>[inch] | PN | Code             | SP | GP | kg    |  |
|-------------|------------|--------------|----|------------------|----|----|-------|--|
| 75          | 65         | 2 ½          | 10 | <b>VFK50D750</b> | 1  | -  | 1.750 |  |
| 90          | 80         | 3            | 10 | <b>VFK50D900</b> | -  | -  | 1.750 |  |
| 110         | 100        | 4            | 10 | <b>VFK50D910</b> | 1  | -  | 1.916 |  |
| 125 - 140   | 125        | 5            | 10 | <b>VFK50D920</b> | -  | 1  | 4.300 |  |
| 160         | 150        | 6            | 6  | <b>VFK50D940</b> | 1  | -  | 5.400 |  |
| * 200 - 225 | 200        | 8            | 6  | <b>VFK50D960</b> | 1  | -  | 7.400 |  |

## Butterfly valve pneumatic PVC-U With EPDM/SANTOPRENE™ gaskets



PF 2 02 959 010

| d<br>[mm] | DN<br>[mm] | DN<br>[inch] | PN | ACTING TYPE | Code             | SP | GP | kg    |  |
|-----------|------------|--------------|----|-------------|------------------|----|----|-------|--|
| 75        | 65         | 2 ½          | 10 | DOUBLE      | <b>VFK20D750</b> | 1  | -  | 2.600 |  |
| 90        | 80         | 3            | 10 | DOUBLE      | <b>VFK20D900</b> | 1  | -  | 2.600 |  |
| 110       | 100        | 4            | 10 | DOUBLE      | <b>VFK20D910</b> | 1  | -  | 3.016 |  |
| 125 - 140 | 125        | 5            | 10 | DOUBLE      | <b>VFK20D920</b> | 1  | -  | 6.000 |  |
| 160       | 150        | 6            | 6  | DOUBLE      | <b>VFK20D940</b> | 1  | -  | 6.700 |  |
| 200 - 225 | 200        | 8            | 6  | DOUBLE      | <b>VFK20D960</b> | -  | -  | 6.700 |  |
| 75        | 65         | 2 ½          | 10 | SINGLE      | <b>VFK21D750</b> | -  | -  | 2.600 |  |
| 90        | 80         | 3            | 10 | SINGLE      | <b>VFK21D900</b> | 1  | 1  | 5.600 |  |
| 110       | 100        | 4            | 10 | SINGLE      | <b>VFK21D910</b> | -  | -  | 7.700 |  |
| 125 - 140 | 125        | 5            | 10 | SINGLE      | <b>VFK21D920</b> | -  | -  | 8.500 |  |
| 160       | 150        | 6            | 6  | SINGLE      | <b>VFK21D940</b> | -  | -  | 9.250 |  |
| 200 - 225 | 200        | 8            | 6  | SINGLE      | <b>VFK21D960</b> | -  | -  | 9.250 |  |

# PVC-U Fittings and valves British standard range

## Mechanical resistances

The following data are referred to water or not particularly aggressive liquids, at a working temperature of 20° C.

## Materials

The PVC-U compound used by TP is stabilized unplasticized polyvinyl chloride.

Material chemical resistances according to ISO/TR10358

## Coupling tolerance for solvent welding BS series, in accordance with:

fittings complying with:

BS 4346/1

Pipes complying with:

BS3505 e BS 3506

The following table reports diameter and tolerances of our fittings, according to prescription.

| Series                   | Dimensions      | Class  | PN       |
|--------------------------|-----------------|--------|----------|
| Solvent welding (d inch) | from 3/8" to 3" | E      | 15       |
| BS plain-ISO plain (T)   | from 3/8" to 6" | E      | 15       |
| Adaptor (R)              | from 3/8" to 2" | E<br>D | 15<br>12 |

Note: 1) Class D; 2) Class C

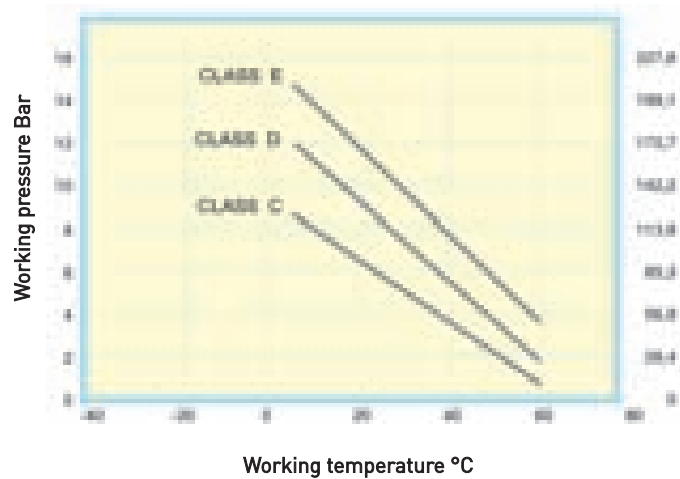
## Safety factors at 20° C

| Class | NP nominal pressure | 1 hour | 50 years |
|-------|---------------------|--------|----------|
| E     | 15 Bar              | 3,6    | 2,1      |
| D     | 12 Bar              | 4,5    | 2,6      |
| C     | 9 Bar               | 6,0    | 3,5      |

## Dimensions in mm

| Outside diam. of male fittings |        | Inside diam. of female fittings |        |        |
|--------------------------------|--------|---------------------------------|--------|--------|
| D                              | Min    | Max                             | Min    | Max    |
| 3/8"                           | 17,00  | 17,20                           | 17,10  | 17,30  |
| 1/2"                           | 21,20  | 21,40                           | 21,30  | 21,50  |
| 3/4"                           | 26,60  | 26,80                           | 26,70  | 26,90  |
| 1"                             | 33,40  | 33,60                           | 33,50  | 33,70  |
| 1 1/4"                         | 42,10  | 42,30                           | 42,20  | 42,40  |
| 1 1/2"                         | 48,10  | 48,30                           | 48,20  | 48,40  |
| 2"                             | 60,20  | 60,40                           | 60,30  | 60,50  |
| 2 1/2"                         | 75,10  | 75,40                           | 75,10  | 75,30  |
| 3"                             | 88,70  | 89,00                           | 88,80  | 89,10  |
| 4"                             | 114,10 | 114,40                          | 114,20 | 114,50 |
| 5"                             | 140,00 | 140,40                          | 140,10 | 140,40 |
| 6"                             | 168,00 | 168,40                          | 168,20 | 168,50 |
| 8"                             | 218,80 | 219,30                          | 219,00 | 219,40 |

## WORKING PRESSURE RANGE RELATING TO TEMPERATURE

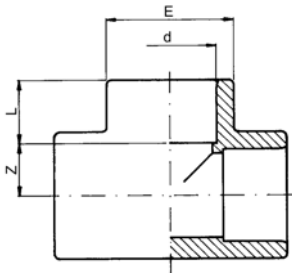




# PVC-U fittings solvent cement jointing

## British standard Inch

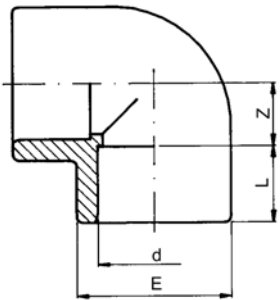
### Tee 90° PVC-U Inch BS



PF 2 01 952 010

| d<br>[inch] | d<br>[mm] | PN | Code      | SP | GP  | kg     | L<br>[mm] | Z<br>[mm] | E<br>[mm] |  |
|-------------|-----------|----|-----------|----|-----|--------|-----------|-----------|-----------|--|
| 3/8         |           | 16 | RV0TIL160 | 10 | 280 | 0.012  | 14        | 9         | 23        |  |
| 1/2         |           | 16 | RV0TIL200 | 10 | 150 | 0.023  | 16        | 11        | 27        |  |
| 3/4         |           | 16 | RV0TIL250 | 10 | 100 | 0.030  | 19        | 14        | 33        |  |
| 1           |           | 16 | RV0TIL320 | 10 | 130 | 0.065  | 22        | 17        | 41        |  |
| 1 1/4       |           | 16 | RV0TIL400 | 90 | -   | 0.127  | 27        | 21        | 52        |  |
| 1 1/2       |           | 16 | RV0TIL500 | 50 | -   | 0.208  | 32        | 26        | 61        |  |
| 2           |           | 16 | RV0TIL630 | 25 | -   | 0.315  | 37        | 33        | 75        |  |
| 2 1/2       | 75        | 16 | RV0TII750 | 35 | -   | 0.523  | 44        | 39        | 89        |  |
| 3           |           | 16 | RV0TIL900 | 24 | -   | 0.820  | 52        | 45        | 107       |  |
| 4           |           | 16 | RV0TIL910 | 10 | -   | 1.330  | 63        | 62        | 133       |  |
| 5           | 140       | 16 | RV0TII930 | 6  | -   | 2.650  | 76        | 72        | 163       |  |
| 6           |           | 16 | RV0TIL940 | 4  | -   | 4.300  | 93        | 86        | 198       |  |
| 8           |           | 16 | RV0TIL970 | 15 | -   | 11.300 | 116       | 116       | 258       |  |

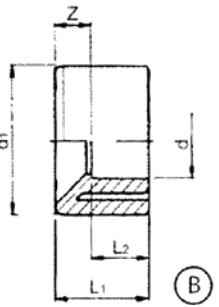
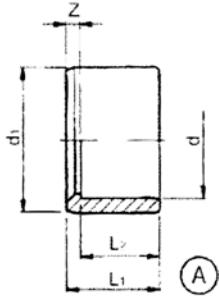
### Elbow 90° PVC-U Inch BS



