



Colonial's true union ball valves are premium quality and ideally suited for the most demanding industrial, commercial, agricultural and irrigation environments. Four different body materials and two different o-ring materials are available.

A patented polymeric locking strip allows safe operation even when installed in the reverse direction. Ideally suited where full port, full flow and reparability are required.



New accessories available.



See page 73 for valve actuation.



This catalog contains information on parts offered at the date of printing. Please refer to our current list price sheets for any additional parts or sizes now offered.

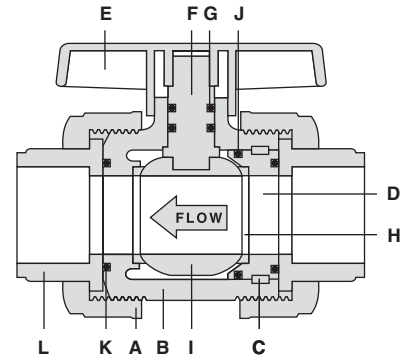


Each and every industrial ball valve is tested under high pressure for structural integrity and low pressure for a bubble-tight seal.

CUSTOMER SERVICE
Michigan (800) 374 0234
Florida (800) 432 6224
www.colonialengineering.com



- Thermoplastic design eliminates process and atmospheric corrosion.
- Exclusive patented polymeric locking ring assures seal carrier retention.
- Double “D” stem design.
- Pressure rated up to 235 psi at 73°F (non-shock water).
- Socket dimensions meet all ASTM requirements. PVC: D-2467, D-2464; CPVC: F-439, F-437.
- Two stem o-rings for double leak protection.
- Full flow design—same I.D. as schedule 80 pipe—minimizes turbulence at high flow rates.



COMPONENTS AND MATERIALS

Part Letter	Component	Quantity	Material
A	Union Nut	2	PVC, CPVC, PP, PVDF
B	Body	1	PVC, CPVC, PP, PVDF
C	Locking Ring	1	PVDF
D	Carrier	1	PVC, CPVC, PP, PVDF
E	Handle	1	ABS
F	Stem	1	PVC, CPVC, PP, PVDF
G	Stem O-Ring	2	EPDM, Viton®
H	Ball Seal	2	Teflon®
I	Ball	1	PVC, CPVC, PP, PVDF
J	Carrier O-Ring	1	EPDM, Viton®
K	Face O-Ring	2	EPDM, Viton®
L	Connector	2	PVC, CPVC, PP, PVDF

Teflon® is a registered trademark of DuPont. Only DuPont makes Teflon. Viton® is a registered trademark of Dupont Dow Elastomers.

COLORED AND ROUND REPLACEMENT HANDLES FOR TRUE UNION AND SUPER C BALL VALVES

In many industrial or irrigation applications, it is beneficial to employ a simple, yet reliable method of identifying one pipeline from another. In addition to marking the pipe or valves, a color-code method can be implemented. Colonial's color replacement handles are available for 1/2 – 2" sizes of True Union and Super C Compact Ball Valves.

Round handles are offered for 1/2 – 1" True Union and Super C Ball Valves. Since the Open/Close Torque on these small diameter valves is low, the round handles are offered to prevent accidental movement of the handle from the bump of an arm or the catch of a pant leg.

COMPRESSED AIR WARNING

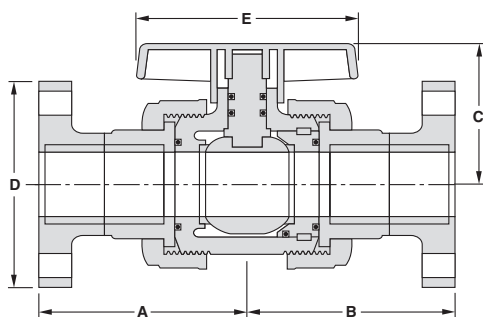
The products in this catalog are only intended for use in transferring or storing chemically compatible pressurized liquids. **Do not test or use products in this catalog with compressed air or other gases.** Doing so is dangerous and could cause injury or great bodily harm should a system fail under compressed air. Only use products that are specifically designed for compressed air/gas service. Call Colonial technical service for more information.

COLORED AND ROUND REPLACEMENT HANDLES

Color/Style	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
Black	VO7101KBK	VO8101KBK	V10101KBK	V14101KBK	V17101KBK	V20101KBK
Blue	VO7101KBL	VO8101KBL	V10101KBL	V14101KBL	V17101KBL	V20101KBL
Green	VO7101KKG	VO8101KKG	V10101KKG	V14101KKG	V17101KKG	V20101KKG
Yellow	VO7101KYY	VO8101KYY	V10101KYY	V14101KYY	V17101KYY	V20101KYY
White	VO7101KW	VO8101KW	V10101KW	V14101KW	V17101KW	V20101KW
Orange*	VO7101K	VO8101K	V10101K	V14101K	V17101K	V20101K
Round	VO7101KR	VO8101KR	V10101KR	N/A	N/A	N/A

