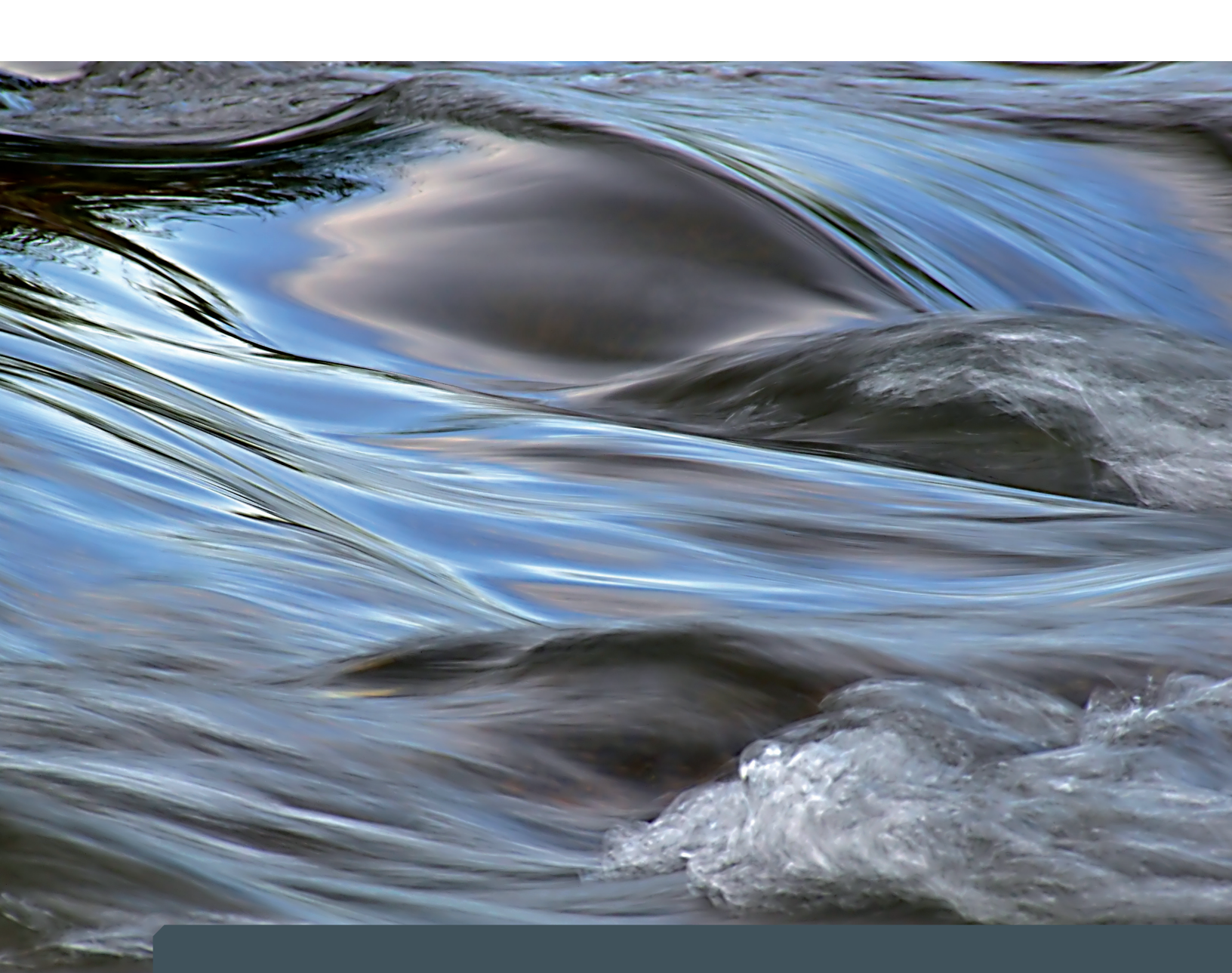




v. US 2010.1

## Product Guide

US SIZE





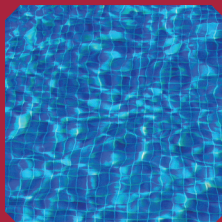
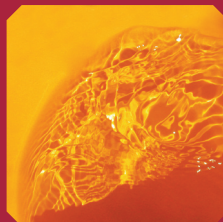
Fluid Handling **Experts**



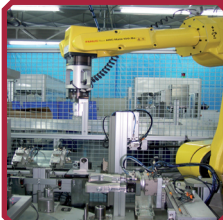
**ISO 9001**



**ISO 14001**







**Cepex** will meet all your fluid handling needs. For more than 25 years we have been present in the market, committed to satisfying our customers 100%. Thanks to their support and loyalty, **Cepex** has become one of the leading European manufacturers of plastic valves and fittings, and has created its own worldwide distribution network.

**Cepex** concentrates all its energy on offering effective solutions to the marketplace. Our focus on the following five principles has resulted in highly competitive and reliable products:

**Research.** To stand out in today's markets, companies need to rapidly respond to customers' changing requests. **Cepex** is committed to continuous research and innovation supported by an expert R&D team that systematically analyzes our markets to offer products that provide real solutions to specific needs.

**Technology.** The entire production process, from product conception to delivery to the customer, is developed using the most advanced technologies to guarantee the highest quality and to minimize errors.

**Quality.** Our manufacturing processes are supported by a total quality system, guaranteed by ISO 9001 certification. Our products are subjected to demanding controls, including 100% verification of all types of valves. As a result, **Cepex** has obtained several quality certifications from the world's most prestigious organizations.

**Service.** Customer service is the primary focus of our human resources team, and the goal of all the companies within our group. Our customers have direct access to an experienced technical and sales team to address any questions they may encounter regarding our products and their applications.

**Environmental policy.** **Cepex** respects the environment and applies this concern to its manufacturing processes so we can all enjoy a more pleasant environment. Our manufacturing plants are ISO 14001 certified to guarantee respect for the environment in all the activities involved in our internal processes.

## PLASTIC VALVES

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### NOT FOR USE WITH COMPRESSED AIR OR GAS

#### WARNING:

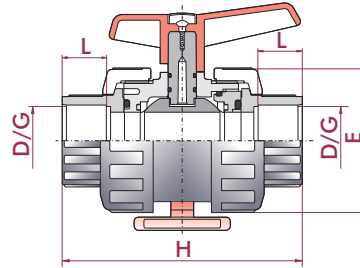
DO NOT USE COMPRESSED AIR OR GAS TO TEST ANY PVC, CPVC OR PPL THERMOPLASTIC PIPING PRODUCT OR SYSTEM.  
DO NOT USE DEVICES PROPELLED BY COMPRESSED AIR OR GAS TO CLEAR SYSTEMS.  
THESE PRACTICES MAY RESULT IN EXPLOSIVE FRAGMENTATION OF SYSTEM PIPING AND COMPONENTS CAUSING SERIOUS OR FATAL BODILY INJURY.



## TRUE UNION BALL VALVES - INDUSTRIAL SERIES

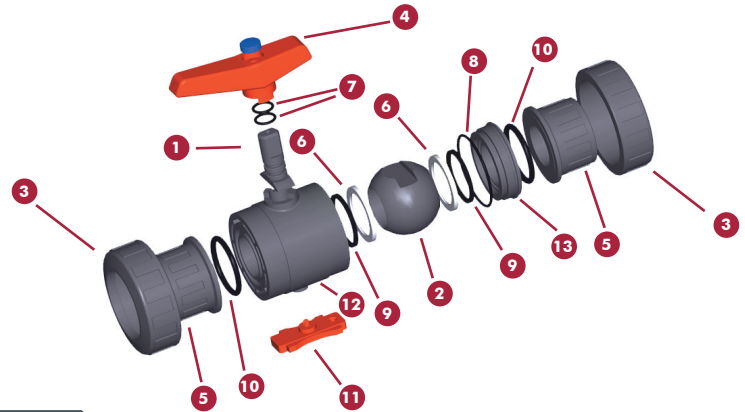
### FEATURES

- "Antiblock" system that avoids ball blockage.
- 100% factory tested.
- Available in PVC or Corzan® CPVC.
- Threaded seal carrier which allows disassembling of the valve while maintaining system pressure.
- Includes tool to adjust threaded seal carrier.
- Socket and threaded end connectors included.
- Union ends for easy installation and removal.
- Good mechanical strength.
- Resistance to many inorganic chemicals.
- Excellent flow characteristics.
- Sizes from 1/2" to 4".
- Available standards: ANSI/ASTM.
- Threaded versions: NPT.
- O-rings available in EPDM or Viton® FPM.
- Ball seat in Teflon®.
- Electric and pneumatic actuators available.



| D / G  | L    | H     | E     |
|--------|------|-------|-------|
| 1/2"   | 0.6" | 3.3"  | 2.0"  |
| 3/4"   | 0.7" | 4.3"  | 2.4"  |
| 1"     | 0.9" | 4.9"  | 2.8"  |
| 1 1/4" | 1.0" | 5.6"  | 3.3"  |
| 1 1/2" | 1.2" | 6.6"  | 4.1"  |
| 2"     | 1.5" | 7.8"  | 4.7"  |
| 2 1/2" | 1.7" | 9.1"  | 5.8"  |
| 3"     | 2.0" | 10.6" | 7.0"  |
| 4"     | 2.4" | 14.3" | 8.98" |

| Fig. | Parts                    | Material   |
|------|--------------------------|------------|
| 1    | Stem                     | PVC / CPVC |
| 2    | Ball                     | PVC / CPVC |
| 3    | Union nut                | PVC / CPVC |
| 4    | Handle                   | PPL        |
| 5    | End connector            | PVC / CPVC |
| 6    | Ball seat                | Teflon®    |
| 7    | Stem o-ring              | EPDM / FPM |
| 8    | Body o-ring              | EPDM / FPM |
| 9    | Dampener seal            | EPDM / FPM |
| 10   | End connector o-ring     | EPDM / FPM |
| 11   | Seal carrier thread tool | ABS        |
| 12   | Body                     | PVC / CPVC |
| 13   | Seal carrier             | PVC / CPVC |



| D / G  | Kv <sub>100</sub> | Cv  |
|--------|-------------------|-----|
| 1/2"   | 102               | 7   |
| 3/4"   | 260               | 18  |
| 1"     | 451               | 32  |
| 1 1/4" | 1627              | 114 |
| 1 1/2" | 2902              | 203 |
| 2"     | 3475              | 243 |
| 2 1/2" | 4167              | 292 |
| 3"     | 6300              | 441 |
| 4"     | 6800              | 476 |

$$Cv = Kv_{100} / 14,28$$

$$Kv_{100} \text{ (l/min, } \Delta p = 1 \text{ bar)}$$

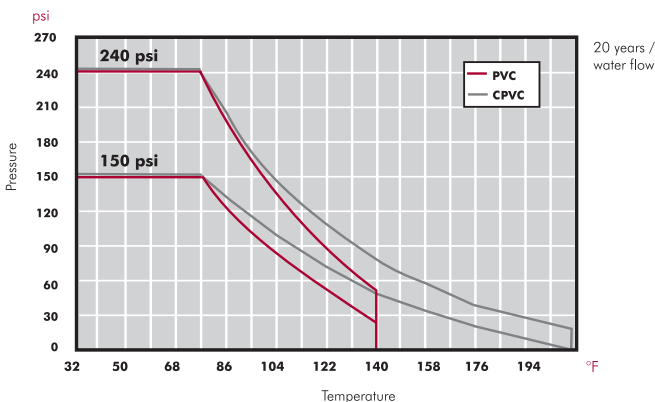
$$Cv \text{ (GPM, } \Delta p = 1 \text{ psi)}$$



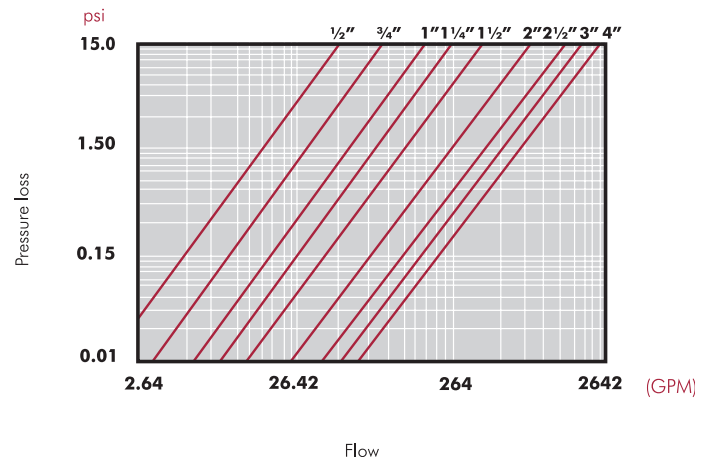
NSF National Sanitation Foundation (USA)  
NSF 14 & 61  
1/2" thru 3"  
ASTM F1970



### PRESSURE-TEMPERATURE RELATIONSHIP GUIDE



### TOTAL DYNAMIC HEAD



## PVC True Union Ball Valves - Industrial Series - Teflon®/EPDM



**PVC TRUE UNION**  
**Threaded and socket**  
 Seats: PTFE (Teflon®)  
 O-rings: EPDM  
 240 psi @ 73°F



| Size   | Reference   | psi | Pack | Weight (lb) | Q     | Code         |
|--------|-------------|-----|------|-------------|-------|--------------|
| 1/2"   | 05 73 801 D | 240 | B    | 4.36        | 8 (1) | <b>21979</b> |
| 3/4"   | 05 73 802 D | 240 | B    | 6.53        | 8 (1) | <b>21980</b> |
| 1"     | 05 73 803 D | 240 | B    | 4.93        | 4 (1) | <b>21981</b> |
| 1 1/4" | 05 73 804 D | 240 | B    | 7.15        | 4 (1) | <b>21982</b> |
| 1 1/2" | 05 73 805 D | 240 | D    | 23.54       | 8 (1) | <b>21983</b> |
| 2"     | 05 73 806 D | 240 | D    | 27.94       | 6 (1) | <b>21984</b> |



**PVC TRUE UNION**<sup>2</sup>  
 Seats: PTFE (Teflon®)  
 O-rings: EPDM  
 150 psi @ 73°F

### SOCKET

| Size   | Reference    | psi | Pack | Weight (lb) | Q     | Code         |
|--------|--------------|-----|------|-------------|-------|--------------|
| 2 1/2" | 05 73 907 MA | 150 | D    | 25.08       | 4 (1) | <b>21131</b> |
| 3"     | 05 73 908 MA | 150 | D    | 20.37       | 2 (1) | <b>21132</b> |
| 4"     | 05 73 911 MA | 150 | D    | 17.89       | 1     | <b>22064</b> |

### THREADED

| Size   | Reference | psi | Pack | Weight (lb) | Q     | Code         |
|--------|-----------|-----|------|-------------|-------|--------------|
| 2 1/2" | 05 73 807 | 150 | D    | 25.87       | 4 (1) | <b>21141</b> |
| 3"     | 05 73 808 | 150 | D    | 21.01       | 2 (1) | <b>21142</b> |
| 4"     | 05 73 811 | 150 | D    | 18.45       | 1     | <b>22063</b> |

## PVC True Union Ball Valves - Industrial Series - Teflon®/Viton®



**PVC TRUE UNION**  
**Threaded and socket**  
 Seats: PTFE (Teflon®)  
 O-rings: FPM (Viton®)  
 240 psi @ 73°F



| Size   | Reference     | psi | Pack | Weight (lb) | Q     | Code            |
|--------|---------------|-----|------|-------------|-------|-----------------|
| 1/2"   | 05 73 801 VID | 240 | B    | 4.40        | 8 (1) | <b>21979VIT</b> |
| 3/4"   | 05 73 802 VID | 240 | B    | 5.57        | 8 (1) | <b>21980VIT</b> |
| 1"     | 05 73 803 VID | 240 | B    | 4.88        | 4 (1) | <b>21981VIT</b> |
| 1 1/4" | 05 73 804 VID | 240 | B    | 7.26        | 4 (1) | <b>21982VIT</b> |
| 1 1/2" | 05 73 805 VID | 240 | D    | 23.91       | 8 (1) | <b>21983VIT</b> |
| 2"     | 05 73 806 VID | 240 | D    | 28.38       | 6 (1) | <b>21984VIT</b> |

### SOCKET

| Size   | Reference    | psi | Pack | Weight (lb) | Q     | Code            |
|--------|--------------|-----|------|-------------|-------|-----------------|
| 2 1/2" | 05 73 907 AV | 150 | D    | 25.68       | 4 (1) | <b>21131VIT</b> |
| 3"     | 05 73 908 AV | 150 | D    | 20.86       | 2 (1) | <b>21132VIT</b> |
| 4"     | 05 73 911 AV | 150 | D    | 18.32       | 1     | <b>22064VIT</b> |

### THREADED

| Size   | Reference    | psi | Pack | Weight (lb) | Q     | Code            |
|--------|--------------|-----|------|-------------|-------|-----------------|
| 2 1/2" | 05 73 807 VI | 150 | D    | 26.49       | 4 (1) | <b>21161</b>    |
| 3"     | 05 73 808 VI | 150 | D    | 21.52       | 2 (1) | <b>21162</b>    |
| 4"     | 05 73 811 VI | 150 | D    | 18.90       | 1     | <b>22063VIT</b> |

<sup>1</sup> 1/2" thru 2" Ball Valves are supplied with both socket and threaded end connectors.

<sup>2</sup> 2 1/2" thru 4" Ball Valves can be ordered with either socket or threaded connections, they don't include both.



**CORZAN® CPVC True Union Ball Valves - Industrial Series - Teflon®/EPDM**



**CPVC TRUE UNION**  
**Threaded and socket**  
Seats: PTFE (Teflon®)  
O-rings: EPDM  
240 psi @ 73°F



| Size   | Reference   | psi | Pack | Weight (lb) | Q     | Code         |
|--------|-------------|-----|------|-------------|-------|--------------|
| 1/2"   | 35 73 801 D | 240 | B    | 4.58        | 8 (1) | <b>22230</b> |
| 3/4"   | 35 73 802 D | 240 | B    | 6.80        | 8 (1) | <b>22231</b> |
| 1"     | 35 73 803 D | 240 | B    | 5.19        | 4 (1) | <b>22232</b> |
| 1 1/4" | 35 73 804 D | 240 | B    | 7.51        | 4 (1) | <b>22233</b> |
| 1 1/2" | 35 73 805 D | 240 | D    | 24.73       | 8 (1) | <b>22234</b> |
| 2"     | 35 73 806 D | 240 | D    | 29.26       | 6 (1) | <b>22235</b> |



**CPVC TRUE UNION**<sup>2</sup>  
Seats: PTFE (Teflon®)  
O-rings: EPDM  
150 psi @ 73°F

**SOCKET**

| Size   | Reference    | psi | Pack | Weight (lb) | Q     | Code         |
|--------|--------------|-----|------|-------------|-------|--------------|
| 2 1/2" | 35 73 907 MA | 150 | D    | 25.96       | 4 (1) | <b>22245</b> |
| 3"     | 35 73 908 MA | 150 | D    | 21.82       | 2 (1) | <b>22246</b> |
| 4"     | 35 73 911 MA | 150 | D    | 18.83       | 1     | <b>22247</b> |

**THREADED**

| Size   | Reference | psi | Pack | Weight (lb) | Q     | Code         |
|--------|-----------|-----|------|-------------|-------|--------------|
| 2 1/2" | 35 73 807 | 150 | D    | 26.58       | 4 (1) | <b>22248</b> |
| 3"     | 35 73 808 | 150 | D    | 22.34       | 2 (1) | <b>22249</b> |
| 4"     | 35 73 811 | 150 | D    | 19.28       | 1     | <b>22250</b> |

**CORZAN® CPVC True Union Ball Valves - Industrial Series - Teflon®/Viton®**



**CPVC TRUE UNION**  
**Threaded and socket**  
Seats: PTFE (Teflon®)  
O-rings: FPM (Viton®)  
240 psi @ 73°F



| Size   | Reference     | psi | Pack | Weight (lb) | Q     | Code            |
|--------|---------------|-----|------|-------------|-------|-----------------|
| 1/2"   | 35 73 801 VID | 240 | B    | 4.51        | 8 (1) | <b>22230VIT</b> |
| 3/4"   | 35 73 802 VID | 240 | B    | 6.80        | 8 (1) | <b>22231VIT</b> |
| 1"     | 35 73 803 VID | 240 | B    | 5.19        | 4 (1) | <b>22232VIT</b> |
| 1 1/4" | 35 73 804 VID | 240 | B    | 7.44        | 4 (1) | <b>22233VIT</b> |
| 1 1/2" | 35 73 805 VID | 240 | D    | 24.51       | 8 (1) | <b>22234VIT</b> |
| 2"     | 35 73 806 VID | 240 | D    | 29.26       | 6 (1) | <b>22235VIT</b> |



**CPVC TRUE UNION**<sup>2</sup>  
Seats: PTFE (Teflon®)  
O-rings: FPM (Viton®)  
150 psi @ 73°F

**SOCKET**

| Size   | Reference    | psi | Pack | Weight (lb) | Q     | Code            |
|--------|--------------|-----|------|-------------|-------|-----------------|
| 2 1/2" | 35 73 907 AV | 150 | D    | 25.98       | 4 (1) | <b>22245VIT</b> |
| 3"     | 35 73 908 AV | 150 | D    | 21.82       | 2 (1) | <b>22246VIT</b> |
| 4"     | 35 73 911 AV | 150 | D    | 20.24       | 1     | <b>22247VIT</b> |

**THREADED**

| Size   | Reference    | psi | Pack | Weight (lb) | Q     | Code            |
|--------|--------------|-----|------|-------------|-------|-----------------|
| 2 1/2" | 35 73 807 VI | 150 | D    | 27.15       | 4 (1) | <b>22248VIT</b> |
| 3"     | 35 73 808 VI | 150 | D    | 22.05       | 2 (1) | <b>22249VIT</b> |
| 4"     | 35 73 811 VI | 150 | D    | 19.37       | 1     | <b>22250VIT</b> |

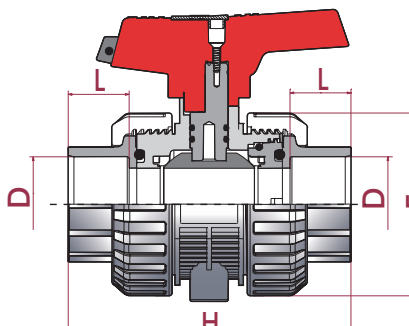
<sup>1</sup> 1/2" thru 2" Ball Valves are supplied with both socket and threaded end connectors.

<sup>2</sup> 2 1/2" thru 4" Ball Valves can be ordered with either socket or threaded connections, they don't include both.

## TRUE UNION BALL VALVES - [IN] SERIES

### FEATURES

- "Antiblock" system that avoids ball blockage.
- 100% factory tested.
- Available in PVC, CPVC, PPL, PVDF.
- Minimal pressure drop.
- Low operating torque.
- Resistance to many inorganic chemicals.
- Excellent flow characteristics.
- Threaded seal-carrier for upstream maintenance without emptying the system. Handle built-in tool for easy adjustment of the threaded seal-carrier (and ball torque).
- Features a built-in locking device.
- Sizes from 1/2" - 4".
- Available standards: ANSI/ASTM.
- Threaded versions: NPT.
- O-Rings available in food grade EPDM or Viton® FPM.
- Ball seat available in HDPE or Teflon®.
- Electric and pneumatic actuators available.



| D / G  | L    | H     | E    |
|--------|------|-------|------|
| 1/2"   | 0.6" | 3.4"  | 2"   |
| 3/4"   | 0.7" | 4"    | 2.4" |
| 1"     | 0.9" | 4.8"  | 2.8" |
| 1 1/2" | 1.2" | 5.9"  | 3.8" |
| 2"     | 1.5" | 6.9"  | 4.6" |
| 2 1/2" | 1.7" | 8.5"  | 5.7" |
| 3"     | 2"   | 10.1" | 6.9" |
| 4"     | 2.5" | 14.1" | 8.9" |

| Fig. | Parts                | Material                 |
|------|----------------------|--------------------------|
| 1    | Shaft                | PVC / CPVC / PPL / PVDF  |
| 2    | Ball                 |                          |
| 3    | Union nut            | PP + TPE                 |
| 4    | Handle               |                          |
| 5    | End connector        | PVC / CPVC / PPL / PVDF  |
| 6    | Ball seat            | Teflon®                  |
| 7    | Stem o-ring          | Viton® / Food grade EPDM |
| 8    | Dampener seal        | Viton® / Food grade EPDM |
| 9    | End connector o-ring | Viton® / Food grade EPDM |
| 10   | Body                 | PVC / CPVC / PPL / PVDF  |
| 11   | Seal Carrier         |                          |

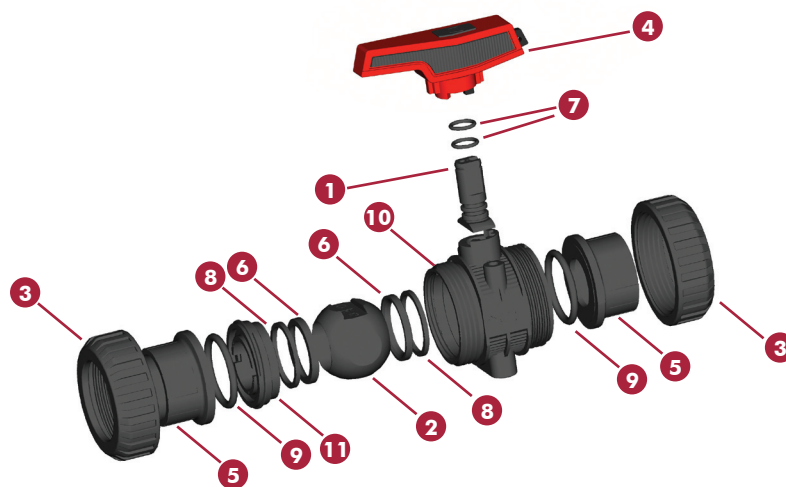
$$C_v = K_v_{100} / 14,28$$

$$K_v_{100} \text{ (l/min, } \Delta p = 1 \text{ bar)}$$

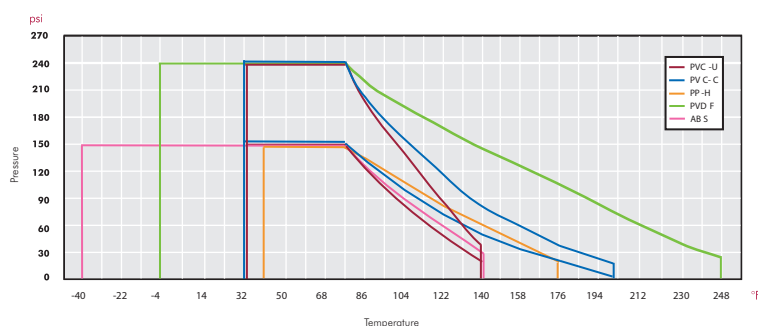
$$C_v \text{ (GPM, } \Delta p = 1 \text{ psi)}$$

| D / G  | K <sub>v</sub> 100 | C <sub>v</sub> |
|--------|--------------------|----------------|
| 1/2"   | 102                | 7              |
| 3/4"   | 260                | 18             |
| 1"     | 451                | 32             |
| 1 1/2" | 2902               | 203            |
| 2"     | 3475               | 243            |
| 2 1/2" | 4167               | 292            |
| 3"     | 6300               | 441            |
| 4"     | 6800               | 476            |

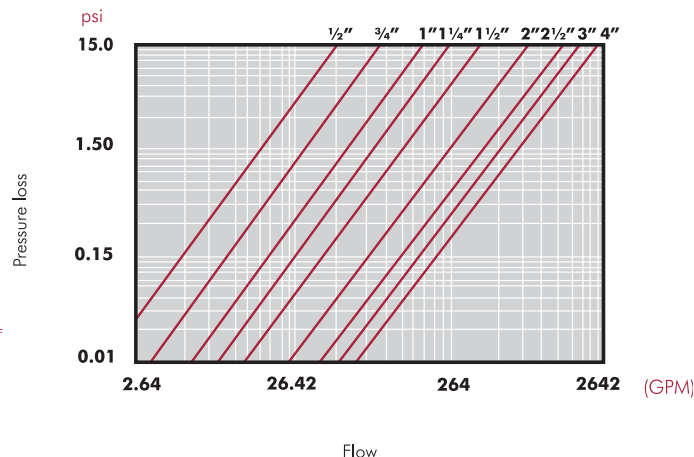
**new** product



### PRESSURE-TEMPERATURE RELATIONSHIP GUIDE



### TOTAL DYNAMIC HEAD



## PVC True Union Ball Valves - [IN] Series - PE/EPDM



### PVC TRUE UNION

#### Threaded and socket

Seats: PTFE (Teflon®)  
O-rings: food grade EPDM  
240 psi @ 73°F



| Size   | Reference   | psi | Pack | Weight (lb) | Q     | Code         |
|--------|-------------|-----|------|-------------|-------|--------------|
| 1/2"   | 60 73 801 D | 240 | B    | 3.74        | 8 (1) | <b>43243</b> |
| 3/4"   | 60 73 802 D | 240 | B    | 5.28        | 8 (1) | <b>43244</b> |
| 1"     | 60 73 803 D | 240 | B    | 3.96        | 4 (1) | <b>43245</b> |
| 1 1/4" | 60 73 804 D | 240 | B    | 5.50        | 4 (1) | <b>43246</b> |
| 1 1/2" | 60 73 805 D | 240 | C    | 8.58        | 4 (1) | <b>43247</b> |
| 2"     | 60 73 806 D | 240 | D    | 14.30       | 4 (1) | <b>43248</b> |

### SOCKET

| Size   | Reference    | psi | Pack | Weight (lb) | Q     | Code         |
|--------|--------------|-----|------|-------------|-------|--------------|
| 2 1/2" | 60 73 907 MA | 150 | D    | 22.66       | 4 (1) | <b>43310</b> |
| 3"     | 60 73 908 MA | 150 | B    | 18.70       | 2 (1) | <b>43311</b> |
| 4"     | 60 73 911 MA | 150 | D    | 19.58       | 1     | <b>43312</b> |

### THREADED

| Size   | Reference | psi | Pack | Weight (lb) | Q     | Code         |
|--------|-----------|-----|------|-------------|-------|--------------|
| 2 1/2" | 60 73 807 | 150 | D    | 22.66       | 4 (1) | <b>43313</b> |
| 3"     | 60 73 808 | 150 | B    | 18.70       | 2 (1) | <b>43314</b> |
| 4"     | 60 73 811 | 150 | D    | 19.58       | 1     | <b>43315</b> |



### PVC TRUE UNION

#### Threaded and socket

Seats: PTFE (Teflon®)  
O-rings: Viton® FPM  
240 psi @ 73°F



| Size   | Reference     | psi | Pack | Weight (lb) | Q     | Code         |
|--------|---------------|-----|------|-------------|-------|--------------|
| 1/2"   | 60 73 801 VID | 240 | B    | 3.74        | 8 (1) | <b>43316</b> |
| 3/4"   | 60 73 802 VID | 240 | B    | 5.28        | 8 (1) | <b>43317</b> |
| 1"     | 60 73 803 VID | 240 | B    | 3.96        | 4 (1) | <b>43318</b> |
| 1 1/4" | 60 73 804 VID | 240 | B    | 5.50        | 4 (1) | <b>43319</b> |
| 1 1/2" | 60 73 805 VID | 240 | C    | 8.58        | 4 (1) | <b>43320</b> |
| 2"     | 60 73 806 VID | 240 | D    | 14.30       | 4 (1) | <b>43321</b> |

### SOCKET

| Size   | Reference    | psi | Pack | Weight (lb) | Q     | Code         |
|--------|--------------|-----|------|-------------|-------|--------------|
| 2 1/2" | 60 73 907 AV | 150 | D    | 22.66       | 4 (1) | <b>43322</b> |
| 3"     | 60 73 908 AV | 150 | B    | 18.70       | 2 (1) | <b>43323</b> |
| 4"     | 60 73 911 AV | 150 | D    | 19.58       | 1     | <b>43324</b> |

### THREADED

| Size   | Reference    | psi | Pack | Weight (lb) | Q     | Code         |
|--------|--------------|-----|------|-------------|-------|--------------|
| 2 1/2" | 60 73 807 VI | 150 | D    | 22.66       | 4 (1) | <b>43325</b> |
| 3"     | 60 73 808 VI | 150 | B    | 18.70       | 2 (1) | <b>43326</b> |
| 4"     | 60 73 811 VI | 150 | D    | 19.58       | 1     | <b>43327</b> |

<sup>1</sup> 1/2" thru 2" Ball Valves are supplied with both socket and threaded end connectors.