PF 2 01 952 010

| d<br>[inch] | d<br>[mm] | PN | Code      | SP  | GP  | kg    | L<br>[mm] | Z<br>[mm] | E<br>[mm] |  |
|-------------|-----------|----|-----------|-----|-----|-------|-----------|-----------|-----------|--|
| 3/8         |           | 16 | RV0GOL160 | 10  | 360 | 0.013 | 14.5      | 9         | 23        |  |
| 1/2         |           | 16 | RV0GOL200 | 10  | 200 | 0.018 | 17.0      | 11        | 27        |  |
| 3/4         |           | 16 | RV0GOL250 | 10  | 160 | 0.029 | 20.0      | 14        | 33        |  |
| 1           |           | 16 | RV0GOL320 | 10  | 80  | 0.049 | 23.0      | 17        | 41        |  |
| 1 1/4       |           | 16 | RV0GOL400 | 130 | -   | 0.090 | 27.0      | 22        | 51        |  |
| 1 1/2       |           | 16 | RV0GOL500 | 80  | -   | 0.140 | 32.0      | 26        | 61        |  |
| 2           |           | 16 | RV0GOL630 | 40  | -   | 0.222 | 37.0      | 34        | 75        |  |
| 2 1/2       | 75        | 16 | RV0GOI750 | 50  | -   | 0.386 | 44.0      | 39        | 89        |  |
| 3           |           | 16 | RV0GOL900 | 30  | -   | 0.600 | 52.0      | 45        | 107       |  |
| 4           |           | 16 | RV0GOL910 | 15  | -   | 1.060 | 63.0      | 58        | 133       |  |
| 5           | 140       | 16 | RV0GOI930 | 8   | -   | 2.050 | 76.0      | 72        | 163       |  |
| 6           |           | 16 | RV0GOL940 | 5   | -   | 3.335 | 93.0      | 85        | 198       |  |
| 8           |           | 16 | RV0GOL970 | 18  | -   | 6.600 | 113.0     | 116       | 258       |  |

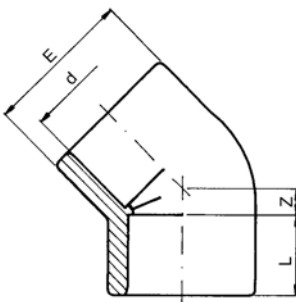
## Reducing bush PVC-U Inch BS



PF 2 01 952 010

| d<br>[inch] | d<br>[inch] | PN | Code      | SP  | GP  | kg    | L1<br>[mm] | L2<br>[mm] | Z<br>[mm] |  |
|-------------|-------------|----|-----------|-----|-----|-------|------------|------------|-----------|--|
| 1/2         | 3/8         | 16 | RV0RCL20A | 10  | 800 | 0.003 | 16.5       | 14.5       | 2.0       |  |
| A 3/4       | 1/2         | 16 | RV0RCL25B | 10  | 600 | 0.006 | 19.5       | 16.5       | 3.0       |  |
| B 1         | 1/2         | 16 | RV0RCL32B | 10  | 400 | 0.016 | 22.5       | 16.5       | 6.0       |  |
| A 1         | 3/4         | 16 | RV0RCL32C | 10  | 400 | 0.010 | 22.5       | 19.5       | 3.0       |  |
| A 1 1/4     | 1           | 16 | RV0RCL40D | 250 | -   | 0.016 | 27.0       | 22.5       | 4.5       |  |
| B 1 1/2     | 1           | 16 | RV0RCL50D | 180 | -   | 0.035 | 30.0       | 22.5       | 7.5       |  |
| A 1 1/2     | 1 1/4       | 16 | RV0RCL50E | 180 | -   | 0.020 | 30.0       | 27.0       | 3.0       |  |
| B 2         | 1           | 16 | RV0RCL63D | 100 | -   | 0.067 | 36.0       | 22.5       | 13.5      |  |
| A 2         | 1 1/2       | 16 | RV0RCL63F | 100 | -   | 0.055 | 36.0       | 30.0       | 6.0       |  |
| B 2 1/2     | 1 1/2       | 16 | RV0RCL75F | 130 | -   | 0.122 | 44.0       | 30.0       | 14.0      |  |
| A 2 1/2     | 2           | 16 | RV0RCL75G | 130 | -   | 0.080 | 44.0       | 36.0       | 8.0       |  |
| B 3         | 1 1/2       | 16 | RV0RCL90F | 80  | -   | 0.200 | 50.5       | 30.0       | 20.5      |  |
| B 3         | 2           | 16 | RV0RCL90G | 80  | -   | 0.195 | 50.5       | 36.0       | 14.5      |  |
| A 3         | 2 1/2       | 16 | RV0RCL90H | 80  | -   | 0.140 | 50.5       | 44.0       | 6.5       |  |
| B 4         | 2           | 16 | RV0RCL91G | 45  | -   | 0.800 | 36.0       | 36.0       | 27.0      |  |
| B 4         | 2 1/2       | 16 | RV0RCL91H | 42  | -   | 0.370 | 63.0       | 44.0       | 19.0      |  |
| A 4         | 3           | 16 | RV0RCL91I | 45  | -   | 0.273 | 36.0       | 50.5       | 12.5      |  |
| B 5         | 3           | 16 | RV0RCL93I | 48  | -   | 0.550 | 76.0       | 50.5       | 25.5      |  |
| B 6         | 4           | 16 | RV0RCL94L | 24  | -   | 2.300 | 90.0       | 63.0       | 27.0      |  |
| B 8         | 6           | 16 | RV0RCL97O | 9   | -   | 1.860 | 115.5      | 90.0       | 25.5      |  |

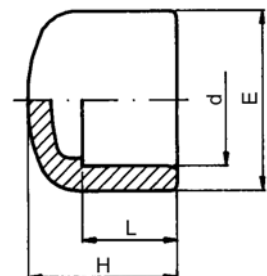
## Elbow 45° PVC-U Inch BS



PF 2 01 952 010

| d<br>[inch] | PN | d<br>[mm] | Code      | SP  | GP  | kg    | L<br>[mm] | Z<br>[mm] | E<br>[mm] |  |
|-------------|----|-----------|-----------|-----|-----|-------|-----------|-----------|-----------|--|
| 3/8         | 16 |           | RV0GYL160 | 10  | 400 | 0.009 | 14.5      | 2.5       | 23        |  |
| 1/2         | 16 |           | RV0GYL200 | 10  | 260 | 0.017 | 16.0      | 5.0       | 27        |  |
| 3/4         | 16 |           | RV0GYL250 | 10  | 150 | 0.029 | 19.0      | 6.0       | 33        |  |
| 1           | 16 |           | RV0GYL320 | 10  | 100 | 0.047 | 22.0      | 8.0       | 41        |  |
| 1 1/4       | 16 |           | RV0GYL400 | 80  | -   | 0.065 | 27.0      | 10.0      | 52        |  |
| 1 1/2       | 16 |           | RV0GYL500 | 100 | -   | 0.113 | 32.0      | 12.0      | 61        |  |
| 2           | 16 |           | RV0GYL630 | 50  | -   | 0.190 | 39.0      | 15.0      | 75        |  |
| 2 1/2       | 16 | 75        | RV0GYI750 | 65  | -   | 0.308 | 44.0      | 17.0      | 89        |  |
| 3           | 16 |           | RV0GYL900 | 40  | -   | 0.515 | 52.0      | 21.0      | 107       |  |
| 4           | 16 |           | RV0GYL910 | 20  | -   | 0.836 | 63.0      | 25.0      | 133       |  |
| 5           | 16 | 140       | RV0GYI930 | 8   | -   | 1.600 | 76.0      | 31.0      | 163       |  |
| 8           | 16 |           | RV0GYL970 | 24  | -   | 4.900 | 115.5     | 46.0      | 249       |  |

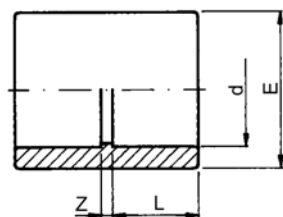
## Cap PVC-U Inch BS



| d<br>[inch] | d<br>[mm] | PN | Code      | SP  | GP  | kg    | L<br>[mm] | H<br>[mm] | E<br>[mm] |  |
|-------------|-----------|----|-----------|-----|-----|-------|-----------|-----------|-----------|--|
| 3/8         |           | 16 | RV0CAL160 | 10  | 600 | 0.007 | 14.5      | 22        | 23        |  |
| 1/2         |           | 16 | RV0CAL200 | 10  | 500 | 0.011 | 16.5      | 26        | 28        |  |
| 3/4         |           | 16 | RV0CAL250 | 10  | 400 | 0.018 | 19.5      | 30        | 34        |  |
| 1           |           | 16 | RV0CAL320 | 10  | 200 | 0.027 | 22.5      | 33        | 42        |  |
| 1 1/4       |           | 16 | RV0CAL400 | 160 | -   | 0.044 | 27.0      | 41        | 51        |  |
| 1 1/2       |           | 16 | RV0CAL500 | 80  | -   | 0.075 | 30.0      | 46        | 61        |  |
| 2           |           | 16 | RV0CAL630 | 50  | -   | 0.133 | 36.0      | 55        | 75        |  |
| 2 1/2       | 75        | 16 | RV0CAI750 | 25  | -   | 0.187 | 44.0      | 64        | 89        |  |
| 3           |           | 16 | RV0CAL900 | 50  | -   | 0.325 | 50.5      | 73        | 106       |  |
| 4           |           | 16 | RV0CAL910 | 25  | -   | 0.520 | 63.0      | 87        | 129       |  |
| 5           | 140       | 16 | RV0CAI930 | 30  | -   | 0.915 | 76.0      | 108       | 162       |  |
| 6           |           | 16 | RV0CAL940 | 18  | -   | 1.120 | 90.0      | 123       | 192       |  |

PF 2 01 952 010

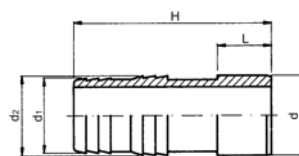
## Double socket PVC-U Inch BS



| d<br>[inch] | d<br>[mm] | PN | Code      | SP  | GP  | kg    | L<br>[mm] | Z<br>[mm] | E<br>[mm] |  |
|-------------|-----------|----|-----------|-----|-----|-------|-----------|-----------|-----------|--|
| 3/8         |           | 16 | RV0MAL160 | 10  | 500 | 0.009 | 14.5      | 3         | 23        |  |
| 1/2         |           | 16 | RV0MAL200 | 10  | 300 | 0.015 | 16.0      | 3         | 27        |  |
| 3/4         |           | 16 | RV0MAL250 | 10  | 200 | 0.021 | 19.0      | 3         | 33        |  |
| 1           |           | 16 | RV0MAL320 | 10  | 130 | 0.034 | 22.0      | 3         | 41        |  |
| 1 1/4       |           | 16 | RV0MAL400 | 100 | -   | 0.057 | 27.0      | 3         | 52        |  |
| 1 1/2       |           | 16 | RV0MAL500 | 60  | -   | 0.099 | 32.0      | 3         | 61        |  |
| 2           |           | 16 | RV0MAL630 | 70  | -   | 0.175 | 37.0      | 3         | 75        |  |
| 2 1/2       | 75        | 16 | RV0MAI750 | 48  | -   | 0.226 | 44.0      | 4         | 89        |  |
| 3           |           | 16 | RV0MAL900 | 60  | -   | 0.385 | 52.0      | 5         | 107       |  |
| 4           |           | 16 | RV0MAL910 | 32  | -   | 0.605 | 7.0       | 6         | 133       |  |
| 5           | 140       | 16 | RV0MAI930 | 14  | -   | 1.100 | 76.0      | 8         | 162       |  |
| 6           |           | 16 | RV0MAL940 | 9   | -   | 1.540 | 90.0      | 8         | 198       |  |
| 8           |           | 16 | RV0MAL970 | 2   | -   | 3.550 | 120.0     | 10        | 253       |  |

