

True Union Ball Valve w/ Locking Handle



Material:	PVC, PP, PVDF
Size:	1/2" - 2"
Pressure Rating:	230 psi 1/2" - 2": PVC, PVDF 150 psi 1/2" - 2": PP
Seats:	PTFE
Seals:	EPDM or FPM
Connections:	IPS Socket (PVC) Metric Socket (PP, PVDF) Metric Butt Fusion (PP, PVDF) NPT Threaded (PVC, PP, PVDF) ANSI 150 Flanged (PVC, PP, PVDF)

ISO 9002 CERTIFIED

Materials of Construction:

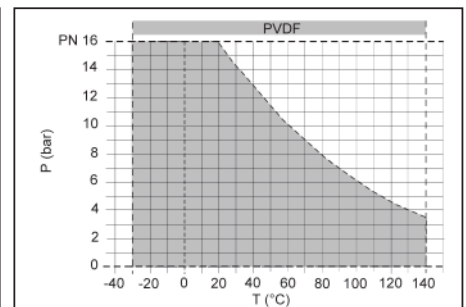
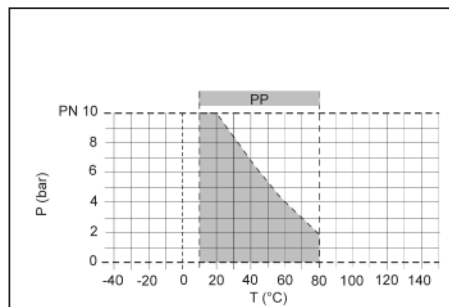
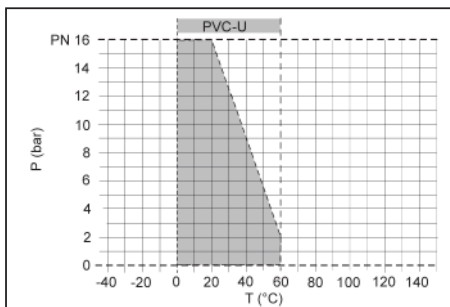
- PVC:** Type 1, Class 12454B, ASTM D1784
- PP:** Class PP 110B76383, ASTM D4101
- PVDF:** Type 1, ASTM D3222
- Seals:** EPDM or FPM
- Seats:** PTFE

Guide Specification: All ball valves constructed of the materials indicated. Valves shall be manufactured with an adjustable carrier, threaded into the body to ensure the valve is blocking in both directions. Valve stem shall be a safety shear stem with double O-ring seals. Body shall have unions on both ends for adjusting the carrier, PTFE seat shall be energized by O-ring, ball shall be machined and tumbled to ensure roundness. Handle is of a safety design, with locking switch as a standard. Lockout / Tagout option available, as manufactured by SIMTECH.

Features

- Low maintenance and extended operational life
- Energized PTFE Seats
- Safety handle equipped with locking switch
- Electric and Pneumatic Actuation Available
- Double O-Ring Seal on Stem
- Butress Threads
- PP union Nuts & Stem are Glass Filled for Strength
- Threaded Panel mount design
- Vented Ball as Option
- Lockout / Tag Out Option available

Pressure/Temperature Graph: Working PSI/Fahrenheit



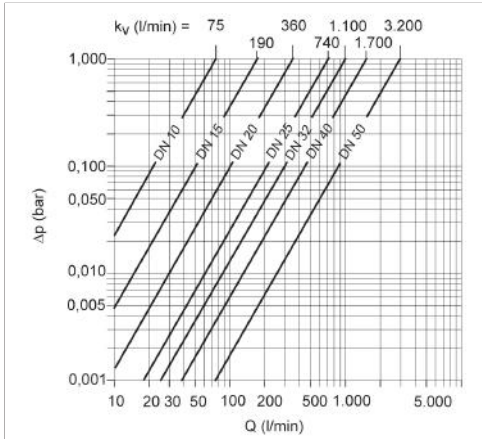
P = Operating Pressure
T = Temperature

The pressure/temperature limits are applicable for the stated nominal pressures and a computed operating life factor of 25 years. These are standard values for harmless media (DIN 2403), to which the valve material is resistant. For other media please refer to the chemical resistance guide. The durability of wear parts depends on the operating conditions of the application. For temperatures below 0°C (PP < +10°C) please specify the precise operating conditions of the application. The rated pressure depends on the valve size and material.