<sup>2</sup> 2 1/2" thru 4" Ball Valves can be ordered with either socket or threaded connections, they don't include both.



**CPVC True Union Ball Valves - [IN] Series - PE/EPDM**

**CPVC TRUE UNION**
**Threaded and socket**

Seats: PTFE (Teflon®)  
O-rings: food grade EPDM  
240 psi @ 73°F

| Size   | Reference | psi | Pack | Weight (lb) | Q     | Code         |
|--------|-----------|-----|------|-------------|-------|--------------|
| 1/2"   | 3673801D  | 240 | B    | 3.93        | 8 (1) | <b>43249</b> |
| 3/4"   | 3673802D  | 240 | B    | 5.50        | 8 (1) | <b>43250</b> |
| 1"     | 3673803D  | 240 | B    | 4.17        | 4 (1) | <b>43251</b> |
| 1 1/4" | 3673804D  | 240 | B    | 5.78        | 4 (1) | <b>43252</b> |
| 1 1/2" | 3673805D  | 240 | C    | 9.01        | 4 (1) | <b>43253</b> |
| 2"     | 3673806D  | 240 | D    | 14.98       | 4 (1) | <b>43254</b> |

**SOCKET**

| Size   | Reference | psi | Pack | Weight (lb) | Q     | Code         |
|--------|-----------|-----|------|-------------|-------|--------------|
| 2 1/2" | 3679907MA | 150 | D    | 23.46       | 4 (1) | <b>43328</b> |
| 3"     | 3679908MA | 150 | B    | 20.03       | 2 (1) | <b>43329</b> |
| 4"     | 3679911MA | 150 | D    | 20.61       | 1     | <b>43330</b> |

**THREADED**

| Size   | Reference | psi | Pack | Weight (lb) | Q     | Code         |
|--------|-----------|-----|------|-------------|-------|--------------|
| 2 1/2" | 3679807   | 150 | D    | 23.28       | 4 (1) | <b>43331</b> |
| 3"     | 3679808   | 150 | B    | 19.88       | 2 (1) | <b>43332</b> |
| 4"     | 3679811   | 150 | D    | 20.46       | 1     | <b>43333</b> |


**CPVC TRUE UNION**
**Threaded and socket**

Seats: PTFE (Teflon®)  
O-rings: Viton® FPM  
240 psi @ 73°F

| Size   | Reference     | psi | Pack | Weight (lb) | Q     | Code         |
|--------|---------------|-----|------|-------------|-------|--------------|
| 1/2"   | 36 79 801 VID | 240 | B    | 3,83        | 8 (1) | <b>43334</b> |
| 3/4"   | 36 79 802 VID | 240 | B    | 5,50        | 8 (1) | <b>43335</b> |
| 1"     | 36 79 803 VID | 240 | B    | 4,21        | 4 (1) | <b>43336</b> |
| 1 1/4" | 36 79 804 VID | 240 | B    | 5,64        | 4 (1) | <b>43337</b> |
| 1 1/2" | 36 79 805 VID | 240 | C    | 8,80        | 4 (1) | <b>43338</b> |
| 2"     | 36 79 806 VID | 240 | D    | 14,74       | 4 (1) | <b>43339</b> |

**SOCKET**

| Size   | Reference    | psi | Pack | Weight (lb) | Q     | Code         |
|--------|--------------|-----|------|-------------|-------|--------------|
| 2 1/2" | 36 79 907 AV | 150 | D    | 22.92       | 4 (1) | <b>43340</b> |
| 3"     | 36 79 908 AV | 150 | B    | 19.56       | 2 (1) | <b>43341</b> |
| 4"     | 36 79 911 AV | 150 | D    | 21.63       | 1     | <b>43342</b> |

**THREADED**

| Size   | Reference    | psi | Pack | Weight (lb) | Q     | Code         |
|--------|--------------|-----|------|-------------|-------|--------------|
| 2 1/2" | 36 79 807 VI | 150 | D    | 23.22       | 4 (1) | <b>43343</b> |
| 3"     | 36 79 808 VI | 150 | B    | 19.16       | 2 (1) | <b>43344</b> |
| 4"     | 36 79 811 VI | 150 | D    | 20.07       | 1     | <b>43345</b> |

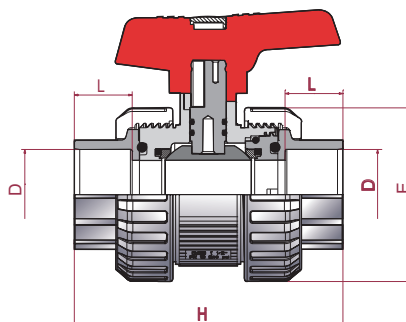
<sup>1</sup> 1/2" thru 2" Ball Valves are supplied with both socket and threaded end connectors.

<sup>2</sup> 2 1/2" thru 4" Ball Valves can be ordered with either socket or threaded connections, they don't include both.

## TRUE UNION BALL VALVES - [ST] SERIES

### FEATURES

- "Antiblock" system that avoids ball blockage.
- 100% factory tested.
- Minimal pressure drop.
- Low operating torque.
- Resistance to many inorganic chemicals.
- Excellent flow characteristics.
- Threaded seal-carrier for upstream maintenance without emptying the system. Handle built-in tool for easy adjustment of the threaded seal-carrier (and ball torque).
- Sizes from ½" - 4".
- Available standards: ANSI/ASTM.
- Threaded versions: NPT.
- O-Rings available in food grade EPDM.
- Ball seat available in HDPE.



| D / G | L    | H     | E    |
|-------|------|-------|------|
| ½"    | 0.6" | 3.4"  | 2"   |
| ¾"    | 0.7" | 4"    | 2.4" |
| 1"    | 0.9" | 4.8"  | 2.8" |
| 1½"   | 1.2" | 5.9"  | 3.8" |
| 2"    | 1.5" | 6.9"  | 4.6" |
| 2½"   | 1.7" | 8.5"  | 5.7" |
| 3"    | 2"   | 10.1" | 6.9" |
| 4"    | 2.5" | 14.1" | 9"   |

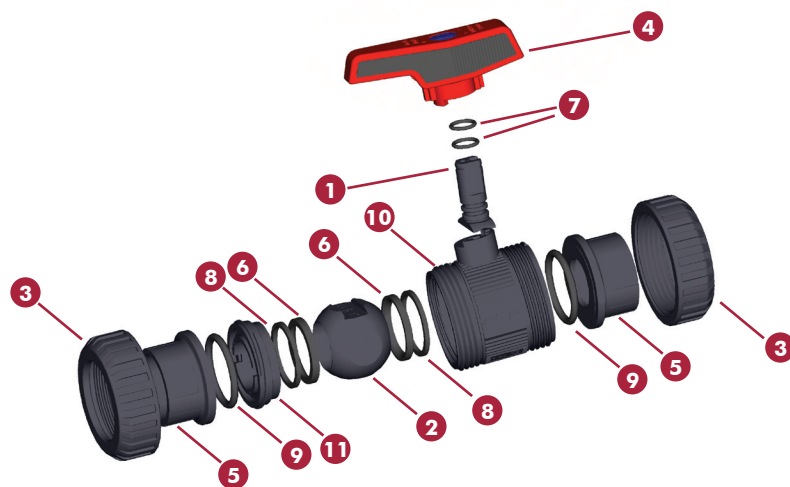
| Fig. | Parts                | Material        |
|------|----------------------|-----------------|
| 1    | Shaft                | PVC             |
| 2    | Ball                 | PVC             |
| 3    | Union nut            | PVC             |
| 4    | Handle               | PP + TPE        |
| 5    | End connector        | PVC             |
| 6    | Ball seat            | HDPE            |
| 7    | Shaft o-ring         | Food grade EPDM |
| 8    | Dampener seal        |                 |
| 9    | End connector o-ring | Food grade EPDM |
| 10   | Body                 |                 |
| 11   | Seal-carrier         | PVC             |

$$C_v = K_{v100} / 14,28$$

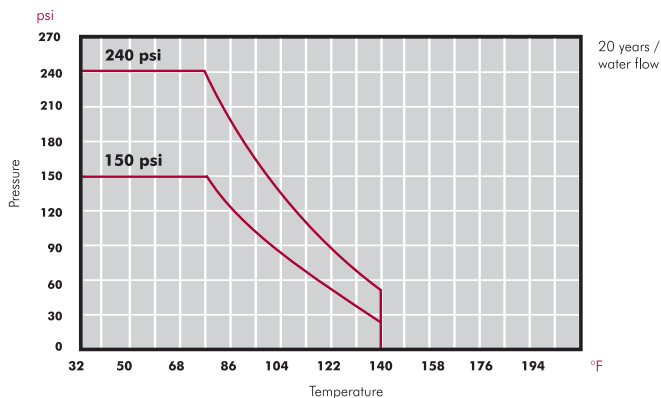
$$K_{v100} \text{ (l/min, } \Delta p = 1 \text{ bar)}$$

$$C_v \text{ (GPM, } \Delta p = 1 \text{ psi)}$$

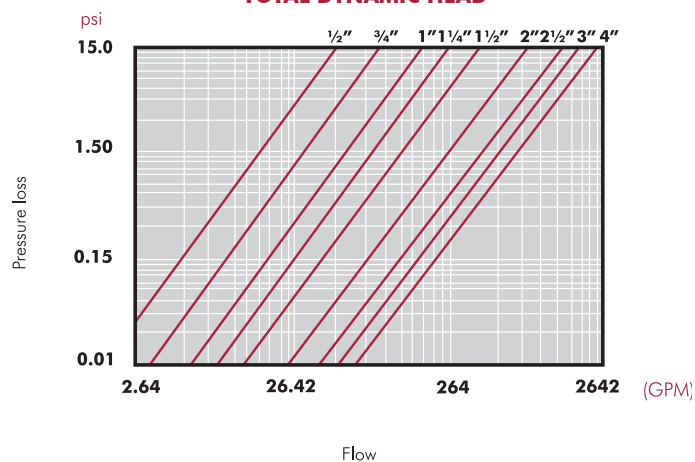
| D / G | K <sub>v100</sub> | C <sub>v</sub> |
|-------|-------------------|----------------|
| ½"    | 102               | 7              |
| ¾"    | 260               | 18             |
| 1"    | 451               | 32             |
| 1½"   | 2902              | 203            |
| 2"    | 3475              | 243            |
| 2½"   | 4167              | 292            |
| 3"    | 6300              | 441            |
| 4"    | 6800              | 476            |



### PRESSURE-TEMPERATURE RELATIONSHIP GUIDE



### TOTAL DYNAMIC HEAD



**PVC True Union Ball Valves - [ST] Series - PE/EPDM**


**PVC TRUE UNION**  
**Solvent socket and**  
**threaded**  
 Seats: HDPE  
 O-rings: food grade EPDM  
 240 psi @ 73°F



**PVC TRUE UNION** <sup>2</sup>  
 Seats: PTFE (Teflon®)  
 O-rings: food grade EPDM  
 150 psi @ 73°F

| Size   | Reference    | psi | Pack | Weight (lb) | Q       | Code         |
|--------|--------------|-----|------|-------------|---------|--------------|
| 1/2"   | 60 60 901 MA | 240 | B    | 7.70        | 20 (10) | <b>45903</b> |
| 3/4"   | 60 60 902 MA | 240 | B    | 5.72        | 10 (5)  | <b>45904</b> |
| 1"     | 60 60 903 MA | 240 | B    | 6.38        | 8       | <b>45905</b> |
| 1 1/4" | 60 60 904 MA | 240 | B    | 6.82        | 5       | <b>45906</b> |
| 1 1/2" | 60 60 905 MA | 240 | C    | 16.28       | 8       | <b>45907</b> |
| 2"     | 60 60 906 MA | 240 | D    | 27.94       | 8       | <b>45908</b> |

**SOCKET**

| Size   | Reference    | psi | Pack | Weight (lb) | Q | Code         |
|--------|--------------|-----|------|-------------|---|--------------|
| 2 1/2" | 60 73 907 MA | 150 | D    | 21.56       | 4 | <b>36527</b> |
| 3"     | 60 73 908 MA | 150 | B    | 17.82       | 2 | <b>36528</b> |
| 4"     | 60 73 911 MA | 150 | D    | 19.14       | 1 | <b>45189</b> |

**THREADED**

| Size   | Reference | psi | Pack | Weight (lb) | Q     | Code         |
|--------|-----------|-----|------|-------------|-------|--------------|
| 2 1/2" | 60 73 807 | 150 | D    | 21.56       | 4 (1) | <b>36537</b> |
| 3"     | 60 73 808 | 150 | B    | 17.82       | 2 (1) | <b>36538</b> |
| 4"     | 60 738 11 | 150 | D    | 19.14       | 1     | <b>45191</b> |

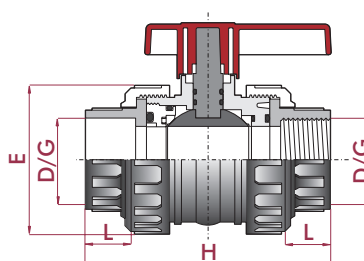
<sup>1</sup> 1/2" thru 2" Ball Valves are supplied with both socket and threaded end connectors.

<sup>2</sup> 2 1/2" thru 4" Ball Valves can be ordered with either socket or threaded connections, they don't include both.

## TRUE UNION BALL VALVES - NEWVAL SERIES

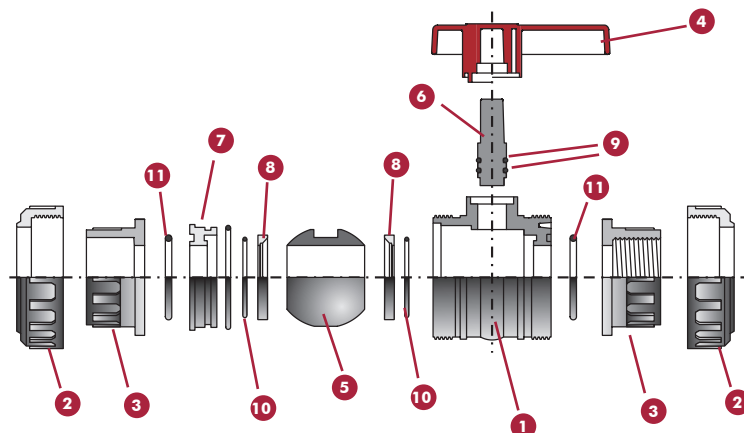
### FEATURES

- "Antiblock" system that avoids ball blockage.
- 100% factory tested.
- Minimal pressure drop.
- Low operating torque.
- Resistance to many inorganic chemicals.
- Excellent flow characteristics.
- Sizes from 1/2" - 4".
- O-rings available in EPDM.
- Ball seat available in HDPE.



| D / G  | L    | H     | E    |
|--------|------|-------|------|
| 1/2"   | 0.6" | 3.8"  | 1.9" |
| 3/4"   | 0.7" | 4.2"  | 2.3" |
| 1"     | 0.9" | 4.5"  | 2.7" |
| 1 1/4" | 1.0" | 5.2"  | 3.2" |
| 1 1/2" | 1.2" | 6.0"  | 3.7" |
| 2"     | 1.5" | 6.7"  | 4.3" |
| 3"     | 2.0" | 9.6"  | 5.8" |
| 4"     | 2.3" | 11.2" | 7.0" |

| Fig. | Parts                | Material |
|------|----------------------|----------|
| 1    | Body                 | PVC      |
| 2    | Union nut            | PVC      |
| 3    | End connector        | PVC      |
| 4    | Handle               | ABS      |
| 5    | Ball                 | PVC      |
| 6    | Stem                 | PVC      |
| 7    | Seal carrier         | PVC      |
| 8    | Ball seat            | HDPE     |
| 9    | Stem o-ring          | EPDM     |
| 10   | Body o-ring          | EPDM     |
| 11   | End connector o-ring | EPDM     |



#### PVC TRUE UNION

##### Socket

Seats: HDPE  
O-rings: EPDM  
1/2" - 2" 240 psi @ 73°F  
2 1/2" - 4" 150 psi @ 73°F



#### PVC TRUE UNION

##### Threaded

Seats: HDPE  
O-rings: EPDM  
1/2" - 2" 240 psi @ 73°F  
2 1/2" - 4" 150 psi @ 73°F

| Size   | Reference | psi | Pack | Weight (lb) | Q      | Code    |
|--------|-----------|-----|------|-------------|--------|---------|
| 1/2"   | MA2001    | 240 | B    | 7.77        | 24     | MA2001  |
| 3/4"   | MA2002    | 240 | B    | 7.28        | 16     | MA2002  |
| 1"     | MA2003    | 240 | B    | 6.69        | 10     | MA2003  |
| 1 1/4" | MA2004    | 240 | B    | 6.01        | 6      | MA2004  |
| 1 1/2" | MA2005    | 240 | D    | 24.86       | 16 (8) | MA2005  |
| 2"     | MA2006    | 240 | D    | 28.38       | 12     | MA2006  |
| 2 1/2" | MA2007    | 150 | D    | 23.98       | 4 (1)  | MA2007  |
| 3"     | MA2008R   | 150 | D    | 25.30       | 4 (1)  | MA2008R |
| 4"     | MA2010R   | 150 | D    | 20.31       | 2 (1)  | MA2010R |

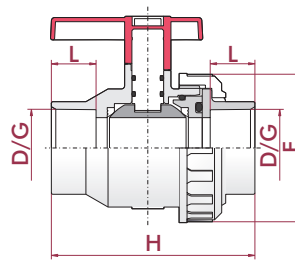
| Size   | Reference | psi | Pack | Weight (lb) | Q      | Code    |
|--------|-----------|-----|------|-------------|--------|---------|
| 1/2"   | MA2011    | 240 | B    | 7.98        | 24     | MA2011  |
| 3/4"   | MA2012    | 240 | B    | 7.48        | 16     | MA2012  |
| 1"     | MA2013    | 240 | B    | 6.84        | 10     | MA2013  |
| 1 1/4" | MA2014    | 240 | B    | 6.17        | 6      | MA2014  |
| 1 1/2" | MA2015    | 240 | D    | 25.54       | 16 (8) | MA2015  |
| 2"     | MA2016    | 240 | D    | 29.26       | 12     | MA2016  |
| 2 1/2" | MA2017    | 150 | D    | 23.76       | 4 (1)  | MA2017  |
| 3"     | MA2018R   | 150 | D    | 26.18       | 4 (1)  | MA2018R |
| 4"     | MA2020R   | 150 | D    | 20.94       | 2 (1)  | MA2020R |



## SINGLE UNION BALL VALVES - UNIBLOCK SERIES

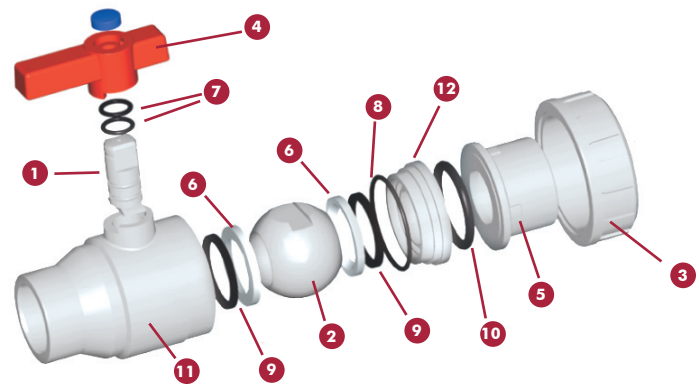
### FEATURES

- "Antiblock" system that avoids ball blockage.
- 100% factory tested.
- Fast replacement of o-rings and ball seat without additional tools.
- Low maintenance.
- Excellent flow characteristics.
- Easy to install.
- Light weight.
- Ideally suited for irrigation and swimming pools.
- Sizes from 1/2" to 3".
- Available standards: ANSI/ASTM.
- Threaded versions: NPT.
- O-rings in EPDM.
- Ball seat in HDPE.



| D / G  | L    | H     | E    |
|--------|------|-------|------|
| 1/2"   | 0.6" | 3.3"  | 2"   |
| 3/4"   | 0.7" | 4"    | 2.3" |
| 1"     | 0.7" | 4.5"  | 2.6" |
| 1 1/2" | 1.2" | 5.2"  | 3.6" |
| 2"     | 1.3" | 6.5"  | 4.5" |
| 3"     | 1.9" | 10.5" | 6.9" |

| Fig. | Parts                | Material |
|------|----------------------|----------|
| 1    | Stem                 | PVC      |
| 2    | Ball                 | PVC      |
| 3    | Union nut            | PVC      |
| 4    | Handle               | PP       |
| 5    | End connector        | PVC      |
| 6    | Ball seat            | PE       |
| 7    | Stem o-ring          | EPDM     |
| 8    | Body o-ring          | EPDM     |
| 9    | Dampener seal        | EPDM     |
| 10   | End connector o-ring | EPDM     |
| 11   | Body                 | PVC      |
| 12   | Seal carrier         | PVC      |



$$C_v = K_v_{100} / 14,28$$

$$K_v_{100} \text{ (l/min, } \Delta p = 1 \text{ bar)}$$

$$C_v \text{ (GPM, } \Delta p = 1 \text{ psi)}$$

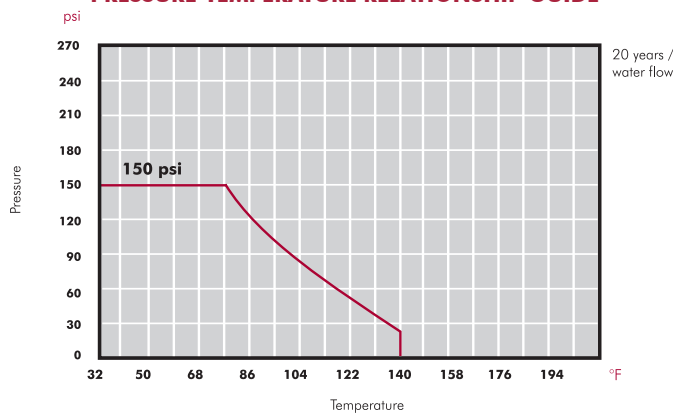
| D / G  | Kv <sub>100</sub> | Cv  |
|--------|-------------------|-----|
| 1/2"   | 102               | 7   |
| 3/4"   | 260               | 18  |
| 1"     | 451               | 32  |
| 1 1/2" | 1900              | 133 |
| 2"     | 3200              | 224 |
| 3"     | 6800              | 476 |



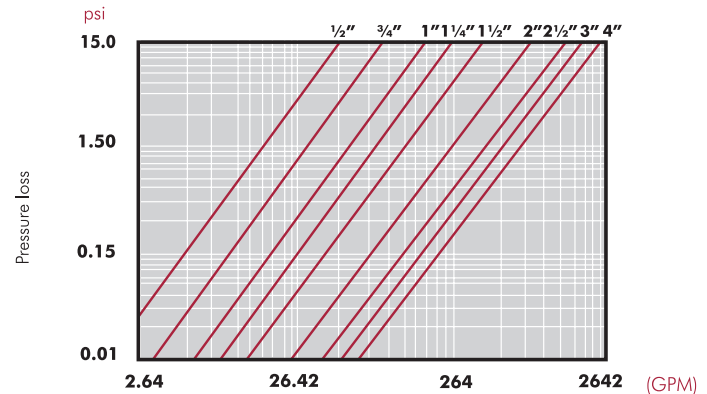
NSF National Sanitation Foundation (USA)  
NSF 61  
Uniblock Series  
ASTM F1970



### PRESSURE-TEMPERATURE RELATIONSHIP GUIDE



### TOTAL DYNAMIC HEAD



## PVC Single Union Ball Valves - Unblock Series - PE/EPDM



### PVC SINGLE UNION

#### Socket

Seats: HDPE  
O-rings: EPDM  
150 psi @ 73°F

| Size   | Reference      | psi | Pack | Weight (lb) | Q       | Code         |
|--------|----------------|-----|------|-------------|---------|--------------|
| 1/2"   | 05 70 901 MABL | 150 | B    | 7.22        | 24 (12) | <b>22097</b> |
| 3/4"   | 05 70 902 MABL | 150 | B    | 5.72        | 12 (6)  | <b>22098</b> |
| 1"     | 05 70 903 MABL | 150 | B    | 7.26        | 12      | <b>22099</b> |
| 1 1/2" | 05 70 905 MABL | 150 | C    | 12.72       | 12      | <b>11373</b> |
| 2"     | 05 70 906 MABL | 150 | D    | 26.62       | 12      | <b>15695</b> |



### PVC SINGLE UNION

#### Threaded (F)

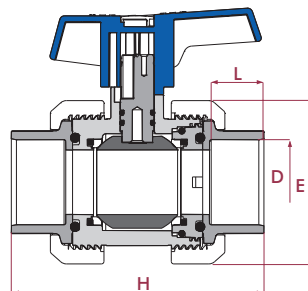
Seats: HDPE  
O-rings: EPDM  
150 psi @ 73°F

| Size   | Reference    | psi | Pack | Weight (lb) | Q  | Code         |
|--------|--------------|-----|------|-------------|----|--------------|
| 1 1/2" | 05 70 805 BL | 150 | C    | 13.75       | 12 | <b>11381</b> |
| 2"     | 05 70 806 BL | 150 | D    | 27.06       | 12 | <b>15699</b> |

## TRUE UNION BALL VALVES - e-QUA SERIES

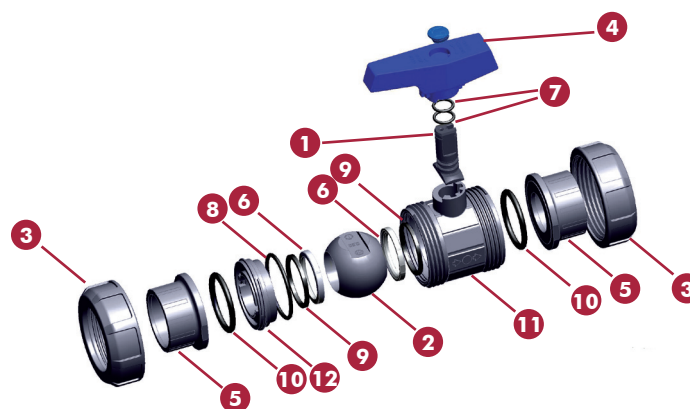
### FEATURES

- PN 12
- "Antiblock" system that avoids ball blockage.
- 100% factory tested.
- Minimal pressure drop.
- Low operating torque.
- Resistance to many inorganic chemicals.
- Ideally suited for swimming pool applications.
- Excellent flow characteristics.
- Sizes from D50 to D63 (1 1/2" - 2").
- Available standards: ANSI/ASTM.
- Threaded versions: NPT.
- O-Rings in EPDM.
- Ball seat in HDPE.

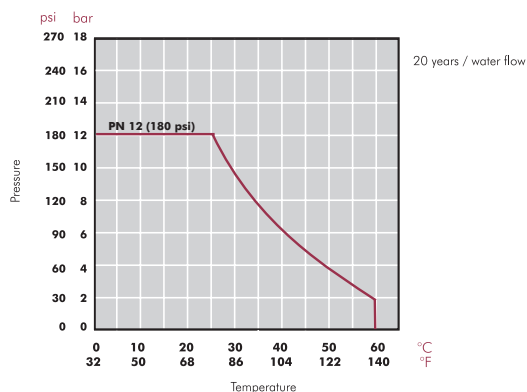


| D / G  | L    | H    | E    |
|--------|------|------|------|
| 1 1/2" | 1.2" | 5.9" | 3.8" |
| 2"     | 1.5" | 6.9" | 4.6" |

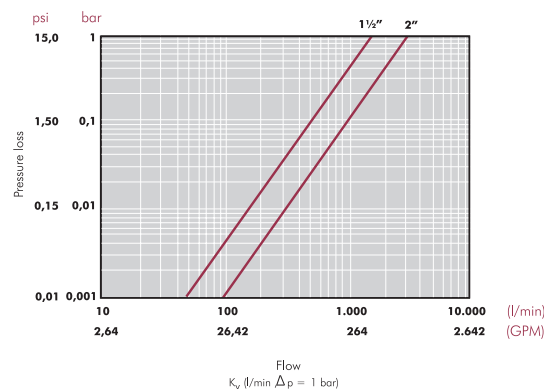
| Fig. | Parts                | Material |
|------|----------------------|----------|
| 1    | Shaft                | PVC      |
| 2    | Ball                 | PVC      |
| 3    | Union nut            | PVC      |
| 4    | Handle               | PP       |
| 5    | End connector        | PVC      |
| 6    | Ball seat            | HDPE     |
| 7    | Shaft o-ring         | EPDM     |
| 8    | Body o-ring          | EPDM     |
| 9    | Dampener seal        | EPDM     |
| 10   | End connector o-ring | EPDM     |
| 11   | Body                 | PVC      |
| 12   | Seal-carrier         | PVC      |



### PRESSURE-TEMPERATURE RELATIONSHIP GUIDE



### TOTAL DYNAMIC HEAD



#### PVC TRUE UNION

##### Solvent socket

Seats: HDPE  
O-rings: EPDM  
180 psi @ 73°F



#### PVC TRUE UNION Female threaded

Seats: HDPE  
O-rings: EPDM  
180 psi @ 73°F

| Size   | Reference    | psi | Pack | Weight (lb) | Q  | Code         |
|--------|--------------|-----|------|-------------|----|--------------|
| 1 1/2" | 60 62 905 MA | 180 | C    | 15.4        | 10 | <b>43735</b> |
| 2"     | 60 62 906 MA | 180 | D    | 28.7        | 10 | <b>43736</b> |

| Size   | Reference | psi | Pack | Weight (lb) | Q  | Code         |
|--------|-----------|-----|------|-------------|----|--------------|
| 1 1/2" | 60 62 805 | 180 | C    | 15.4        | 10 | <b>43750</b> |
| 2"     | 60 62 806 | 180 | D    | 28.7        | 10 | <b>43751</b> |

## BUTTERFLY VALVES - INDUSTRIAL SERIES

### FEATURES

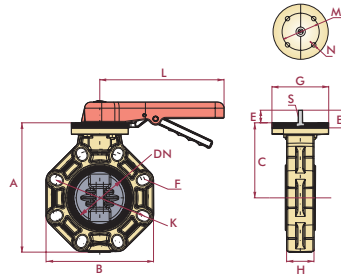
- Ideally suited for flow control using minimal piping space.
- 100% factory tested.
- Minimal pressure drop.
- Low maintenance.
- Resistance to many inorganic chemicals.
- Excellent flow characteristics.
- Good mechanical strength.
- One piece PPL - GF body.
- Sizes from 2" - 12".
- Available standards: ANSI/ASTM.
- Rubber seal available in food grade EPDM or Viton® FPM.
- Electric and pneumatic actuators available or with gear box.
- Disc available in PVC, Corzan® CPVC, or PPL.
- Non-wetted stem in stainless steel.
- Built in lockout feature to prevent undesired operations.
- Ideally suited for industrial, water treatment or water distribution applications.