PF 2 01 952 010

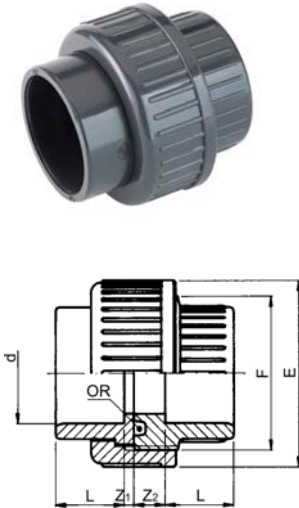
## Hose adaptor PVC-U Inch BS



| d<br>[inch] | PN | Code      | SP  | GP  | kg    | L<br>[mm] | H<br>[mm] | d1<br>[mm] | d2<br>[mm] |  |
|-------------|----|-----------|-----|-----|-------|-----------|-----------|------------|------------|--|
| 3/8         | 16 | RV0PGL160 | 10  | 400 | 0.010 | 14.5      | 60        | 16         | 18         |  |
| 1/2         | 16 | RV0PGL200 | 10  | 300 | 0.014 | 16.5      | 67        | 20         | 22         |  |
| 3/4         | 16 | RV0PGL250 | 10  | 200 | 0.020 | 19.5      | 74        | 25         | 27         |  |
| 1           | 16 | RV0PGL320 | 10  | 130 | 0.030 | 22.5      | 80        | 30         | 32         |  |
| 1 1/4       | 16 | RV0PGL400 | 180 | -   | 0.055 | 27.0      | 92        | 40         | 42         |  |
| 1 1/2       | 16 | RV0PGL500 | 130 | -   | 0.078 | 30.0      | 101       | 50         | 52         |  |
| 2           | 16 | RV0PGL630 | 150 | -   | 0.142 | 36.0      | 111       | 60         | 64         |  |

PF 2 01 952 010

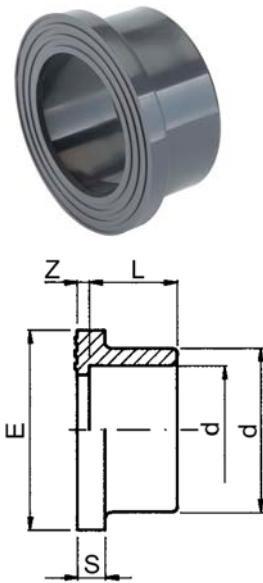
## Union with o-ring PVC-U Inch BS



PF 2 01 952 010

| d<br>[inch] | d<br>[mm] | PN | Code      | SP | GP  | kg    | L<br>[mm] | Z1<br>[mm] | Z2<br>[mm] | F<br>[inch] | E<br>[mm] |  |
|-------------|-----------|----|-----------|----|-----|-------|-----------|------------|------------|-------------|-----------|--|
| 3/8         |           | 16 | RV0BOL160 | 10 | 250 | 0.025 | 14.5      | 3          | 10         | 3/8         | 34        |  |
| 1/2         |           | 16 | RV0BOL200 | 10 | 150 | 0.040 | 16.0      | 3          | 10         | 1           | 42        |  |
| 3/4         |           | 16 | RV0BOL250 | 10 | 100 | 0.066 | 19.0      | 3          | 10         | 1 1/4       | 52        |  |
| 1           |           | 16 | RV0BOL320 | 10 | 60  | 0.088 | 22.0      | 3          | 10         | 1 1/2       | 59        |  |
| 1 1/4       |           | 16 | RV0BOL400 | 90 | -   | 0.152 | 27.0      | 3          | 12         | 2           | 73        |  |
| 1 1/2       |           | 16 | RV0BOL500 | 60 | -   | 0.215 | 32.0      | 3          | 14         | 2 1/4       | 82        |  |
| 2           |           | 16 | RV0BOL630 | 36 | -   | 0.350 | 39.0      | 3          | 18         | 2 3/4       | 100       |  |
| 2 1/2       | 75        | 16 | RV0BOL750 | 10 | -   | 0.575 | 44.0      | 3          | 18         | 3 1/2       | 119       |  |
| 3           |           | 16 | RV0BOL900 | 15 | -   | 0.790 | 52.0      | 5          | 18         | 4           | 134       |  |
| 4           |           | 16 | RV0BOL910 | 18 | -   | 1.285 | 61.0      | 5          | 18         | 5           | 163       |  |

## Flange adapter serrated PVC-U Inch BS



PF 2 01 952 010

| d<br>[inch] | d<br>[mm] | PN | Code      | SP  | GP  | kg    | L<br>[mm] | Z<br>[mm] | d<br>[mm] | S<br>[mm] | E<br>[mm] |  |
|-------------|-----------|----|-----------|-----|-----|-------|-----------|-----------|-----------|-----------|-----------|--|
| 1/2         |           | 16 | RV0QRL200 | 10  | 400 | 0.010 | 16.5      | 2.5       | 27        | 6         | 34        |  |
| 3/4         |           | 16 | RV0QRL250 | 10  | 300 | 0.016 | 19.5      | 2.5       | 33        | 7         | 41        |  |
| 1           |           | 16 | RV0QRL320 | 10  | 200 | 0.025 | 22.5      | 2.5       | 41        | 7         | 50        |  |
| 1 1/4       |           | 16 | RV0QRL400 | 150 | -   | 0.040 | 27.0      | 2.5       | 50        | 8         | 61        |  |
| 1 1/2       |           | 16 | RV0QRL500 | 140 | -   | 0.060 | 30.0      | 2.0       | 61        | 8         | 73        |  |
| 2           |           | 16 | RV0QRL630 | 90  | -   | 0.105 | 36.0      | 4.0       | 76        | 9         | 90        |  |
| 2 1/2       | 75        | 16 | RV0QRL750 | 50  | -   | 0.170 | 44.0      | 3.0       | 90        | 10        | 106       |  |
| 3           |           | 16 | RV0QRL900 | 38  | -   | 0.277 | 50.5      | 3.0       | 108       | 11        | 125       |  |
| 4           |           | 16 | RV0QRL910 | 24  | -   | 0.380 | 63.0      | 5.5       | 131       | 12        | 150       |  |
| 5           | 140       | 16 | RV0QRL930 | 20  | -   | 0.750 | 76.0      | 5.0       | 165       | 14        | 188       |  |
| 6           |           | 16 | RV0QRL940 | 15  | -   | 0.895 | 90.0      | 5.0       | 188       | 16        | 213       |  |
| 8           |           | 16 | RV0QRL970 | 6   | -   | 1.700 | 115.5     | 6.0       | 248       | 19        | 274       |  |

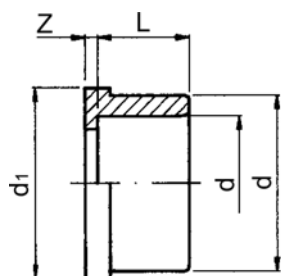
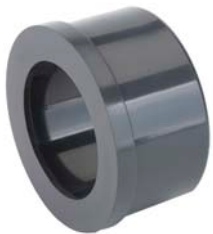
## Union bush PVC-U Inch BS

Suitable for BOL



PF 2 01 952 010

| d<br>[inch] | d<br>[mm] | PN | Code      | SP  | GP | kg    | L<br>[mm] | Z<br>[mm] | F<br>[inch] |  |
|-------------|-----------|----|-----------|-----|----|-------|-----------|-----------|-------------|--|
| 3/8         |           | 16 | RV0BFL160 | 600 | -  | 0.010 | 14.5      | 9.5       | 3/8         |  |
| 1/2         |           | 16 | RV0BFL200 | 300 | -  | 0.015 | 16.5      | 9.5       | 1           |  |
| 3/4         |           | 16 | RV0BFL250 | 180 | -  | 0.025 | 19.5      | 9.5       | 1 1/4       |  |
| 1           |           | 16 | RV0BFL320 | 500 | -  | 0.034 | 22.5      | 9.5       | 1 1/2       |  |
| 1 1/4       |           | 16 | RV0BFL400 | 75  | -  | 0.057 | 27.0      | 11.0      | 2           |  |
| 1 1/2       |           | 16 | RV0BFL500 | 50  | -  | 0.078 | 30.0      | 15.0      | 2 1/4       |  |
| 2           |           | 16 | RV0BFL630 | 25  | -  | 0.134 | 36.0      | 20.0      | 2 3/4       |  |
| 2 1/2       | 75        | 16 | RV0BFL750 | 125 | -  | 0.205 | 44.0      | 18.0      | 3 1/2       |  |
| 3           |           | 16 | RV0BFL900 | 80  | -  | 0.270 | 50.5      | 18.5      | 4           |  |
| 4           |           | 16 | RV0BFL910 | 48  | -  | 0.465 | 63.0      | 16.0      | 5           |  |