Pressure Loss - Flow Diagram

Pressure Loss Curve (Standard Values for H2O, 20°C)



ΔP = Pressure Loss
 Q = Flow

Pressure loss and k_v value

The diagram shows the pressure loss ΔP in relation to the flow Q .

Conversion aid:

$$c_v = k_v * 0.07$$

$$f_v = k_v * 0.0585$$

Units:

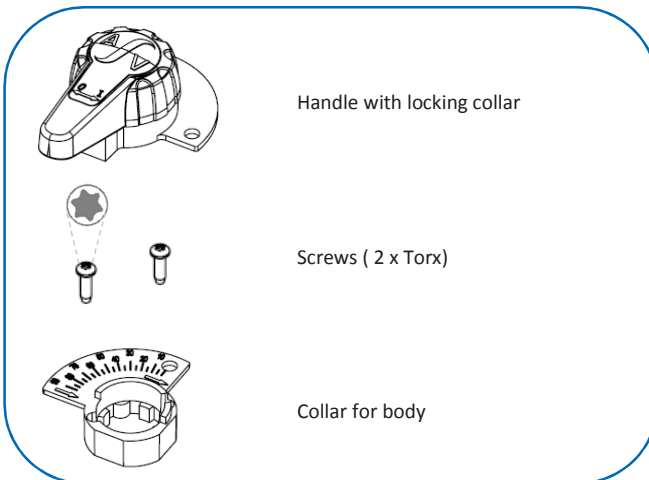
k_v (l/min)
 c_v (gal/min) US
 f_v (gal/min) GB

Operating Torque

SIZE	½"	¾"	1"	1¼"	1½"	2"
In/Lbs	35.4	53.1	53.1	88.5	177.0	177.0

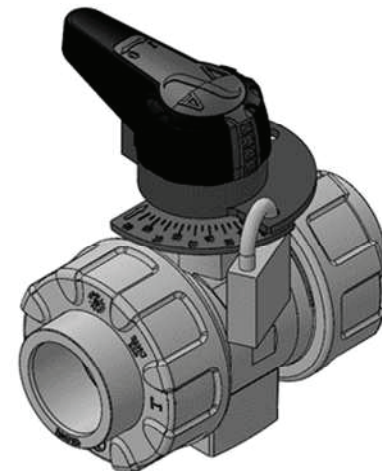
Optional Lock-Out / Tag-Out

Contents of Retrofit Kit



Required tools

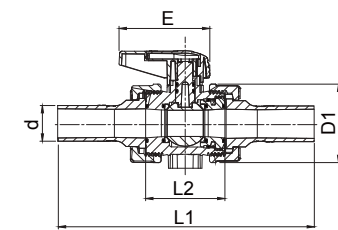
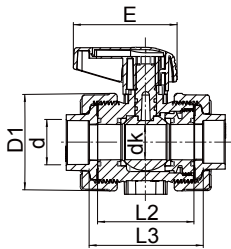
Torx Key DN10 – DN 25 = T10
 DN32 – DN50 = T20



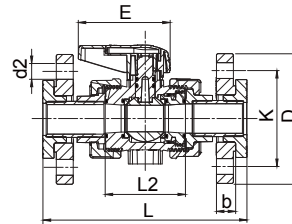
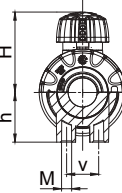
Padlock Hole Size: \varnothing 5mm
Padlock to be provided by customer