### HANDLE

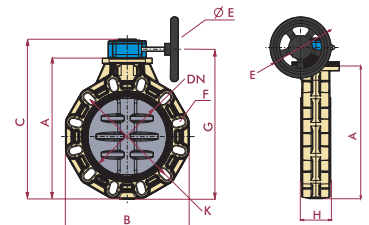
| Size   | A    | B    | C    | E    | F    | G    | H    | K         | L    | M    | N    | E'   | S    | holes |
|--------|------|------|------|------|------|------|------|-----------|------|------|------|------|------|-------|
| 2"-2½" | 7.8" | 6"   | 4.7" | 1.5" | 0.7" | 4.4" | 1.8" | 4.8"-5.6" | 8.5" | 2.7" | 0.3" | 1.3" | 0.3" | 4     |
| 3"     | 9"   | 7.4" | 5.3" | 1.5" | 0.7" | 4.4" | 2"   | 5.8"-6.6" | 9.5" | 2.7" | 0.3" | 1.3" | 0.4" | 8     |
| 4"     | 9.9" | 8.3" | 5.8" | 1.5" | 0.7" | 4.4" | 2.3" | 7"-7.4"   | 9.5" | 2.7" | 0.3" | 1.3" | 0.6" | 8     |
| 5"     | 11"  | 9.3" | 6.4" | 1.5" | 0.8" | 4.4" | 2.6" | 7.4"-8.3" | 12"  | 2.7" | 0.3" | 1.3" | 0.7" | 8     |
| 6"     | 12"  | 10"  | 7"   | 1.5" | 0.9" | 4.4" | 2.8" | 9.3"      | 12"  | 2.7" | 0.3" | 1.3" | 0.7" | 8     |
| 8"     | 15"  | 12"  | 8.5" | 1.9" | 0.9" | 5.3" | 2.8" | 10"-11"   | 15"  | 3.9" | 0.4" | 1.8" | 1"   | 8     |

| Fig. | Parts          | Material                 |
|------|----------------|--------------------------|
| 1    | Body           | PPL - GF                 |
| 2    | Valve disc     | PVC / CPVC / PPL         |
| 3    | Rubber seal    | Viton® / Food grade EPDM |
| 4    | Stem           | Stainless steel AISI 630 |
| 5    | O-ring seal    | Viton®                   |
| 6    | Top bearing    | PPL - GF                 |
| 7    | Throttle plate | POM                      |
| 8    | Lever-lock     | POM                      |
| 9    | Handle         | PPL - GF                 |

### From 2" to 8"

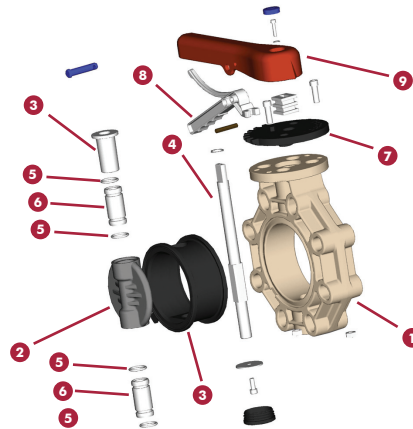


### From 2" to 12"



### GEAR BOX

| Size   | A    | B    | E    | C    | F    | G    | H    | K         | holes |
|--------|------|------|------|------|------|------|------|-----------|-------|
| 2"-2½" | 7.4" | 6"   | 6.2" | 9.5" | 0.7" | 8.5" | 1.8" | 4.8"-5.6" | 4     |
| 3"     | 8.6" | 7.4" | 6.2" | 10"  | 0.7" | 9.7" | 2"   | 5.8"-6.6" | 8     |
| 4"     | 9.5" | 8.2" | 6.2" | 11"  | 0.7" | 10"  | 2.3" | 7"-7.4"   | 8     |
| 5"     | 10"  | 9.2" | 6.2" | 12"  | 0.8" | 11"  | 2.5" | 7.4"-8.3" | 8     |
| 6"     | 11"  | 10"  | 6.2" | 13"  | 0.9" | 12"  | 2.8" | 9.3"      | 8     |
| 8"     | 14"  | 12"  | 12"  | 16"  | 0.8" | 15"  | 2.8" | 10"-11"   | 8     |
| 9"-10" | 17"  | 17"  | 12"  | 20"  | 1.1" | 19"  | 4.4" | 13"-14"   | 12    |
| 12"    | 21"  | 18"  | 12"  | 24"  | 1.1" | 22"  | 4.4" | 15"-16"   | 12    |



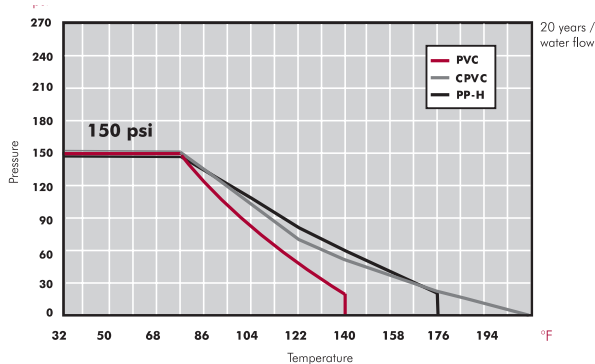
| Size | Kv <sub>100</sub> | Cv   |
|------|-------------------|------|
| 2½"  | 1800              | 126  |
| 3"   | 4020              | 282  |
| 4"   | 8280              | 580  |
| 4½"  | 11760             | 824  |
| 5"   | 11760             | 824  |
| 6"   | 16200             | 1134 |
| 8"   | 33000             | 2311 |
| 10"  | 52200             | 3655 |
| 12"  | 78571             | 5502 |

$$C_v = K_v_{100} / 14,28$$

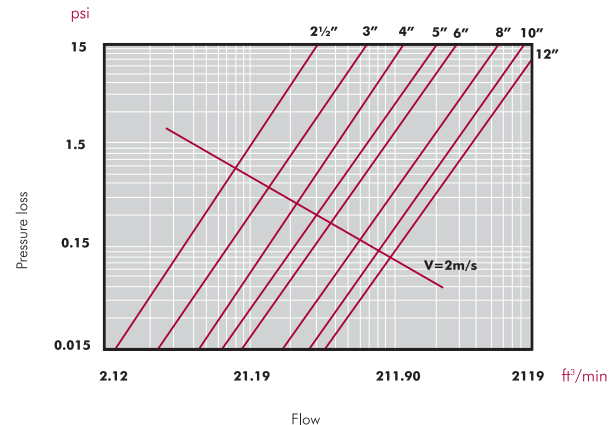
$$K_v_{100} \text{ (l/min, } \Delta p = 1 \text{ bar)}$$

$$C_v \text{ (GPM, } \Delta p = 1 \text{ psi)}$$

### PRESSURE-TEMPERATURE RELATIONSHIP GUIDE



### TOTAL DYNAMIC HEAD



**PPL - GF Butterfly Valves - Industrial Series - Food grade EPDM**


**PPL - GF with handle**  
Stainless steel stem (AISI 630)  
**PVC** valve disc  
O-rings: food grade EPDM  
150 psi @ 73°F



**PPL - GF with gear box**  
Stainless steel stem (AISI 630)  
**PVC** valve disc  
O-rings: food grade EPDM  
150 psi @ 73°F



**PPL - GF with handle**  
Stainless steel stem (AISI 630)  
**CPVC** valve disc  
O-rings: food grade EPDM  
150 psi @ 73°F



**PPL - GF with gear box**  
Stainless steel stem (AISI 630)  
**CPVC** valve disc  
O-rings: food grade EPDM  
150 psi @ 73°F



**PPL - GF with handle**  
Stainless steel stem (AISI 630)  
**PPL** valve disc  
O-rings: food grade EPDM  
150 psi @ 73°F



**PPL - GF with gear box**  
Stainless steel stem (AISI 630)  
**PPL** valve disc  
O-rings: food grade EPDM  
150 psi @ 73°F

| Size     | Reference | psi | Pack  | Weight (lb) | Q | Code         |
|----------|-----------|-----|-------|-------------|---|--------------|
| 2" - 2½" | 05 84 075 | 150 | 0.459 | 6.56        | 2 | <b>32620</b> |
| 3"       | 05 84 090 | 150 | 0.530 | 8.25        | 2 | <b>32621</b> |
| 4"       | 05 84 110 | 150 | 0.706 | 11.07       | 2 | <b>32622</b> |
| 5"       | 05 84 140 | 150 | 0.883 | 15.51       | 2 | <b>32623</b> |
| 6"       | 05 84 160 | 150 | 1.377 | 19.89       | 2 | <b>32624</b> |
| 8"       | 05 84 200 | 150 | 0.883 | 16.62       | 1 | <b>32625</b> |

| Size | Reference    | psi | Pack | Weight (lb) | Q | Code         |
|------|--------------|-----|------|-------------|---|--------------|
| 4"   | 05 84 110 RM | 150 | C    | 9.24        | 1 | <b>34468</b> |
| 5"   | 05 84 140 RM | 150 | C    | 11.04       | 1 | <b>34469</b> |
| 6"   | 05 84 160 RM | 150 | D    | 13.95       | 1 | <b>34470</b> |
| 8"   | 05 84 200 RM | 150 | E    | 28.38       | 1 | <b>34471</b> |
| 10"  | 05 84 250 RM | 150 | F    | 44.66       | 1 | <b>34472</b> |
| 12"  | 05 84 315 RM | 150 | G    | 58.3        | 1 | <b>32738</b> |

| Size     | Reference | psi | Pack  | Weight (lb) | Q | Code         |
|----------|-----------|-----|-------|-------------|---|--------------|
| 2" - 2½" | 35 84 075 | 150 | 0.459 | 6.72        | 2 | <b>34480</b> |
| 3"       | 35 84 090 | 150 | 0.530 | 8.45        | 2 | <b>34481</b> |
| 4"       | 35 84 110 | 150 | 0.706 | 11.34       | 2 | <b>33961</b> |
| 5"       | 35 84 140 | 150 | 0.883 | 15.89       | 2 | <b>34482</b> |
| 6"       | 35 84 160 | 150 | 1.377 | 20.38       | 2 | <b>34483</b> |
| 8"       | 35 84 200 | 150 | 0.883 | 17.03       | 1 | <b>34484</b> |

| Size | Reference    | psi | Pack | Weight (lb) | Q | Code         |
|------|--------------|-----|------|-------------|---|--------------|
| 4"   | 35 84 110 RM | 150 | C    | 9.47        | 1 | <b>34492</b> |
| 5"   | 35 84 140 RM | 150 | C    | 11.31       | 1 | <b>34493</b> |
| 6"   | 35 84 160 RM | 150 | D    | 14.29       | 1 | <b>34494</b> |
| 8"   | 35 84 200 RM | 150 | E    | 29.09       | 1 | <b>34495</b> |
| 10"  | 35 84 250 RM | 150 | F    | 45.77       | 1 | <b>34496</b> |
| 12"  | 35 84 315 RM | 150 | G    | 59.75       | 1 | <b>34497</b> |

| Size     | Reference | psi | Pack  | Weight (lb) | Q | Code         |
|----------|-----------|-----|-------|-------------|---|--------------|
| 2" - 2½" | 11 84 075 | 150 | 0.459 | 6.89        | 2 | <b>34506</b> |
| 3"       | 11 84 090 | 150 | 0.530 | 8.66        | 2 | <b>34507</b> |
| 4"       | 11 84 110 | 150 | 0.706 | 11.62       | 2 | <b>33963</b> |
| 5"       | 11 84 140 | 150 | 0.883 | 16.28       | 2 | <b>34508</b> |
| 6"       | 11 84 160 | 150 | 1.377 | 20.88       | 2 | <b>34509</b> |
| 8"       | 11 84 200 | 150 | 0.883 | 17.45       | 1 | <b>34510</b> |

| Size | Reference    | psi | Pack | Weight (lb) | Q | Code         |
|------|--------------|-----|------|-------------|---|--------------|
| 4"   | 11 84 110 RM | 150 | C    | 9.70        | 1 | <b>34518</b> |
| 5"   | 11 84 140 RM | 150 | C    | 11.59       | 1 | <b>34519</b> |
| 6"   | 11 84 160 RM | 150 | D    | 14.64       | 1 | <b>34520</b> |
| 8"   | 11 84 200 RM | 150 | E    | 29.80       | 1 | <b>34521</b> |
| 10"  | 11 84 250 RM | 150 | F    | 46.89       | 1 | <b>34522</b> |
| 12"  | 11 84 315 RM | 150 | G    | 61.21       | 1 | <b>34523</b> |

Valve discs are available in PVDF and ABS. Please ask Cepex USA for more information.



PPL - GF Butterfly Valves - Industrial Series - Viton®



**PPL - GF with handle**  
Stainless steel stem (AISI 630)  
**PVC** valve disc  
O-rings: Viton®  
150 psi @ 73°F

| Size     | Reference    | psi | Pack  | Weight (lb) | Q | Code         |
|----------|--------------|-----|-------|-------------|---|--------------|
| 2" - 2½" | 05 84 075 VI | 150 | 0.459 | 6.56        | 2 | <b>32628</b> |
| 3"       | 05 84 090 VI | 150 | 0.530 | 8.25        | 2 | <b>32629</b> |
| 4"       | 05 84 110 VI | 150 | 0.706 | 11.07       | 2 | <b>32630</b> |
| 5"       | 05 84 140 VI | 150 | 0.883 | 15.51       | 2 | <b>32631</b> |
| 6"       | 05 84 160 VI | 150 | 1.377 | 19.89       | 2 | <b>32632</b> |
| 8"       | 05 84 200 VI | 150 | 0.883 | 16.62       | 1 | <b>32633</b> |



**PPL - GF with gear box**  
Stainless steel stem (AISI 630)  
**PVC** valve disc  
O-rings: Viton®  
150 psi @ 73°F

| Size | Reference     | psi | Pack | Weight (lb) | Q | Code         |
|------|---------------|-----|------|-------------|---|--------------|
| 4"   | 05 84 110 VRM | 150 | C    | 9.24        | 1 | <b>34475</b> |
| 5"   | 05 84 140 VRM | 150 | C    | 11.04       | 1 | <b>34476</b> |
| 6"   | 05 84 160 VRM | 150 | D    | 13.95       | 1 | <b>34477</b> |
| 8"   | 05 84 200 VRM | 150 | E    | 28.38       | 1 | <b>34478</b> |
| 10"  | 05 84 250 VRM | 150 | F    | 44.66       | 1 | <b>34479</b> |
| 12"  | 05 84 315 VRM | 150 | G    | 58.3        | 1 | <b>32739</b> |



**PPL - GF with handle**  
Stainless steel stem (AISI 630)  
**CPVC** valve disc  
O-rings: Viton®  
150 psi @ 73°F

| Size     | Reference    | psi | Pack  | Weight (lb) | Q | Code         |
|----------|--------------|-----|-------|-------------|---|--------------|
| 2" - 2½" | 35 84 075 VI | 150 | 0.459 | 6.72        | 2 | <b>34485</b> |
| 3"       | 35 84 090 VI | 150 | 0.530 | 8.45        | 2 | <b>34486</b> |
| 4"       | 35 84 110 VI | 150 | 0.706 | 11.34       | 2 | <b>33962</b> |
| 5"       | 35 84 140 VI | 150 | 0.883 | 15.89       | 2 | <b>34487</b> |
| 6"       | 35 84 160 VI | 150 | 1.377 | 20.38       | 2 | <b>34488</b> |
| 8"       | 35 84 200 VI | 150 | 0.883 | 17.03       | 1 | <b>34489</b> |



**PPL - GF with gear box**  
Stainless steel stem (AISI 630)  
**CPVC** valve disc  
O-rings: Viton®  
150 psi @ 73°F

| Size | Reference     | psi | Pack | Weight (lb) | Q | Code         |
|------|---------------|-----|------|-------------|---|--------------|
| 4"   | 35 84 110 VRM | 150 | C    | 9.47        | 1 | <b>34500</b> |
| 5"   | 35 84 140 VRM | 150 | C    | 11.31       | 1 | <b>34501</b> |
| 6"   | 35 84 160 VRM | 150 | D    | 14.29       | 1 | <b>34502</b> |
| 8"   | 35 84 200 VRM | 150 | E    | 29.09       | 1 | <b>34503</b> |
| 10"  | 35 84 250 VRM | 150 | F    | 45.77       | 1 | <b>34504</b> |
| 12"  | 35 84 315 VRM | 150 | G    | 59.75       | 1 | <b>34505</b> |



**PPL - GF with handle**  
Stainless steel stem (AISI 630)  
**PPL** valve disc  
O-rings: Viton®  
150 psi @ 73°F

| Size     | Reference    | psi | Pack  | Weight (lb) | Q | Code         |
|----------|--------------|-----|-------|-------------|---|--------------|
| 2" - 2½" | 11 84 075 VI | 150 | 0.459 | 6.89        | 2 | <b>34511</b> |
| 3"       | 11 84 090 VI | 150 | 0.530 | 8.66        | 2 | <b>34512</b> |
| 4"       | 11 84 110 VI | 150 | 0.706 | 11.62       | 2 | <b>33964</b> |
| 5"       | 11 84 140 VI | 150 | 0.883 | 16.28       | 2 | <b>34513</b> |
| 6"       | 11 84 160 VI | 150 | 1.377 | 20.88       | 2 | <b>34514</b> |
| 8"       | 11 84 200 VI | 150 | 0.883 | 17.45       | 1 | <b>34515</b> |



**PPL - GF with gear box**  
Stainless steel stem (AISI 630)  
**PPL** valve disc  
O-rings: Viton®  
150 psi @ 73°F

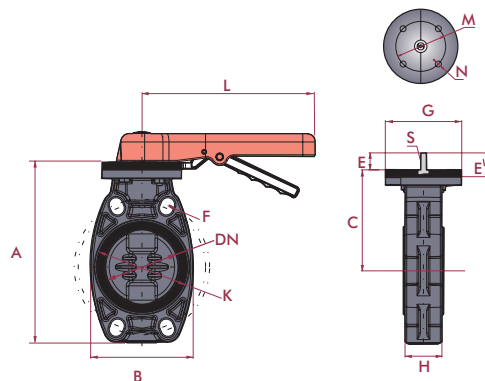
| Size | Reference     | psi | Pack | Weight (lb) | Q | Code         |
|------|---------------|-----|------|-------------|---|--------------|
| 4"   | 11 84 110 VRM | 150 | C    | 9.70        | 1 | <b>34526</b> |
| 5"   | 11 84 140 VRM | 150 | C    | 11.59       | 1 | <b>34527</b> |
| 6"   | 11 84 160 VRM | 150 | D    | 14.64       | 1 | <b>34528</b> |
| 8"   | 11 84 200 VRM | 150 | E    | 29.80       | 1 | <b>34529</b> |
| 10"  | 11 84 250 VRM | 150 | F    | 46.89       | 1 | <b>34530</b> |
| 12"  | 11 84 315 VRM | 150 | G    | 61.21       | 1 | <b>34531</b> |

Valve discs are available in PVDF and ABS. Please ask Cepex USA for more information.

## BUTTERFLY VALVES - NEW STANDARD SERIES

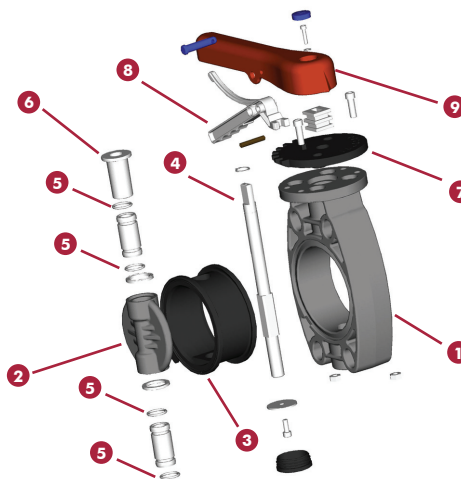
### FEATURES

- Ideally suited for flow control using minimal piping space.
- 100% factory tested.
- Minimal pressure drop.
- Low maintenance.
- Resistance to many inorganic chemicals.
- Excellent flow characteristics.
- Good mechanical strength.
- One piece PVC body.
- New disc design in PVC.
- Sizes from 2" to 8" .
- Available standards: ANSI/ASTM.
- Rubber seal available in EPDM.
- Non-wetted zinc plated steel stem.
- Built in lockout feature to prevent undesired operations.
- Ideally suited for irrigation installations or swimming pools.



| Size     | A    | B    | C    | E    | F    | G    | H    | K    | L    | M    | N    | E'   | S    | holes |
|----------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|
| 2" - 2½" | 7.8" | 5.2" | 4.6" | 1.5" | 0.7" | 4.3" | 1.8" | 4.8" | 8.5" | 2.7" | 0.3" | 1.3" | 0.3" | 4     |
| 3"       | 9"   | 4.7" | 5.3" | 1.5" | 0.7" | 4.3" | 2"   | 6.6" | 9.5" | 2.7" | 0.3" | 1.3" | 0.4" | 4     |
| 4"       | 9.9" | 5.6" | 5.7" | 1.5" | 0.7" | 4.3" | 2.3" | 7.4" | 9.5" | 2.7" | 0.3" | 1.3" | 0.6" | 4     |
| 5"       | 11"  | 6.8" | 6.3" | 1.5" | 0.8" | 4.3" | 2.5" | 8.3" | 12"  | 2.7" | 0.3" | 1.3" | 0.7" | 4     |
| 6"       | 12"  | 8.1" | 7"   | 1.5" | 0.9" | 4.3" | 2.8" | 9.3" | 12"  | 2.7" | 0.3" | 1.3" | 0.7" | 4     |
| 8"       | 14"  | 9.6" | 8.4" | 1.9" | 0.8" | 5.3" | 2.8" | 11"  | 15"  | 3.9" | 0.4" | 1.8" | 1"   | 4     |

| Fig. | Parts          | Material          |
|------|----------------|-------------------|
| 1    | Body           | PVC               |
| 2    | Valve disc     | PVC               |
| 3    | Rubber seal    | EPDM / Viton®     |
| 4    | Stem           | Zinc plated steel |
| 5    | O-ring seal    | EPDM / Viton®     |
| 6    | Top bearing    | PPL - GF          |
| 7    | Throttle plate | POM               |
| 8    | Lever-lock     | POM               |
| 9    | Handle         | PPL - GF          |



| Size | Kv <sub>100</sub> | Cv   |
|------|-------------------|------|
| 2½"  | 1800              | 126  |
| 3"   | 4020              | 282  |
| 4"   | 8280              | 580  |
| 4½"  | 11760             | 824  |
| 5"   | 11760             | 824  |
| 6"   | 16200             | 1134 |
| 8"   | 33000             | 2311 |

$$Cv = Kv_{100} / 14,28$$

$$Kv_{100} (l/min, \Delta p = 1 \text{ bar})$$

$$Cv (GPM, \Delta p = 1 \text{ psi})$$

### PVC Butterfly Valves - Standard Series



#### PVC with lever handle

Zinc plated steel stem  
Valve disc: PVC  
O-rings: EPDM  
150 psi @ 73°F

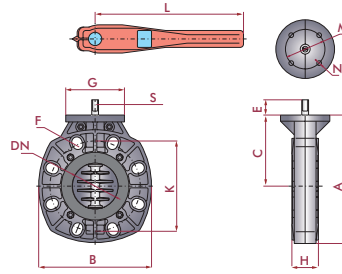
| Size     | Reference | psi | Pack  | Weight (lb) | Q | Code         |
|----------|-----------|-----|-------|-------------|---|--------------|
| 2" - 2½" | 05 83 075 | 150 | 0.459 | 7.26        | 2 | <b>32614</b> |
| 3"       | 05 83 090 | 150 | 0.459 | 8.36        | 2 | <b>32615</b> |
| 4"       | 05 83 110 | 150 | 0.530 | 11.44       | 2 | <b>32616</b> |
| 6"       | 05 83 160 | 150 | 0.883 | 20.02       | 2 | <b>32618</b> |
| 8"       | 05 83 200 | 150 | 1.377 | 32.34       | 2 | <b>32619</b> |

## BUTTERFLY VALVES - CLASSIC SERIES

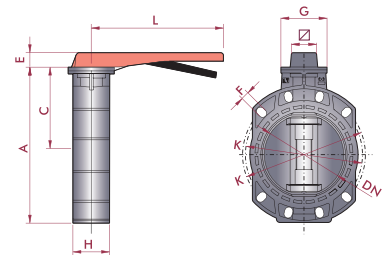
### FEATURES

- Ideally suited for flow control using minimal piping space.
- 100% factory tested.
- Minimal pressure drop.
- Low maintenance.
- Resistance to many inorganic chemicals.
- Excellent flow characteristics.
- Good mechanical strength.
- PVC body.
- Sizes from 2" - 10".
- Available standards: ANSI/ASTM.
- Rubber seal available in EPDM.

#### Sizes - 2" to 8"



#### Size - 10"



| Size   | A      | B      | C     | E     | F          | G     | H     | K             | L      | M     | N     | S     | Ø     |
|--------|--------|--------|-------|-------|------------|-------|-------|---------------|--------|-------|-------|-------|-------|
| 2"-2½" | 7.56"  | 6.50"  | 4.33" | 1.06" | 0.71" x 4  | 4.09" | 1.89" | 4.92"/5.71"   | 8.98"  | 2.76" | 0.35" | 0.39" |       |
| 3"     | 8.94"  | 7.87"  | 4.96" | 1.06" | 0.71" x 8  | 0.49" | 2.09" | 6.30"/6.65"   | 10.35" | 2.76" | 0.35" | 0.47" |       |
| 4"     | 10.67" | 9.02"  | 6.14" | 1.18" | 0.71" x 8  | 0.49" | 2.36" | 7.09"/7.48"   | 10.35" | 2.76" | 0.35" | 0.63" |       |
| 5"     | 11.69" | 9.84"  | 6.77" | 1.18" | 0.71" x 8  | 0.49" | 2.60" | 7.48"/8.27"   | 13.78" | 2.76" | 0.35" | 0.79" |       |
| 6"     | 12.87" | 11.22" | 7.28" | 1.18" | 0.87" x 8  | 0.49" | 2.83" | 9.25"         | 13.78" | 2.76" | 0.35" | 0.79" |       |
| 8"     | 15.75" | 13.39" | 9.06" | 1.18" | 0.87" x 8  | 5.35" | 2.87" | 10.63"/11.61" | 15.35" | 4.02" | 0.43" | 1.08" |       |
| 10"    | 17.72" | 12.56" | 9.84" | 1.46" | 0.94" x 12 | 5.35" | 4.25" | 13.58"/14.25" | 15.35" | 4.02" | 0.43" |       | 0.87" |



| Fig. | Parts          | Material                 |
|------|----------------|--------------------------|
| 1    | Body           | PVC                      |
| 2    | Valve disc     | PVC                      |
| 3    | Rubber seal    | EPDM                     |
| 4    | Stem           | Zinc plated steel/316 SS |
| 5    | O-ring seal    | EPDM                     |
| 6    | Top bearing    | PE                       |
| 7    | Throttle plate | Aluminum                 |
| 8    | Lever-lock     | Aluminum                 |
| 9    | Handle         | Aluminum                 |

| Size | Kv <sub>100</sub> | Cv   |
|------|-------------------|------|
| 2½"  | 1800              | 126  |
| 3"   | 4020              | 282  |
| 4"   | 8280              | 580  |
| 4½"  | 11760             | 824  |
| 5"   | 11760             | 824  |
| 6"   | 16200             | 1134 |
| 8"   | 33000             | 2311 |
| 10"  | 52200             | 3655 |

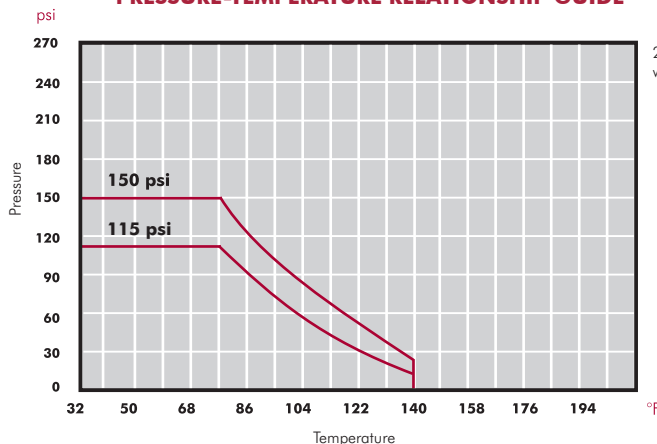
$$Cv = Kv_{100} / 14,28$$

$$Kv_{100} \text{ (l/min, } \Delta p = 1 \text{ bar)}$$

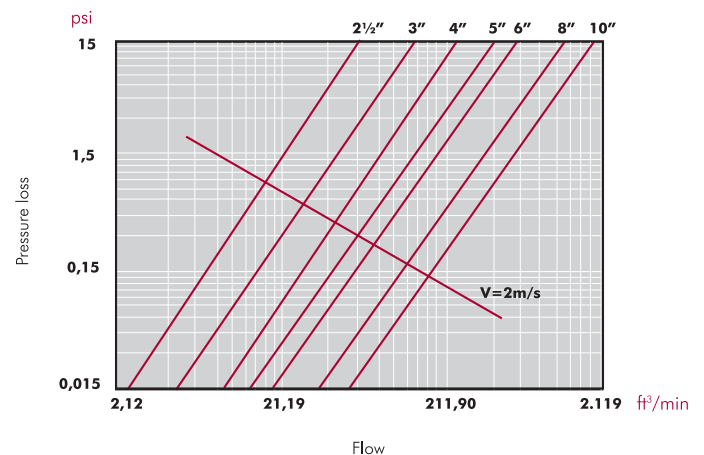
$$Cv \text{ (GPM, } \Delta p = 1 \text{ psi)}$$



### PRESSURE-TEMPERATURE RELATIONSHIP GUIDE



### TOTAL DYNAMIC HEAD



## PVC Butterfly Valves - Standard Classic Series (with lever handle)



### PVC with lever handle

Zinc plated steel stem  
O-rings: EPDM  
2" - 4" 150 psi @ 73°F  
6" - 10" 115 psi @ 73°F

| Size     | Reference | psi | Pack  | Weight (lb) | Q | Code         |
|----------|-----------|-----|-------|-------------|---|--------------|
| 2" - 2½" | 05 80 075 | 150 | 0.706 | 9.02        | 2 | <b>02581</b> |
| 3"       | 05 80 090 | 150 | 0.706 | 11.88       | 2 | <b>02582</b> |
| 4"       | 05 80 110 | 150 | 0.706 | 16.50       | 2 | <b>02583</b> |
| 6"       | 05 80 160 | 115 | 1.059 | 27.28       | 2 | <b>02586</b> |
| 8"       | 05 80 200 | 115 | 2.472 | 42.24       | 2 | <b>02587</b> |
| 10"      | 05 80 250 | 115 | 2.472 | 29.26       | 1 | <b>15846</b> |

## PVC Butterfly Valves - Standard Classic Series (with gear box)



### PVC with gear box

Zinc plated steel stem  
O-rings: EPDM  
4" 150 psi @ 73°F  
6" - 10" 115 psi @ 73°F

| Size | Reference    | psi | Pack | Weight (lb) | Q | Code         |
|------|--------------|-----|------|-------------|---|--------------|
| 4"   | 05 80 110 RM | 150 | C    | 11.00       | 1 | <b>08978</b> |
| 6"   | 05 80 160 RM | 115 | C    | 15.00       | 1 | <b>08981</b> |
| 8"   | 05 80 200 RM | 115 | E    | 31.00       | 1 | <b>08982</b> |
| 10"  | 05 80 250 RM | 115 | D    | 38.00       | 1 | <b>16063</b> |

## PVC Butterfly Valves - Industrial Classic Series (with handle)



### PVC with aluminum handle

Stainless steel stem (AISI 316)  
O-rings: EPDM  
2" - 4" 150 psi @ 73°F  
6" - 10" 115 psi @ 73°F

| Size     | Reference    | psi | Pack  | Weight (lb) | Q | Code         |
|----------|--------------|-----|-------|-------------|---|--------------|
| 2" - 2½" | 05 80 075 IN | 150 | 0.706 | 9.02        | 2 | <b>16707</b> |
| 3"       | 05 80 090 IN | 150 | 0.706 | 11.88       | 2 | <b>16708</b> |
| 4"       | 05 80 110 IN | 150 | 0.706 | 16.50       | 2 | <b>16709</b> |
| 6"       | 05 80 160 IN | 115 | 1.059 | 27.28       | 2 | <b>16711</b> |
| 8"       | 05 80 200 IN | 115 | 2.472 | 42.24       | 2 | <b>16712</b> |
| 10"      | 05 80 250 IN | 115 | 2.472 | 29.26       | 1 | <b>22425</b> |