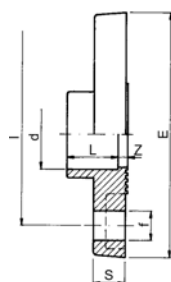
PF 2 01 952 010

## Union end PVC-U Inch BS

Suitable for BOL/BOR

| d<br>[inch] | d<br>[mm] | PN | Code             | SP   | GP | kg    | L<br>[mm] | Z<br>[mm] | d<br>[mm] | d1<br>[mm] |  |
|-------------|-----------|----|------------------|------|----|-------|-----------|-----------|-----------|------------|--|
| 3/8         |           | 16 | <b>RV0BLL160</b> | 1000 | -  | 0.006 | 14.5      | 2.5       | 22.0      | 24.0       |  |
| 1/2         |           | 16 | <b>RV0BLL200</b> | 500  | -  | 0.009 | 16.5      | 2.5       | 27.5      | 30.1       |  |
| 3/4         |           | 16 | <b>RV0BLL250</b> | 300  | -  | 0.016 | 19.5      | 2.5       | 36.0      | 38.8       |  |
| 1           |           | 16 | <b>RV0BLL320</b> | 650  | -  | 0.022 | 22.5      | 2.5       | 41.5      | 44.7       |  |
| 1 1/4       |           | 16 | <b>RV0BLL400</b> | 120  | -  | 0.040 | 27.0      | 2.0       | 53.0      | 56.5       |  |
| 1 1/2       |           | 16 | <b>RV0BLL500</b> | 85   | -  | 0.043 | 30.0      | 4.0       | 59.0      | 62.6       |  |
| 2           |           | 16 | <b>RV0BLL630</b> | 130  | -  | 0.080 | 36.0      | 5.0       | 74.0      | 78.4       |  |
| 2 1/2       |           | 16 | <b>RV0BLL750</b> | 165  | -  | 0.150 | 44.0      | 3.0       | 92.5      | 97.2       |  |
| 3           |           | 16 | <b>RV0BLL900</b> | 100  | -  | 0.195 | 50.5      | 5.5       | 105.0     | 110.0      |  |
| 4           |           | 16 | <b>RV0BLL910</b> | 66   | -  | 0.350 | 63.0      | 3.0       | 129.0     | 135.4      |  |

## Fixed flange PVC-U Inch BS



PF 2 01 952 010

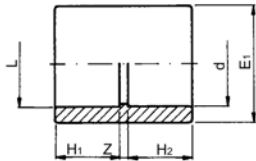
| d<br>[inch] | d<br>[mm] | PN-PN<br>[bar] | Code             | SP  | GP | kg    | L<br>[mm] | Z<br>[mm] | E<br>[mm] | I<br>[mm] | f<br>[mm] |  |
|-------------|-----------|----------------|------------------|-----|----|-------|-----------|-----------|-----------|-----------|-----------|--|
| 1/2         |           | 10 - 16        | <b>RV0FFL200</b> | 100 | -  | 0.070 | 16.5      | 4.0       | 95        | 65        | 14        |  |
| 3/4         |           | 10 - 16        | <b>RV0FFL250</b> | 70  | -  | 0.105 | 19.5      | 4.0       | 105       | 75        | 14        |  |
| 1           |           | 10 - 16        | <b>RV0FFL320</b> | 120 | -  | 0.145 | 22.5      | 4.0       | 115       | 85        | 14        |  |
| 1 1/4       |           | 10 - 16        | <b>RV0FFL400</b> | 60  | -  | 0.220 | 27.0      | 3.5       | 140       | 100       | 18        |  |
| 1 1/2       |           | 10 - 16        | <b>RV0FFL500</b> | 50  | -  | 0.270 | 30.0      | 5.5       | 150       | 10        | 18        |  |
| 2           |           | 10 - 16        | <b>RV0FFL630</b> | 40  | -  | 0.390 | 36.0      | 6.5       | 165       | 125       | 18        |  |
| 2 1/2       |           | 10 - 16        | <b>RV0FFI750</b> | 20  | -  | 0.505 | 44.0      | 6.0       | 185       | 145       | 18        |  |
| 3           |           | 10 - 16        | <b>RV0FFL900</b> | 15  | -  | 0.700 | 50.5      | 7.5       | 200       | 160       | 18        |  |
| 4           |           | 10 - 16        | <b>RV0FFL910</b> | 10  | -  | 0.870 | 63.0      | 6.0       | 220       | 180       | 18        |  |
| 5           |           | 10 - 16        | <b>RV0FFI930</b> | 6   | -  | 1.335 | 76.0      | 7.0       | 250       | 210       | 18        |  |
| 6           |           | 10 - 16        | <b>RV0FFL940</b> | 5   | -  | 1.853 | 86.0      | 7.0       | 285       | 240       | 22        |  |

# PVC-U adaptor fittings

## Solvent cement jointing

### British standard Inch plain/ISO metric plain

#### Plain socket Inch BS/metric



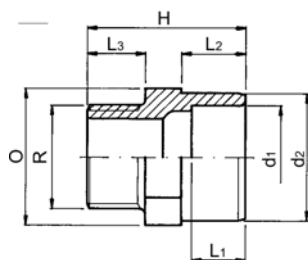
PF 2 01 952 010

| d<br>[inch] | d<br>[mm] | PN | Code      | SP  | GP  | kg    | H1<br>[mm] | H2<br>[mm] | Z<br>[mm] | E1<br>[mm] | E2<br>[mm] |  |
|-------------|-----------|----|-----------|-----|-----|-------|------------|------------|-----------|------------|------------|--|
| 3/8         | 16        | 16 | RV0MAT16A | 10  | 500 | 0.006 | 14.5       | 14.0       | 2.5       | 22.0       |            |  |
| 1/2         | 20        | 16 | RV0MAT20B | 10  | 300 | 0.010 | 16.5       | 16.0       | 2.5       | 26.0       |            |  |
| 3/4         | 25        | 16 | RV0MAT25C | 10  | 200 | 0.022 | 19.5       | 19.0       | 2.5       | 32.0       |            |  |
| 1           | 32        | 16 | RV0MAT32D | 10  | 130 | 0.036 | 22.5       | 22.0       | 2.5       | 40.0       |            |  |
| 1 1/4       | 40        | 16 | RV0MAT40E | 100 | -   | 0.054 | 27.0       | 26.0       | 2.0       | 51.0       |            |  |
| 1 1/2       | 50        | 16 | RV0MAT50F | 60  | -   | 0.093 | 30.0       | 31.0       | 4.0       | 61.0       |            |  |
| 2           | 63        | 16 | RV0MAT63G | 70  | -   | 0.160 | 36.0       | 38.0       | 6.0       | 75.0       |            |  |
| 2 1/2       | 75        | 16 | RV0MAI750 | 48  | -   | 0.226 |            |            |           |            |            |  |
| 3           | 90        | 16 | RV0MAT90I | 60  | -   | 0.353 | 50.5       | 51.0       | 5.5       | 106.0      |            |  |
| 4           | 110       | 16 | RV0MAT91L | 32  | -   | 0.565 | 63.0       | 61.0       | 4.0       | 129.0      |            |  |
| 5           | 140       | 16 | RV0MAI930 | 14  | -   | 1.100 |            |            |           |            |            |  |
| 6           | 160       | 16 | RV0MAT94O | 9   | -   | 1.540 | 90.0       | 86.0       | 8.0       | 190.0      | 180.0      |  |

# PVC-U adaptor fittings

## British standard Inch plain/B.S.P. threaded

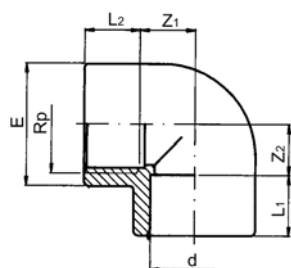
### Threaded adaptor R PVC-U Inch BS 3 diameters



PF 2 01 952 010

| d<br>[inch] | d<br>[inch] | R<br>[inch] | PN | Code      | SP  | GP  | kg    | L1<br>[mm] | L2<br>[mm] | L3<br>[mm] | H<br>[mm] | O<br>[mm] |  |
|-------------|-------------|-------------|----|-----------|-----|-----|-------|------------|------------|------------|-----------|-----------|--|
| 3/8         | 1/2         | 3/8         | 16 | RV0AMR16A | 10  | 500 | 0.010 | 14.5       | 16         | 11.4       | 40        | 24        |  |
| 3/8         | 1/2         | 1/2         | 16 | RV0AMR16B | 10  | 440 | 0.011 | 14.5       | 16         | 15.0       | 43        | 24        |  |
| 1/2         | 3/4         | 1/2         | 16 | RV0AMR20B | 10  | 280 | 0.014 | 16.5       | 19         | 15.0       | 46        | 30        |  |
| 1/2         | 3/4         | 3/4         | 16 | RV0AMR20C | 10  | 280 | 0.019 | 16.5       | 19         | 16.3       | 47        | 30        |  |
| 3/4         | 1           | 3/4         | 16 | RV0AMR25C | 10  | 180 | 0.027 | 19.5       | 22         | 16.3       | 50        | 36        |  |
| 3/4         | 1           | 1           | 16 | RV0AMR25D | 10  | 160 | 0.029 | 19.5       | 22         | 19.1       | 53        | 36        |  |
| 1           | 1 1/4       | 1           | 16 | RV0AMR32D | 10  | 120 | 0.042 | 22.5       | 26         | 19.1       | 57        | 46        |  |
| 1           | 1 1/4       | 1 1/4       | 16 | RV0AMR32E | 10  | 100 | 0.045 | 22.5       | 26         | 21.4       | 60        | 46        |  |
| 1 1/4       | 1 1/2       | 1 1/4       | 16 | RV0AMR40E | 85  | -   | 0.073 | 27.0       | 31         | 21.4       | 67        | 55        |  |
| 1 1/4       | 1 1/2       | 1 1/2       | 16 | RV0AMR40F | 80  | -   | 0.076 | 27.0       | 31         | 21.4       | 67        | 55        |  |
| 1 1/2       | 2           | 1 1/2       | 16 | RV0AMR50F | 100 | -   | 0.110 | 30.0       | 38         | 21.4       | 74        | 65        |  |
| 1 1/2       | 2           | 2           | 16 | RV0AMR50G | 100 | -   | 0.120 | 30.0       | 38         | 25.7       | 78        | 65        |  |
| 2           | 2 1/2       | 2           | 16 | RV0AMR63G | 70  | -   | 0.172 | 36.0       | 44         | 25.7       | 84        | 80        |  |
| 2           | 2 1/2       | 2 1/2       | 16 | RV0AMR63H | 50  | -   | 0.170 | 36.0       | 44         | 30.2       | 91        | 80        |  |
| 2 1/2       | 3           | 2 1/2       | 16 | RV0AMR75H | 54  | -   | 0.268 | 44.0       | 51         | 30.2       | 99        | 95        |  |
| 2 1/2       | 3           | 3           | 16 | RV0AMR75I | 36  | -   | 0.280 | 44.0       | 51         | 33.3       | 102       | 95        |  |
| 3           | 4           | 3           | 16 | RV0AMR90I | 25  | -   | 0.555 | 50.5       | 61         | 33.3       | 113       | 115       |  |
| 3           | 4           | 4           | 16 | RV0AMR90L | 16  | -   | 0.485 | 50.5       | 61         | 39.3       | 118       | 115       |  |

