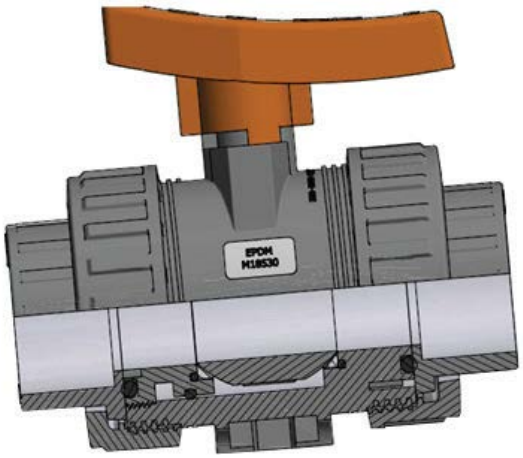
# U-PVC BALL VALVES

AQVASTAR PRO SERIES

## General Properties

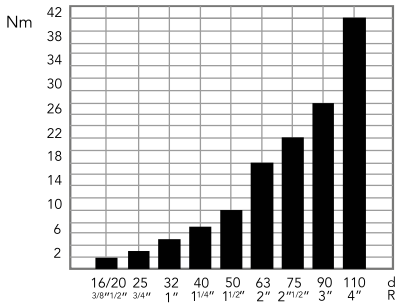
### Abbreviations

| | |
|---|---|
| d | Nominal outside diameter of the pipe in mm |
| DN | Nominal internal diameter in mm |
| G | Nominal size of the thread in inches |
| PN | Nominal pressure in bar (max. working pressure at 20°C – water) |
| Gr. | Weight in grams |
| PVC | Polyvinyl chloride |
| EPDM | Ethylene propylene rubber (DUTRAL®) |
| FPM | Fluoride rubber (VITON®) |
| PTFE | Polytetrafluoroethylene |

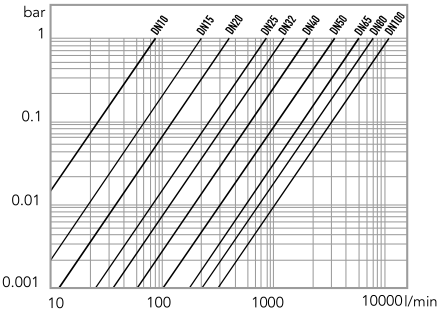



### Technical data

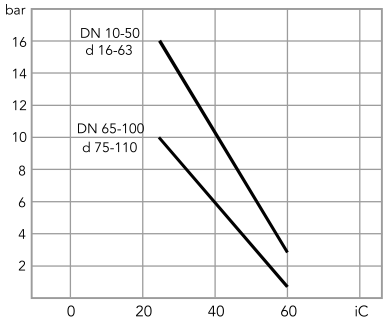
Max torque at maximum working pressure




Pressure chart




Pressure/temperature rating for water and other suitable fluids to which PVC is resistant




**FLOW COEFFICIENT KV100:** kV100 is the number of litres per minute of water at a temperature of 20°C that will flow through a valve with one-bar pressure differential at a specified rate. The kV100 values shown in the table are calculated with the valve completely open.

| d | 16 | 20 | 32 | 40 | 50 | 63 | 75 | 90 | 110 |
|---|---|---|---|---|---|---|---|---|---|
| DN | 10 | 15 | 25 | 32 | 40 | 50 | 65 | 80 | 100 |
| Kv 100 | 80 | 200 | 385 | 770 | 1100 | 1750 | 5250 | 7100 | 9500 |

COMER have produced a complete range of ball valves which comply with the following standards:

**SOLVENT WELDING** ISO 727, DIN 8063, NF T54-028, BS 4346/1, UNI EN 1452
**THREADED COUPLINGS** UNI ISO 228/1, DIN 2999, BS21
**FLANGED COUPLINGS** ISO 2084, UNI 7442, DIN 8063

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# U-PVC BALL VALVES

AQVASTAR PRO SERIES

Industrial Series

## General characteristics

Double Union Ball Valve characterized by an optimal handling (low torque). Each valve is tested in vacuum conditions and in extremely low pressure, then makes it the ideal valve to be used in industrial plant and with aggressive fluids (see table of chemical resistances of PVC Fittings)

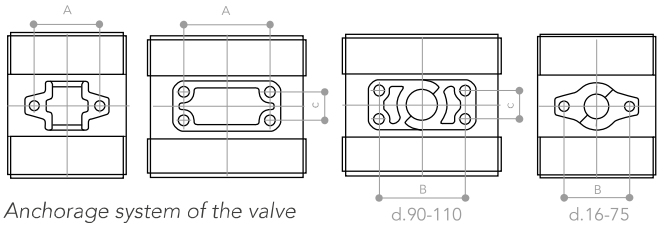
## Installation and use

When gluing the end connector on 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. Special attention should be paid to the correct line-up of the installation and to the pipe length. Tighten the union nut only by hands. 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 possibly 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.