## PVC Butterfly Valves - industrial Classic Series (with gear box)



### PVC with gear box

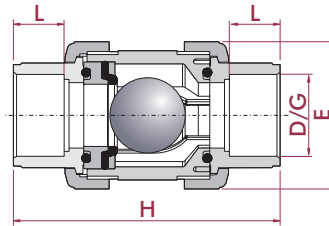
Stainless steel stem (AISI 316)  
O-rings: EPDM  
4" 150 psi @ 73°F  
6" - 10" 115 psi @ 73°F

| Size | Reference     | psi | Pack | Weight (lb) | Q | Code           |
|------|---------------|-----|------|-------------|---|----------------|
| 4"   | 05 80 110 IRM | 150 | C    | 11.00       | 1 | <b>16709GR</b> |
| 6"   | 05 80 160 IRM | 115 | C    | 15.00       | 1 | <b>16711GR</b> |
| 8"   | 05 80 200 IRM | 115 | E    | 31.00       | 1 | <b>16712GR</b> |
| 10"  | 05 80 250 IRM | 115 | D    | 38.00       | 1 | <b>22411GR</b> |
| 12"  | -             | 60  | E    | 70.40       | 1 | <b>08983</b>   |

## TRUE UNION CHECK VALVES - BALL SERIES

### FEATURES

- 100% factory tested.
- Easy installation and maintenance.
- May be used either vertically and horizontally.
- Available in PVC and Corzan® CPVC.
- Socket, threaded and foot valve screen end connectors included.
- Resistance to many inorganic chemicals.
- Excellent flow characteristics.
- Sizes from ½" to 4".
- Available standards: ANSI/ASTM.
- Threaded versions: NPT.
- O-rings available in EPDM or Viton® FPM.
- Minimum return pressure: 3 psi.



| D / G | L    | H     | E    |
|-------|------|-------|------|
| ½"    | 0.6" | 3.3"  | 2.0" |
| ¾"    | 0.7" | 4.3"  | 2.4" |
| 1"    | 0.9" | 4.7"  | 2.8" |
| 1¼"   | 1.0" | 5.6"  | 3.3" |
| 1½"   | 1.2" | 6.4"  | 3.7" |
| 2"    | 1.5" | 7.6"  | 4.6" |
| 2½"   | 1.7" | 9.1"  | 5.8" |
| 3"    | 2.0" | 10.6" | 7.0" |
| 4"    | 2.4" | 11.0" | 7.0" |

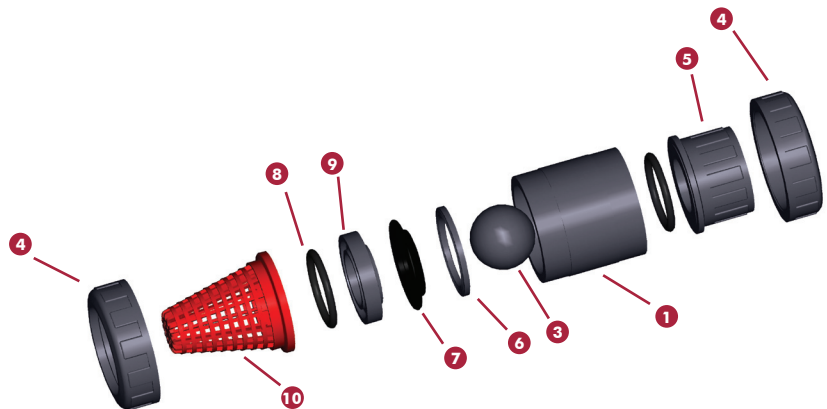
| Fig. | Parts                | Material   |
|------|----------------------|------------|
| 1    | Body                 | PVC / CPVC |
| 3    | Ball                 | PVC / CPVC |
| 4    | Union nut            | PVC / CPVC |
| 5    | End connector        | PVC / CPVC |
| 6    | Closing ring         | PVC / CPVC |
| 7    | Body o-ring          | EPDM / FPM |
| 8    | End connector o-ring | EPDM / FPM |
| 9    | Seal carrier         | PVC / CPVC |
| 10   | Foot valve screen    | PPL        |

| D / G | Kv <sub>100</sub> | Cv  |
|-------|-------------------|-----|
| ½"    | 99                | 7   |
| ¾"    | 128               | 9   |
| 1"    | 308               | 22  |
| 1¼"   | 453               | 32  |
| 1½"   | 795               | 56  |
| 2"    | 1040              | 73  |
| 2½"   | 1932              | 135 |
| 3"    | 2754              | 193 |
| 4"    | 2790              | 195 |

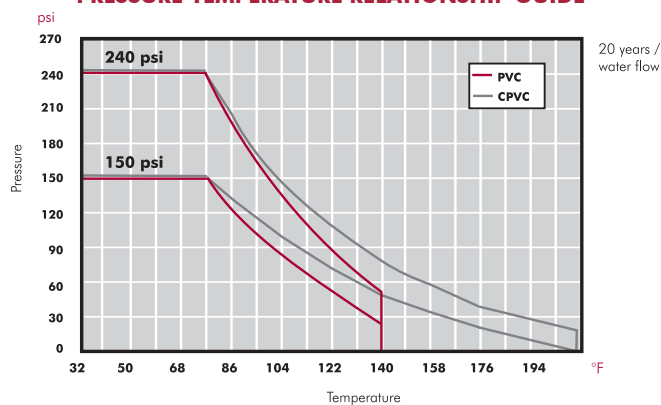
$$Cv = Kv_{100} / 14.28$$

$$Kv_{100} \text{ (l/min, } \Delta p = 1 \text{ bar)}$$

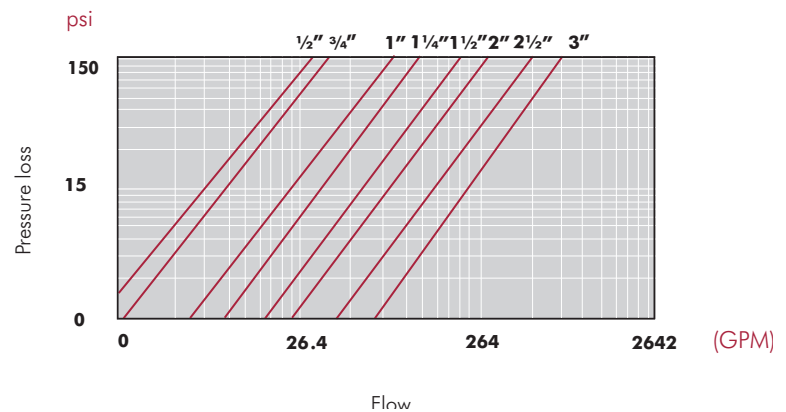
$$Cv \text{ (GPM, } \Delta p = 1 \text{ psi)}$$



### PRESSURE-TEMPERATURE RELATIONSHIP GUIDE



### TOTAL DYNAMIC HEAD





**PVC True Union Check Valves - Ball Series - EPDM**


**PVC TRUE UNION**  
**Threaded and socket**  
 O-rings: EPDM  
 240 psi @ 73°F



**PVC TRUE UNION**<sup>4</sup>  
 O-rings: EPDM  
 150 psi @ 73°F



2

| Size   | Reference    | psi | Pack | Weight (lb) | Q     | Code         |
|--------|--------------|-----|------|-------------|-------|--------------|
| 1/2"   | 05 67 801 ED | 240 | B    | 4.00        | 8 (1) | <b>27360</b> |
| 3/4"   | 05 67 802 ED | 240 | B    | 6.05        | 8 (1) | <b>27361</b> |
| 1"     | 05 67 803 ED | 240 | B    | 4.53        | 4 (1) | <b>27362</b> |
| 1 1/4" | 05 67 804 ED | 240 | B    | 6.71        | 4 (1) | <b>27363</b> |
| 1 1/2" | 05 67 805 ED | 240 | D    | 18.70       | 8 (1) | <b>27000</b> |
| 2"     | 05 67 806 ED | 240 | D    | 23.32       | 6 (1) | <b>27001</b> |

**SOCKET**

| Size            | Reference     | psi | Pack | Weight (lb) | Q     | Code         |
|-----------------|---------------|-----|------|-------------|-------|--------------|
| 2 1/2"          | 05 67 907 EMA | 150 | D    | 25.52       | 4 (1) | <b>27374</b> |
| 3"              | 05 67 908 EMA | 150 | D    | 21.52       | 2 (1) | <b>27375</b> |
| 4" <sup>3</sup> | 05 67 910 EMA | 150 | D    | 23.76       | 2 (1) | <b>27376</b> |

**THREADED**

| Size            | Reference   | psi | Pack | Weight (lb) | Q     | Code         |
|-----------------|-------------|-----|------|-------------|-------|--------------|
| 2 1/2"          | 05 67 807 E | 150 | D    | 25.43       | 4 (1) | <b>27368</b> |
| 3"              | 05 67 808 E | 150 | D    | 21.98       | 2 (1) | <b>27369</b> |
| 4" <sup>3</sup> | 05 67 810 E | 150 | D    | 24.64       | 2 (1) | <b>27370</b> |

**PVC True Union Check Valves - Ball Series - Viton®**


**PVC TRUE UNION**  
**Threaded and socket**  
 O-rings: FPM (Viton®)  
 240 psi @ 73°F



**PVC TRUE UNION**<sup>4</sup>  
 O-rings: FPM (Viton®)  
 150 psi @ 73°F



2

| Size   | Reference     | psi | Pack | Weight (lb) | Q     | Code         |
|--------|---------------|-----|------|-------------|-------|--------------|
| 1/2"   | 05 67 801 VED | 240 | B    | 4.04        | 8 (1) | <b>27364</b> |
| 3/4"   | 05 67 802 VED | 240 | B    | 6.12        | 8 (1) | <b>27365</b> |
| 1"     | 05 67 803 VED | 240 | B    | 4.58        | 4 (1) | <b>27366</b> |
| 1 1/4" | 05 67 804 VED | 240 | B    | 6.78        | 4 (1) | <b>27367</b> |
| 1 1/2" | 05 67 805 VED | 240 | D    | 18.91       | 8 (1) | <b>27002</b> |
| 2"     | 05 67 806 VED | 240 | D    | 23.51       | 6 (1) | <b>27003</b> |

**SOCKET**

| Size            | Reference      | psi | Pack | Weight (lb) | Q     | Code         |
|-----------------|----------------|-----|------|-------------|-------|--------------|
| 2 1/2"          | 05 67 907 VEMA | 150 | D    | 25.81       | 4 (1) | <b>27377</b> |
| 3"              | 05 67 908 VEMA | 150 | D    | 20.90       | 2 (1) | <b>27378</b> |
| 4" <sup>3</sup> | 05 67 910 VEMA | 150 | D    | 24.03       | 2 (1) | <b>27379</b> |

**THREADED**

| Size            | Reference    | psi | Pack | Weight (lb) | Q     | Code         |
|-----------------|--------------|-----|------|-------------|-------|--------------|
| 2 1/2"          | 05 67 807 VE | 150 | D    | 25.72       | 4 (1) | <b>27371</b> |
| 3"              | 05 67 808 VE | 150 | D    | 22.23       | 2 (1) | <b>27372</b> |
| 4" <sup>3</sup> | 05 67 810 VE | 150 | D    | 24.92       | 2 (1) | <b>27373</b> |

<sup>1</sup> 1/2" thru 2" Ball Valves are supplied with both socket and threaded end connectors.

<sup>2</sup> Check Valves are supplied with a foot valve screen; used to convert true union ball check valves into foot valves.

<sup>3</sup> 3" double union body venturied to 4"

<sup>4</sup> 2 1/2" thru 4" Ball Valves can be ordered with either socket or threaded connections.

**CORZAN® CPVC True Union Check Valves - Ball Series - EPDM**



**CPVC TRUE UNION**

**Threaded and socket**

O-rings: EPDM  
240 psi @ 73°F



**CPVC TRUE UNION**

O-rings: EPDM  
150 psi @ 73°F



| Size   | Reference    | psi | Pack | Weight (lb) | Q     | Code         |
|--------|--------------|-----|------|-------------|-------|--------------|
| 1/2"   | 35 67 801 ED | 240 | B    | 4.20        | 8 (1) | <b>27380</b> |
| 3/4"   | 35 67 802 ED | 240 | B    | 6.35        | 8 (1) | <b>27381</b> |
| 1"     | 35 67 803 ED | 240 | B    | 4.76        | 4 (1) | <b>27382</b> |
| 1 1/4" | 35 67 804 ED | 240 | B    | 7.05        | 4 (1) | <b>27383</b> |
| 1 1/2" | 35 67 805 ED | 240 | D    | 19.64       | 8 (1) | <b>27384</b> |
| 2"     | 35 67 806 ED | 240 | D    | 24.49       | 6 (1) | <b>27385</b> |

**SOCKET**

| Size            | Reference     | psi | Pack | Weight (lb) | Q     | Code         |
|-----------------|---------------|-----|------|-------------|-------|--------------|
| 2 1/2"          | 35 67 907 EMA | 150 | D    | 26.81       | 4 (1) | <b>27397</b> |
| 3"              | 35 67 908 EMA | 150 | D    | 22.60       | 2 (1) | <b>27398</b> |
| 4" <sup>3</sup> | 35 67 910 EMA | 150 | D    | 24.96       | 2 (1) | <b>27433</b> |

**THREADED**

| Size            | Reference   | psi | Pack | Weight (lb) | Q     | Code         |
|-----------------|-------------|-----|------|-------------|-------|--------------|
| 2 1/2"          | 35 67 807 E | 150 | D    | 26.71       | 4 (1) | <b>27392</b> |
| 3"              | 35 67 808 E | 150 | D    | 23.09       | 2 (1) | <b>27393</b> |
| 4" <sup>3</sup> | 35 67 810 E | 150 | D    | 25.88       | 2 (1) | <b>27432</b> |

**CORZAN® CPVC True Union Check Valves - Ball Series - Viton®**



**CPVC TRUE UNION**

**Threaded and socket**

O-rings: FPM (Viton®)  
240 psi @ 73°F



**CPVC TRUE UNION**

O-rings: FPM (Viton®)  
150 psi @ 73°F



| Size   | Reference     | psi | Pack | Weight (lb) | Q     | Code         |
|--------|---------------|-----|------|-------------|-------|--------------|
| 1/2"   | 35 67 801 VED | 240 | B    | 4.24        | 8 (1) | <b>27386</b> |
| 3/4"   | 35 67 802 VED | 240 | B    | 6.43        | 8 (1) | <b>27387</b> |
| 1"     | 35 67 803 VED | 240 | B    | 4.81        | 4 (1) | <b>27388</b> |
| 1 1/4" | 35 67 804 VED | 240 | B    | 7.12        | 4 (1) | <b>27389</b> |
| 1 1/2" | 35 67 805 VED | 240 | D    | 19.86       | 8 (1) | <b>27390</b> |
| 2"     | 35 67 806 VED | 240 | D    | 24.69       | 6 (1) | <b>27391</b> |

**SOCKET**

| Size            | Reference      | psi | Pack | Weight (lb) | Q     | Code         |
|-----------------|----------------|-----|------|-------------|-------|--------------|
| 2 1/2"          | 35 67 907 VEMA | 150 | D    | 27.11       | 4 (1) | <b>27399</b> |
| 3"              | 35 67 908 VEMA | 150 | D    | 21.95       | 2 (1) | <b>27400</b> |
| 4" <sup>3</sup> | 35 67 910 VEMA | 150 | D    | 25.24       | 2 (1) | <b>27401</b> |

**THREADED**

| Size            | Reference    | psi | Pack | Weight (lb) | Q     | Code         |
|-----------------|--------------|-----|------|-------------|-------|--------------|
| 2 1/2"          | 35 67 807 VE | 150 | D    | 27.02       | 4 (1) | <b>27394</b> |
| 3"              | 35 67 808 VE | 150 | D    | 23.35       | 2 (1) | <b>27395</b> |
| 4" <sup>3</sup> | 35 67 810 VE | 150 | D    | 26.17       | 2 (1) | <b>27396</b> |

<sup>1</sup> 1/2" thru 2" Ball Valves are supplied with both socket and threaded end connectors.

<sup>2</sup> Check Valves are supplied with a foot valve screen; used to convert true union ball check valves into foot valves.

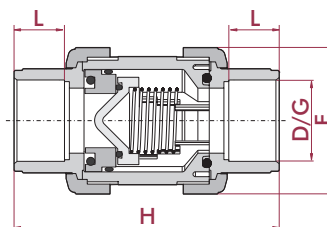
<sup>3</sup> 3" double union body venturied to 4"

<sup>4</sup> 2 1/2" thru 4" Ball Valves can be ordered with either socket or threaded connections, they don't include both.

## TRUE UNION CHECK VALVES - SPRING SERIES

### FEATURES

- 100% factory tested.
- Easy installation and maintenance.
- May be used either vertically and horizontally.
- Available in PVC.
- Resistance to many inorganic chemicals.
- Excellent flow characteristics.
- Sizes from 1/2" - 4".
- Available standards: ANSI/ASTM.
- Threaded versions: NPT.
- O-rings available in EPDM or Viton® FPM.



| D / G  | L    | H     | E    |
|--------|------|-------|------|
| 1/2"   | 0.6" | 3.3"  | 2.0" |
| 3/4"   | 0.7" | 4.3"  | 2.4" |
| 1"     | 0.9" | 4.7"  | 2.8" |
| 1 1/4" | 1.0" | 5.6"  | 3.3" |
| 1 1/2" | 1.2" | 6.4"  | 3.7" |
| 2"     | 1.5" | 7.6"  | 4.6" |
| 2 1/2" | 1.7" | 9.1"  | 5.8" |
| 3"     | 2.0" | 10.6" | 7.0" |
| 4"     | 2.4" | 11.0" | 7.0" |

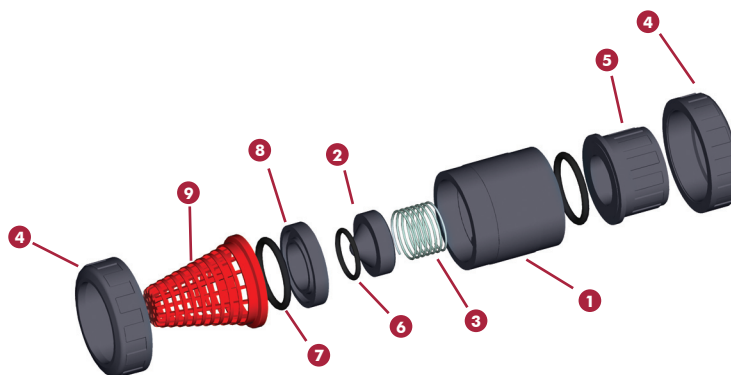
| Fig. | Parts                | Material           |
|------|----------------------|--------------------|
| 1    | Body                 | PVC                |
| 2    | Cone                 | PVC                |
| 3    | Spring               | AISI 302 st. steel |
| 4    | Union nut            | PVC                |
| 5    | End connector        | PVC                |
| 6    | Cone o-ring          | PVC                |
| 7    | Body o-ring          | EPDM / FPM         |
| 8    | End connector o-ring | EPDM / FPM         |
| 9    | Seal carrier         | PVC                |
| 10   | Foot valve screen    | PPL                |

| D / G  | Kv <sub>100</sub> | Cv  |
|--------|-------------------|-----|
| 1/2"   | 68                | 5   |
| 3/4"   | 133               | 9   |
| 1"     | 208               | 15  |
| 1 1/4" | 383               | 27  |
| 1 1/2" | 667               | 47  |
| 2"     | 850               | 60  |
| 2 1/2" | 1533              | 107 |
| 3"     | 2100              | 147 |
| 4"     | 2280              | 160 |

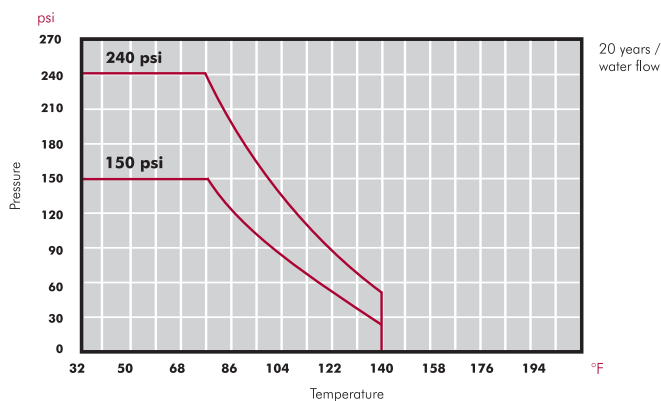
$$Cv = Kv_{100} / 14.28$$

$$Kv_{100} \text{ (l/min, } \Delta p = 1 \text{ bar)}$$

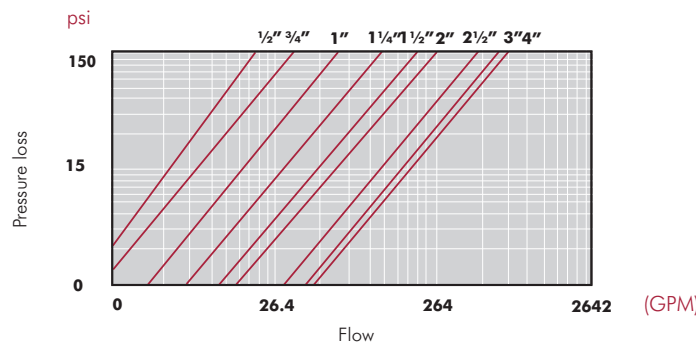
$$Cv \text{ (GPM, } \Delta p = 1 \text{ psi)}$$



### PRESSURE-TEMPERATURE RELATIONSHIP GUIDE



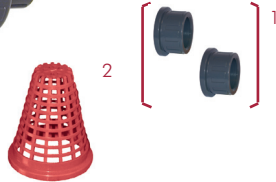
### TOTAL DYNAMIC HEAD



## PVC True Union Check Valves - Spring Series - EPDM



**PVC TRUE UNION**  
**Socket and threaded**  
O-rings: EPDM  
1/2" - 2" 240 psi @ 73°F



**PVC TRUE UNION**<sup>4</sup>  
O-rings: EPDM  
150 psi @ 73°F



| Size   | Reference   | psi | Pack | Weight (lb) | Q     | Code         |
|--------|-------------|-----|------|-------------|-------|--------------|
| 1/2"   | 05 67 801 D | 240 | B    | 3.87        | 8 (1) | <b>22015</b> |
| 3/4"   | 05 67 802 D | 240 | B    | 5.85        | 8 (1) | <b>22016</b> |
| 1"     | 05 67 803 D | 240 | B    | 4.38        | 4 (1) | <b>22017</b> |
| 1 1/2" | 05 67 805 D | 240 | D    | 18.57       | 8 (1) | <b>22019</b> |
| 2"     | 05 67 806 D | 240 | D    | 21.87       | 6 (1) | <b>22020</b> |

### SOCKET

| Size   | Reference   | psi | Pack | Weight (lb) | Q     | Code         |
|--------|-------------|-----|------|-------------|-------|--------------|
| 2 1/2" | 05 67 807 R | 150 | D    | 24.60       | 4 (1) | <b>22071</b> |
| 3"     | 05 67 808 R | 150 | D    | 19.29       | 2 (1) | <b>22075</b> |
| 4"     | 05 67 809 R | 150 | D    | 23.83       | 2 (1) | <b>24301</b> |

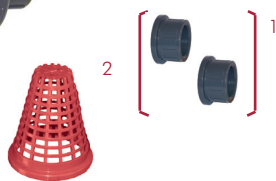
### THREADED

| Size   | Reference   | psi | Pack | Weight (lb) | Q     | Code         |
|--------|-------------|-----|------|-------------|-------|--------------|
| 2 1/2" | 05 67 907 R | 150 | D    | 24.69       | 4 (1) | <b>22072</b> |
| 3"     | 05 67 908 R | 150 | D    | 18.74       | 2 (1) | <b>22076</b> |
| 4"     | 05 67 909 R | 150 | D    | 22.98       | 2 (1) | <b>24302</b> |

## PVC Double Union Check Valves - Spring Series - Viton®



**PVC TRUE UNION**  
**Threaded and socket**  
O-rings: FPM (Viton®)  
1/2" - 2" 240 psi @ 73°F



**PVC TRUE UNION**<sup>4</sup>  
O-rings: FPM (Viton®)  
150 psi @ 73°F



| Size   | Reference     | psi | Pack | Weight (lb) | Q     | Code            |
|--------|---------------|-----|------|-------------|-------|-----------------|
| 1/2"   | 05 67 801 VID | 240 | B    | 3.91        | 8 (1) | <b>22015VIT</b> |
| 3/4"   | 05 67 802 VID | 240 | B    | 5.92        | 8 (1) | <b>22016VIT</b> |
| 1"     | 05 67 803 VID | 240 | B    | 4.43        | 4 (1) | <b>22017VIT</b> |
| 1 1/2" | 05 67 805 VID | 240 | D    | 18.29       | 8 (1) | <b>22019VIT</b> |
| 2"     | 05 67 806 VID | 240 | D    | 22.74       | 6 (1) | <b>22020VIT</b> |

### SOCKET

| Size   | Reference     | psi | Pack | Weight (lb) | Q     | Code            |
|--------|---------------|-----|------|-------------|-------|-----------------|
| 2 1/2" | 05 67 807 VIR | 150 | D    | 24.88       | 4 (1) | <b>22071VIT</b> |
| 3"     | 05 67 808 VIR | 150 | D    | 21.50       | 2 (1) | <b>22075VIT</b> |
| 4"     | 05 67 809 VIR | 150 | D    | 24.11       | 2 (1) | <b>24301VIT</b> |

### THREADED

| Size   | Reference     | psi | Pack | Weight (lb) | Q     | Code            |
|--------|---------------|-----|------|-------------|-------|-----------------|
| 2 1/2" | 05 67 907 AVR | 150 | D    | 24.97       | 4 (1) | <b>22072VIT</b> |
| 3"     | 05 67 908 AVR | 150 | D    | 20.24       | 2 (1) | <b>22076VIT</b> |
| 4"     | 05 67 909 AVR | 150 | D    | 23.24       | 2 (1) | <b>24302VIT</b> |

<sup>1</sup> 1/2" thru 2" Ball Valves are supplied with both socket and threaded end connectors.

<sup>2</sup> Check Valves are supplied with a foot valve screen; used to convert true union ball check valves into foot valves.

<sup>3</sup> 3" double union body venturied to 4"

<sup>4</sup> 2 1/2" thru 4" Ball Valves can be ordered with either socket or threaded connections, they don't include both.

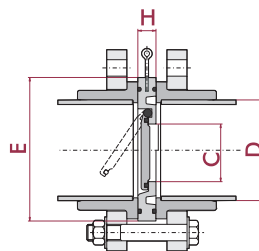
## WAFER CHECK VALVES

### FEATURES

- Requires little space in piping systems.
- Easy installation: wafer body slips between standard flanges. No gaskets required.
- Vertical and horizontal operation.
- Available with EPDM o-rings.
- Excellent flow characteristics.
- Sizes from 4" - 8".
- Available Standards: ANSI/ASTM.

Do not install the valve at a distance closer to 5 pipe diameters from the pump discharge. Install with ANSI 150 pound flanges.

- Minimum return pressure: 3 psi.

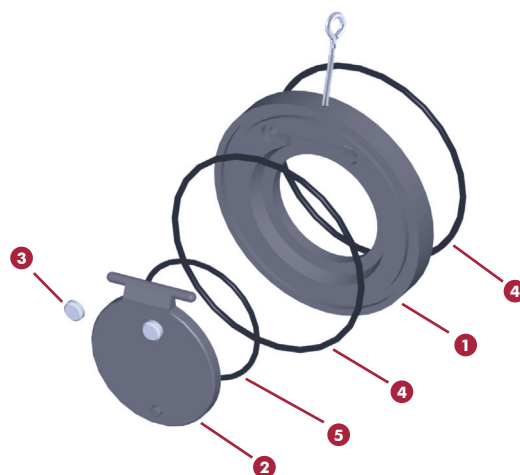


| D  | C     | H     | E      | M x L       |
|----|-------|-------|--------|-------------|
| 4" | 2.8"  | 0.9"  | 6.5"   | 0.6" x 4.7" |
| 6" | 4.4"  | 1.0"  | 8.7"   | 0.8" x 6.3" |
| 8" | 5.91" | 1.34" | 10.83" | 0.8" x 6.3" |

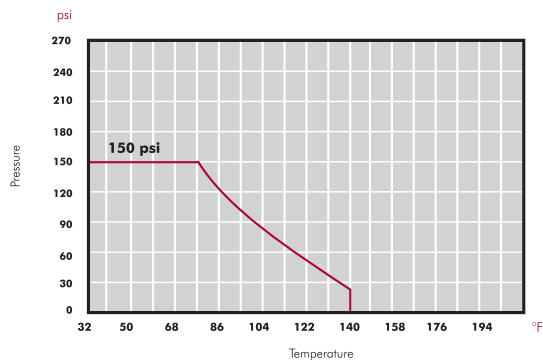
| Fig. | Parts       | Material |
|------|-------------|----------|
| 1    | Body        | PVC      |
| 2    | Flap        | PVC      |
| 3    | Cap         | PPL      |
| 4    | Body o-ring | EPDM     |
| 5    | Flap o-ring | EPDM     |

| D  | Cv   |
|----|------|
| 4" | 126  |
| 6" | 655  |
| 8" | 1085 |

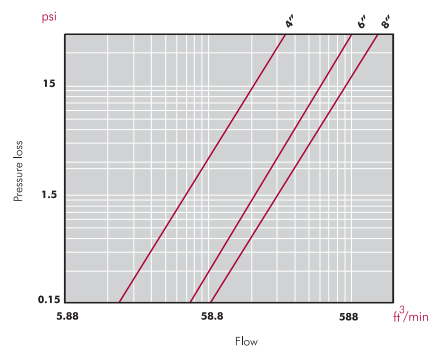
$C_v = K_{v100} / 14.28$   
 $K_{v100}$  (l/min,  $\Delta p = 1$  bar)  
 $C_v$  (GPM,  $\Delta p = 1$  psi)



### PRESSURE-TEMPERATURE RELATIONSHIP GUIDE



### TOTAL DYNAMIC HEAD



**PVC**  
 O-rings: EPDM  
 150 psi @ 73°F

| Size | Reference | psi | Pack | Weight (lb) | Q | Code         |
|------|-----------|-----|------|-------------|---|--------------|
| 4"   | 05 65 110 | 150 | B    | 6.27        | 5 | <b>08986</b> |
| 6"   | 05 65 160 | 150 | C    | 12.83       | 5 | <b>08988</b> |
| 8"   | 05 65 225 | 150 | C    | 12.98       | 4 | <b>08989</b> |

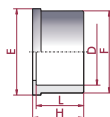
## PVC VALVE CONNECTORS



### PVC CONNECTION

#### Socket

1/2" - 2" 240 psi @ 73°F  
2 1/2" - 4" 150 psi @ 73°F



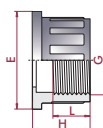
| Size   | Reference    | psi | H     | L     | E     | Code         |
|--------|--------------|-----|-------|-------|-------|--------------|
| 1/2"   | 05 22 901 AV | 240 | 0.82" | 0.62" | 1.44" | <b>24248</b> |
| 3/4"   | 05 22 902 AV | 240 | 1.05" | 0.74" | 1.68" | <b>24249</b> |
| 1"     | 05 22 903 AV | 240 | 1.17" | 0.86" | 1.99" | <b>24250</b> |
| 1 1/4" | 05 22 904 AV | 240 | 1.4"  | 1.01" | 2.42" | <b>24251</b> |
| 1 1/2" | 05 22 905 AV | 240 | 1.68" | 1.21" | 2.85" | <b>24252</b> |
| 2"     | 05 22 906 AV | 240 | 1.99" | 1.48" | 3.63" | <b>24253</b> |
| 2 1/2" | 05 22 097 AV | 150 | 2.22" | 1.72" | 4.6"  | <b>28052</b> |
| 3"     | 05 22 098 AV | 150 | 2.5"  | 1.99" | 5.62" | <b>28053</b> |
| 4"     | 05 22 911 AV | 150 | 3.2"  | 2.46" | 7.33" | <b>28054</b> |