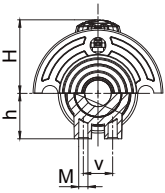
Dimensional Data - Manual



Socket / Spigot Valve

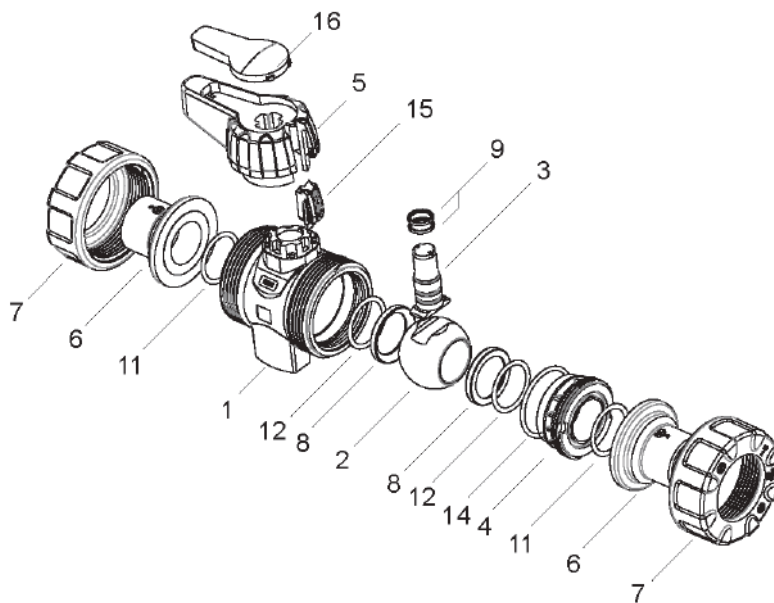


Flanged Valve



NOM. Size	b	d	d2	D	D1	E	h	H	K	L	L1	L2	L3 PP	L3 PVC	L3 PVDF	M	V
½"	0.51	0.79	0.63	3.74	1.97	2.60	1.06	1.89	2.36	5.91	5.16	2.22	2.68	2.48	2.66	M5	0.98
¾"	0.55	0.98	0.63	4.13	2.32	3.19	1.18	2.22	2.76	6.69	5.65	2.56	3.03	2.83	3.03	M5	0.98
1"	0.63	1.26	0.63	4.45	2.76	3.21	1.57	2.56	3.15	7.09	6.02	2.80	3.31	3.11	3.27	M6	1.02
1¼"	0.71	1.57	0.63	5.12	3.39	3.60	1.81	3.31	3.50	8.27	6.77	3.35	3.94	3.70	3.92	M8	1.77