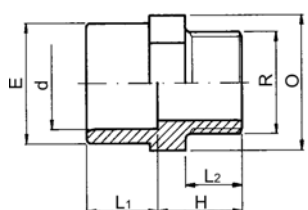
### Plain/threaded elbow 90° PVC-U Inch BS



PF 2 01 952 010

| d<br>[inch] | Rp<br>[inch] | d<br>[mm] | PN | Code      | SP  | GP  | kg    | L1<br>[mm] | L2<br>[mm] | Z1<br>[mm] | Z2<br>[mm] | E<br>[mm] |  |
|-------------|--------------|-----------|----|-----------|-----|-----|-------|------------|------------|------------|------------|-----------|--|
| 3/8         | 3/8          |           | 16 | RV0GOR16A | 10  | 360 | 0.013 | 14.5       | 11.4       | 8.5        | 11.6       | 23        |  |
| 1/2         | 1/2          |           | 16 | RV0GOR20B | 10  | 200 | 0.021 | 16.5       | 15.0       | 10.5       | 12.0       | 28        |  |
| 3/4         | 3/4          |           | 16 | RV0GOR25C | 10  | 160 | 0.035 | 19.5       | 16.3       | 13.5       | 16.7       | 34        |  |
| 1           | 1            |           | 16 | RV0GOR32D | 10  | 80  | 0.052 | 22.5       | 22.5       | 16.5       | 19.9       | 42        |  |
| 1 1/4       | 1 1/4        |           | 16 | RV0GOR40E | 130 | -   | 0.091 | 27.0       | 21.4       | 20.0       | 25.6       | 51        |  |
| 1 1/2       | 1 1/2        |           | 16 | RV0GOR50F | 80  | -   | 0.155 | 30.0       | 21.4       | 27.0       | 35.6       | 61        |  |
| 2           | 2            |           | 16 | RV0GOR63G | 40  | -   | 0.265 | 36.0       | 25.7       | 35.0       | 45.3       | 75        |  |
| 2 1/2       | 2 1/2        | 75        | 16 | RV0GOP75H | 50  | -   | 0.420 |            | 30.2       | 39.0       | 52.8       | 89        |  |
| 3           | 3            |           | 16 | RV0GOR90I | 30  | -   | 0.670 | 50.5       | 33.3       | 47.5       | 64.7       | 106       |  |
| 4           | 4            |           | 16 | RV0GOR91L | 15  | -   | 1.055 | 63.0       | 39.3       | 55.0       | 78.7       | 129       |  |

### Threaded adaptor R PVC-U Inch BS 2 diameters

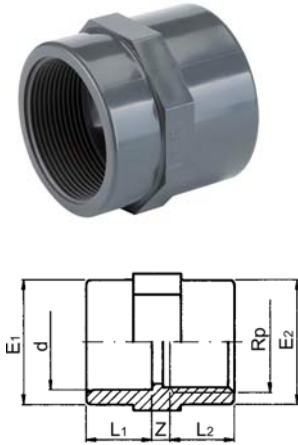


PF 2 01 952 010

| d<br>[inch] | R<br>[inch] | d<br>[mm] | PN | Code      | SP | GP | kg    | L1<br>[mm] | L2<br>[mm] | E<br>[mm] | Z<br>[mm] | O<br>[mm] |  |
|-------------|-------------|-----------|----|-----------|----|----|-------|------------|------------|-----------|-----------|-----------|--|
| 2 1/2       | 2 1/2       | 75        | 16 | RV0ADP75H | 72 | -  | 0.210 |            | 30.2       | 89        |           | 90        |  |
| 3           | 3           |           | 16 | RV0ADR90I | 40 | -  | 0.330 | 50.5       | 33.3       | 106       | 46.5      | 110       |  |
| 4           | 4           |           | 16 | RV0ADR91L | 35 | -  | 0.460 | 63.0       | 39.3       | 129       | 49.0      | 130       |  |



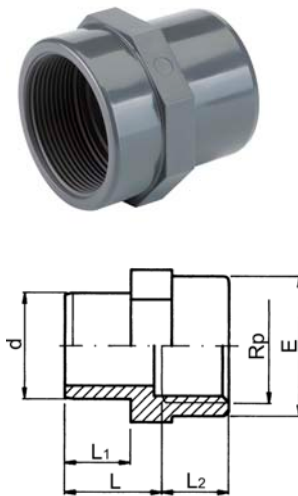
## Plain/threaded socket PVC-U Inch BS



PF 2 01 952 010

| d<br>[inch] | Rp<br>[inch] | d<br>[mm] | PN | Code      | SP  | GP  | kg    | L1<br>[mm] | L2<br>[mm] | Z1<br>[mm] | E1<br>[mm] | E2<br>[mm] |
|-------------|--------------|-----------|----|-----------|-----|-----|-------|------------|------------|------------|------------|------------|
| 3/8         | 3/8          | 16        | 16 | RV0MAR16A | 10  | 500 | 0.009 | 14.5       | 11.4       | 5.5        | 23.0       | 23.0       |
| 1/2         | 1/2          | 16        | 16 | RV0MAR20B | 10  | 250 | 0.017 | 16.5       | 15.0       | 3.5        | 28.0       | 28.0       |
| 3/4         | 3/4          | 16        | 16 | RV0MAR25C | 10  | 200 | 0.023 | 19.5       | 16.3       | 5.5        | 34.0       | 34.0       |
| 1           | 1            | 16        | 16 | RV0MAR32D | 10  | 130 | 0.042 | 22.5       | 19.1       | 5.5        | 42.0       | 42.0       |
| 1 1/4       | 1 1/4        | 16        | 16 | RV0MAR40E | 100 | -   | 0.060 | 27.0       | 21.4       | 7.0        | 51.0       | 51.0       |
| 1 1/2       | 1 1/2        | 16        | 16 | RV0MAR50F | 60  | -   | 0.087 | 30.0       | 21.4       | 9.0        | 61.0       | 58.0       |
| 2           | 2            | 16        | 16 | RV0MAR63G | 80  | -   | 0.134 | 36.0       | 25.7       | 10.0       | 75.0       | 72.0       |
| 2 1/2       | 2 1/2        | 16        | 16 | RV0MAP75H | 110 | -   | 0.215 | 44.0       | 30.2       | 8.0        | 89.0       | 89.0       |
| 3           | 3            | 16        | 16 | RV0MAR90I | 64  | -   | 0.351 | 50.5       | 33.3       | 9.5        | 106.0      | 103.0      |
| 4           | 4            | 16        | 16 | RV0MAR91L | 35  | -   | 0.478 | 63.0       | 39.3       | 8.0        | 129.0      | 130.0      |

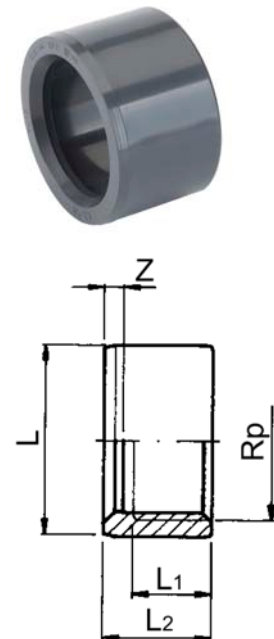
## Threaded adaptor Rp PVC-U Inch BS



PF 2 01 952 010

| d<br>[inch] | Rp<br>[inch] | d<br>[mm] | PN | Code      | SP  | GP  | kg    | L1<br>[mm] | L2<br>[mm] | E<br>[mm] | L<br>[mm] |
|-------------|--------------|-----------|----|-----------|-----|-----|-------|------------|------------|-----------|-----------|
| 3/8         | 3/8          | 16        | 16 | RV0AFR16A | 10  | 600 | 0.016 | 14         | 11.4       | 23        | 22        |
| 1/2         | 1/2          | 16        | 16 | RV0AFR20B | 10  | 300 | 0.019 | 16         | 15.0       | 28        | 24        |
| 3/4         | 3/4          | 16        | 16 | RV0AFR25C | 10  | 180 | 0.027 | 19         | 16.3       | 32        | 27        |
| 1           | 1            | 16        | 16 | RV0AFR32D | 10  | 80  | 0.043 | 22         | 19.1       | 42        | 30        |
| 1 1/4       | 1 1/4        | 16        | 16 | RV0AFR40E | 90  | -   | 0.065 | 26         | 21.4       | 51        | 36        |
| 1 1/2       | 1 1/2        | 16        | 16 | RV0AFR50F | 150 | -   | 0.073 | 31         | 21.4       | 58        | 41        |
| 2           | 2            | 16        | 16 | RV0AFR63G | 168 | -   | 0.135 | 38         | 25.7       | 72        | 48        |
| 2 1/2       | 2 1/2        | 16        | 16 | RV0AFP75H | 90  | -   | 0.225 | 44         | 30.2       | 89        | 58        |
| 3           | 3            | 16        | 16 | RV0AFR90I | 60  | -   | 0.310 | 51         | 33.3       | 103       | 65        |
| 4           | 4            | 16        | 16 | RV0AFR91L | 32  | -   | 0.480 | 61         | 39.3       | 130       | 76        |

## Plain/threaded reducing bush PVC-U Inch BS

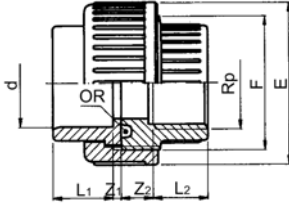


PF 2 01 952 010

| d<br>[inch] | Rp<br>[inch] | PN | Code      | SP | GP  | kg    | L1<br>[mm] | L2<br>[mm] | Z<br>[mm] |
|-------------|--------------|----|-----------|----|-----|-------|------------|------------|-----------|
| 1/2         | 3/8          | 16 | RV0RCR20A | 10 | 800 | 0.004 | 11.4       | 16.5       | 5.1       |
| 3/4         | 1/2          | 16 | RV0RCR25B | 10 | 600 | 0.007 | 15.0       | 19.5       | 4.5       |
| 1           | 3/4          | 16 | RV0RCR32C | 10 | 400 | 0.012 | 16.3       | 22.5       | 6.2       |