### PVC CONNECTION

#### Threaded (F)

1/2" - 2" 240 psi @ 73°F  
2 1/2" - 4" 150 psi @ 73°F



| Size   | Reference    | psi | H     | L     | E     | Code         |
|--------|--------------|-----|-------|-------|-------|--------------|
| 1/2"   | 05 22 801 VA | 240 | 0.82" | 0.62" | 1.44" | <b>28055</b> |
| 3/4"   | 05 22 802 VA | 240 | 1.05" | 0.74" | 1.68" | <b>28056</b> |
| 1"     | 05 22 803 VA | 240 | 1.17" | 0.86" | 1.99" | <b>28057</b> |
| 1 1/4" | 05 22 804 VA | 240 | 1.4"  | 1.01" | 2.42" | <b>28058</b> |
| 1 1/2" | 05 22 805 VA | 240 | 1.68" | 1.21" | 2.85" | <b>28059</b> |
| 2"     | 05 22 806 VA | 240 | 1.99" | 1.48" | 3.63" | <b>28060</b> |
| 2 1/2" | 05 22 807 VA | 150 | 2.22" | 1.72" | 4.6"  | <b>28071</b> |
| 3"     | 05 22 808 VA | 150 | 2.5"  | 1.99" | 5.62" | <b>28061</b> |
| 4"     | 05 22 811 VA | 150 | 3.2"  | 2.46" | 7.33" | <b>28062</b> |

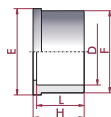
## CORZAN® CPVC VALVE CONNECTIONS



### CPVC CONNECTION

#### Socket

1/2" - 2" 240 psi @ 73°F  
2 1/2" - 4" 150 psi @ 73°F



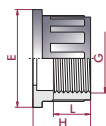
| Size   | Reference    | psi | H     | L     | E     | Code         |
|--------|--------------|-----|-------|-------|-------|--------------|
| 1/2"   | 35 22 901 AV | 240 | 0.82" | 0.62" | 1.44" | <b>22284</b> |
| 3/4"   | 35 22 902 AV | 240 | 1.05" | 0.74" | 1.68" | <b>22285</b> |
| 1"     | 35 22 903 AV | 240 | 1.17" | 0.86" | 1.99" | <b>22286</b> |
| 1 1/4" | 35 22 904 AV | 240 | 1.4"  | 1.01" | 2.42" | <b>22287</b> |
| 1 1/2" | 35 22 905 AV | 240 | 1.68" | 1.21" | 2.85" | <b>22288</b> |
| 2"     | 35 22 906 AV | 240 | 1.99" | 1.48" | 3.63" | <b>22289</b> |
| 2 1/2" | 35 22 907 AV | 150 | 2.22" | 1.72" | 4.6"  | <b>22290</b> |
| 3"     | 35 22 908 AV | 150 | 2.5"  | 1.99" | 5.62" | <b>22291</b> |
| 4"     | 35 22 911 AV | 150 | 3.2"  | 2.46" | 7.33" | <b>22292</b> |



### CPVC CONNECTION

#### Threaded (F)

1/2" - 2" 240 psi @ 73°F  
2 1/2" - 4" 150 psi @ 73°F



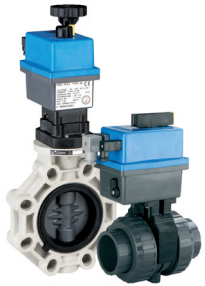
| Size   | Reference    | psi | H     | L     | E     | Code         |
|--------|--------------|-----|-------|-------|-------|--------------|
| 1/2"   | 35 22 801 VA | 240 | 0.82" | 0.62" | 1.44" | <b>22302</b> |
| 3/4"   | 35 22 802 VA | 240 | 1.05" | 0.74" | 1.68" | <b>22303</b> |
| 1"     | 35 22 803 VA | 240 | 1.17" | 0.86" | 1.99" | <b>22304</b> |
| 1 1/4" | 35 22 804 VA | 240 | 1.4"  | 1.01" | 2.42" | <b>22305</b> |
| 1 1/2" | 35 22 805 VA | 240 | 1.68" | 1.21" | 2.85" | <b>22306</b> |
| 2"     | 35 22 806 VA | 240 | 1.99" | 1.48" | 3.63" | <b>22307</b> |
| 2 1/2" | 35 22 807 VA | 150 | 2.22" | 1.72" | 4.6"  | <b>22308</b> |
| 3"     | 35 22 808 VA | 150 | 2.5"  | 1.99" | 5.62" | <b>22309</b> |
| 4"     | 35 22 811 VA | 150 | 3.2"  | 2.46" | 7.33" | <b>22310</b> |



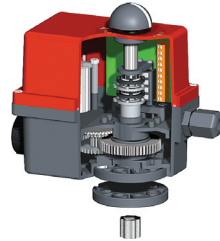
**Working system**

**Options**

**Concept & typical application**



**Electric actuation**



Safety block

Visual position indicator

Digital Positioning System

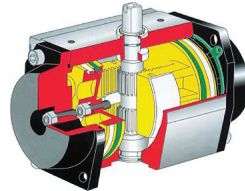
Torque limiter



- The actuator operates by means of a motor switched on by electrical signals.
- No need for compressed air installation neither electrovalve.
- Indicated for applications with not much actuators.
- Operation time medium/high (min. 7-8 s), effective to avoid water hammer.
- Compact and light weight.
- Optional accessories: visual position indicator, manual control, safety block, torque limiter, digital positioning system.
- Not recommended for environments with explosion possibilities, very wet or saline ones.
- Life: 20,000 guaranteed cycles.



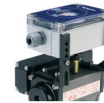
**Pneumatic actuation**



Solenoid valve

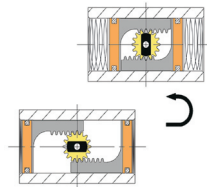
Limit switch-box

Relief regulators



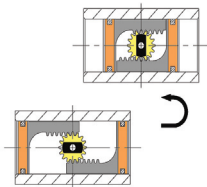
- The actuator is based on an input/output mechanism of compressed air to the inner chambers.
- A power line and compressed air installation are required.
- Ideal for applications with several actuators.
- Low operation time (adjustable).
- Additional accessories are needed: solenoid valve, limit switch box and relief regulators.
- Not recommended for outside installations or when the actuator has to be installed far away from the control center (difficulties in the air transport).
- Life: 1,000,000 guaranteed cycles.
- Maximum security against supply failures thanks to the the springs (spring return).
- Its operation depends on the proper installation of compressed air.

**Spring return**



- It operates with a spring system which contracts in the presence of compressed air and expands with the force of the spring.
- In case of air lack, the actuator returns to its starting position (Normally Open or Normally Closed).
- Ideally suited for applications of draining control since it offers protection against supply failures (no undesired drainings).

**Double acting**

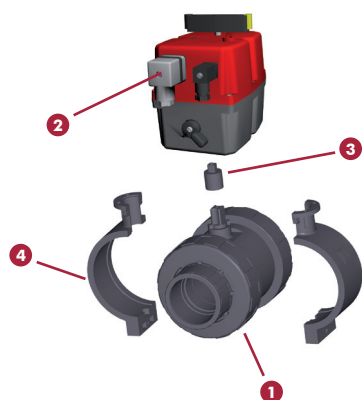


- It operates with a system of pistons directly actuated by the compressed air.
- It needs an solenoid valve to invert the direction of operation (open or close).
- The opening and closing time may be controlled with relief regulators.

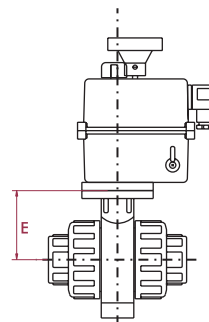
## ELECTRIC ACTUATION

### FEATURES

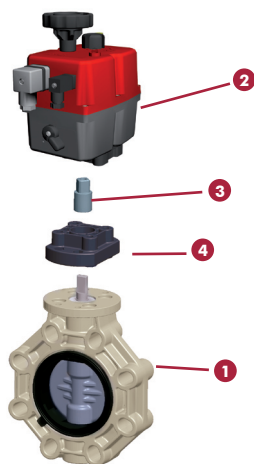
- Electric actuators for ball and butterfly valves.
- Available voltages:
  - 12 - 48 VAC - VDC
  - 80 - 240 VAC - VDC
- Manual override and visual position indicator.
- Torque limiter.
- BSR safety block.
- DPS (Digital Positioning System).



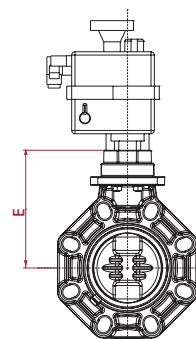
| Fig. | Parts                        |
|------|------------------------------|
| 1    | Ball valve                   |
| 2    | Electric actuator            |
| 3    | Actuator-valve coupling bush |
| 4    | Mounting clamp               |



| D / G  | Dim. "E" |
|--------|----------|
| 1/2"   | 2.52"    |
| 3/4"   | 2.52"    |
| 1"     | 2.91"    |
| 1 1/4" | 2.91"    |
| 1 1/2" | 3.46"    |
| 2"     | 3.46"    |
| 2 1/2" | 4.84"    |
| 3"     | 4.84"    |
| 4"     | 6.50"    |



| Fig. | Parts                        |
|------|------------------------------|
| 1    | Butterfly valve              |
| 2    | Electric actuator            |
| 3    | Actuator-valve coupling bush |
| 4    | Mounting clamp               |



| Size      | Dim. "E" |
|-----------|----------|
| 2"-2 1/2" | 5.85"    |
| 3"        | 6.47"    |
| 4"        | 6.94"    |
| 6"        | 8.19"    |
| 8"        | 10.14"   |
| 10"       | 11.7"    |
| 12"       | 13.96"   |

| TYPE OF VALVE   |                        | ACTUATOR          |
|-----------------|------------------------|-------------------|
| Ball valve      | 1/2", 3/4", 1", 1 1/4" | J3<br>L20 / H20   |
| Ball valve      | 1 1/2"-2"              | J3<br>L20 / H20   |
| Ball valve      | 2 1/2"-3"              | J3<br>L55 / H55   |
| Butterfly valve | 2 1/2"-3"-4"           | J3<br>L55 / H55   |
| Ball valve      | 4"                     | J3<br>L85 / H85   |
| Butterfly valve | 6"                     | J3<br>L85 / H85   |
| Butterfly valve | 8"                     | J2<br>L140 / H140 |
| Butterfly valve | 10"-12"                | J2<br>L300 / H300 |

For more information, please check the actuation manual at:  
[www.cepexusa.com](http://www.cepexusa.com)

**ELECTRIC ACTUATOR CHARACTERISTICS**

| Model | Stroke time |       | Torque output |           | Weight |       | Temperature |          |
|-------|-------------|-------|---------------|-----------|--------|-------|-------------|----------|
|       |             |       | Nm            | lb x inch | Kg     | lb    | °C          | °F       |
| U-0   | 15.0        | s/90° | 15            | 133       | 1.5    | 3.3   | -10 -50     | -50 +122 |
| R-0   | 7.5         | s/90° | 20            | 177       | 1.5    | 3.3   | -10 -50     | -50 +122 |
| R-1   | 10.0        | s/90° | 70            | 620       | 1.8    | 3.97  | -10 -50     | -50 +122 |
| R-2   | 30.0        | s/90° | 170           | 1506      | 5.2    | 11.47 | -10 -50     | -50 +122 |
| R-2+  | 66.0        | s/90° | 370           | 3277      | 5.4    | 11.91 | -10 -50     | -50 +122 |

| Specifications                      | J3 - L20                                                                                              | J3 - H20                                                                                                | J3 - L55                                                                                                 | J3 - H55                                                                                                 |
|-------------------------------------|-------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|
| Voltage (V)                         | 12-24 VAC/VDC ±5%                                                                                     | 85-240 VAC/VDC                                                                                          | 12-24 VAC/VDC ±5%                                                                                        | 80-240 VAC/VDC                                                                                           |
| Operation time (s/90°) no load ±10% | 12 s                                                                                                  | 11 s                                                                                                    | 16 s                                                                                                     | 14 s                                                                                                     |
| Maximum operational torque (in-lb)  | 177                                                                                                   | 177                                                                                                     | 486                                                                                                      | 486                                                                                                      |
| Maximum torque break (in-lb)        | 221                                                                                                   | 221                                                                                                     | 530                                                                                                      | 530                                                                                                      |
| Duty rating (%)                     | 75                                                                                                    | 75                                                                                                      | 75                                                                                                       | 75                                                                                                       |
| IP rating IEC 60529                 | IP 65                                                                                                 | IP 65                                                                                                   | IP 65                                                                                                    | IP 65                                                                                                    |
| Working angle (°)                   | 90° - 180° - 270°                                                                                     | 90° - 180° - 270°                                                                                       | 90° - 180° - 270°                                                                                        | 90° - 180° - 270°                                                                                        |
| Temperature                         | -4° / 158° F                                                                                          | -4° / 158° F                                                                                            | -4° / 158° F                                                                                             | -4° / 158° F                                                                                             |
| Limit switch                        | 4 SPTD micro                                                                                          | 4 SPTD micro                                                                                            | 4 SPTD micro                                                                                             | 4 SPTD micro                                                                                             |
| Heating resistor (W)                | 4                                                                                                     | 4                                                                                                       | 4                                                                                                        | 4                                                                                                        |
| Consumption at maximum torque ±5%   | 12 VAC 1800 mA - 21,6 W<br>12 VDC 2050 mA - 24,6 W<br>24 VAC 850 mA - 20,4 W<br>24 VDC 1000 mA - 24 W | 110 VAC 170 mA - 18,7 W<br>110 VDC 210 mA - 23,1 W<br>220 VAC 90 mA - 19,8 W<br>220 VDC 110 mA - 24,2 W | 12 VAC 2980 mA - 35,7 W<br>12 VDC 3080 mA - 36,9 W<br>24 VAC 1200 mA - 28,8 W<br>24 VDC 1400 mA - 33,6 W | 110 VAC 240 mA - 26,4 W<br>110 VDC 260 mA - 28,6 W<br>220 VAC 110 mA - 24,2 W<br>220 VDC 130 mA - 28,6 W |
| Plugs                               | DIN 43650<br>ISO 4400 & C192                                                                          | DIN 43650<br>ISO 4400 & C192                                                                            | DIN 43650<br>ISO 4400 & C192                                                                             | DIN 43650<br>ISO 4400 & C192                                                                             |
| Weight (lb)                         | 3.96 lb                                                                                               | 3.96 lb                                                                                                 | 5.29 lb                                                                                                  | 5.29 lb                                                                                                  |

| Specifications                      | J2 - L140                                        | J2 - H140                                      | J2 - L300                                         | J2 - H300                                      |
|-------------------------------------|--------------------------------------------------|------------------------------------------------|---------------------------------------------------|------------------------------------------------|
| Voltage (V)                         | 12-24 VAC/VDC ±5%                                | 85-240 VAC/VDC                                 | 12-24 VAC/VDC ±5%                                 | 80-240 VAC/VDC                                 |
| Operation time (s/90°) no load ±10% | 33 s                                             | 33 s                                           | 60 s                                              | 60 s                                           |
| Maximum operational torque (in-lb)  | 1239                                             | 1239                                           | 2655                                              | 2655                                           |
| Maximum torque break (in-lb)        | 1504                                             | 1504                                           | 3097                                              | 3097                                           |
| Duty rating (%)                     | 75                                               | 75                                             | 75                                                | 75                                             |
| IP rating IEC 60529                 | IP 65                                            | IP 65                                          | IP 65                                             | IP 65                                          |
| Working angle (°)                   | 90° - 180° - 270°                                | 90° - 180° - 270°                              | 90° - 180° - 270°                                 | 90° - 180° - 270°                              |
| Temperature                         | -4° / 158° F                                     | -4° / 158° F                                   | -4° / 158° F                                      | -4° / 158° F                                   |
| Limit switch                        | 4 SPTD micro                                     | 4 SPTD micro                                   | 4 SPTD micro                                      | 4 SPTD micro                                   |
| Heating resistor (W)                | 4                                                | 4                                              | 4                                                 | 4                                              |
| Consumption at maximum torque ±5%   | 24 VAC 1900mA - 45,6 W<br>24 VDC 900 mA - 21,6 W | 110 V 700 mA - 77,0 W<br>220 V 230 mA - 50,6 W | 24 VAC 1900 mA - 45,6 W<br>24 VDC 900 mA - 21,6 W | 110 V 700 mA - 77,0 W<br>220 V 230 mA - 50,6 W |
| Plugs                               | DIN 43650<br>ISO 4400 & C192                     | DIN 43650<br>ISO 4400 & C192                   | DIN 43650<br>ISO 4400 & C192                      | DIN 43650<br>ISO 4400 & C192                   |
| Weight (lb)                         | 11.44 lb                                         | 11.44 lb                                       | 11.44 lb                                          | 11.44 lb                                       |

| Electric actuation   |                       | Electric actuation<br>& BSR safety block |                       |
|----------------------|-----------------------|------------------------------------------|-----------------------|
| 12 - 48 V<br>AC / DC | 80 - 240 V<br>AC / DC | 12 - 48 V<br>AC / DC                     | 80 - 240 V<br>AC / DC |

Industrial Series ball valves - PVC

Solvent socket connectors

Teflon® - EPDM

|        |                         |                         |                         |                         |
|--------|-------------------------|-------------------------|-------------------------|-------------------------|
| 1/2"   | 29491<br><b>J2-L20</b>  | 31421<br><b>J2-H20</b>  | 29501<br><b>J2-L20</b>  | 05366<br><b>J2-H20</b>  |
| 3/4"   | 29492<br><b>J2-L20</b>  | 31422<br><b>J2-H20</b>  | 29502<br><b>J2-L20</b>  | 05367<br><b>J2-H20</b>  |
| 1"     | 29493<br><b>J2-L20</b>  | 31423<br><b>J2-H20</b>  | 29503<br><b>J2-L20</b>  | 05368<br><b>J2-H20</b>  |
| 1 1/4" | 29494<br><b>J2-L20</b>  | 31424<br><b>J2-H20</b>  | 29504<br><b>J2-L20</b>  | 05369<br><b>J2-H20</b>  |
| 1 1/2" | 29495<br><b>J2-L20</b>  | 02628<br><b>J2-H20</b>  | 29505<br><b>J2-L20</b>  | 05370<br><b>J2-H20</b>  |
| 2"     | 29496<br><b>J2-L20</b>  | 02629<br><b>J2-H20</b>  | 29506<br><b>J2-L20</b>  | 05371<br><b>J2-H20</b>  |
| 2 1/2" | 29497<br><b>J2-L55</b>  | 02630<br><b>J2-H55</b>  | 29507<br><b>J2-L55</b>  | 05372<br><b>J2-H55</b>  |
| 3"     | 29498<br><b>J2-L55</b>  | 02631<br><b>J2-H55</b>  | 29508<br><b>J2-L55</b>  | 05373<br><b>J2-H55</b>  |
| 4"     | 29499<br><b>J2-L140</b> | 26415<br><b>J2-H140</b> | 29509<br><b>J2-L140</b> | 26419<br><b>J2-H140</b> |

Teflon® - Viton®

|        |                         |                         |                         |                         |
|--------|-------------------------|-------------------------|-------------------------|-------------------------|
| 1/2"   | 29571<br><b>J2-L20</b>  | 31426<br><b>J2-H20</b>  | 29591<br><b>J2-L20</b>  | 29601<br><b>J2-H20</b>  |
| 3/4"   | 29572<br><b>J2-L20</b>  | 31427<br><b>J2-H20</b>  | 29592<br><b>J2-L20</b>  | 29602<br><b>J2-H20</b>  |
| 1"     | 29573<br><b>J2-L20</b>  | 31428<br><b>J2-H20</b>  | 29593<br><b>J2-L20</b>  | 29603<br><b>J2-H20</b>  |
| 1 1/4" | 29574<br><b>J2-L20</b>  | 31429<br><b>J2-H20</b>  | 29594<br><b>J2-L20</b>  | 29604<br><b>J2-H20</b>  |
| 1 1/2" | 29575<br><b>J2-L20</b>  | 29585<br><b>J2-H20</b>  | 29595<br><b>J2-L20</b>  | 29605<br><b>J2-H20</b>  |
| 2"     | 29576<br><b>J2-L20</b>  | 29586<br><b>J2-H20</b>  | 29596<br><b>J2-L20</b>  | 29606<br><b>J2-H20</b>  |
| 2 1/2" | 29577<br><b>J2-L55</b>  | 29587<br><b>J2-H55</b>  | 29597<br><b>J2-L55</b>  | 29607<br><b>J2-H55</b>  |
| 3"     | 29578<br><b>J2-L55</b>  | 29588<br><b>J2-H55</b>  | 29598<br><b>J2-L55</b>  | 29608<br><b>J2-H55</b>  |
| 4"     | 29579<br><b>J2-L140</b> | 29589<br><b>J2-H140</b> | 29599<br><b>J2-L140</b> | 29609<br><b>J2-H140</b> |

| Electric actuation   |                       | Electric actuation<br>& BSR safety block |                       |
|----------------------|-----------------------|------------------------------------------|-----------------------|
| 12 - 48 V<br>AC / DC | 80 - 240 V<br>AC / DC | 12 - 48 V<br>AC / DC                     | 80 - 240 V<br>AC / DC |

Industrial Series ball valves - Corzan® CPVC

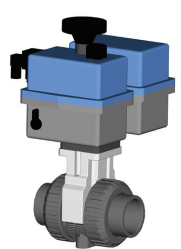
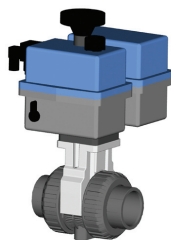
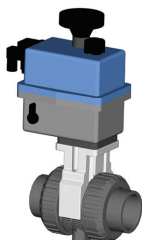
Solvent socket connectors

Teflon® - EPDM

|        |                         |                         |                         |                         |
|--------|-------------------------|-------------------------|-------------------------|-------------------------|
| 1/2"   | 29671<br><b>J2-L20</b>  | 31431<br><b>J2-H20</b>  | 29691<br><b>J2-L20</b>  | 29701<br><b>J2-H20</b>  |
| 3/4"   | 29672<br><b>J2-L20</b>  | 31432<br><b>J2-H20</b>  | 29692<br><b>J2-L20</b>  | 29702<br><b>J2-H20</b>  |
| 1"     | 29673<br><b>J2-L20</b>  | 31433<br><b>J2-H20</b>  | 29693<br><b>J2-L20</b>  | 29703<br><b>J2-H20</b>  |
| 1 1/4" | 29674<br><b>J2-L20</b>  | 31434<br><b>J2-H20</b>  | 29694<br><b>J2-L20</b>  | 29704<br><b>J2-H20</b>  |
| 1 1/2" | 29675<br><b>J2-L20</b>  | 29685<br><b>J2-H20</b>  | 29695<br><b>J2-L20</b>  | 29705<br><b>J2-H20</b>  |
| 2"     | 29676<br><b>J2-L20</b>  | 29686<br><b>J2-H20</b>  | 29696<br><b>J2-L20</b>  | 29706<br><b>J2-H20</b>  |
| 2 1/2" | 29677<br><b>J2-L55</b>  | 29687<br><b>J2-H55</b>  | 29697<br><b>J2-L55</b>  | 29707<br><b>J2-H55</b>  |
| 3"     | 29678<br><b>J2-L55</b>  | 29688<br><b>J2-H55</b>  | 29698<br><b>J2-L55</b>  | 29708<br><b>J2-H55</b>  |
| 4"     | 29679<br><b>J2-L140</b> | 29689<br><b>J2-H140</b> | 29699<br><b>J2-L140</b> | 29709<br><b>J2-H140</b> |

Teflon® - Viton®

|        |                         |                         |                         |                         |
|--------|-------------------------|-------------------------|-------------------------|-------------------------|
| 1/2"   | 29771<br><b>J2-L20</b>  | 31436<br><b>J2-H20</b>  | 29791<br><b>J2-L20</b>  | 29801<br><b>J2-H20</b>  |
| 3/4"   | 29772<br><b>J2-L20</b>  | 31437<br><b>J2-H20</b>  | 29792<br><b>J2-L20</b>  | 29802<br><b>J2-H20</b>  |
| 1"     | 29773<br><b>J2-L20</b>  | 31438<br><b>J2-H20</b>  | 29793<br><b>J2-L20</b>  | 29803<br><b>J2-H20</b>  |
| 1 1/4" | 29774<br><b>J2-L20</b>  | 31439<br><b>J2-H20</b>  | 29794<br><b>J2-L20</b>  | 29804<br><b>J2-H20</b>  |
| 1 1/2" | 29775<br><b>J2-L20</b>  | 29785<br><b>J2-H20</b>  | 29795<br><b>J2-L20</b>  | 29805<br><b>J2-H20</b>  |
| 2"     | 29776<br><b>J2-L20</b>  | 29786<br><b>J2-H20</b>  | 29796<br><b>J2-L20</b>  | 29806<br><b>J2-H20</b>  |
| 2 1/2" | 29777<br><b>J2-L55</b>  | 29787<br><b>J2-H55</b>  | 29797<br><b>J2-L55</b>  | 29807<br><b>J2-H55</b>  |
| 3"     | 29778<br><b>J2-L55</b>  | 29788<br><b>J2-H55</b>  | 29798<br><b>J2-L55</b>  | 29808<br><b>J2-H55</b>  |
| 4"     | 29779<br><b>J2-L140</b> | 29789<br><b>J2-H140</b> | 29799<br><b>J2-L140</b> | 29809<br><b>J2-H140</b> |



| Electric actuation   |                       | Electric actuation<br>& BSR safety block |                       |
|----------------------|-----------------------|------------------------------------------|-----------------------|
| 12 - 48 V<br>AC / DC | 80 - 240 V<br>AC / DC | 12 - 48 V<br>AC / DC                     | 80 - 240 V<br>AC / DC |

| Electric actuation   |                       | Electric actuation<br>& BSR safety block |                       |
|----------------------|-----------------------|------------------------------------------|-----------------------|
| 12 - 48 V<br>AC / DC | 80 - 240 V<br>AC / DC | 12 - 48 V<br>AC / DC                     | 80 - 240 V<br>AC / DC |

**Butterfly valves Industrial Series - PPL body / PVC disk - Stainless steel shaft**
**Butterfly valves Industrial Series - PVC - Stainless steel shaft**

EPDM

|     |                         |                         |                         |                         |
|-----|-------------------------|-------------------------|-------------------------|-------------------------|
| 2½" | 30265<br><b>J2-L55</b>  | 30272<br><b>J2-H55</b>  | 30279<br><b>J2-L55</b>  | 30286<br><b>J2-H55</b>  |
| 3"  | 30266<br><b>J2-L55</b>  | 30273<br><b>J2-H55</b>  | 30280<br><b>J2-L55</b>  | 30287<br><b>J2-H55</b>  |
| 4"  | 30267<br><b>J2-L55</b>  | 30274<br><b>J2-H55</b>  | 30281<br><b>J2-L55</b>  | 30288<br><b>J2-H55</b>  |
| 6"  | 30269<br><b>J2-L140</b> | 30276<br><b>J2-H140</b> | 30283<br><b>J2-L140</b> | 30290<br><b>J2-H140</b> |
| 8"  | 30270<br><b>J2-L300</b> | 30277<br><b>J2-H300</b> | 30284<br><b>J2-L300</b> | 30291<br><b>J2-H300</b> |
| 10" | 30271<br><b>J2-L300</b> | 30278<br><b>J2-H300</b> | 30285<br><b>J2-L300</b> | 30292<br><b>J2-H300</b> |
| 12" | 32741<br><b>J2-L300</b> | 32742<br><b>J2-H300</b> | 32743<br><b>J2-L300</b> | 32744<br><b>J2-H300</b> |

EPDM

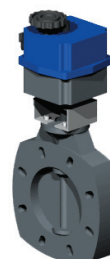
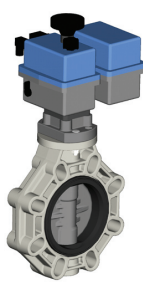
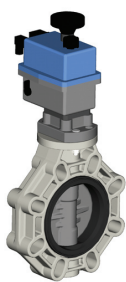
|     |                         |                         |                         |                         |
|-----|-------------------------|-------------------------|-------------------------|-------------------------|
| 2½" | 30151<br><b>J2-L55</b>  | 02640<br><b>J2-H55</b>  | 30158<br><b>J2-L55</b>  | 05382<br><b>J2-H55</b>  |
| 3"  | 30152<br><b>J2-L55</b>  | 02641<br><b>J2-H55</b>  | 30159<br><b>J2-L55</b>  | 05383<br><b>J2-H55</b>  |
| 4"  | 30153<br><b>J2-L55</b>  | 02642<br><b>J2-H55</b>  | 30160<br><b>J2-L55</b>  | 05384<br><b>J2-H55</b>  |
| 5"  | 30154<br><b>J2-L140</b> | 02644<br><b>J2-H140</b> | 30161<br><b>J2-L140</b> | 05386<br><b>J2-H140</b> |
| 6"  | 30155<br><b>J2-L140</b> | 02645<br><b>J2-H140</b> | 30162<br><b>J2-L140</b> | 05387<br><b>J2-H140</b> |
| 8"  | 30156<br><b>J2-L300</b> | 02646<br><b>J2-H300</b> | 30163<br><b>J2-L300</b> | 05388<br><b>J2-H300</b> |
| 10" | 30157<br><b>J2-L300</b> | 18771<br><b>J2-H300</b> | 30164<br><b>J2-L300</b> | 18772<br><b>J2-H300</b> |

Viton®

|     |                         |                         |                         |                         |
|-----|-------------------------|-------------------------|-------------------------|-------------------------|
| 2½" | 30329<br><b>J2-L55</b>  | 30336<br><b>J2-H55</b>  | 30343<br><b>J2-L55</b>  | 30350<br><b>J2-H55</b>  |
| 3"  | 30330<br><b>J2-L55</b>  | 30337<br><b>J2-H55</b>  | 30344<br><b>J2-L55</b>  | 30351<br><b>J2-H55</b>  |
| 4"  | 30331<br><b>J2-L55</b>  | 30338<br><b>J2-H55</b>  | 30345<br><b>J2-L55</b>  | 30352<br><b>J2-H55</b>  |
| 6"  | 30333<br><b>J2-L140</b> | 30340<br><b>J2-H140</b> | 30347<br><b>J2-L140</b> | 30354<br><b>J2-H140</b> |
| 8"  | 30334<br><b>J2-L300</b> | 30341<br><b>J2-H300</b> | 30348<br><b>J2-L300</b> | 30355<br><b>J2-H300</b> |
| 10" | 30335<br><b>J2-L300</b> | 30342<br><b>J2-H300</b> | 30349<br><b>J2-L300</b> | 30356<br><b>J2-H300</b> |
| 12" | 32748<br><b>J2-L300</b> | 32749<br><b>J2-H300</b> | 32750<br><b>J2-L300</b> | 32751<br><b>J2-H300</b> |

Viton®

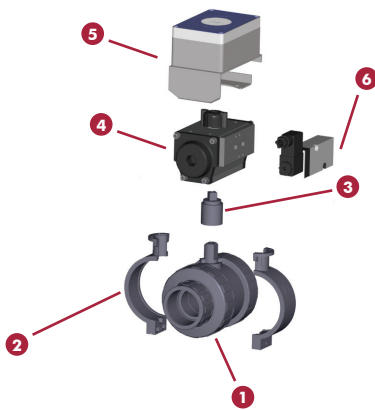
|     |                         |                         |                         |                         |
|-----|-------------------------|-------------------------|-------------------------|-------------------------|
| 2½" | 30201<br><b>J2-L55</b>  | 30208<br><b>J2-H55</b>  | 30215<br><b>J2-L55</b>  | 30222<br><b>J2-H55</b>  |
| 3"  | 30202<br><b>J2-L55</b>  | 30209<br><b>J2-H55</b>  | 30216<br><b>J2-L55</b>  | 30223<br><b>J2-H55</b>  |
| 4"  | 30203<br><b>J2-L55</b>  | 30210<br><b>J2-H55</b>  | 30217<br><b>J2-L55</b>  | 30224<br><b>J2-H55</b>  |
| 5"  | 30204<br><b>J2-L140</b> | 30211<br><b>J2-H140</b> | 30218<br><b>J2-L140</b> | 30225<br><b>J2-H140</b> |
| 6"  | 30205<br><b>J2-L140</b> | 30212<br><b>J2-H140</b> | 30219<br><b>J2-L140</b> | 30226<br><b>J2-H140</b> |
| 8"  | 30206<br><b>J2-L300</b> | 30213<br><b>J2-H300</b> | 30220<br><b>J2-L300</b> | 30227<br><b>J2-H300</b> |
| 10" | 30207<br><b>J2-L300</b> | 30214<br><b>J2-H300</b> | 30221<br><b>J2-L300</b> | 30228<br><b>J2-H300</b> |



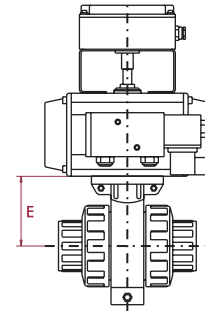
## PNEUMATIC ACTUATION

### FEATURES

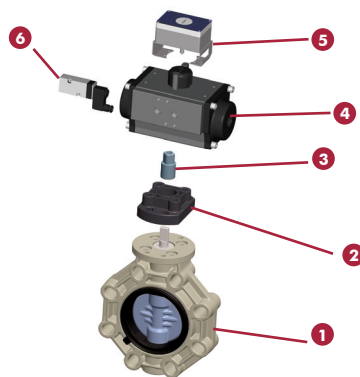
- Pneumatic actuators for ball and butterfly valves.
- Double-acting or spring return.
- On order: electric valve, relief regulators and limit-switch box.
- Actuator made of anodized aluminum, dry or lubricated filtered compressed air maximum 150 psi, normal working temperature -4°F to 176°F.