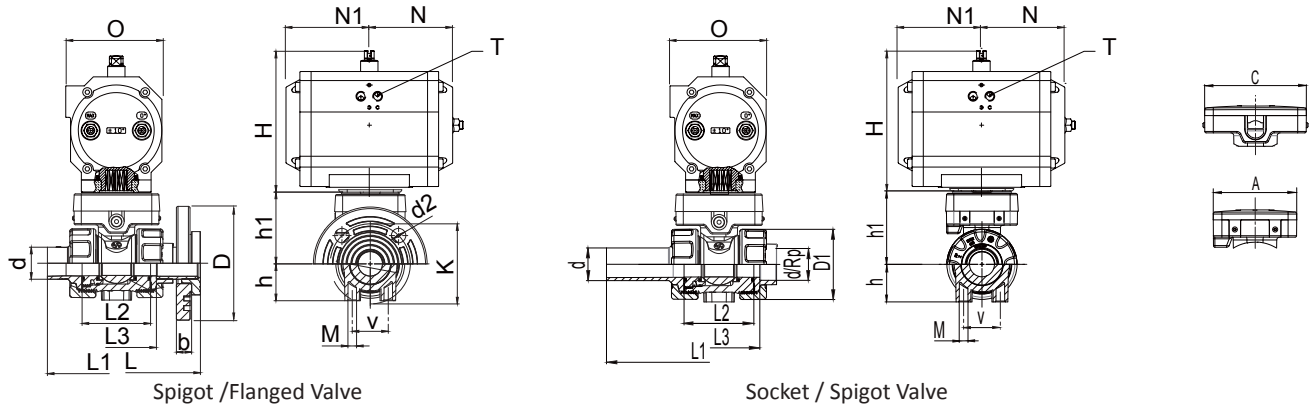
Parts Listing



1. Body
2. Ball
3. Stem
4. Carrier
5. Handle
6. End Connector
7. Union Nut
8. Ball Seat
9. O-ring
11. O-ring
12. O-ring
14. O-ring
15. Locking Switch
16. Inlay for Handle



Dimensional Data - Pneumatically Actuated



Spigot /Flanged Valve

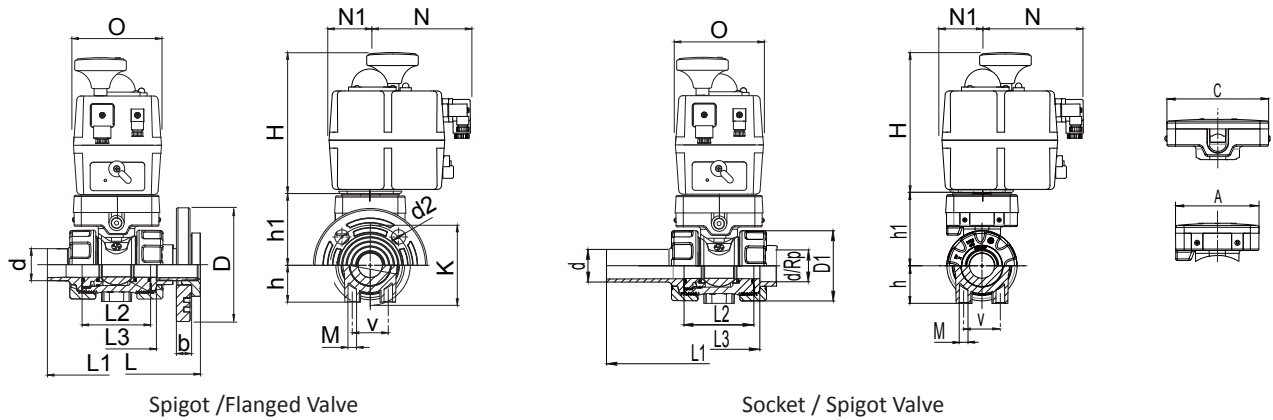
Socket / Spigot Valve

Spring Return																			
Nom. Size	A	b	B1	B2	C	d2	D	D1	h	h1	H	K	L	L1	L2	L3	M	N	O
½"	2.83	0.51	1.42	2.95	3.43	0.63	3.74	1.97	1.06	2.50	3.58	2.36	5.91	5.16	2.22	2.68	M5	4.69	2.64
¾"	3.03	0.55	1.50	3.07	3.62	0.63	4.13	2.32	1.18	2.72	3.58	2.76	6.69	5.65	2.56	3.03	M5	4.69	2.64
1"	3.03	0.63	1.50	3.07	3.62	0.63	4.45	2.76	1.57	3.03	3.58	3.15	7.09	6.02	2.80	3.31	M6	4.69	2.64
1¼"	3.50	0.71	1.75	3.25	4.25	0.63	5.12	3.39	1.81	3.41	4.37	3.50	8.27	6.77	3.35	3.94	M8	6.30	3.39
1½"	3.50	0.71	1.75	3.25	4.25	0.63	5.24	3.94	2.17	3.64	4.37	3.86	9.06	7.56	3.50	4.21	M8	6.30	3.39
2"	3.64	0.75	1.81	3.31	4.43	0.79	6.30	4.94	2.76	4.25	5.24	4.76	10.94	8.74	3.98	4.65	M8	6.89	3.98