## Plain/threaded union with o-ring PVC-U Inch BS

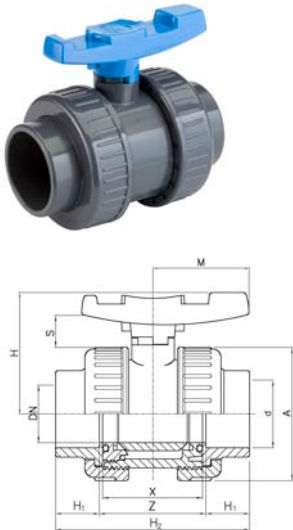


PF 2 01 952 010

| d<br>[inch] | Rp<br>[inch] | d<br>[mm] | PN | Code             | SP | GP  | kg    | L1<br>[mm] | L2<br>[mm] | Z1<br>[mm] | Z2<br>[mm] | F<br>[inch] | E<br>[mm] |
|-------------|--------------|-----------|----|------------------|----|-----|-------|------------|------------|------------|------------|-------------|-----------|
| 3/8         | 3/8          |           | 16 | <b>RV0BOR16A</b> | 10 | 250 | 0.031 | 14.5       | 11.4       | 2.5        | 13.6       | 3/4         | 34        |
| 1/2         | 1/2          |           | 16 | <b>RV0BOR20B</b> | 10 | 150 | 0.042 | 16.5       | 15.0       | 2.5        | 11.0       | 1           | 42        |
| 3/4         | 3/4          |           | 16 | <b>RV0BOR25C</b> | 10 | 100 | 0.070 | 19.5       | 16.3       | 2.5        | 12.7       | 1 1/4       | 52        |
| 1           | 1            |           | 16 | <b>RV0BOR32D</b> | 10 | 60  | 0.091 | 22.5       | 19.1       | 2.5        | 12.9       | 1 1/2       | 59        |
| 1 1/4       | 1 1/4        |           | 16 | <b>RV0BOR40E</b> | 90 | -   | 0.155 | 27.0       | 21.4       | 2.0        | 16.6       | 2           | 72        |
| 1 1/2       | 1 1/2        |           | 16 | <b>RV0BOR50F</b> | 60 | -   | 0.237 | 30.0       | 21.4       | 4.0        | 23.6       | 2 1/4       | 79        |
| 2           | 2            |           | 16 | <b>RV0BOR63G</b> | 36 | -   | 0.405 | 36.0       | 25.7       | 5.0        | 30.3       | 2 3/4       | 96        |
| 2 1/2       | 2 1/2        | 75        | 16 | <b>RV0BOP75H</b> | 20 | -   | 0.625 |            | 30.2       | 3.0        | 31.8       | 3 1/2       | 119       |
| 3           | 3            |           | 16 | <b>RV0BOR90I</b> | 15 | -   | 0.865 | 50.5       | 33.3       | 5.5        | 35.7       | 4           | 134       |
| 4           | 4            |           | 16 | <b>RV0BOR91L</b> | 18 | -   | 1.340 | 63.0       | 39.3       | 3.0        | 39.7       | 5           | 163       |

# PVC-U valves British standard Inch

## Double union safe block ball valve PVC-U With solvent cement sockets Inch BS

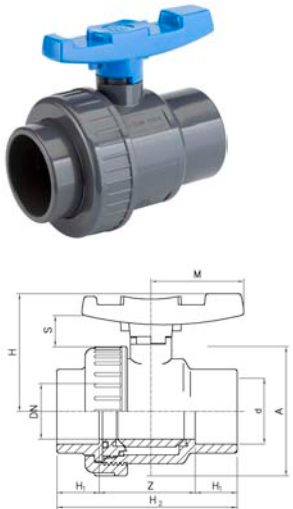


| d<br>[inch] | d<br>[mm] | PN | EPDM<br>Code | SP  | GP | kg    |  |
|-------------|-----------|----|--------------|-----|----|-------|--|
| 3/8         |           | 16 | VSA22L160    | 150 | -  | 0.130 |  |
| 1/2         |           | 16 | VSA22L200    | 150 | -  | 0.130 |  |
| 3/4         |           | 16 | VSA22L250    | 100 | -  | 0.205 |  |
| 1           |           | 16 | VSA22L320    | 60  | -  | 0.290 |  |
| 1 1/4       |           | 16 | VSA22L400    | 36  | -  | 0.435 |  |
| 1 1/2       |           | 16 | VSA22L500    | 24  | -  | 0.670 |  |
| 2           |           | 10 | VSA22L630    | 13  | -  | 1.125 |  |
| 2 1/2       | 75        | 10 | VSA22L750    | 8   | -  | 2.200 |  |
| 3           |           | 10 | VSA22L900    | 4   | -  | 3.310 |  |
| 4           |           | 10 | VSA22L910    | 2   | -  | 5.925 |  |

| d<br>[inch] | A<br>[mm] | H<br>[mm] | M<br>[mm] | S<br>[mm] | X<br>[mm] | H1<br>[mm] | Z<br>[mm] | H2<br>[mm] |  |
|-------------|-----------|-----------|-----------|-----------|-----------|------------|-----------|------------|--|
| 3/8         | 50        | 53        | 40        | 19        | 42        | 14         | 48        | 76         |  |
| 1/2         | 50        | 43        | 40        | 19        | 42        | 16         | 48        | 80         |  |
| 3/4         | 59        | 60        | 45        | 19        | 48        | 19         | 53        | 91         |  |
| 1           | 68        | 67        | 51        | 21        | 54        | 22         | 58        | 102        |  |
| 1 1/4       | 80        | 79        | 59        | 25        | 62        | 26         | 68        | 120        |  |
| 1 1/2       | 94        | 90        | 70        | 27        | 72        | 31         | 78        | 140        |  |
| 2           | 115       | 107       | 84        | 29        | 86        | 38         | 93        | 169        |  |
| 2 1/2       | 145       | 129       | 103       | 32        | 110       |            | 118       |            |  |
| 3           | 168       | 143       | 120       | 36        | 128       | 51         | 140       | 242        |  |
| 4           | 210       | 169       | 141       | 43        | 150       | 61         | 160       | 282        |  |

PF 2 02 956 011

## Single union ball valve PVC-U With solvent cement sockets Inch BS



| d<br>[inch] | d<br>[mm] | PN | EPDM<br>Code | SP  | GP | kg    |  |
|-------------|-----------|----|--------------|-----|----|-------|--|
| 3/8         |           | 16 | VSA18L160    | 180 | -  | 0.100 |  |
| 1/2         |           | 16 | VSA18L200    | 180 | -  | 0.100 |  |
| 3/4         |           | 16 | VSA18L250    | 120 | -  | 0.160 |  |
| 1           |           | 16 | VSA18L320    | 75  | -  | 0.230 |  |
| 1 1/4       |           | 16 | VSA18L400    | 45  | -  | 0.340 |  |
| 1 1/2       |           | 16 | VSA18L500    | 28  | -  | 0.535 |  |
| 2           |           | 10 | VSA18L630    | 16  | -  | 0.890 |  |
| 2 1/2       | 75        | 10 | VSA18L750    | 8   | -  | 1.640 |  |
| 3           |           | 10 | VSA18L900    | 5   | -  | 2.450 |  |
| 4           |           | 10 | VSA18L910    | 2   | -  | 4.100 |  |

| d<br>[inch] | A<br>[mm] | H<br>[mm] | M<br>[mm] | S<br>[mm] | X<br>[mm] | H1<br>[mm] | Z<br>[mm] | H2<br>[mm] |  |
|-------------|-----------|-----------|-----------|-----------|-----------|------------|-----------|------------|--|
| 3/8         | 50        | 53        | 40        | 19        | 42        | 14         | 48        | 76         |  |
| 1/2         | 50        | 53        | 40        | 19        | 42        | 16         | 48        | 80         |  |
| 3/4         | 59        | 60        | 45        | 19        | 48        | 9          | 53        | 91         |  |
| 1           | 68        | 67        | 51        | 21        | 54        | 22         | 58        | 102        |  |
| 1 1/4       | 80        | 79        | 59        | 25        | 62        | 26         | 68        | 120        |  |
| 1 1/2       | 94        | 90        | 70        | 27        | 72        | 31         | 78        | 140        |  |
| 2           | 115       | 107       | 84        | 29        | 86        | 38         | 93        | 169        |  |
| 2 1/2       | 145       | 129       | 103       | 32        |           |            | 118       |            |  |
| 3           | 168       | 143       | 120       | 36        | 128       | 51         | 140       | 242        |  |
| 4           | 210       | 169       | 141       | 13        | 150       | 61         | 160       | 282        |  |

PF 2 02 956 011



## Solvent cement socket Inch BS

Suitable for VSA

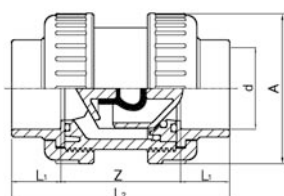
| d<br>[inch] | d<br>[mm] | PN | Code      | SP | GP |  |
|-------------|-----------|----|-----------|----|----|--|
| 3/8         |           | 16 | 3VCLV1L16 | -  | -  |  |
| 1/2         |           | 16 | 3VCLV1L20 | -  | -  |  |
| 3/4         |           | 16 | 3VCLV1L25 | -  | -  |  |
| 1           |           | 16 | 3VCLV1L32 | -  | -  |  |
| 1 1/4       |           | 16 | 3VCLV1L40 | -  | -  |  |
| 1 1/2       |           | 16 | 3VCLV1L50 | -  | -  |  |
| 2           |           | 16 | 3VCLV1L63 | -  | -  |  |
| 2 1/2       | 75        | 10 | 3VCLV1I75 | -  | -  |  |
| 3           |           | 10 | 3VCLV1L90 | -  | -  |  |
| 4           |           | 10 | 3VCLV1L91 | -  | -  |  |



## Double union check valve PVC-U With solvent cement sockets Inch BS

• (\*)Body and dimensions = 3"

| d<br>[inch] | d<br>[mm] | PN | EPDM<br>Code | SP | GP | kg    | A<br>[mm] | X<br>[mm] | H1<br>[mm] | Z<br>[mm] | H2<br>[mm] |  |
|-------------|-----------|----|--------------|----|----|-------|-----------|-----------|------------|-----------|------------|--|
| 3/8         |           | 16 | VRO21L160    | 32 | -  | 0.110 | 50        | 42        | 14         | 48        | 76         |  |
| 1/2         |           | 16 | VRO21L200    | 32 | -  | 0.110 | 50        | 42        | 16         | 48        | 80         |  |
| 3/4         |           | 16 | VRO21L250    | 32 | -  | 0.175 | 59        | 48        | 19         | 53        | 91         |  |
| 1           |           | 16 | VRO21L320    | 20 | -  | 0.245 | 68        | 54        | 22         | 58        | 102        |  |
| 1 1/4       |           | 16 | VRO21L400    | 15 | -  | 0.375 | 80        | 62        | 26         | 68        | 120        |  |
| 1 1/2       |           | 16 | VRO21L500    | 6  | -  | 0.580 | 94        | 72        | 31         | 78        | 140        |  |
| 2           |           | 10 | VRO21L630    | 4  | -  | 1.000 | 115       | 86        | 38         | 93        | 169        |  |
| * 2 1/2     | 75        | 10 | VRO21I750    | 2  | -  | 2.950 | 168       | 110       |            | 118       |            |  |
| 3           |           | 10 | VRO21L900    | 2  | -  | 3.100 | 168       | 128       | 51         | 140       | 242        |  |



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# General Conditions of Supply

## 1. General

- 1.1 These general conditions shall apply to all goods supplied by Georg Fischer TPA srl to the Purchaser. They shall also apply to all future business even when no express reference is made to them.
- 1.2 Any deviating or supplementary conditions, especially Purchaser's general conditions of purchase, and verbal agreements shall only be applicable if accepted in writing by Georg Fischer TPA srl.