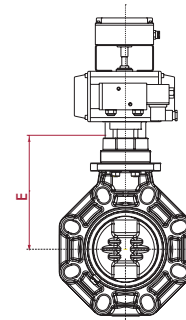
| Fig. | Parts              |
|------|--------------------|
| 1    | Ball valve         |
| 2    | Mounting clamp     |
| 3    | Coupling bush      |
| 4    | Pneumatic actuator |
| 5    | Limit switch box   |
| 6    | Electric valve     |



| D / G  | Dim. "E" |
|--------|----------|
| 1/2"   | 2.52"    |
| 3/4"   | 2.52"    |
| 1"     | 2.91"    |
| 1 1/4" | 2.91"    |
| 1 1/2" | 3.46"    |
| 2"     | 3.46"    |
| 2 1/2" | 4.84"    |
| 3"     | 4.84"    |
| 4"     | 6.50"    |



| Fig. | Parts              |
|------|--------------------|
| 1    | Butterfly valve    |
| 2    | Mounting clamp     |
| 3    | Coupling bush      |
| 4    | Pneumatic actuator |
| 5    | Limit switch box   |
| 6    | Electric valve     |



| Size      | Dim. "E" |
|-----------|----------|
| 2"-2 1/2" | 5.85"    |
| 3"        | 6.47"    |
| 4"        | 6.94"    |
| 6"        | 8.19"    |
| 8"        | 10.14"   |
| 10"       | 11.7"    |
| 12"       | 13.96"   |

| TYPE OF VALVE   |                     |  |
|-----------------|---------------------|--|
| Double Acting   |                     |  |
| Ball valve      | 1/2"-3/4"           |  |
|                 | 1"-1 1/4"-1 1/2"-2" |  |
| Ball valve      | 2 1/2"-3"           |  |
| Butterfly valve | 2 1/2"-3"-4"        |  |
| Ball valve      | 4"                  |  |
| Butterfly valve | 5"-6"-8"            |  |
|                 | 10"                 |  |
|                 | 12"                 |  |
| Spring Return   |                     |  |
| Ball valve      | 1/2"-3/4"           |  |
|                 | 1"-1 1/4"           |  |
|                 | 1 1/2"-2"           |  |
| Butterfly valve | 2 1/2"              |  |
| Ball valve      | 2 1/2"-3"           |  |
| Butterfly valve | 3"-4"               |  |
| Ball valve      | 4"                  |  |
| Butterfly valve | 6"-8"               |  |
|                 | 10"                 |  |
|                 | 12"                 |  |

| ACTUATOR |        |
|----------|--------|
| J+J      | Bonomi |
| CH032    | DA32   |
| CH050    | DA52   |
| CH075    | DA75   |
| CH100    | DA100  |
| CH115    | DA115  |
| CH125    | DA125  |
| CH050 SR | SR52   |
| CH063 SR | SR63   |
| CH075 SR | SR75   |
| CH085 SR | SR85   |
| CH100 SR | SR100  |
| CH125 SR | SR125  |
| CH125 SR | SR140  |
| CH180 SR | SR160  |

| TORQUE OUTPUT |                                      |
|---------------|--------------------------------------|
| 61            | Torque output (in - lb)<br>at 80 psi |
| 150           |                                      |
| 570           |                                      |
| 1351          | Spring return at 0° - 90°            |
| 2229          |                                      |
| 2932          |                                      |
| Spring        |                                      |
| 101 - 62      | 88 - 48                              |
| 181 - 128     | 164 - 68                             |
| 339 - 224     | 347 - 172                            |
| 612 - 334     | 534 - 512                            |
| 942 - 431     | 820 - 408                            |
| 1493 - 939    | 1290 - 736                           |
| 2070 - 1130   | 1803 - 863                           |
| 6517 - 4800   | 5102 - 3385                          |
| Air           |                                      |

For more information, please check the actuation manual at:  
[www.cepexusa.com](http://www.cepexusa.com)



## PNEUMATIC ACTUATOR CHARACTERISTICS

### Double Acting Pneumatic Actuator

| MODEL | CONSUMPTION<br>(gal/cycle) | ACTUATOR TORQUE<br>OUTPUT (in-lb) | WEIGHT (lb) | STROKE TIME (ms) |       |
|-------|----------------------------|-----------------------------------|-------------|------------------|-------|
|       |                            |                                   |             | OPEN             | CLOSE |
| CH032 | 0.03                       | 61                                | 1.21        | 600              | 600   |
| CH050 | 0.06                       | 150                               | 2.42        | 600              | 600   |
| CH075 | 0.16                       | 570                               | 6.39        | 600              | 600   |
| CH100 | 0.47                       | 1351                              | 12.78       | 800              | 800   |
| CH115 | 0.74                       | 2229                              | 22.7        | 900              | 1100  |
| CH125 | 1.22                       | 2932                              | 29.48       | 1400             | 1600  |

### Spring Return Pneumatic Actuator

| MODEL   | CON-SUMPTION<br>(gal/cycle) | SPRING TORQUE OUTPUT<br>(in-lb) |      | AIR SUPPLY TORQUE<br>OUTPUT (in-lb) |      | WEIGHT<br>(lb) | STROKE TIME (ms) |       |
|---------|-----------------------------|---------------------------------|------|-------------------------------------|------|----------------|------------------|-------|
|         |                             | 0°                              | 90°  | 0°                                  | 90°  |                | OPEN             | CLOSE |
| CH050S  | 0.06                        | 101                             | 62   | 88                                  | 48   | 2.36           | 600              | 800   |
| CH063S  | 0.12                        | 181                             | 128  | 164                                 | 68   | 3.53           | 600              | 800   |
| CH075S  | 0.16                        | 339                             | 224  | 347                                 | 172  | 6.4            | 600              | 1000  |
| CH085S  | 0.26                        | 612                             | 334  | 534                                 | 512  | 9.26           | 600              | 1200  |
| CH100S  | 0.47                        | 942                             | 431  | 820                                 | 408  | 12.78          | 1000             | 1200  |
| CH115S  | 0.74                        | 1493                            | 939  | 1290                                | 736  | 22.7           | 1200             | 1500  |
| CH125S  | 0.97                        | 2070                            | 1130 | 1803                                | 863  | 26.23          | 1300             | 2000  |
| CH180SR | -                           | 6517                            | 4800 | 5102                                | 3385 | 67.1           | 2600             | 2600  |

Consumption and torque at 80 psi. 1 cycle = open + close

| Pneumatic actuation<br>aluminium |               | Pneumatic actuation<br>aluminium & kit (*) |               |
|----------------------------------|---------------|--------------------------------------------|---------------|
| Double acting                    | Spring return | Double acting                              | Spring return |

## Industrial Series ball valves - PVC

Solvent socket connectors

Teflon® - EPDM

|        |                       |                          |                       |                          |
|--------|-----------------------|--------------------------|-----------------------|--------------------------|
| 1/2"   | 05390<br><b>CH032</b> | 05414<br><b>CH050 SR</b> | 02648<br><b>CH032</b> | 05304<br><b>CH050 SR</b> |
| 3/4"   | 05391<br><b>CH032</b> | 05415<br><b>CH050 SR</b> | 02649<br><b>CH032</b> | 05305<br><b>CH050 SR</b> |
| 1"     | 05392<br><b>CH050</b> | 05416<br><b>CH063 SR</b> | 02650<br><b>CH050</b> | 05306<br><b>CH063 SR</b> |
| 1 1/4" | 05393<br><b>CH050</b> | 05417<br><b>CH063 SR</b> | 02651<br><b>CH050</b> | 05307<br><b>CH063 SR</b> |
| 1 1/2" | 05394<br><b>CH050</b> | 05418<br><b>CH075 SR</b> | 02652<br><b>CH050</b> | 05308<br><b>CH075 SR</b> |
| 2"     | 05395<br><b>CH050</b> | 05419<br><b>CH075 SR</b> | 02653<br><b>CH050</b> | 05309<br><b>CH075 SR</b> |
| 2 1/2" | 05396<br><b>CH075</b> | 05420<br><b>CH100 SR</b> | 02654<br><b>CH075</b> | 05310<br><b>CH100 SR</b> |
| 3"     | 05397<br><b>CH075</b> | 05421<br><b>CH100 SR</b> | 02655<br><b>CH075</b> | 05311<br><b>CH100 SR</b> |
| 4"     | 26427<br><b>CH100</b> | 26435<br><b>CH125 SR</b> | 26423<br><b>CH100</b> | 26431<br><b>CH125 SR</b> |

Teflon® - Viton®

|        |                       |                          |                       |                          |
|--------|-----------------------|--------------------------|-----------------------|--------------------------|
| 1/2"   | 29914<br><b>CH032</b> | 29924<br><b>CH050 SR</b> | 29934<br><b>CH032</b> | 29944<br><b>CH050 SR</b> |
| 3/4"   | 29915<br><b>CH032</b> | 29925<br><b>CH050 SR</b> | 29935<br><b>CH032</b> | 29945<br><b>CH050 SR</b> |
| 1"     | 29916<br><b>CH050</b> | 29926<br><b>CH063 SR</b> | 29936<br><b>CH050</b> | 29946<br><b>CH063 SR</b> |
| 1 1/4" | 29917<br><b>CH050</b> | 29927<br><b>CH063 SR</b> | 29937<br><b>CH050</b> | 29947<br><b>CH063 SR</b> |
| 1 1/2" | 29918<br><b>CH050</b> | 29928<br><b>CH075 SR</b> | 29938<br><b>CH050</b> | 29948<br><b>CH075 SR</b> |
| 2"     | 29919<br><b>CH050</b> | 29929<br><b>CH075 SR</b> | 29939<br><b>CH050</b> | 29949<br><b>CH075 SR</b> |
| 2 1/2" | 29920<br><b>CH075</b> | 29930<br><b>CH100 SR</b> | 29940<br><b>CH075</b> | 29950<br><b>CH100 SR</b> |
| 3"     | 29921<br><b>CH075</b> | 29931<br><b>CH100 SR</b> | 29941<br><b>CH075</b> | 29951<br><b>CH100 SR</b> |
| 4"     | 29922<br><b>CH100</b> | 29932<br><b>CH125 SR</b> | 29942<br><b>CH100</b> | 29952<br><b>CH125 SR</b> |

| Pneumatic actuation<br>aluminium |               | Pneumatic actuation<br>aluminium & kit (*) |               |
|----------------------------------|---------------|--------------------------------------------|---------------|
| Double acting                    | Spring return | Double acting                              | Spring return |

## Industrial Series ball valves - Corzan® CPVC

Solvent socket connectors

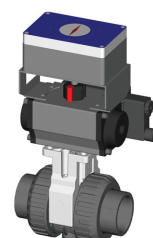
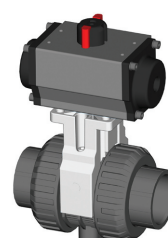
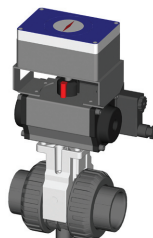
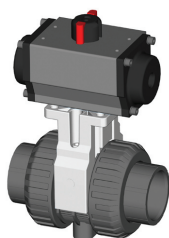
Teflon® - EPDM

|        |                       |                          |                       |                          |
|--------|-----------------------|--------------------------|-----------------------|--------------------------|
| 1/2"   | 29992<br><b>CH032</b> | 30002<br><b>CH050 SR</b> | 30012<br><b>CH032</b> | 30022<br><b>CH050 SR</b> |
| 3/4"   | 29993<br><b>CH032</b> | 30003<br><b>CH050 SR</b> | 30013<br><b>CH032</b> | 30023<br><b>CH050 SR</b> |
| 1"     | 29994<br><b>CH050</b> | 30004<br><b>CH063 SR</b> | 30014<br><b>CH050</b> | 30024<br><b>CH063 SR</b> |
| 1 1/4" | 29995<br><b>CH050</b> | 30005<br><b>CH063 SR</b> | 30015<br><b>CH050</b> | 30025<br><b>CH063 SR</b> |
| 1 1/2" | 29996<br><b>CH050</b> | 30006<br><b>CH075 SR</b> | 30016<br><b>CH050</b> | 30026<br><b>CH075 SR</b> |
| 2"     | 29997<br><b>CH050</b> | 30007<br><b>CH075 SR</b> | 30017<br><b>CH050</b> | 30027<br><b>CH075 SR</b> |
| 2 1/2" | 29998<br><b>CH075</b> | 30008<br><b>CH100 SR</b> | 30018<br><b>CH075</b> | 30028<br><b>CH100 SR</b> |
| 3"     | 29999<br><b>CH075</b> | 30009<br><b>CH100 SR</b> | 30019<br><b>CH075</b> | 30029<br><b>CH100 SR</b> |
| 4"     | 30000<br><b>CH100</b> | 30010<br><b>CH125 SR</b> | 30020<br><b>CH100</b> | 30030<br><b>CH125 SR</b> |

Teflon® - Viton®

|        |                       |                          |                       |                          |
|--------|-----------------------|--------------------------|-----------------------|--------------------------|
| 1/2"   | 30070<br><b>CH032</b> | 30080<br><b>CH050 SR</b> | 30090<br><b>CH032</b> | 30100<br><b>CH050 SR</b> |
| 3/4"   | 30071<br><b>CH032</b> | 30081<br><b>CH050 SR</b> | 30091<br><b>CH032</b> | 30101<br><b>CH050 SR</b> |
| 1"     | 30072<br><b>CH050</b> | 30082<br><b>CH063 SR</b> | 30092<br><b>CH050</b> | 30102<br><b>CH063 SR</b> |
| 1 1/4" | 30073<br><b>CH050</b> | 30083<br><b>CH063 SR</b> | 30093<br><b>CH050</b> | 30103<br><b>CH063 SR</b> |
| 1 1/2" | 30074<br><b>CH050</b> | 30084<br><b>CH075 SR</b> | 30094<br><b>CH050</b> | 30104<br><b>CH075 SR</b> |
| 2"     | 30075<br><b>CH050</b> | 30085<br><b>CH075 SR</b> | 30095<br><b>CH050</b> | 30105<br><b>CH075 SR</b> |
| 2 1/2" | 30076<br><b>CH075</b> | 30086<br><b>CH100 SR</b> | 30096<br><b>CH075</b> | 30106<br><b>CH100 SR</b> |
| 3"     | 30077<br><b>CH075</b> | 30087<br><b>CH100 SR</b> | 30097<br><b>CH075</b> | 30107<br><b>CH100 SR</b> |
| 4"     | 30078<br><b>CH100</b> | 30088<br><b>CH125 SR</b> | 30098<br><b>CH100</b> | 30108<br><b>CH125 SR</b> |

(\*) Kit: electric valve, limit-switch box and relief regulators



| Pneumatic actuation<br>aluminium |               | Pneumatic actuation<br>aluminium & kit (*) |               |
|----------------------------------|---------------|--------------------------------------------|---------------|
| Double acting                    | Spring return | Double acting                              | Spring return |

| Pneumatic actuation<br>aluminium |               | Pneumatic actuation<br>aluminium & kit (*) |               |
|----------------------------------|---------------|--------------------------------------------|---------------|
| Double acting                    | Spring return | Double acting                              | Spring return |

**Butterfly valves Industrial Series - PPL body / PVC disk - Stainless steel shaft**

**Butterfly valves Industrial Series - PVC - Stainless steel shaft**

EPDM

|     |                       |                          |                       |                          |
|-----|-----------------------|--------------------------|-----------------------|--------------------------|
| 2½" | 30464<br><b>CH075</b> | 30471<br><b>CH085 SR</b> | 30478<br><b>CH075</b> | 30485<br><b>CH085 SR</b> |
| 3"  | 30465<br><b>CH075</b> | 30472<br><b>CH100 SR</b> | 30479<br><b>CH075</b> | 30486<br><b>CH100 SR</b> |
| 4"  | 30466<br><b>CH075</b> | 30473<br><b>CH100 SR</b> | 30480<br><b>CH075</b> | 30487<br><b>CH100 SR</b> |
| 6"  | 30468<br><b>CH100</b> | 30475<br><b>CH125 SR</b> | 30482<br><b>CH100</b> | 30489<br><b>CH125 SR</b> |
| 8"  | 30469<br><b>CH100</b> | 30476<br><b>CH125 SR</b> | 30483<br><b>CH100</b> | 30490<br><b>CH125 SR</b> |
| 10" | 30470<br><b>CH115</b> | 30477<br><b>CH115 SR</b> | 30484<br><b>CH115</b> | 30491<br><b>CH115 SR</b> |
| 12" | 32755<br><b>CH125</b> | 32757<br><b>CH180 SR</b> | 32756<br><b>CH125</b> | 32758<br><b>CH180 SR</b> |

EPDM

|     |                       |                          |                       |                          |
|-----|-----------------------|--------------------------|-----------------------|--------------------------|
| 2½" | 05406<br><b>CH075</b> | 05430<br><b>CH085 SR</b> | 02664<br><b>CH075</b> | 05320<br><b>CH085 SR</b> |
| 3"  | 05407<br><b>CH075</b> | 05431<br><b>CH100 SR</b> | 02665<br><b>CH075</b> | 05321<br><b>CH100 SR</b> |
| 4"  | 05408<br><b>CH075</b> | 05432<br><b>CH100 SR</b> | 02666<br><b>CH075</b> | 05322<br><b>CH100 SR</b> |
| 6"  | 05410<br><b>CH100</b> | 05434<br><b>CH125 SR</b> | 02668<br><b>CH100</b> | 05324<br><b>CH125 SR</b> |
| 8"  | 05411<br><b>CH100</b> | 05435<br><b>CH125 SR</b> | 02669<br><b>CH100</b> | 05325<br><b>CH125 SR</b> |
| 10" | 05412<br><b>CH100</b> | 05436<br><b>CH125 SR</b> | 02670<br><b>CH100</b> | 05326<br><b>CH125 SR</b> |
| 12" | 18774<br><b>CH115</b> | 18776<br><b>CH115 SR</b> | 18773<br><b>CH115</b> | 18775<br><b>CH115 SR</b> |

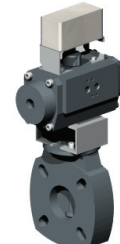
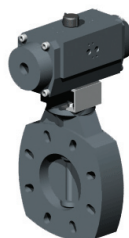
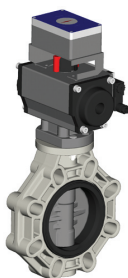
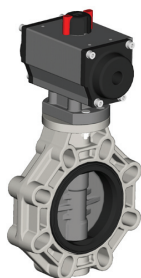
Viton®

|     |                       |                          |                       |                          |
|-----|-----------------------|--------------------------|-----------------------|--------------------------|
| 2½" | 30517<br><b>CH075</b> | 30524<br><b>CH085 SR</b> | 30531<br><b>CH075</b> | 30538<br><b>CH085 SR</b> |
| 3"  | 30518<br><b>CH075</b> | 30525<br><b>CH100 SR</b> | 30532<br><b>CH075</b> | 30539<br><b>CH100 SR</b> |
| 4"  | 30519<br><b>CH075</b> | 30526<br><b>CH100 SR</b> | 30533<br><b>CH075</b> | 30540<br><b>CH100 SR</b> |
| 6"  | 30521<br><b>CH100</b> | 30528<br><b>CH125 SR</b> | 30535<br><b>CH100</b> | 30542<br><b>CH125 SR</b> |
| 8"  | 30522<br><b>CH100</b> | 30529<br><b>CH125 SR</b> | 30536<br><b>CH100</b> | 30543<br><b>CH125 SR</b> |
| 10" | 30523<br><b>CH115</b> | 30530<br><b>CH115 SR</b> | 30537<br><b>CH115</b> | 30544<br><b>CH115 SR</b> |
| 12" | 32759<br><b>CH125</b> | 32761<br><b>CH180 SR</b> | 32760<br><b>CH125</b> | 32762<br><b>CH180 SR</b> |

Viton®

|     |                       |                          |                       |                          |
|-----|-----------------------|--------------------------|-----------------------|--------------------------|
| 2½" | 30411<br><b>CH075</b> | 30418<br><b>CH085 SR</b> | 30425<br><b>CH075</b> | 30432<br><b>CH085 SR</b> |
| 3"  | 30412<br><b>CH075</b> | 30419<br><b>CH100 SR</b> | 30426<br><b>CH075</b> | 30433<br><b>CH100 SR</b> |
| 4"  | 30413<br><b>CH075</b> | 30420<br><b>CH100 SR</b> | 30427<br><b>CH075</b> | 30434<br><b>CH100 SR</b> |
| 6"  | 30414<br><b>CH100</b> | 30421<br><b>CH125 SR</b> | 30428<br><b>CH100</b> | 30435<br><b>CH125 SR</b> |
| 8"  | 30415<br><b>CH100</b> | 30422<br><b>CH125 SR</b> | 30429<br><b>CH100</b> | 30436<br><b>CH125 SR</b> |
| 10" | 30416<br><b>CH100</b> | 30423<br><b>CH125 SR</b> | 30430<br><b>CH100</b> | 30437<br><b>CH125 SR</b> |
| 12" | 30417<br><b>CH115</b> | 30424<br><b>CH115 SR</b> | 30431<br><b>CH115</b> | 30438<br><b>CH115 SR</b> |

(\*) Kit: electric valve, limit-switch box and relief regulators



## COMPRESSION FITTINGS

### FEATURES

- Polypropylene (PPL) Compression Fittings for PE pressure piping applications.
- Tube IPS (OD) for use on HDPE pipe SDR 7.3 thru SDR 17; sizes 1/2" - 4" (blue body). For use on Sch 40/80 PVC pipe with SS gripper ring; sizes 1/2" - 2" (blue body).
- Tube CTS (OD) for use on certified PE pipe SDR 9 & SDR 11; sizes 3/4" - 2" (copper body). For use on cross linked pipe PE SDR 9 for cold water only; sizes 3/4" - 2" (copper body). For use on copper pipe with CTS SS gripper ring; sizes 3/4" - 1" (copper body).
- Tube Metric/NPT in 16 mm - 110 mm (gray body).
- Pressure rating: 200 psi @ 73° F.
- Ease of installation.
- One source for all your IPS, CTS and Metric needs.
- Color coded.
- UV stabilized.
- Extensively used worldwide.
- ISO 9001 certified.
- Applications: water distribution, industrial, leachate collection, irrigation, many other uses.
- Specifications:
  - IPS (OD): ASTM-F714 / ASTM-D3035, ASTM-D-1599-99
  - CTS (OD): ASTM-D2737 / ASTM-1248 / ASTM-D-1599-99
  - METRIC-NPT: DIN EN 714//911 / ANSI-B-1.20.1-92
- Composite pipe: ASTM-F1282.



**Coupling  
&  
adapter**

**90° Tee**

**90° Elbow**

**End cap**

**Comp x Comp**



IPS 1/2" - 4"  
CTS 3/4" - 2"

**Comp x Female thread**



IPS 1/2" - 3"  
CTS 3/4" - 2"

**Comp x Male thread**



IPS 1/2" - 4"  
IPS 3/4" - 2"

**Comp x Reducing Comp**



IPS 1/2" - 2"  
IPS 3/4" - 2"



IPS 3/4" - 4"  
IPS 3/4" - 2"



IPS 1/2" - 3"  
IPS 3/4" - 2"



IPS 1 1/4" - 2"



IPS 1/2" - 3"  
IPS 3/4" - 2"



IPS 1/2" - 4"  
IPS 3/4" - 2"



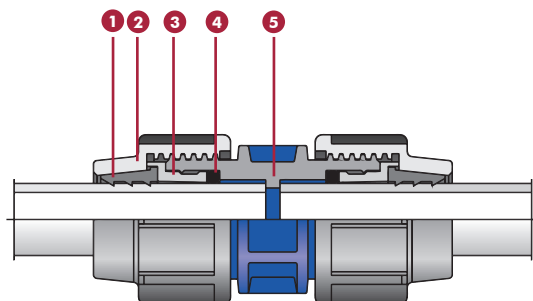
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IPS 3/4" - 2"



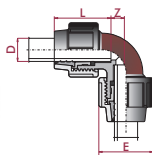
IPS 1/2" - 2"  
IPS 3/4" - 2"



IPS 1/2" - 2"

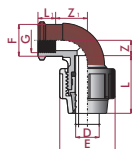


| FIG. | Parts      | Material |
|------|------------|----------|
| 1    | Split ring | POM      |
| 2    | Nut        | PPL      |
| 3    | Insert     | PPL      |
| 4    | O-ring     | NBR 70   |
| 5    | Body       | PPL      |

**PPL Compression Fittings - CTS-NPT Series**


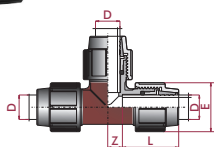
**PPL 90° ELBOW**  
**Comp x Comp**  
 3/4" - 2" 240 psi @ 73°F

| Size   | Reference | psi | L     | Z     | E     | Code         |
|--------|-----------|-----|-------|-------|-------|--------------|
| 3/4"   | 33 01 025 | 240 | 2.26" | 0.62" | 2.18" | <b>24024</b> |
| 1"     | 33 01 032 | 240 | 3.16" | 0.7"  | 2.54" | <b>24025</b> |
| 1 1/4" | 33 01 040 | 240 | 3.59" | 0.94" | 3.16" | <b>24026</b> |
| 1 1/2" | 33 01 050 | 240 | 4.21" | 1.09" | 3.2"  | <b>24027</b> |
| 2"     | 33 01 063 | 240 | 4.88" | 1.25" | 4.45" | <b>24028</b> |



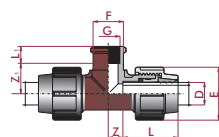
**PPL 90° ELBOW**  
**Comp x NPT Threaded (F)**  
 3/4" - 2" 240 psi @ 73°F

| Size            | Reference | psi | L     | L <sub>1</sub> | Z     | Z <sub>1</sub> | E     | F     | Code         |
|-----------------|-----------|-----|-------|----------------|-------|----------------|-------|-------|--------------|
| 3/4" x 3/4"     | 33 01 425 | 240 | 2.26" | 0.74"          | 0.62" | 1.21"          | 2.18" | 1.33" | <b>24029</b> |
| 1" x 3/4"       | 33 01 431 | 240 | 3.16" | 0.74"          | 0.7"  | 1.68"          | 2.54" | 1.33" | <b>24034</b> |
| 1" x 1"         | 33 01 432 | 240 | 3.16" | 0.86"          | 0.7"  | 1.68"          | 2.54" | 1.6"  | <b>24030</b> |
| 1 1/4" x 1 1/4" | 33 01 440 | 240 | 3.59" | 0.94"          | 0.94" | 2.11"          | 3.16" | 2.03" | <b>24031</b> |
| 1 1/4" x 1 1/2" | 33 01 441 | 240 | 3.59" | 0.94"          | 0.94" | 2.11"          | 3.16" | 2.38" | <b>24433</b> |
| 1 1/2" x 1 1/2" | 33 01 450 | 240 | 4.21" | 0.94"          | 1.09" | 2.26"          | 3.59" | 2.38" | <b>24032</b> |
| 1 1/2" x 2"     | 33 01 451 | 240 | 4.21" | 1.09"          | 1.09" | 2.26"          | 3.59" | 2.96" | <b>24434</b> |
| 2" x 2"         | 33 01 463 | 240 | 4.88" | 1.09"          | 1.25" | 2.61"          | 4.45" | 2.96" | <b>24033</b> |



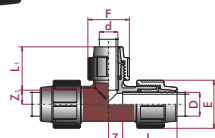
**PPL 90° TEE**  
**Comp x Comp x Comp**  
 3/4" - 2" 240 psi @ 73°F

| Size   | Reference | psi | L     | Z     | E     | Code         |
|--------|-----------|-----|-------|-------|-------|--------------|
| 3/4"   | 33 03 025 | 240 | 2.26" | 0.51" | 2.18" | <b>24007</b> |
| 1"     | 33 03 032 | 240 | 3.16" | 0.62" | 2.54" | <b>24008</b> |
| 1 1/4" | 33 03 040 | 240 | 3.59" | 0.7"  | 3.16" | <b>24009</b> |
| 1 1/2" | 33 03 050 | 240 | 4.21" | 0.94" | 3.59" | <b>24010</b> |
| 2"     | 33 03 063 | 240 | 4.88" | 1.09" | 4.45" | <b>24011</b> |



**PPL 90° TEE**  
**Comp x Comp x NPT Threaded (F)**  
 3/4" - 2" 240 psi @ 73°F

| Size            | Reference | psi | L     | L <sub>1</sub> | Z     | Z <sub>1</sub> | E     | F     | Code         |
|-----------------|-----------|-----|-------|----------------|-------|----------------|-------|-------|--------------|
| 3/4" x 3/4"     | 33 03 425 | 240 | 1.91" | 0.74"          | 0.51" | 1.01"          | 1.83" | 1.33" | <b>24012</b> |
| 1" x 3/4"       | 33 03 431 | 240 | 2.26" | 0.62"          | 0.62" | 1.21"          | 2.18" | 1.05" | <b>24017</b> |
| 1" x 1"         | 33 03 432 | 240 | 3.16" | 0.86"          | 0.7"  | 1.68"          | 2.54" | 1.6"  | <b>24013</b> |
| 1 1/4" x 3/4"   | 33 03 438 | 240 | -     | -              | -     | -              | -     | -     | <b>24018</b> |
| 1 1/4" x 1"     | 33 03 439 | 240 | -     | -              | -     | -              | -     | -     | <b>24019</b> |
| 1 1/4" x 1 1/4" | 33 03 440 | 240 | 3.59" | 0.94"          | 0.94" | 2.11"          | 3.16" | 2.03" | <b>24014</b> |
| 1 1/2" x 3/4"   | 33 03 447 | 240 | -     | -              | -     | -              | -     | -     | <b>24020</b> |
| 1 1/2" x 1"     | 33 03 448 | 240 | -     | -              | -     | -              | -     | -     | <b>24021</b> |
| 1 1/2" x 1 1/2" | 33 03 450 | 240 | 4.21" | 0.94"          | 1.09" | 2.26"          | 3.59" | 2.38" | <b>24015</b> |
| 1 1/2" x 2"     | 33 03 451 | 240 | 5.46" | 1.09"          | 1.09" | 2.26"          | 3.59" | 2.96" | <b>24435</b> |
| 2" x 3/4"       | 33 03 459 | 240 | -     | -              | -     | -              | -     | -     | <b>24022</b> |
| 2" x 1"         | 33 03 460 | 240 | -     | -              | -     | -              | -     | -     | <b>24023</b> |
| 2" x 2"         | 33 03 463 | 240 | 4.88" | 1.09"          | 1.25" | 2.61"          | 4.45" | 2.96" | <b>24016</b> |