*Stock Replacement

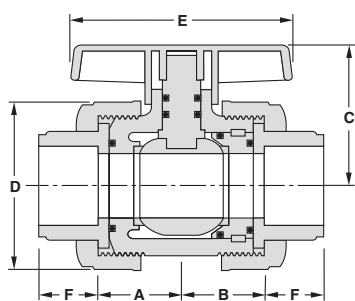
TRUE UNION BALL VALVES
Flanged



	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	3"	4"
A	3-1/8	4-1/32	3-31/32	4-7/16	4-13/16	5-19/32	7-7/32	8-19/32
B	3-1/8	4-1/32	3-31/32	4-7/16	4-13/16	5-19/32	7-7/32	8-19/32
C	1-29/32	2-3/8	2-19/32	3-19/32	3-19/32	4-9/32	5-13/32	6-17/32
D	3-15/32	3-7/8	4-1/4	4-19/32	5	6	7-1/2	9-1/32
E	3-7/32	3-7/16	4	5	5	5-31/32	7-5/8	9-15/32

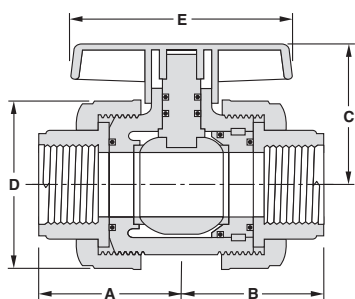
- Two stem stops for positive shut off.
- Full block design allows for external adjustment for seat wear.
- Floating ball design for positive seal.
- True union design permits easy removal of valve body for service.
- Easily repairable.
- For factory-customized, vented ball, see Valve Problems and Solutions on page 87.

TRUE UNION BALL VALVES
Slip x Slip



	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	3"	4"
A	1-1/8	1-9/16	1-17/32	1-15/16	1-27/32	2-5/16	3-3/16	3-13/16
B	1-1/8	1-9/16	1-17/32	1-15/16	1-27/32	2-5/16	3-3/16	3-13/16
C	1-29/32	2-3/8	2-19/32	3-19/32	3-19/32	4-9/32	5-13/32	6-17/32
D	2-1/32	2-15/32	2-27/32	4-3/32	4-3/32	5-5/16	7-7/32	8-9/16
E	3-7/32	3-7/16	4	5	5	5-31/32	7-5/8	9-15/32
F	15/16	1	1-5/32	1-3/32	1-13/32	1-17/32	1-15/16	2-9/32

TRUE UNION BALL VALVES
FPT x FPT



	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	3"	4"
A	1-27/32	2-5/32	2-15/32	3-1/32	2-7/8	3-11/32	5-1/8	6-3/32
B	1-27/32	2-5/32	2-15/32	3-1/32	2-7/8	3-11/32	5-1/8	6-3/32
C	1-29/32	2-3/8	2-19/32	3-19/32	3-19/32	4-9/32	5-13/32	6-17/32
D	2-1/32	2-15/32	2-27/32	4-3/32	4-3/32	5-5/16	7-7/32	8-9/16
E	3-7/32	3-7/16	4	5	5	5-31/32	7-5/8	9-15/32



ACCESSORIES AVAILABLE

	Ball Valve
Stem Extensions	X
2" Operating Nut	X
Locking Handles	X

Please contact customer service for information.

MAXIMUM TORQUE VALUES (in-lbs)

Valve Size	Opening Torque
1/2"	5
3/4"	35
1"	60
1-1/4"	100
1-1/2"	110
2"	180
3"	600
4"	1000
6"	1000

FLUID FLOW COEFFICIENT

Valve Size	Cv*
1/2"	22
3/4"	55
1"	112
1-1/4"	178
1-1/2"	285
2"	540
3"	1348
4"	2602
6"	2602

*Gallons per minute @ 1 psi pressure drop.

MAXIMUM PRESSURE/TEMPERATURE

See Table 4 (page 10) & Table 5 (page 11) for maximum pressure at various temperatures.

PP WITH VITON® O-RINGS

Style	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
Socket*	VO7106N	V08106N	V10106N	V14106N	V17106N	V20106N

*1/2" thru 2" valves supplied with socket and thread connectors.

PVDF WITH VITON® O-RINGS

Style	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
Socket	VO7108N	V08108N	V10108N	V14108N	V17108N	V20108N
Thread	VO7118N	V08118N	V10118N	V14118N	V17118N	V20118N

PVC WITH EPDM O-RINGS

Style	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	3"	4"	6"
Socket*	VO7101N	V08101N	V10101N	V14101N	V17101N	V20101N	V30101N	V40101N	V60101N#
Thread*							V30111N	V40111N	
Flange	VO7121N	V08121N	V10121N	V14121N	V17121N	V20121N	V30121N	V40121N	V60121N#

*1/2" thru 2" valves supplied with socket and thread connectors. # 6" ball valve is assembled (venturied; not full port).

PVC WITH VITON® O-RINGS

Style	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	3"	4"	6"
Socket*	VO7102N	V08102N	V10102N	V14102N	V17102N	V20102N	V30102N	V40102N	V60102N#
Thread*							V30112N	V40112N	
Flange	VO7122N	V08122N	V10122N	V14122N	V17122N	V20122N	V30122N	V40122N	V60122N#

*1/2" thru 2" valves supplied with socket and thread connectors. # 6" ball valve is assembled (venturied; not full port).

CPVC WITH VITON® O-RINGS

Style	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	3"	4"	6"
Socket*	VO7104N	V08104N	V10104N	V14104N	V17104N	V20104N	V30104N	V40104N	V60104N#
Thread*							V30114N	V40114N	
Flange	VO7124N	V08124N	V10124N	V14124N	V17124N	V20124N	V30124N	V40124N	V60124N#

*1/2" thru 2" valves supplied with socket and thread connectors. # 6" ball valve is assembled (venturied; not full port).