## 2. Tenders

Tenders shall only be binding if they contain a specifically stated period for acceptance.

## 3. Scope of Delivery

- 3.1 Georg Fischer TPA srl's product range is subject to change.
- 3.2 The confirmation of order shall govern the scope and execution of the contract.

## 4. Data and Documents

- 4.1 Technical documents such as drawings, descriptions, illustrations and data on dimensions, performance and weight as well as the reference to standards are for information purposes only. They are not warranted characteristics and are subject to change.
- 4.2 All technical documents shall remain the exclusive property of Georg Fischer TPA srl and may only be used for the agreed purposes or as Georg Fischer TPA srl may consent.
- 4.3 In the context of the contractual relation with the Purchaser personal data may be processed. The Purchaser agrees to the disclosure of said data to third parties, such as foreign subcontractors and suppliers etc.

## 5. Local Laws and Regulations

The Purchaser shall bring to the attention of Georg Fischer TPA srl all local laws and regulations at the place of destination which bear connection with the execution of the contract and the adherence to relevant safety regulations and approval procedures.

## 6. Prices

- 6.1 Unless agreed otherwise, the prices shall be deemed quoted net, ex works, including standard packing. All supplementary costs, such as the cost of carriage, insurance, export and import licences, etc. shall be borne by the Purchaser. The Purchaser shall also bear the costs of all taxes, fees, duties, etc. connected with the contract.
- 6.2 If the costs of packing, carriage, insurance, fees and other supplementary costs are included in the tender price or contract price or are referred to specifically in the tender or confirmation of order, Georg Fischer TPA srl reserve the right to revise their prices accordingly should any change occur in the relevant tariffs.

## 7. Payment

- 7.1 The Purchaser shall make payment in the manner agreed by the parties to the Georg Fischer works conducting the account without any deductions such as discounts, costs, taxes or dues.
- 7.2 The Purchaser may only withhold or off-set payments due against counter-claims which are either expressly acknowledged by Georg Fischer TPA srl or finally awarded to the Purchaser. In particular, payment shall still be made when unessential items are still outstanding provided, however, that the goods already delivered are not rendered unusable as a result.

## 8. Retention of Title

- 8.1 The goods shall remain the property of Georg Fischer TPA srl until the Purchaser shall have settled all claims, present and future, which Georg Fischer TPA srl may have against him.
- 8.2 Should the Purchaser sell goods to which title is reserved he shall then be deemed to have tacitly assigned to Georg Fischer TPA srl the proceeds deriving from their sale together with all collateral rights, securities and reservations of title until all claims held by Georg Fischer TPA srl shall have been settled.
- 8.3 To the extent the value of the goods to which title is reserved together with collateral securities should exceed Georg Fischer TPA srl's claims against the Purchaser by more than 20%, Georg Fischer TPA srl shall reassign the above proceeds to Purchaser at his request.
- 8.4 In case of default on the part of the Purchaser, in particular in case of arrears, Georg Fischer shall be entitled to repossession of the goods after having given notice to this effect, and the Purchaser shall be obligated to surrender the goods.

## 9. Delivery

- 9.1 The term of delivery shall commence as soon as the contract has been entered into, all official formalities such as import and payment permits have been obtained and all essential technical points have been settled. The term of delivery shall be deemed duly observed when, upon its expiry, the goods are ready for despatch.
- 9.2 Delivery is subject to the following conditions, i. e. the term of delivery shall be reasonably extended:
- a) if Georg Fischer TPA srl are not supplied in time with the information necessary for the execution of the contract or if subsequent changes causing delays are made by the Purchaser.
- b) if Georg Fischer TPA srl are prevented from performing the contract by force majeure. Force majeure shall equally be deemed to be any unforeseeable event beyond Georg Fischer TPA srl's control which renders Georg Fischer TPA srl's performance commercially impracticable or impossible, such as delayed or defective supplies from subcontractors, labour disputes, governmental orders or regulations, shortages in materials or energy, serious disturbances in Georg Fischer TPA srl's works, such as the total or partial destruction of plant and equipment or the breakdown of essential facilities, serious disruptions in transport facilities, e.g. impassable roads. Should the effect of force majeure exceed a period of six months, either party may cancel the contract forthwith. Georg Fischer TPA srl shall not be liable for any damage or loss of any kind whatsoever resulting therefrom, any suspension or cancellation being without prejudice to Georg Fischer TPA srl's right to recover all sums due in respect of consignments delivered and costs incurred to date.
- c) if the Purchaser fails to fulfil or delays in fulfilling his obligations under the contract, in particular if he does not adhere to the agreed conditions of payment.
- 9.3 If for reasons attributable to Georg Fischer TPA srl a reasonable term of delivery is exceeded, Georg Fischer TPA srl shall not be deemed in default until the Purchaser has granted to Georg Fischer TPA srl in writing a reasonable extension thereof of not less than one month which equally is not met. The Purchaser shall then be entitled to cancel the contract.

- 9.4 If the Purchaser fails to take delivery within a reasonable time of goods notified as ready for despatch, Georg Fischer TPA srl shall be entitled to store the goods at the Purchaser's expense and risk and to invoice them as delivered. Partial shipments shall be allowed and Georg Fischer TPA srl shall be entitled to invoice for such deliveries.

- 9.6 If Georg Fischer TPA srl do not insist on the performance of a contract cancelled by the Purchaser, a penalty of 10% of the contract price shall become due unless Georg Fischer TPA srl can prove greater damages.

## 10. Packing

If the goods are provided with additional packing over and above the standard packing, such packing shall be invoiced separately and be non-returnable.

## 11. Passing of Risk

- 11.1 The risk in the goods shall pass to the Purchaser as soon as they have left Georg Fischer TPA srl's works, even if delivery is made carriage-paid, under similar clauses or in cluding installation or when carriage is organized and managed by Georg Fischer TPA srl.
- 11.2 If delivery is delayed for reasons beyond Georg Fischer TPA srl's control, the risk shall pass to the Purchaser when he is notified that the goods are ready for despatch.

## 12. Carriage and Insurance

- 12.1 Unless agreed otherwise, the Purchaser shall bear the cost of carriage.
- 12.2 The Purchaser shall be responsible for insurance against damage of whatever kind. Even when such insurance is arranged by Georg Fischer TPA srl it shall be deemed taken out by the order of and for the account of the Purchaser and at his risk.
- 12.3 Special requests regarding carriage and insurance shall be communicated to Georg Fischer TPA srl in due time. Otherwise carriage shall be arranged by Georg Fischer TPA srl at their discretion, but without responsibility, by the quickest and cheapest method possible.
- In case of carriage-paid delivery transport arrangements shall be made by Georg Fischer TPA srl. If the Purchaser specifies particular requirements, any extra costs involved shall be borne by him.
- 12.4 In the event of damage or loss of the goods during carriage the Purchaser shall mark the delivery documents accordingly and immediately have the damage ascertained by the carrier.
- Not readily ascertainable damages sustained during carriage shall be notified to the carrier within six days after receipt of the goods.

## 13. Inspection and Acceptance

- 13.1 The goods will be subject to normal inspection by Georg Fischer TPA srl during manufacture. Additional tests required by the Purchaser shall be agreed upon in writing and shall be charged to the Purchaser.
- 13.2 It shall be a condition of Georg Fischer TPA srl's obligation under the warranties stated hereinafter that Georg Fischer TPA srl be notified in writing by the Purchaser of any purported defect immediately upon discovery. Notice concerning weight, numbers or apparent defects is to be given latest within 30 days from receipt of the goods, notice of other defects latest within the agreed warranty period.

## 14. Warranty

- 14.1 At the written request of the Purchaser, Georg Fischer TPA srl undertake to repair or replace, at their discretion, as quickly as possible and free of charge all goods supplied which demonstrably suffer from faulty design, materials or workmanship or from faulty operation or installation instructions. Replaced parts shall become property of Georg Fischer TPA srl.
- 14.2 The Purchaser shall be entitled to cancel the contract or to demand a reduction in the contract price if:
- repair or replacement is impossible, or
  - Georg Fischer TPA srl are unable or refuse to remedy the defect or replace the defective goods within a reasonable period of time or are unduly delaying such remedy or replacement.
- 14.3 For goods which are manufactured to specifications, drawings or patterns supplied by the Purchaser, Georg Fischer TPA srl's warranty shall be restricted to proper materials and workmanship.
- 14.4 This warranty shall not apply to damage resulting from normal wear, improper storage and maintenance, failure to observe the operating instructions, overstressing or overloading, unsuitable operating media, improper repairs or alterations by the Purchaser or third parties, the use of non-genuine parts and other reasons beyond Georg Fischer TPA srl's control.
- 14.5 For goods or essential components manufactured by a third party and supplied by Georg Fischer TPA srl under this contract, Georg Fischer TPA srl's warranty is limited to the warranty provided by said third party.
- 14.6 No action or claim may be brought by the Purchaser on account of any alleged breach of warranty or any other obligation of Georg Fischer TPA srl after the expiration of twelve (12) months from receipt of the goods by the end user or at the latest within eighteen (18) months of the goods being despatched by Georg Fischer TPA srl.

## 15. Limitation of Liability

The warranties set forth above are expressly in lieu of any express warranty of any kind and in lieu of any implied warranty, including any warranty of merchantability or fitness for a particular purpose. Georg Fischer TPA srl shall not be liable for any incidental special or consequential damages, such as loss of profits, loss of production, loss of use or loss of contract, arising for any reason, including damages resulting from delayed delivery, defective design, materials or workmanship or from faulty instructions and whether such damages are claimed to arise from breach of contract, in tort, the theory of product liability or otherwise; reservation is solely being made for Georg Fischer TPA srl's statutory liability due to material breach of an essential contractual obligation, express representations, wrongful intent, gross negligence or product liability acts.