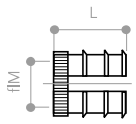
## Instructions for disassembly and reassembly in case of maintenance

The whole body of the valve can be removed from the installation by unscrewing the union nuts **5**. To reach the internal parts of the valve, proceed as follows:

**A** Set the valve open.
**B** Remove the handle **1** from control stem **2**.
**C** Unscrew the sealing bush **7** off the body **3** using the two teeth of the handle **1** unscrewing operations should be done counter-clockwise.
**D** After having unscrewed the sealing bush **7**, it is possible to dismantle all the internal parts of the valve and to check the O-rings. To remove the ball **6**, turn the control stem 90° to the closed position. The ball can then be removed through the control stem **2**. To remove the control stem push it downwards as far is possible. To reassemble the valve follow the instructions in reverse order, being careful to set the O-ring properly and grease it with silicone grease.



*Anchorage system of the valve*



*Brass insert*

| d-G | A | B | C | ØM | L |
|---|---|---|---|---|---|
| 16 - 3/8" | 23 | 29 | - | M5 | 9.5 |
| 20 - ½" | 23 | 29 | - | M5 | 9.5 |
| 25 - ¾" | 27 | 32 | - | M5 | 9.5 |
| 32 - 1" | 32.5 | 35.5 | - | M5 | 9.5 |
| 40 - 1" 1/4 | 38 | 46 | - | M6 | 13 |
| 50 - 1" 1/2 | 50 | 50 | - | M6 | 13 |
| 63 - 2" | 53 | 53 | - | M6 | 13 |
| 75 - 2" 1/2 | 70 | 70 | - | M8 | 13 |
| 90 - 3" | 80 | 80 | 26 | M8 | 13 |
| 110 - 4" | 100 | 100 | 32 | M8 | 13 |

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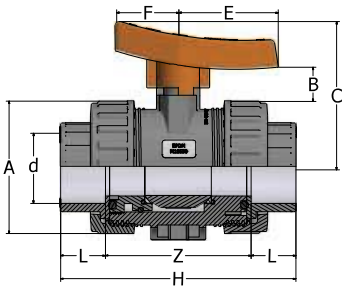
# U-PVC BALL VALVES

AQVASTAR PRO SERIES

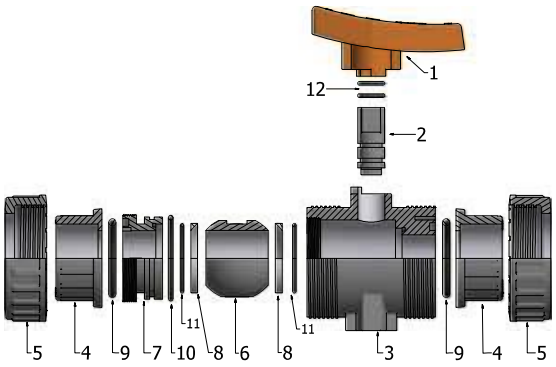
## Industrial Series

### Industry ball valve with female plain ends

| Aqvastar code | Factory Code | d | DN | L | Z | H | A | B | C | E | F | PN | Gr. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ASDCOM40B | BVI10016 | 16 | 10 | 14 | 74 | 102 | 50 | 10 | 54 | 39 | 19 | 16 | 180 |
| ASDCOM50B | BVI10020 | 20 | 15 | 16 | 70 | 102 | 50 | 10 | 54 | 39 | 19 | 16 | 170 |
| ASDCOM75B | BVI10025 | 25 | 20 | 19 | 82 | 120 | 60 | 11 | 64 | 47 | 22 | 16 | 270 |
| ASDCOM100B | BVI10032 | 32 | 25 | 22 | 86 | 130 | 68 | 13 | 74 | 55 | 25 | 16 | 380 |
| ASDCOM125B | BVI10040 | 40 | 32 | 26 | 97 | 149 | 80 | 18 | 87 | 60 | 30 | 16 | 564 |
| ASDCOM150B | BVI10050 | 50 | 40 | 31 | 103 | 165 | 96 | 20 | 100 | 68 | 35 | 16 | 870 |
| ASDCOM200B | BVI10063 | 63 | 50 | 38 | 123 | 199 | 116 | 20 | 118 | 80 | 40 | 16 | 1,514 |
| ASDCOM250B | BVI10075 | 75 | 65 | 44 | 130 | 218 | 145 | 25 | 150 | 90 | 45 | 10 | 2,345 |
| ASDCOM300B | BVI10090 | 90 | 80 | 51 | 148 | 250 | 166 | 28 | 175 | 100 | 50 | 10 | 3,690 |
| ASDCOM400B | BVI10110 | 110 | 100 | 61 | 168 | 290 | 210 | 28 | 200 | 120 | 60 | 10 | 6,040 |