**PPL 90° REDUCING TEE**  
**Comp x Comp x Comp**  
 3/4"-2" 240 psi @ 73°F

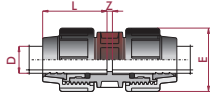
| Size            | Reference | psi | L     | L <sub>1</sub> | Z     | Z <sub>1</sub> | E     | F     | Code         |
|-----------------|-----------|-----|-------|----------------|-------|----------------|-------|-------|--------------|
| 1" x 3/4"       | 33 04 032 | 240 | 3.16" | 2.26"          | 0.7"  | 0.62"          | 2.54" | 2.18" | <b>24436</b> |
| 1 1/4" x 1"     | 33 04 040 | 240 | 3.59" | 3.16"          | 0.94" | 0.7"           | 3.16" | 2.54" | <b>24437</b> |
| 1 1/2" x 1 1/4" | 33 04 050 | 240 | 4.21" | 3.59"          | 1.09" | 0.94"          | 3.59" | 3.16" | <b>24438</b> |
| 2" x 1 1/4"     | 33 04 062 | 240 | -     | -              | -     | -              | -     | -     | <b>24439</b> |
| 2" x 1 1/2"     | 33 04 063 | 240 | 4.88" | 4.21"          | 1.25" | 1.09"          | 4.45" | 3.59" | <b>24440</b> |



**PPL COUPLING**

**Comp x Comp**

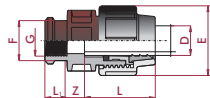
¾" - 2" 240 psi @ 73°F



**PPL COUPLING**

**Comp x NPT Threaded (F)**

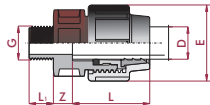
¾" - 2" 240 psi @ 73°F



**PPL COUPLING**

**Comp x NPT Threaded (M)**

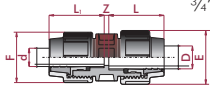
¾" - 2" 240 psi @ 73°F



**PPL REDUCING COUPLING**

**Comp x Comp**

¾" - 2" 240 psi @ 73°F



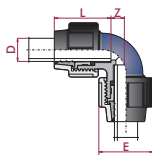
| Size | Reference | psi | L     | Z     | E     | Code         |
|------|-----------|-----|-------|-------|-------|--------------|
| ¾"   | 33 05 025 | 240 | 2.26" | 0.16" | 2.18" | <b>23986</b> |
| 1"   | 33 05 032 | 240 | 3.16" | 0.16" | 2.54" | <b>23987</b> |
| 1 ¼" | 33 05 040 | 240 | 3.2"  | 0.2"  | 3.16" | <b>23988</b> |
| 1 ½" | 33 05 050 | 240 | 4.21" | 0.31" | 3.59" | <b>23989</b> |
| 2"   | 33 05 063 | 240 | 4.88" | 0.31" | 4.45" | <b>23990</b> |

| Size      | Reference | psi | L     | L <sub>1</sub> | Z     | E     | F     | Code         |
|-----------|-----------|-----|-------|----------------|-------|-------|-------|--------------|
| ¾"x¾"     | 33 05 425 | 240 | 2.26" | 0.74"          | 0.47" | 2.18" | 1.33" | <b>24036</b> |
| ¾"x1"     | 33 05 426 | 240 | 2.07" | 0.86"          | 0.47" | 2.18" | 1.6"  | <b>24442</b> |
| 1"x¾"     | 33 05 431 | 240 | 3.16" | 0.74"          | 0.59" | 2.54" | 1.33" | <b>24042</b> |
| 1"x1"     | 33 05 432 | 240 | 3.16" | 0.86"          | 0.59" | 2.54" | 1.6"  | <b>24037</b> |
| 1 ¼"x1"   | 33 05 439 | 240 | 3.59" | 0.86"          | 0.66" | 3.16" | 1.6"  | <b>24035</b> |
| 1 ¼"x1 ¼" | 33 05 440 | 240 | 3.59" | 0.94"          | 0.66" | 3.16" | 2.03" | <b>24038</b> |
| 1 ½"x1 ¼" | 33 05 449 | 240 | 4.21" | 0.94"          | 0.66" | 3.59" | 2.03" | <b>24044</b> |
| 1 ½"x1 ½" | 33 05 450 | 240 | 4.21" | 0.94"          | 0.66" | 3.59" | 2.38" | <b>24039</b> |
| 1 ½"x2"   | 33 05 451 | 240 | 4.21" | 1.09"          | 0.66" | 3.59" | 2.96" | <b>24443</b> |
| 2"x1 ½"   | 33 05 462 | 240 | -     | -              | -     | -     | -     | <b>24045</b> |
| 2"x2"     | 33 05 463 | 240 | 4.88" | 1.09"          | 0.74" | 4.45" | 2.96" | <b>24040</b> |

| Size      | Reference | psi | L     | L <sub>1</sub> | Z     | E     | Code         |
|-----------|-----------|-----|-------|----------------|-------|-------|--------------|
| ¾"x¾"     | 33 05 625 | 240 | 2.26" | 0.62"          | 0.59" | 2.18" | <b>23445</b> |
| ¾"x1"     | 33 05 626 | 240 | 2.26" | 0.74"          | 0.59" | 2.18" | <b>24444</b> |
| 1"x¾"     | 33 05 631 | 240 | 3.16" | 0.62"          | 0.62" | 2.54" | <b>24445</b> |
| 1"x1"     | 33 05 632 | 240 | 3.16" | 0.74"          | 0.62" | 2.54" | <b>23996</b> |
| 1"x1 ¼"   | 33 05 638 | 240 | 3.16" | 0.82"          | 0.62" | 2.54" | <b>24446</b> |
| 1 ¼"x1 ¼" | 33 05 639 | 240 | 3.59" | 0.82"          | 0.86" | 3.16" | <b>24447</b> |
| 1 ¼"x1 ½" | 33 05 640 | 240 | 3.59" | 0.82"          | 0.86" | 3.16" | <b>23997</b> |
| 1 ½"x1 ¼" | 33 05 649 | 240 | 4.21" | 0.82"          | 0.9"  | 3.59" | <b>24448</b> |
| 1 ½"x1 ½" | 33 05 650 | 240 | 4.21" | 0.82"          | 0.9"  | 3.59" | <b>24449</b> |
| 1 ½"x2"   | 33 05 651 | 240 | 4.21" | 1.01"          | 0.9"  | 3.59" | <b>24450</b> |
| 2"x1 ½"   | 33 05 662 | 240 | 4.88" | 0.82"          | 0.98" | 4.45" | <b>24451</b> |
| 2"x2"     | 33 05 663 | 240 | 4.88" | 1.01"          | 0.98" | 4.45" | <b>24452</b> |

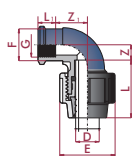
| Size      | Reference | psi | L     | L <sub>1</sub> | Z     | E     | F     | Code         |
|-----------|-----------|-----|-------|----------------|-------|-------|-------|--------------|
| 1"x¾"     | 33 06 032 | 240 | 3.16" | 2.26"          | 0.16" | 2.54" | 2.18" | <b>23991</b> |
| 1 ¼"x1"   | 33 06 040 | 240 | 3.59" | 3.16"          | 0.16" | 3.16" | 2.54" | <b>23992</b> |
| 1 ½"x1 ¼" | 33 06 050 | 240 | 4.21" | 3.59"          | 0.2"  | 3.59" | 3.16" | <b>23993</b> |
| 2"x1 ½"   | 33 06 063 | 240 | 4.88" | 4.21"          | 0.31" | 4.45" | 3.59" | <b>23994</b> |



**PPL Compression Fittings - IPS-NPT Series**

**PPL 90° ELBOW**
**Comp x Comp**

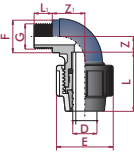
3/8" - 2" 240 psi @ 73°F  
3" - 4" 150 psi @ 73°F

| Size   | Reference | psi | L     | Z     | E     | Code         |
|--------|-----------|-----|-------|-------|-------|--------------|
| 3/8"   | 66 01 016 | 240 | 1.91" | 0.51" | 1.83" | <b>21807</b> |
| 1/2"   | 66 01 020 | 240 | 1.91" | 0.51" | 1.83" | <b>21808</b> |
| 3/4"   | 66 01 025 | 240 | 2.26" | 0.62" | 2.18" | <b>21809</b> |
| 1"     | 66 01 032 | 240 | 3.16" | 0.7"  | 2.54" | <b>21810</b> |
| 1 1/4" | 66 01 040 | 240 | 3.59" | 0.94" | 3.16" | <b>21811</b> |
| 1 1/2" | 66 01 050 | 240 | 4.21" | 1.09" | 3.2"  | <b>21812</b> |
| 2"     | 66 01 063 | 240 | 4.88" | 1.25" | 4.45" | <b>21813</b> |
| 3"     | 66 01 090 | 150 | 5.46" | 1.44" | 4.99" | <b>26777</b> |
| 4"     | 66 01 110 | 150 | 6.08" | 2.07" | 5.93" | <b>28117</b> |


**PPL 90° ELBOW**
**Comp x NPT Threaded (F)**

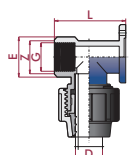
3/8" - 2" 240 psi @ 73°F  
3" 150 psi @ 73°F

| Size          | Reference | psi | L     | L <sub>1</sub> | Z     | Z <sub>1</sub> | E     | F     | Code         |
|---------------|-----------|-----|-------|----------------|-------|----------------|-------|-------|--------------|
| 3/8"x1/2"     | 66 01 417 | 240 | 1.91" | 0.62"          | 0.51" | 0.86"          | 1.83" | 1.05" | <b>21816</b> |
| 1/2"x1/2"     | 66 01 420 | 240 | 1.91" | 0.62"          | 0.51" | 1.01"          | 1.83" | 1.05" | <b>21817</b> |
| 1/2"x3/4"     | 66 01 421 | 240 | 1.91" | 0.74"          | 0.51" | 1.01"          | 1.83" | 1.33" | <b>21818</b> |
| 3/4"x1/2"     | 66 01 424 | 240 | 2.26" | 0.74"          | 0.62" | 1.21"          | 2.18" | 1.33" | <b>21819</b> |
| 3/4"x3/4"     | 66 01 425 | 240 | 2.26" | 0.74"          | 0.62" | 1.21"          | 2.18" | 1.33" | <b>21820</b> |
| 1"x1/2"       | 66 01 430 | 240 | 3.16" | 0.62"          | 0.7"  | 1.68"          | 2.54" | 1.05" | <b>21821</b> |
| 1"x3/4"       | 66 01 431 | 240 | 3.16" | 0.74"          | 0.7"  | 1.68"          | 2.54" | 1.33" | <b>21822</b> |
| 1"x1"         | 66 01 432 | 240 | 3.16" | 0.86"          | 0.7"  | 1.68"          | 2.54" | 1.6"  | <b>21823</b> |
| 1 1/4"x1 1/4" | 66 01 440 | 240 | 3.59" | 0.94"          | 0.94" | 2.11"          | 3.16" | 2.03" | <b>21824</b> |
| 1 1/4"x1 1/2" | 66 01 441 | 240 | 3.59" | 0.94"          | 0.94" | 2.11"          | 3.16" | 2.38" | <b>21825</b> |
| 1 1/2"x1 1/2" | 66 01 450 | 240 | 4.21" | 0.94"          | 1.09" | 2.26"          | 3.59" | 2.38" | <b>21826</b> |
| 1 1/2"x2"     | 66 01 451 | 240 | 4.21" | 1.09"          | 1.09" | 2.26"          | 3.59" | 2.96" | <b>21827</b> |
| 2"x2"         | 66 01 463 | 240 | 4.88" | 1.09"          | 1.25" | 2.61"          | 4.45" | 2.96" | <b>21828</b> |
| 3"x3"         | 66 01 490 | 150 | 5.46" | 1.09"          | 1.6"  | 3.24"          | 4.99" | 2.96" | <b>26785</b> |


**PPL 90° ELBOW**
**Comp x NPT Threaded (M)**

3/8" - 2" 240 psi @ 73°F  
2 1/2" 150 psi @ 73°F

| Size          | Reference | psi | L     | L <sub>1</sub> | Z     | Z <sub>1</sub> | E     | F     | Code         |
|---------------|-----------|-----|-------|----------------|-------|----------------|-------|-------|--------------|
| 3/8"x3/8"     | 66 01 616 | 240 | 1.91" | 0.51"          | 0.51" | 1.05"          | 1.83" | 1.05" | <b>21831</b> |
| 3/8"x1/2"     | 66 01 617 | 240 | 1.91" | 0.51"          | 0.51" | 1.05"          | 1.83" | 1.05" | <b>21832</b> |
| 1/2"x1/2"     | 66 01 620 | 240 | 1.91" | 0.55"          | 0.51" | 1.01"          | 1.83" | 1.05" | <b>21833</b> |
| 1/2"x3/4"     | 66 01 621 | 240 | 1.91" | 0.62"          | 0.51" | 1.01"          | 1.83" | 1.17" | <b>21834</b> |
| 3/4"x1/2"     | 66 01 624 | 240 | 2.26" | 0.55"          | 0.62" | 1.33"          | 2.18" | 1.05" | <b>21835</b> |
| 3/4"x3/4"     | 66 01 625 | 240 | 2.26" | 0.62"          | 0.62" | 1.33"          | 2.18" | 1.17" | <b>21836</b> |
| 1"x1"         | 66 01 632 | 240 | 3.16" | 0.74"          | 0.7"  | 1.76"          | 2.54" | 1.4"  | <b>21837</b> |
| 1 1/4"x1 1/4" | 66 01 640 | 240 | 3.59" | 0.82"          | 0.94" | 2.3"           | 3.16" | 1.87" | <b>21838</b> |
| 1 1/4"x1 1/2" | 66 01 641 | 240 | 3.59" | 0.82"          | 0.94" | 2.3"           | 3.16" | 2.03" | <b>21839</b> |
| 1 1/2"x1 1/4" | 66 01 649 | 240 | 4.21" | 0.82"          | 1.09" | 2.65"          | 3.59" | 1.87" | <b>21840</b> |
| 1 1/2"x1 1/2" | 66 01 650 | 240 | 4.21" | 0.82"          | 1.09" | 2.65"          | 3.59" | 2.03" | <b>21841</b> |
| 1 1/2"x2"     | 66 01 651 | 240 | 4.21" | 1.01"          | 1.09" | 2.65"          | 3.59" | 2.57" | <b>21842</b> |
| 2"x2"         | 66 01 663 | 240 | 4.88" | 1.01"          | 1.25" | 3.04"          | 4.45" | 2.57" | <b>21843</b> |
| 2 1/2"x2 1/2" | 66 01 675 | 150 | 5.46" | 1.17"          | 1.6"  | 3.24"          | 4.99" | 3.2"  | <b>21844</b> |


**PPL 90° ELBOW (WALL)**
**Comp x NPT Threaded (F)**

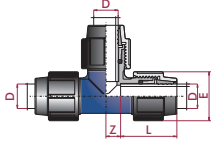
3/4" 240 psi @ 73°F

| Size      | Reference | psi | L     | Z     | E    | Code         |
|-----------|-----------|-----|-------|-------|------|--------------|
| 3/4"x3/4" | 66 01 225 | 240 | 2.54" | 1.25" | 1.4" | <b>21845</b> |



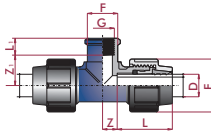
**PPL 90° TEE**

**Comp x Comp x Comp**  
1/2" - 2" 240 psi @ 73°F  
3" - 4" 150 psi @ 73°F



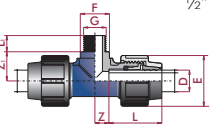
**PPL 90° TEE**

**Comp x Comp x NPT Threaded (F)**  
1/2" - 2" 240 psi @ 73°F  
2 1/2" - 4" 150 psi @ 73°F

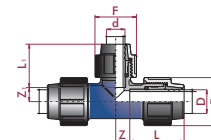


**PPL 90° TEE**

**Comp x Comp x NPT Threaded (M)**  
1/2" - 2" 240 psi @ 73°F

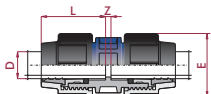


**PP 90° REDUCING TEE**  
**Comp x Comp x Comp**  
3/4"-2" 240 psi @ 73°F  
3" 150 psi @ 73°F



**PPL COUPLING**

**Comp x Comp**  
1/2" - 2" 240 psi @ 73°F  
3" - 4" 150 psi @ 73°F



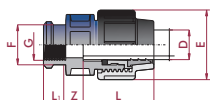
| Size   | Reference | psi | L     | Z     | E     | Code         |
|--------|-----------|-----|-------|-------|-------|--------------|
| 1/2"   | 66 03 020 | 240 | 1.91" | 0.51" | 1.83" | <b>21887</b> |
| 3/4"   | 66 03 025 | 240 | 2.26" | 0.51" | 2.18" | <b>22211</b> |
| 1"     | 66 03 032 | 240 | 3.16" | 0.62" | 2.54" | <b>21888</b> |
| 1 1/4" | 66 03 040 | 240 | 3.59" | 0.7"  | 3.16" | <b>21889</b> |
| 1 1/2" | 66 03 050 | 240 | 4.21" | 0.94" | 3.59" | <b>21890</b> |
| 2"     | 66 03 063 | 240 | 4.88" | 1.09" | 4.45" | <b>21891</b> |
| 3"     | 66 03 090 | 150 | 5.46" | 1.25" | 4.99" | <b>26786</b> |
| 4"     | 66 03 110 | 150 | 6.08" | 1.6"  | 5.93" | <b>28118</b> |

| Size          | Reference | psi | L     | L <sub>1</sub> | Z     | Z <sub>1</sub> | E     | F     | Code         |
|---------------|-----------|-----|-------|----------------|-------|----------------|-------|-------|--------------|
| 1/2"x1/2"     | 66 03 420 | 240 | 1.91" | 0.62"          | 0.51" | 0.86"          | 1.83" | 1.05" | <b>21902</b> |
| 1/2"x3/4"     | 66 03 421 | 240 | 1.91" | 0.62"          | 0.51" | 1.01"          | 1.83" | 1.05" | <b>21903</b> |
| 3/4"x1/2"     | 66 03 424 | 240 | 2.26" | 0.62"          | 0.62" | 1.21"          | 2.18" | 1.05" | <b>21904</b> |
| 3/4"x3/4"     | 66 03 425 | 240 | 1.91" | 0.74"          | 0.51" | 1.01"          | 1.83" | 1.33" | <b>21905</b> |
| 1"x1/2"       | 66 03 430 | 240 | 2.26" | 0.62"          | 0.62" | 1.21"          | 2.18" | 1.05" | <b>21906</b> |
| 1"x3/4"       | 66 03 431 | 240 | 2.26" | 0.74"          | 0.74" | 1.21"          | 2.18" | 1.33" | <b>21907</b> |
| 1"x1"         | 66 03 432 | 240 | 3.16" | 0.86"          | 0.7"  | 1.68"          | 2.54" | 1.6"  | <b>21908</b> |
| 1 1/4"x1 1/4" | 66 03 440 | 240 | 3.59" | 0.94"          | 0.94" | 2.11"          | 3.16" | 2.03" | <b>21909</b> |
| 1 1/2"x1 1/2" | 66 03 450 | 240 | 4.21" | 0.94"          | 1.09" | 2.26"          | 3.59" | 2.38" | <b>21910</b> |
| 1 1/2"x2"     | 66 03 451 | 240 | 5.46" | 1.09"          | 1.09" | 2.26"          | 3.59" | 2.96" | <b>21911</b> |
| 2"x2"         | 66 03 463 | 240 | 4.88" | 1.09"          | 1.25" | 2.61"          | 4.45" | 2.96" | <b>21912</b> |
| 3"x3"         | 66 03 490 | 150 | 6.08" | 1.37"          | 2.07" | 2.15"          | 5.93" | 4.25" | <b>26789</b> |
| 4"x4"         | 66 03 510 | 150 | 6.86" | 1.56"          | 2.46" | 2.38"          | 7.1"  | 4.45" | <b>28120</b> |

| Size          | Reference | psi | L     | L <sub>1</sub> | Z     | Z <sub>1</sub> | E     | F     | Code         |
|---------------|-----------|-----|-------|----------------|-------|----------------|-------|-------|--------------|
| 1/2"x1/2"     | 66 03 620 | 240 | 1.91" | 0.55"          | 0.51" | 1.01"          | 1.83" | 1.05" | <b>21916</b> |
| 1/2"x3/4"     | 66 03 621 | 240 | 1.91" | 0.62"          | 0.51" | 1.01"          | 1.83" | 1.17" | <b>21917</b> |
| 3/4"x1/2"     | 66 03 624 | 240 | 2.26" | 0.55"          | 0.62" | 1.33"          | 2.18" | 1.05" | <b>21918</b> |
| 3/4"x3/4"     | 66 03 625 | 240 | 2.26" | 0.62"          | 0.62" | 1.33"          | 2.18" | 1.17" | <b>21919</b> |
| 1"x1/2"       | 66 03 630 | 240 | 2.26" | 0.55"          | 0.62" | 1.33"          | 2.18" | 1.05" | <b>21920</b> |
| 1"x1"         | 66 03 632 | 240 | 3.16" | 0.74"          | 0.7"  | 1.76"          | 2.54" | 1.4"  | <b>21921</b> |
| 1 1/4"x1 1/4" | 66 03 640 | 240 | 3.59" | 0.82"          | 0.94" | 2.3"           | 3.16" | 1.87" | <b>21922</b> |
| 1 1/2"x1 1/2" | 66 03 650 | 240 | 4.21" | 0.82"          | 1.09" | 2.65"          | 3.59" | 2.03" | <b>21846</b> |
| 1 1/2"x2"     | 66 03 651 | 240 | -     | -              | -     | -              | -     | -     | <b>24458</b> |
| 2"x2"         | 66 03 663 | 240 | 4.88" | 1.01"          | 1.25" | 3.04"          | 4.45" | 2.57" | <b>21847</b> |

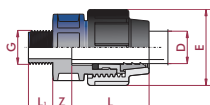
| Size          | Reference | psi | L     | L <sub>1</sub> | Z     | Z <sub>1</sub> | E     | F     | Code         |
|---------------|-----------|-----|-------|----------------|-------|----------------|-------|-------|--------------|
| 3/4"x1/2"     | 66 04 025 | 240 | 2.26" | 1.91"          | 0.62" | 0.51"          | 2.18" | 1.83" | <b>21894</b> |
| 1"x3/4"       | 66 04 032 | 240 | 3.16" | 2.26"          | 0.7"  | 0.62"          | 2.54" | 2.18" | <b>21895</b> |
| 1 1/4"x1"     | 66 04 040 | 240 | 3.59" | 3.16"          | 0.94" | 0.7"           | 3.16" | 2.54" | <b>21896</b> |
| 1 1/2"x1 1/4" | 66 04 050 | 240 | 4.21" | 3.59"          | 1.09" | 0.94"          | 3.59" | 3.16" | <b>21897</b> |
| 2"x1 1/4"     | 66 04 062 | 240 | -     | -              | -     | -              | -     | -     | <b>24110</b> |
| 2"x1 1/2"     | 66 04 063 | 240 | 4.88" | 4.21"          | 1.25" | 1.09"          | 4.45" | 3.59" | <b>21898</b> |
| 3"x2"         | 66 04 089 | 150 | 5.46" | 4.88"          | 1.6"  | 1.21"          | 4.99" | 4.45" | <b>24109</b> |

| Size   | Reference | psi | L     | Z     | E     | Code         |
|--------|-----------|-----|-------|-------|-------|--------------|
| 1/2"   | 66 05 020 | 240 | 1.91" | 0.16" | 1.83" | <b>21850</b> |
| 3/4"   | 66 05 025 | 240 | 2.26" | 0.16" | 2.18" | <b>21851</b> |
| 1"     | 66 05 032 | 240 | 3.16" | 0.16" | 2.54" | <b>21852</b> |
| 1 1/4" | 66 05 040 | 240 | 3.2"  | 0.2"  | 3.16" | <b>21853</b> |
| 1 1/2" | 66 05 050 | 240 | 4.21" | 0.31" | 3.59" | <b>21854</b> |
| 2"     | 66 05 063 | 240 | 4.88" | 0.31" | 4.45" | <b>21855</b> |
| 3"     | 66 05 090 | 150 | 5.46" | 0.39" | 4.99" | <b>26793</b> |
| 4"     | 66 05 110 | 150 | 5.75" | 0.39" | 5.93" | <b>28116</b> |


**PPL COUPLING**
**Comp x NPT Threaded (F)**

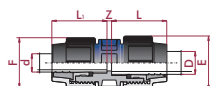
1/2"-2" 240 psi @ 73°F  
3" 150 psi @ 73°F

| Size          | Reference | psi | L     | L <sub>1</sub> | Z     | E     | F     | Code         |
|---------------|-----------|-----|-------|----------------|-------|-------|-------|--------------|
| 1/2"x1/2"     | 66 05 420 | 240 | 1.91" | 0.62"          | 0.43" | 1.83" | 1.05" | <b>21866</b> |
| 1/2"x3/4"     | 66 05 421 | 240 | 1.91" | 0.74"          | 0.43" | 1.83" | 1.33" | <b>21867</b> |
| 3/4"x1/2"     | 66 05 424 | 240 | 2.26" | 0.62"          | 0.47" | 2.18" | 1.05" | <b>21868</b> |
| 3/4"x3/4"     | 66 05 425 | 240 | 2.26" | 0.74"          | 0.47" | 2.18" | 1.33" | <b>21869</b> |
| 3/4"x1"       | 66 05 426 | 240 | 2.07" | 0.86"          | 0.47" | 2.18" | 1.6"  | <b>21870</b> |
| 1"x3/4"       | 66 05 431 | 240 | 3.16" | 0.74"          | 0.59" | 2.54" | 1.33" | <b>21871</b> |
| 1"x1"         | 66 05 432 | 240 | 3.16" | 0.86"          | 0.59" | 2.54" | 1.6"  | <b>21872</b> |
| 1 1/4"x1"     | 66 05 439 | 240 | 3.59" | 0.86"          | 0.66" | 3.16" | 1.6"  | <b>21873</b> |
| 1 1/4"x1 1/4" | 66 05 440 | 240 | 3.59" | 0.94"          | 0.66" | 3.16" | 2.03" | <b>21874</b> |
| 1 1/2"x1 1/4" | 66 05 449 | 240 | 4.21" | 0.94"          | 0.66" | 3.59" | 2.03" | <b>21875</b> |
| 1 1/2"x1 1/2" | 66 05 450 | 240 | 4.21" | 0.94"          | 0.66" | 3.59" | 2.38" | <b>21876</b> |
| 1 1/2"x2"     | 66 05 451 | 240 | 4.21" | 1.09"          | 0.66" | 3.59" | 2.96" | <b>21877</b> |
| 2"x2"         | 66 05 463 | 240 | 4.88" | 1.09"          | 0.74" | 4.45" | 2.96" | <b>21878</b> |
| 3"x3"         | 66 05 490 | 150 | 5.46" | 1.29"          | 1.52" | 4.99" | 4.4"  | <b>26795</b> |


**PPL COUPLING**
**Comp x NPT Threaded (M)**

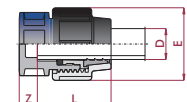
1/2"-2" 240 psi @ 73°F  
3"-4" 150 psi @ 73°F

| Size          | Reference | psi | L     | L <sub>1</sub> | Z     | E     | Code         |
|---------------|-----------|-----|-------|----------------|-------|-------|--------------|
| 1/2"x1/2"     | 66 05 620 | 240 | 1.91" | 0.55"          | 0.55" | 1.83" | <b>21883</b> |
| 1/2"x3/4"     | 66 05 621 | 240 | 1.91" | 0.62"          | 0.55" | 1.83" | <b>21884</b> |
| 1/2"x1"       | 66 05 622 | 240 | 1.91" | 0.74"          | 0.55" | 1.83" | <b>21924</b> |
| 3/4"x1/2"     | 66 05 624 | 240 | 2.26" | 0.55"          | 0.59" | 2.18" | <b>21925</b> |
| 3/4"x3/4"     | 66 05 625 | 240 | 2.26" | 0.62"          | 0.59" | 2.18" | <b>21926</b> |
| 3/4"x1"       | 66 05 626 | 240 | 2.26" | 0.74"          | 0.59" | 2.18" | <b>21927</b> |
| 1"x3/4"       | 66 05 631 | 240 | 3.16" | 0.62"          | 0.62" | 2.54" | <b>21928</b> |
| 1"x1"         | 66 05 632 | 240 | 3.16" | 0.74"          | 0.62" | 2.54" | <b>21929</b> |
| 1"x1 1/4"     | 66 05 633 | 240 | 3.16" | 0.82"          | 0.62" | 2.54" | <b>21930</b> |
| 1 1/4"x1 1/4" | 66 05 640 | 240 | 3.59" | 0.82"          | 0.86" | 3.16" | <b>21931</b> |
| 1 1/4"x1 1/2" | 66 05 641 | 240 | 3.59" | 0.82"          | 0.86" | 3.16" | <b>21932</b> |
| 1 1/2"x1 1/4" | 66 05 649 | 240 | 4.21" | 0.82"          | 0.9"  | 3.59" | <b>21933</b> |
| 1 1/2"x1 1/2" | 66 05 650 | 240 | 4.21" | 0.82"          | 0.9"  | 3.59" | <b>21934</b> |
| 1 1/2"x2"     | 66 05 651 | 240 | 4.21" | 1.01"          | 0.9"  | 3.59" | <b>21935</b> |
| 2"x1 1/2"     | 66 05 662 | 240 | 4.88" | 0.82"          | 0.98" | 4.45" | <b>21936</b> |
| 2"x2"         | 66 05 663 | 240 | 4.88" | 1.01"          | 0.98" | 4.45" | <b>21937</b> |
| 3"x3"         | 66 05 690 | 150 | 5.46" | 1.29"          | 1.52" | 4.99" | <b>26797</b> |
| 4"x4"         | 66 05 710 | 150 | 5.73" | 1.52"          | 1.13" | 5.93" | <b>28119</b> |


**PPL REDUCING COUPLING**
**Comp x Comp**

3/4"-2" 240 psi @ 73°F

| Size          | Reference | psi | L     | L <sub>1</sub> | Z     | E     | F     | Code         |
|---------------|-----------|-----|-------|----------------|-------|-------|-------|--------------|
| 3/4"x1/2"     | 66 06 025 | 240 | 2.26" | 1.91"          | 0.16" | 2.18" | 1.83" | <b>21858</b> |
| 1"x3/4"       | 66 06 032 | 240 | 3.16" | 2.26"          | 0.16" | 2.54" | 2.18" | <b>21859</b> |
| 1 1/4"x1"     | 66 06 040 | 240 | 3.59" | 3.16"          | 0.16" | 3.16" | 2.54" | <b>21860</b> |
| 1 1/2"x1 1/4" | 66 06 050 | 240 | 4.21" | 3.59"          | 0.2"  | 3.59" | 3.16" | <b>21861</b> |
| 2"x1 1/2"     | 66 06 063 | 240 | 4.88" | 4.21"          | 0.31" | 4.45" | 3.59" | <b>21862</b> |


**PPL CAP**
**Comp**

1/2"-2" 240 psi @ 73°F

| Size   | Reference | psi | L     | Z     | E     | Code         |
|--------|-----------|-----|-------|-------|-------|--------------|
| 1/2"   | 66 07 020 | 240 | 1.91" | 0.55" | 1.83" | <b>21942</b> |
| 3/4"   | 66 07 025 | 240 | 2.26" | 0.59" | 2.18" | <b>22212</b> |
| 1"     | 66 07 032 | 240 | 3.16" | 0.62" | 2.54" | <b>21943</b> |
| 1 1/4" | 66 07 040 | 240 | 3.59" | 0.86" | 3.16" | <b>21944</b> |
| 1 1/2" | 66 07 050 | 240 | 4.21" | 0.9"  | 3.59" | <b>21945</b> |
| 2"     | 66 07 063 | 240 | 4.88" | 0.98" | 4.45" | <b>21946</b> |

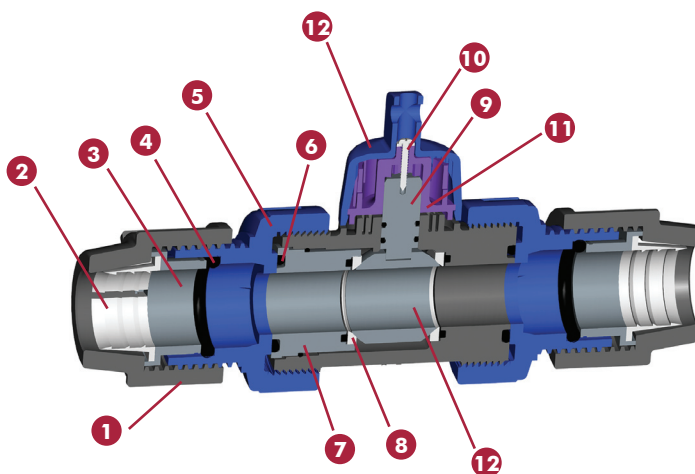
## PPL CURB STOP VALVES

### FEATURES

- IPS for use on HDPE Pipe SDR 7.3 thru SDR 17. Sizes 1¼", 1½" & 2" & for use on Sch 40/80 PVC Pipe with SS Gripper Ring. Sizes 1¼", 1½" & 2".
- CTS for use on Certified PE Pipe SDR 9 & SDR 11. Sizes 1¼", 1½" & 2" & for use on Cross Linked Pipe PE SDR 9 for Cold Water Only. Sizes 1-¼", 1-½" & 2".
- Available in PPL (ball and stem in black PVC).
- Pressure rating: 200 psi @ 73 °F.
- Compression (IPS, CTS) & threaded (NPT male and female) end connectors available.
- Fast and easy operation in small spaces.
- Inbuilt torque overload protection (ratcheting handle).
- Fully serviceable.
- EPDM o-rings.
- 100% factory tested
- Extremely smooth handle operation.