## 16. Place of Performance and Jurisdiction

- 16.1 Place of performance for the goods shall be the Georg Fischer TPA srl works from which the goods are despatched.
- 16.2 Any civil action based upon any alleged breach of this contract shall be filed and prosecuted exclusively in the courts having jurisdiction over the Georg Fischer TPA srl works invoicing the goods. Georg Fischer TPA srl however reserves the right to file actions in any court having jurisdiction over controversies arising out of or in connection with the present contract.
- 16.3 The contract shall be governed by the law applicable at the place of business of the Georg Fischer TPA srl works invoicing the goods in question.



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- 9.2 Delivery is subject to the following conditions, i. e. the term of delivery shall be reasonably extended:
- a) if Georg Fischer TPA srl are not supplied in time with the information necessary for the execution of the contract or if subsequent changes causing delays are made by the Purchaser.
- b) if Georg Fischer TPA srl are prevented from performing the contract by force majeure. Force majeure shall equally be deemed to be any unforeseeable event beyond Georg Fischer TPA srl's control which renders Georg Fischer TPA srl's performance commercially impracticable or impossible, such as delayed or defective supplies from subcontractors, labour disputes, governmental orders or regulations, shortages in materials or energy, serious disturbances in Georg Fischer TPA srl's works, such as the total or partial destruction of plant and equipment or the breakdown of essential facilities, serious disruptions in transport facilities, e.g. impassable roads. Should the effect of force majeure exceed a period of six months, either party may cancel the contract forthwith. Georg Fischer TPA srl shall not be liable for any damage or loss of any kind whatsoever resulting therefrom, any suspension or cancellation being without prejudice to Georg Fischer TPA srl's right to recover all sums due in respect of consignments delivered and costs incurred to date.
- c) if the Purchaser fails to fulfil or delays in fulfilling his obligations under the contract, in particular if he does not adhere to the agreed conditions of payment.
- 9.3 If for reasons attributable to Georg Fischer TPA srl a reasonable term of delivery is exceeded, Georg Fischer TPA srl shall not be deemed in default until the Purchaser has granted to Georg Fischer TPA srl in writing a reasonable extension thereof of not less than one month which equally is not met. The Purchaser shall then be entitled to cancel the contract.

- 9.4 If the Purchaser fails to take delivery within a reasonable time of goods notified as ready for despatch, Georg Fischer TPA srl shall be entitled to store the goods at the Purchaser's expense and risk and to invoice them as delivered. Partial shipments shall be allowed and Georg Fischer TPA srl shall be entitled to invoice for such deliveries.

- 9.6 If Georg Fischer TPA srl do not insist on the performance of a contract cancelled by the Purchaser, a penalty of 10% of the contract price shall become due unless Georg Fischer TPA srl can prove greater damages.

## 10. Packing

If the goods are provided with additional packing over and above the standard packing, such packing shall be invoiced separately and be non-returnable.

## 11. Passing of Risk

- 11.1 The risk in the goods shall pass to the Purchaser as soon as they have left Georg Fischer TPA srl's works, even if delivery is made carriage-paid, under similar clauses or in cluding installation or when carriage is organized and managed by Georg Fischer TPA srl.
- 11.2 If delivery is delayed for reasons beyond Georg Fischer TPA srl's control, the risk shall pass to the Purchaser when he is notified that the goods are ready for despatch.

## 12. Carriage and Insurance

- 12.1 Unless agreed otherwise, the Purchaser shall bear the cost of carriage.
- 12.2 The Purchaser shall be responsible for insurance against damage of whatever kind. Even when such insurance is arranged by Georg Fischer TPA srl it shall be deemed taken out by the order of and for the account of the Purchaser and at his risk.
- 12.3 Special requests regarding carriage and insurance shall be communicated to Georg Fischer TPA srl in due time. Otherwise carriage shall be arranged by Georg Fischer TPA srl at their discretion, but without responsibility, by the quickest and cheapest method possible.
- In case of carriage-paid delivery transport arrangements shall be made by Georg Fischer TPA srl. If the Purchaser specifies particular requirements, any extra costs involved shall be borne by him.
- 12.4 In the event of damage or loss of the goods during carriage the Purchaser shall mark the delivery documents accordingly and immediately have the damage ascertained by the carrier.
- Not readily ascertainable damages sustained during carriage shall be notified to the carrier within six days after receipt of the goods.

## 13. Inspection and Acceptance

- 13.1 The goods will be subject to normal inspection by Georg Fischer TPA srl during manufacture. Additional tests required by the Purchaser shall be agreed upon in writing and shall be charged to the Purchaser.
- 13.2 It shall be a condition of Georg Fischer TPA srl's obligation under the warranties stated hereinafter that Georg Fischer TPA srl be notified in writing by the Purchaser of any purported defect immediately upon discovery. Notice concerning weight, numbers or apparent defects is to be given latest within 30 days from receipt of the goods, notice of other defects latest within the agreed warranty period.

## 14. Warranty

- 14.1 At the written request of the Purchaser, Georg Fischer TPA srl undertake to repair or replace, at their discretion, as quickly as possible and free of charge all goods supplied which demonstrably suffer from faulty design, materials or workmanship or from faulty operation or installation instructions. Replaced parts shall become property of Georg Fischer TPA srl.
- 14.2 The Purchaser shall be entitled to cancel the contract or to demand a reduction in the contract price if:
- repair or replacement is impossible, or
  - Georg Fischer TPA srl are unable or refuse to remedy the defect or replace the defective goods within a reasonable period of time or are unduly delaying such remedy or replacement.
- 14.3 For goods which are manufactured to specifications, drawings or patterns supplied by the Purchaser, Georg Fischer TPA srl's warranty shall be restricted to proper materials and workmanship.
- 14.4 This warranty shall not apply to damage resulting from normal wear, improper storage and maintenance, failure to observe the operating instructions, overstressing or overloading, unsuitable operating media, improper repairs or alterations by the Purchaser or third parties, the use of non-genuine parts and other reasons beyond Georg Fischer TPA srl's control.
- 14.5 For goods or essential components manufactured by a third party and supplied by Georg Fischer TPA srl under this contract, Georg Fischer TPA srl's warranty is limited to the warranty provided by said third party.
- 14.6 No action or claim may be brought by the Purchaser on account of any alleged breach of warranty or any other obligation of Georg Fischer TPA srl after the expiration of twelve (12) months from receipt of the goods by the end user or at the latest within eighteen (18) months of the goods being despatched by Georg Fischer TPA srl.

## 15. Limitation of Liability

The warranties set forth above are expressly in lieu of any express warranty of any kind and in lieu of any implied warranty, including any warranty of merchantability or fitness for a particular purpose. Georg Fischer TPA srl shall not be liable for any incidental special or consequential damages, such as loss of profits, loss of production, loss of use or loss of contract, arising for any reason, including damages resulting from delayed delivery, defective design, materials or workmanship or from faulty instructions and whether such damages are claimed to arise from breach of contract, in tort, the theory of product liability or otherwise; reservation is solely being made for Georg Fischer TPA srl's statutory liability due to material breach of an essential contractual obligation, express representations, wrongful intent, gross negligence or product liability acts.

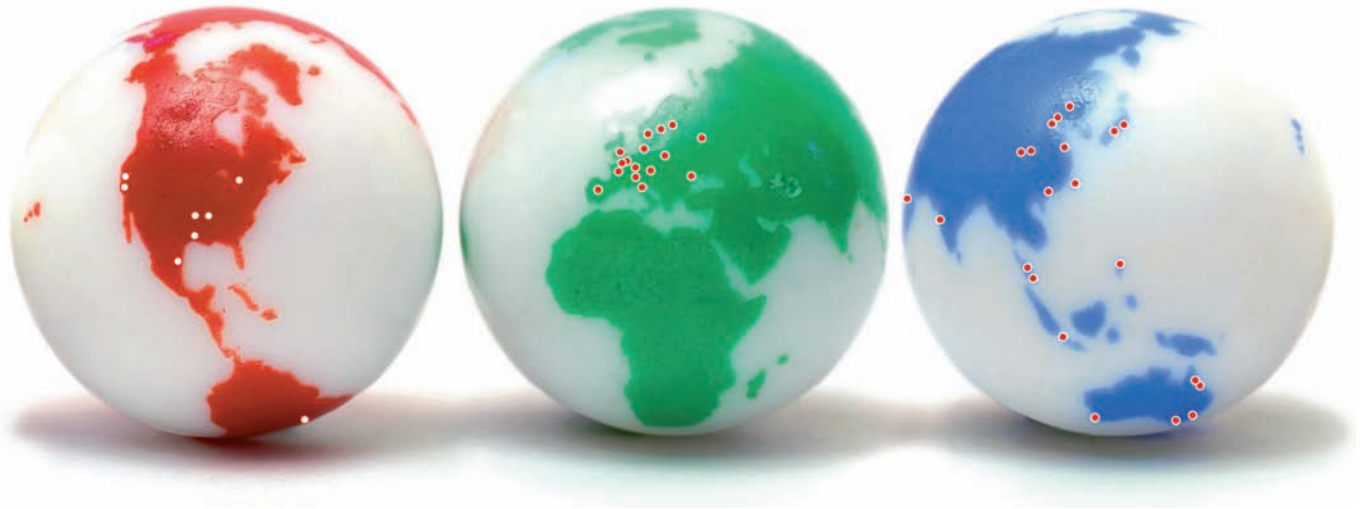
## 16. Place of Performance and Jurisdiction

- 16.1 Place of performance for the goods shall be the Georg Fischer TPA srl works from which the goods are despatched.
- 16.2 Any civil action based upon any alleged breach of this contract shall be filed and prosecuted exclusively in the courts having jurisdiction over the Georg Fischer TPA srl works invoicing the goods. Georg Fischer TPA srl however reserves the right to file actions in any court having jurisdiction over controversies arising out of or in connection with the present contract.
- 16.3 The contract shall be governed by the law applicable at the place of business of the Georg Fischer TPA srl works invoicing the goods in question.

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[www.tp-piping.com](http://www.tp-piping.com)



The technical data is not binding. They neither constitute expressly warranted characteristics nor guaranteed properties nor a guaranteed durability. They are subject to modification. Our General Terms of Sale apply.

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