Double Acting																			
Nom. Size	A	b	B1	B2	C	d2	D	D1	h	h1	H	K	L	L1	L2	L3	M	N	O
½"	2.83	0.51	1.42	2.95	3.43	0.63	3.74	1.97	1.06	2.50	3.58	2.36	5.91	5.16	2.22	2.68	M5	4.69	2.64
¾"	3.03	0.55	1.50	3.07	3.62	0.63	4.13	2.32	1.18	2.72	3.58	2.76	6.69	5.65	2.56	3.03	M5	4.69	2.64
1"	3.03	0.63	1.50	3.07	3.62	0.63	4.45	2.76	1.57	3.03	3.58	3.15	7.09	6.02	2.80	3.31	M6	4.69	2.64
1¼"	3.50	0.71	1.75	3.25	4.25	0.63	5.12	3.39	1.81	3.41	4.37	3.50	8.27	6.77	3.35	3.94	M8	6.30	3.39
1½"	3.50	0.71	1.75	3.25	4.25	0.63	5.24	3.94	2.17	3.64	4.37	3.86	9.06	7.56	3.50	4.21	M8	6.30	3.39
2"	3.64	0.75	1.81	3.31	4.43	0.79	6.30	4.94	2.76	4.25	4.37	4.76	10.94	8.74	3.98	4.65	M8	6.30	3.39

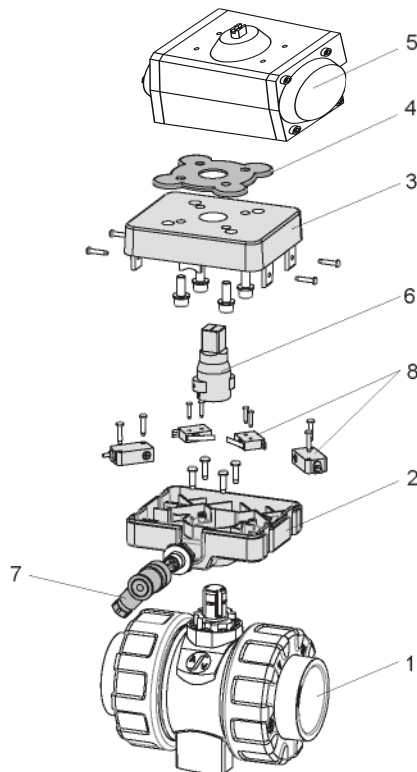


Dimensional Data - Electrically Actuated



Nom. Size	A	b	C	d2	D	D1	h	h1	H	K	L	L1	L2	L3	M	N	N1	O	V
½"	2.83	0.51	3.43	0.63	3.74	1.97	1.06	2.50	6.73	2.36	5.91	5.16	2.22	2.68	M5	4.96	2.01	4.33	0.98
¾"	3.03	0.55	3.62	0.63	4.13	2.32	1.18	2.72	6.73	2.76	6.69	5.65	2.56	3.03	M5	4.96	2.01	4.33	0.98
1"	3.03	0.63	3.62	0.63	4.45	2.76	1.57	3.03	6.73	3.15	7.09	6.02	2.80	3.31	M6	4.96	2.01	4.33	1.02
1¼"	3.50	0.71	4.25	0.63	5.12	3.39	1.81	3.41	6.73	3.50	8.27	6.77	3.35	3.94	M8	4.96	2.01	4.33	1.77
1½"	3.50	0.71	4.25	0.63	5.24	3.94	2.17	3.64	6.73	3.86	9.06	7.56	3.50	4.21	M8	4.96	2.01	4.33	1.77
2"	3.64	0.75	4.43	0.79	6.30	4.94	2.76	4.25	6.73	4.76	10.94	8.74	3.98	4.65	M8	4.96	2.01	4.33	1.77

Parts Listing



1. Ball Valve
2. Mounting box, Lower part
3. Mounting box, Upper part
4. Gasket
5. Actuator (Pneumatic or Electric)
6. Drive Adapter
7. Connector
8. Limit Switches (micro or proximityswitches)