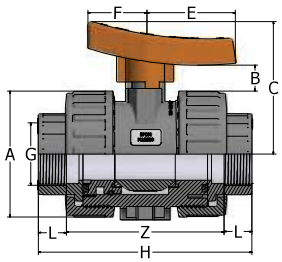

| Pos. | Components | N° | Mat. |
|---|---|---|---|
| 1 | Ergonomic handle | 1 | U-PVC |
| 2 | Reinforced stem | 1 | U-PVC |
| 3 | Body | 1 | U-PVC |
| 4 | Union end | 2 | U-PVC |
| 5 | Union nut | 2 | U-PVC |
| 6 | Machined Ball | 1 | U-PVC |
| 7 | Threaded sealing bush | 1 | U-PVC |
| 8 | Ball seat | 2 | PTFE |
| 9 | Union O-ring | 2 | EPDM |
| 10 | O-ring sealing bush | 1 | EPDM |
| 11 | O-ring ball seat | 2 | EPDM |
| 12 | O-ring stem | 2 | EPDM |



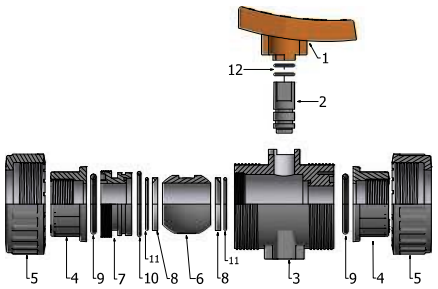

### Industry ball valve with female threaded ends

| Aqvastar code | Factory Code | G | DN | L | Z | H | A | B | C | E | F | PN | Gr. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ASDCOM40BT | BVI11016 | 3/8" | 10 | 14 | 74 | 102 | 50 | 10 | 54 | 39 | 19 | 16 | 180 |
| ASDCOM50BT | BVI11020 | ½" | 15 | 16 | 70 | 102 | 50 | 10 | 54 | 39 | 19 | 16 | 170 |
| ASDCOM75BT | BVI11025 | ¾" | 20 | 19 | 82 | 120 | 60 | 11 | 64 | 47 | 22 | 16 | 270 |
| ASDCOM100BT | BVI11032 | 1" | 25 | 22 | 86 | 130 | 68 | 13 | 74 | 55 | 25 | 16 | 380 |
| ASDCOM125BT | BVI11040 | 1" ¼ | 32 | 26 | 97 | 149 | 80 | 18 | 87 | 60 | 30 | 16 | 570 |
| ASDCOM150BT | BVI11050 | 1" 1/2 | 40 | 31 | 103 | 165 | 96 | 20 | 100 | 68 | 35 | 16 | 900 |
| ASDCOM200BT | BVI11063 | 2" | 50 | 38 | 123 | 199 | 116 | 20 | 118 | 80 | 40 | 16 | 1,540 |
| ASDCOM250BT | BVI11075 | 2" ½ | 65 | 44 | 130 | 218 | 145 | 25 | 150 | 90 | 45 | 10 | 2,400 |
| ASDCOM300BT | BVI11090 | 3" | 80 | 51 | 148 | 250 | 166 | 28 | 175 | 100 | 50 | 10 | 3,810 |
| ASDCOM400BT | BVI11110 | 4" | 100 | 61 | 168 | 290 | 210 | 28 | 200 | 120 | 60 | 10 | 6,200 |

*Available only on request




| Pos. | Components | N° | Mat. |
|---|---|---|---|
| 1 | Ergonomic handle | 1 | U-PVC |
| 2 | Reinforced stem | 1 | U-PVC |
| 3 | Body | 1 | U-PVC |
| 4 | Union end | 2 | U-PVC |
| 5 | Union nut | 2 | U-PVC |
| 6 | Machined Ball | 1 | U-PVC |
| 7 | Threaded sealing bush | 1 | U-PVC |
| 8 | Ball seat | 2 | PTFE |
| 9 | Union O-ring | 2 | EPDM |
| 10 | O-ring sealing bush | 1 | EPDM |
| 11 | O-ring ball seat | 2 | EPDM |
| 12 | O-ring stem | 2 | EPDM |

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