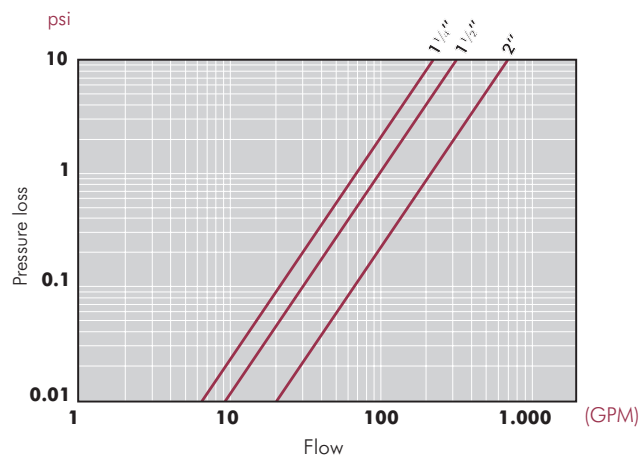
| Fig. | Parts                | Material        |
|------|----------------------|-----------------|
| 1    | Nut                  | PPL             |
| 2    | Split ring           | POM             |
| 3    | Pipe guide           | PPL             |
| 4    | O-ring               | EPDM            |
| 5    | Valve nut            | PPL             |
| 6    | End connector o-ring | EPDM            |
| 7    | Body                 | PPL             |
| 8    | Seat                 | PE              |
| 9    | Stem                 | PVC             |
| 10   | Fastening screw      | Stainless steel |
| 11   | Handle inner         | POM             |
| 12   | Handle outer         | POM             |
| 13   | Ball                 | PVC             |



### TOTAL DYNAMIC HEAD

### End connections availability table (one or both sides)

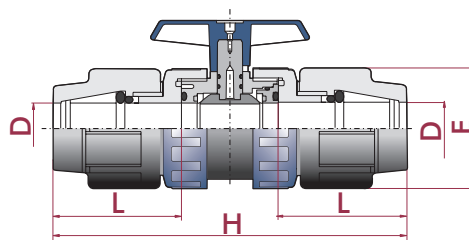
| Size | IPS | CTS |
|------|-----|-----|
| 1¼"  | ✓   | ✓   |
| 1½"  | ✓   | ✓   |
| 2"   | ✓   | ✓   |



## PPL COMPRESSION BALL VALVES

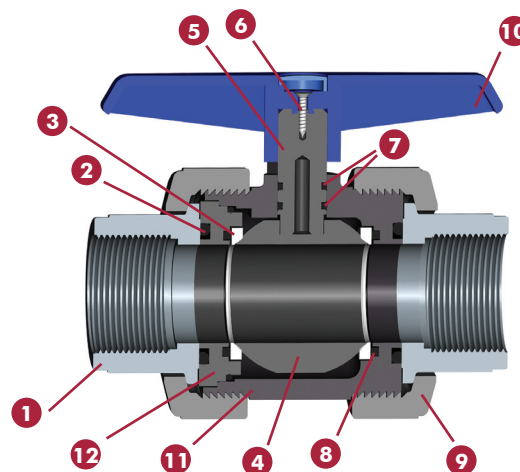
### FEATURES

- IPS for use on HDPE Pipe SDR 7.3 thru SDR 17. Sizes 1/2" - 2" (Blue Body) & for use on Sch 40/80 PVC Pipe with SS Gripper Ring. Sizes 1/2" - 2" (Blue Body).
- CTS for use on Certified PE Pipe SDR 9 & SDR 11. Sizes 3/4" - 2" (Copper Body) & for use on Cross Linked Pipe PE SDR 9 for Cold Water Only. Sizes 3/4" - 2" (Copper Body) & for use on Copper Pipe with CTS SS Gripper Ring. Sizes 3/4" - 1" (Copper Body).
- Pressure rating 200 psi @ 73°F.
- "Antiblock" system that avoids ball blockage.
- 100% factory tested.
- Minimal pressure drop.
- Low operating torque.
- Resistance to many inorganic chemicals.
- Excellent flow characteristics.
- Available standards: IPS and CTS.
- Threaded versions: NPT male and female.
- O-rings in EPDM.
- Ball seat in HDPE.

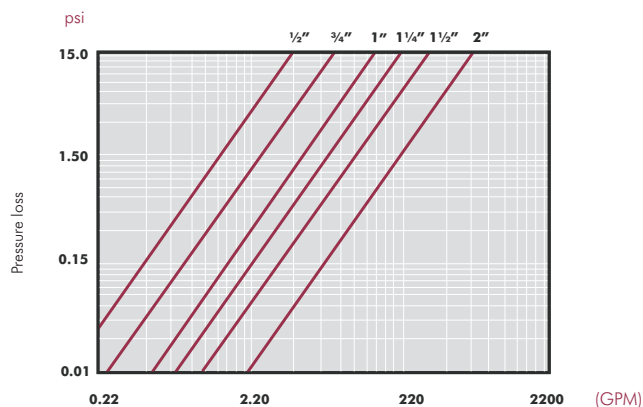


| D      | H      | L     | E     |
|--------|--------|-------|-------|
| 1/2"   | 5.46"  | 1.56" | 1.83" |
| 3/4"   | 6.2"   | 1.75" | 2.18" |
| 1"     | 7.53"  | 2.07" | 2.53" |
| 1 1/4" | 8.69"  | 2.57" | 3.16" |
| 1 1/2" | 8.93"  | 2.61" | 3.59" |
| 2"     | 10.84" | 3.12" | 4.45" |

| Fig. | Parts                | Material        |
|------|----------------------|-----------------|
| 1    | End connector        | PPL             |
| 2    | End connector o-ring | EPDM            |
| 3    | Ball seat            | PE              |
| 4    | Ball                 | PVC             |
| 5    | Stem                 | PVC             |
| 6    | Fastener screw       | Stainless steel |
| 7    | Stem o-ring          | EPDM            |
| 8    | Body o-ring          | EPDM            |
| 9    | Union nut            | PPL             |
| 10   | Handle               | PPL             |
| 11   | Body                 | PPL             |
| 12   | Seal carrier         | PPL             |



### TOTAL DYNAMIC HEAD



## MATERIAL GLOSSARY

### PVC

Unplasticised polyvinyl chloride (PVC) is the most widely used of all plastics used for pipe installations. It is rigid, versatile, and is suitable for both above or below ground installations. PVC is suitable for use at temperatures from 32°F to 140°F (0°C to 60°C) at a wide range of operating pressures, depending upon the system chosen. It is lightweight and easy to install, using cold solvent welded joints which require no special tools.

The characteristics of PVC structural parts are strongly dependant on the makeup of the recipe, but also from the processing. Through our 30-year experience in PVC processing and the continual further development of our own recipe, Cepex has become the benchmark in the PVC piping field. Cepex offers PVC valves and fittings free from lead, cadmium and other poisonous heavy metals for your applications in the fields of drinking water or food.

### CPVC

The abbreviation CPVC stands for chlorinated polyvinylchloride. It is made by post-chlorination of PVC whereby chlorine is attached to the PVC chain. Thus CPVC is a transformed PVC material which, because of its chemical form, is characterised by a higher temperature resistance than PVC, with concurrent higher tensile strength, good tenacity and exceptional chemical resistance. Its flammability resistance is even more exceptional than PVC. These characteristics have made CPVC an interesting substitute for piping in the chemical industry as well as for other demanding industrial applications.

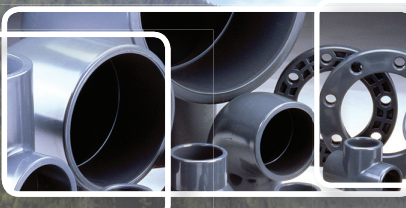
### PPL

Polypropylene (PPL) piping systems are widely used in industrial processing. Light in weight yet with high impact strength and reliable heat fusion welding, PPL also offers good abrasion resistance and is a good thermal and electrical insulator.

PPL is suitable for working use at temperatures up to 176°F (80°C), and will withstand short term use at a maximum 230°F (110°C).

Chemical resistance is excellent: PP is resistant to aqueous solutions of acids, alkalis and salts, and to a large number of organic solvents.

At this time, Cepex produces PPL compression fittings for PE pipes and PPL fittings for irrigation applications. Now, Cepex also offers the new generation of butterfly valves with PPL discs and is planning to offer a complete system in the near future.



- Temperature range: 32°F to 140°F (0°C to 60°C).
- Abrasion resistant.
- Non-toxic and taint free.
- Rigid pipes: no special support needed.
- Ideal for above and below ground use.
- Resistant to many inorganic chemicals.
- Threading possible.
- Resistant to most solutions of acids, alkalis and salts.
- No special tools required for installation.
- Jointing by cold solvent welding or rubber ring mechanical joints.
- Not resistant to aromatic and chlorinated hydrocarbons (see chemical resistance chart for details).

- Temperature range: 32°F to 200°F (0°C to 80°C).
- Good mechanical strength.
- Low thermal conductivity.
- Odourless and tasteless.
- Rigid pipes are suitable for above ground use.
- Resistant to many inorganic chemicals.
- Threading possible.
- No special jointing tools required.
- Non flammable and self extinguishing.
- Not resistant to organic solvents (see chemical resistance chart for details).

- Temperature range 32°F to 176°F (0°C to 80°C) (short term 230°F - 110°C).
- High impact strength.
- Abrasion resistant.
- Suitable for handling foodstuffs.
- Ideal for above and below ground use.
- Threading possible.
- Resistant to acids, alkalis, salts and many organic solvents.
- Good insulator.
- Lightweight (density 0.905-0.92).
- Not resistant to concentrated oxidising acids.
- Thermal expansion is higher than other plastics.



**METRIC**  
↓  
**BRITISH & US STANDARDS**

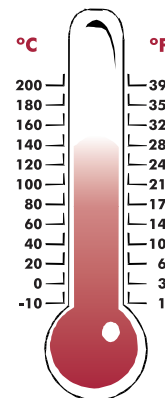
- **Length**  
m x 3.28 = ft  
mm x 0.039 = in
- **Volume**  
m<sup>3</sup> x 35.31 = ft<sup>3</sup>  
l x 0.22 = UK Gall  
l x 0.2642 = US Gall
- **Weight**  
Kg x 2.2 = lb
- **Pressure**  
bar x 1.5 = PSI  
kPa (kN/m<sup>2</sup>) x 0.150 = PSI  
kPa (kN/m<sup>2</sup>) x 0.01 = bar  
kPa (kN/m<sup>2</sup>) x 0.33 = ft.hd.  
kPa (kN/m<sup>2</sup>) x 4 = in.w.g.
- **Velocity / Flow rate**  
l/s x 13.2 = GPM  
kg/s x 7937 = lbs/h  
m<sup>3</sup>/s x 2119 = ft<sup>3</sup>/min  
m<sup>3</sup>/h x 0.588 = ft<sup>3</sup>/min  
m/s x 197 = ft/min  
m/s x 3.28 = ft/s

**BRITISH & US STANDARDS**  
↓  
**METRIC**

- **Length**  
ft x 0.305 = m  
in x 25.4 = mm
- **Volume**  
ft<sup>3</sup> x 0.028 = m<sup>3</sup>  
UK Gall x 4.546 = l  
US Gall x 3.785 = l
- **Weight**  
lb x 0.45 = kg
- **Pressure**  
PSI x 0.069 = bar  
PSI x 6.89 = kPa (kN/m<sup>2</sup>)  
bar x 100 = kPa (kN/m<sup>2</sup>)  
ft.hd. x 2.98 = kPa (kN/m<sup>2</sup>)  
in.w.g. x 0.249 = kPa (kN/m<sup>2</sup>)
- **Velocity / Flow rate**  
GPM x 0.076 = l/s  
lbs/h x 0.000126 = kg/s  
ft<sup>3</sup>/min x 0.000472 = m<sup>3</sup>/s  
ft<sup>3</sup>/min x 1.7 = m<sup>3</sup>/h  
ft/min x 0.0051 = m/s  
ft/s x 0.305 = m/s

**TEMPERATURE**

(°C x 1.8) + 32 = °F  
(°F - 32) x 0.555 = °C



**Length**

| Millimeter (mm) | Meter (m) | Inch (in) | Foot (ft) | Yard (yd) |
|-----------------|-----------|-----------|-----------|-----------|
| 1               | 0.001     | 0.0394    | 0.0033    | 0.0011    |
| 1000            | 1         | 39.3701   | 3.2808    | 1.0936    |
| 25.4            | 0.0254    | 1         | 0.0833    | 0.0278    |
| 304.8           | 0.3048    | 12        | 1         | 0.3333    |
| 914.4           | 0.9144    | 36        | 3         | 1         |

**Volume**

| Cubic meter (m <sup>3</sup> ) | Cubic centimeter (cm <sup>3</sup> ) | Liter (l) | Cubic inch (in <sup>3</sup> ) | Cubic foot (ft <sup>3</sup> ) | US Gallon (US gal) |
|-------------------------------|-------------------------------------|-----------|-------------------------------|-------------------------------|--------------------|
| 1                             | 1000000                             | 999.972   | 61023.3147                    | 35.3147                       | 264.172            |
| 0.000001                      | 1                                   | 0.0009997 | 0.0610                        | 0.0000353                     | 0.0026             |
| 0.001                         | 1000.028                            | 1         | 61.0255                       | 0.0353                        | 0.2642             |
| 0.000016                      | 16.3871                             | 0.0164    | 1                             | 0.00058                       | 0.0043             |
| 0.0283                        | 28316.8                             | 28.3161   | 1728                          | 1                             | 7.4805             |
| 0.0045                        | 4546.09                             | 4.546     | 277.419                       | 0.4605                        | 1.201              |
| 0.0038                        | 3785.41                             | 3.7853    | 231                           | 0.1337                        | 1                  |

**Velocity**

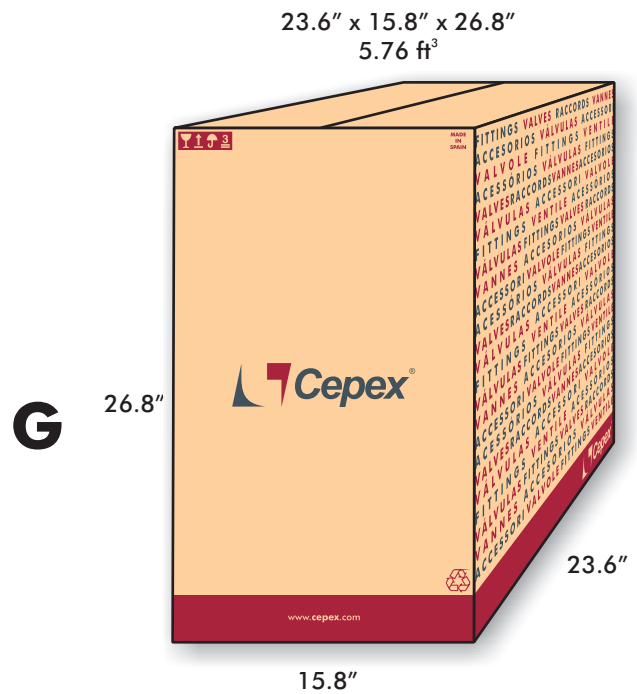
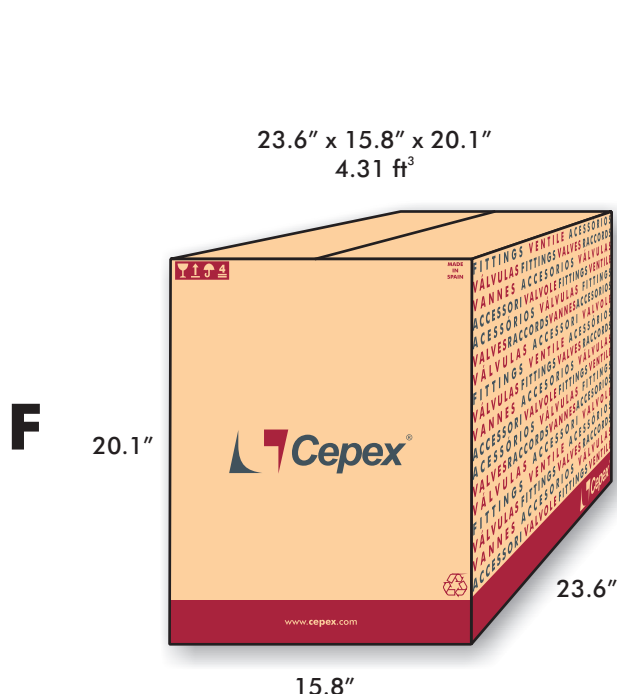
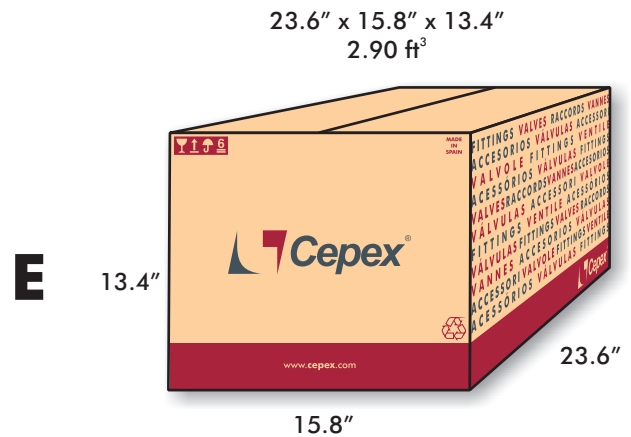
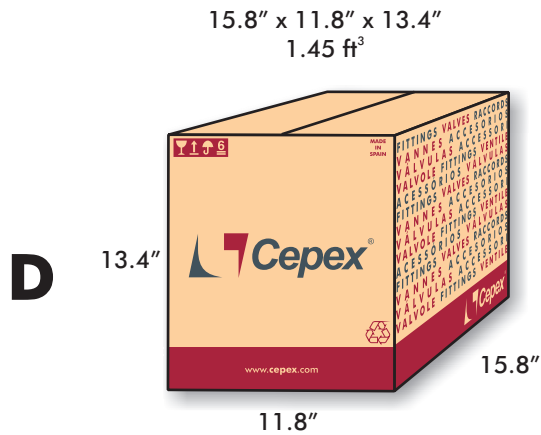
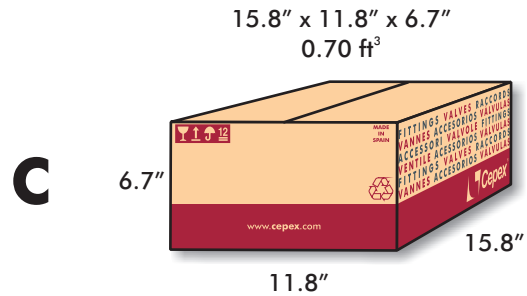
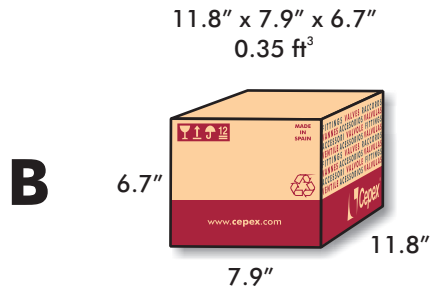
| Meter x second (m/s) | Foot x second (ft/s) | Foot per minute (ft/m) | Kilometer x hour (km/h) | Mile per hour (mile/h) |
|----------------------|----------------------|------------------------|-------------------------|------------------------|
| 1                    | 3,208                | 0.0547                 | 3.6                     | 2.2369                 |
| 0.3048               | 1                    | 0.0167                 | 1.097                   | 0.6818                 |
| 18.288               | 60                   | 1                      | 65.8368                 | 40.9091                |
| 0.2778               | 0.9113               | 0.0152                 | 1                       | 0.6214                 |
| 0.4470               | 1.4667               | 0.0245                 | 1.6903                  | 1                      |

**Volumetric rate of flow**

| Liter x second (l/s) | Liter x minute (l/m) | Cubic meter x hour (m <sup>3</sup> /h) | Cubic foot x hour (ft <sup>3</sup> /h) | Cubic foot x minute (ft <sup>3</sup> /m) | UK gallon x minute (UK gal/m) | US barrel x day (US barrel/D) |
|----------------------|----------------------|----------------------------------------|----------------------------------------|------------------------------------------|-------------------------------|-------------------------------|
| 1                    | 60                   | 3.6001                                 | 127.136                                | 2.1189                                   | 13.1986                       | 543.456                       |
| 0.0167               | 1                    | 0.0600                                 | 2.1189                                 | 0.3532                                   | 0.22                          | 9.0576                        |
| 0.2778               | 16.6666              | 1                                      | 35.3147                                | 0.5886                                   | 3.6662                        | 150.956                       |
| 0.0079               | 0.4719               | 0.0283                                 | 1                                      | 0.1067                                   | 0.1038                        | 4.2746                        |
| 0.4719               | 28.316               | 1.6990                                 | 60                                     | 1                                        | 6.2288                        | 256.475                       |
| 0.0758               | 4.546                | 0.2728                                 | 9.6326                                 | 0.1605                                   | 1                             | 41.1754                       |
| 0.0631               | 3.7853               | 0.2271                                 | 8.0208                                 | 0.1337                                   | 0.8327                        | 4.2857                        |
| 0.0018               | 0.1104               | 0.0066                                 | 0.2339                                 | 0.0039                                   | 0.0243                        | 1                             |



PACKAGING



- Packaging: Q(B) - Q: total quantity per box - B: quantity per internal box
- When non-standard boxes are used, volume (ft<sup>3</sup>) is shown in the PACK column.
- The new carton box G has the measures of the old carton box F (23.4"x15.6"x26.5"). The new carton box F now has the following measures: 23.4"x15.6"x19.89".
- All the weights are expressed in pounds.

**ACCEPTANCE OF ORDERS**

All orders are subject to acceptance by Cepex USA, Inc. and to the conditions herein set forth. Oral and telephone orders are not accepted.

**PRICE AND PAYMENT**

All prices are F.O.B. Cepex USA, Jacksonville, Florida. All shipping, rigging and other destination charges will be invoiced by CEPEX and paid by Buyer. Prices are subject to change without notice. Prices do not include any applicable local or state taxes. Buyer is responsible for furnishing resale certificate. All amounts due to CEPEX shall be paid in full by Buyer no later than thirty (30) days from the date of shipment. Restrictive endorsements, terms or other statements accompanying any payment shall be ineffective even though payment is accepted by CEPEX. CEPEX shall have the right to change the payment terms extended to Buyer or cancel or reschedule delivery of the products if CEPEX, in its sole discretion, determines that Buyer's financial condition or previous payment record warrants such a change.

**ORDERING**

To insure prompt and proper shipment, please order using product part number and description in this catalog. CEPEX reserves the right to segment the order to allow for standard packaging. Orders less than \$100.00 net are subject to a \$50.00 handling charge. CEPEX reserves the right to make substitutions and modifications in the specifications of the products at any time prior to delivery subject to the condition that such substitutions or modifications do not materially affect the performance of such products and such products remain functionally similar.

**SHIPMENT**

In the absence of sufficient stocks, CEPEX will reschedule the delivery time. The non-fulfillment of the delivery date does not authorize the Buyer to cancel his order nor to claim any indemnification or compensation whatsoever, and Buyer expressly waives any actions to which he might otherwise be entitled for delays when same are due to involuntary contingencies and/or force majeure or when Buyer has not fulfilled all or part of his obligations. Freight allowed on shipments with a net value of \$5,000.00 net or more, to one destination, within the continental United States. Orders of less than \$5,000.00 net will be F.O.B. Jacksonville, Florida. Parts and subassemblies can be shipped prepaid when the order consist of parts only and exceeds \$1,500.00 net. F.O.B. Jacksonville, Florida. CEPEX schedules delivery for the time which is confirmed on the purchase order acknowledgement form sent to Buyer. Delivery occurs when CEPEX places the product at its Jacksonville, Florida shipping dock for Buyer's disposal. Title to products delivered hereunder, including, without limitation, spares and accessories and all risks of loss or damage thereto shall pass to Buyer upon delivery. Acceptance of the Products shall be deemed to have taken place seven (7) business days after delivery, unless rejected in writing by Buyer within such seven (7) day period.

**WARRANTIES**

CEPEX guarantees that all products, when shipped, are free from manufacturing defects or faults and when installed, applied and used according to specifications. All products are warranted for a period of one year from the date of purchase, unless specified on the individual product warranty. Defective products which fail during the warranty period, except as a result of improper installation or modifications, damages or losses, careless handling, negligence or any other abuse, may be replaced or repaired without charge within 60 days of the receipt of defective products. No claims for cartage, labor, or other consequent damages will be allowed. EXCEPT AS STATED IN THIS SECTION, CEPEX, ITS SUBSIDIARIES AND AFFILIATES MAKE NO WARRANTIES, EXPRESS, IMPLIED OR STATUTORY, AS TO ANY MATTER WHATSOEVER. IN PARTICULAR, ANY AND ALL WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT OF THIRD PARTY RIGHTS ARE EXPRESSLY EXCLUDED.

**DAMAGED FREIGHT**

All merchandise must be inspected upon receipt and if damage is found, the person receiving the product must note the damage on the bill of lading or refuse the freight entirely. Cepex USA, Inc. will not be responsible for damaged freight that is accepted.

**SHORTAGES**

Claims for merchandise shortages must be filed with Cepex USA, Inc. Customer Service Department within 24 hours of delivery. Cepex USA, Inc. reserves the right to deny any shortage claim that is filed without proper documentation.

**HIDDEN DAMAGE**

There will be from time to time hidden damage. Hidden damage claims must be filed with the Cepex USA, Inc. Customer Service Department within 5 days of delivery of merchandise. Once the product has been received into your warehouse or to the job site, it must be inspected thoroughly! Cepex USA, Inc. cannot guarantee approval of hidden damage claims and will not be responsible for claims filed after 5 days. All claims must be accompanied by a signed proof of delivery showing the date that the merchandise in question was received. We at Cepex USA, Inc. will do our best to expedite all claims.

Cepex USA, Inc. will not be held responsible for claims that are denied by the freight companies. The freight companies must inspect all claims before approval will be given. They will do this inspection as quickly as possible, but they must see the merchandise before any claim is considered.

**RETURNS**

No returns should be made without written request and authorization. Products returned without authorization freight collect, will be refused by CEPEX. After receipt of a returned goods authorization form, the products are to be shipped freight prepaid in the manner and to the destination designated. Products may be returned for credit, if in original condition and resalable, subject to a 25% handling and restocking charge. Under no conditions will returned products be accepted after 6 months.

**TERMS**

Shipments will be made on open account upon final approval by CEPEX's credit department, accounts unpaid after 30 days will be considered delinquent and will be subject to a service charge of 1½% per month (18% per annum) on the unpaid balance, or the maximum amount permitted under applicable law on all amounts overdue until payment thereof. Shipments to delinquent accounts as well as new accounts will be C.O.D. until credit is established.

**TAXES**

Buyer shall pay all foreign, federal, state or local income taxes, sales taxes, withholding taxes, excise taxes, use taxes, customs duties or assessments, or other taxes, charges, duties or assessments, including interest and penalties, except any tax levied or imposed upon CEPEX's income. All taxes which CEPEX is obligated to pay or collect in connection with the import, sale or delivery of the products shall be paid by Buyer.

**CANCELLATION**

Without prejudice to other claims to which CEPEX may be entitled, CEPEX reserves the right to rescind or cancel any transaction by full right in the event of Buyer's breach of any of the terms set out herein, and in the event of partial or total nonpayment of an order, or delay in the payment of previous supplies, and if foreclosure proceedings were to be initiated against Buyer or if same were to be declared in temporary receivership or bankrupt. In the event of cancellation by Buyer of an order or any part of an order, without prior agreement, Buyer agrees to pay CEPEX an indemnification equivalent to 20% of the value of the goods affected by the cancellation, without prejudice to the right of CEPEX to claim, moreover, the damages caused by the cancellation of the order.

**CONFIDENTIALITY**

Buyer is obliged to maintain in secret the information that CEPEX supplies to him as confidential, and Buyer undertakes to prevent the disclosure of the same. Buyer acknowledges that the unauthorized use, disclosure or transfer of any information confidential or proprietary to CEPEX or any information which, at law or in equity, ought to remain confidential, will (a) substantially diminish the value to CEPEX of its trade secrets or other proprietary interests and (b) give rise to irreparable injury to CEPEX inadequately compensable in damages. Accordingly, in addition to any other legal remedies which may be available, CEPEX may seek and obtain injunctive relief or any appropriate decree of specific performance against any actual or threatened breach or violation of any of the foregoing undertakings without the necessity of CEPEX posting a bond or showing that actual or monetary damages would not afford an adequate remedy.

**RESERVATION OF OWNERSHIP**

On all sales on credit and financed sales, CEPEX reserves the ownership of the goods sold until Buyer has made absolutely all the payments, and CEPEX moreover reserves the right to withdraw such goods, wholly or partially, from the domicile of Buyer.

**JURISDICTION AND COMPETENCE**

All transactions between CEPEX and Buyer shall be governed in all respects by the laws of the State of Florida, without regard to any rules of conflict and choice of laws which would require the application of laws of another jurisdiction. CEPEX and Buyer (a) agree that any suit, action or other legal proceeding between them shall be brought and heard in a court of competent jurisdiction in Jacksonville, Florida; (b) consent to the jurisdiction of any such court in any such suit, action or proceeding; and (c) waive any objection it may have to the laying of venue of any such suit, action or proceeding in any such court. The prevailing party will be entitled to costs and reasonable attorney fees.

**GENERAL**

These Terms and Conditions of Sale constitute the entire Agreement between CEPEX and Buyer with respect to the subject matter hereof and supersedes all previous proposals, negotiations, representations or commitments between the parties, both written and oral. These terms shall prevail in the event that there is a conflict or variance with the terms and conditions of any purchase order form or other document submitted by Buyer or with any invoice or other document submitted by CEPEX.

# FLUIDRA



FLUIDRA USA

8525 Mallory Road  
Jacksonville, FL 32220  
Tel.: (904) 695 1441 - Fax: (904) 695 1442

E-mail: [info@cepexusa.com](mailto:info@cepexusa.com)  
Website: [www.cepexusa.com](http://www.cepexusa.com)



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[www.cepexusa.com](http://www.cepexusa.com)