

**SERIES CBS, CU, CCS, CSS & CH THREADED BALL VALVES**



**ViNtrol, Inc.**

PROVEN PERFORMANCE • WORLD CLASS PRODUCTS

# ViWtrol, Inc.

ViWtrol offers a complete solution for your flow control applications. ViWtrol products serve many of the leading Petroleum & Industrial companies and are the result of decades of innovation in the Oil & Gas industry. Our designs are proven performers in the harshest of environments.

The ViWtrol brand means quality and reliability you can count on. Our state of the art manufacturing facilities have achieved ISO 9001 certification. ViWtrol Threaded Ball Valves are produced in conformance to industry standards and our customer's demanding service conditions.

ViWtrol products are marketed and sold worldwide by an experienced team of domestic and international field representatives. Our sales force works closely with these representatives to ensure our customer's expectations are met or exceeded. A network of authorized distributors stock ViWtrol products for immediate delivery to the oil and gas and industrial marketplace.

## ViWtrol Series C Threaded Ball Valves

### **SERIES CSS & CCS**

Our Seal-Welded Stainless Steel and Carbon Steel Full Port Ball Valves are designed with your safety in mind. All valves are manufactured to meet the requirements of ANSI B1.10.1, NACE MR0175, and Fire Safe. Sizes range from 1/4" to 2" in pressures up to 2000 psi.

#### **Features include**

- 316SS Ball and Stem—Blow out Proof Stem—Adjustable Packing Gland
- Locking Lever Handle — Actuator Mounting Pad — Seal Welded Body/Adapter

### **SERIES CU**

- One Piece Construction offers the safety of wrought steel design in a large port
- Configuration. Sizes range from 1/4" to 2" and pressures up to 2000 psi.

#### **Features include**

- 316SS Ball and Stem — Blow out Proof Stem — Adjustable Packing Gland —NACE Trim



## ViWtrol Series CBS-Brass Ball Valves

### TWO PIECE BRASS LARGE PORT SCREWED END BALL VALVE

- Heavy Duty Forged Brass Construction/Steel Handle
- Blow-out Proof Stem
- Adjustable Packing Gland
- Brass w/Hard Chrome Plated Ball
- 600 PSI W.O.G. 1/4" - 2"
- 400 PSI W.O.G. 2 1/2" - 4"

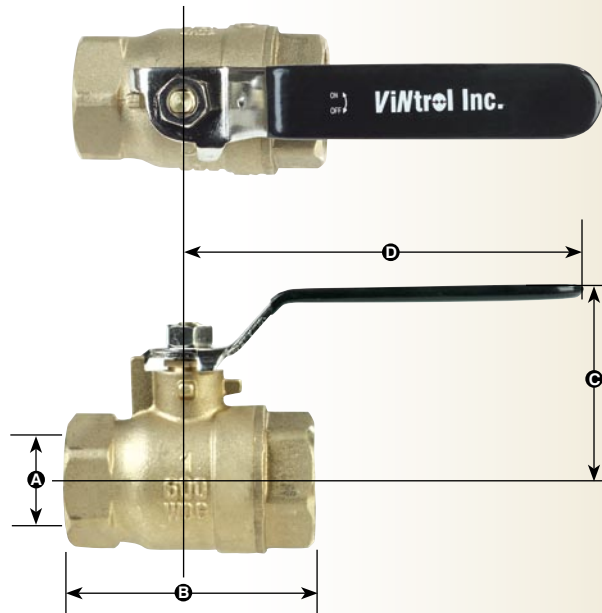


#### Assembly Base Numbers

Size	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
Max. Working Pressure	600						400				
Weight – LBS	.5	.5	.6	.9	1.4	2.4	3.5	5.0	8.6	10.6	13.5
Assembly Base No.	3025	3038	3050	3075	3100	3125	3150	3200	3250	3300	3400
316SS Trim – Thd	-333	-333	-333	-333	-333	-333	-333	-333	-333	-333	-333

#### Materials List

Part	Material
Body	Forged Brass
Tailpiece (1/4" – 3/4")	Forged Brass
Tailpiece (1" – 4")	Forged Brass
Ball	Brass w/Hard Chrome Plating
Seal	PTFE
Stem	Brass Round Rod
Washer	PTFE
Packing	PTFE
Packing Nut	Brass Hex Rod
Handle	Steel w/Zinc Coating
Hand Grip	Vinyl
Handle Nut	Steel w/Zinc Coating



#### Dimensions

Size (mm/in)	8 1/4"	10 3/8"	15 1/2"	20 3/4"	25 1"	32 1 1/4"	40 1 1/2"	50 2"	80 3"	100 4"
A	9.5	9.5	12.7	19.0	25	31.0	38.0	50.0	76.2	101.0
	0.37	0.37	0.50	0.75	0.98	1.22	1.50	1.97	3.00	3.98
B	46.0	46.0	54.0	61.2	75.0	83.2	93.0	107.0	168.5	203.4
	1.81	1.81	2.13	2.40	2.95	3.27	3.66	4.21	6.63	8.01
C	34.0	34.0	36.0	44.9	57.6	61.6	74.8	83.4	105.8	145.5
	1.34	1.34	1.42	1.77	2.27	2.43	2.94	3.28	4.17	5.73
D	82	82	82	100	120	120	160	160	178	250
	3.23	3.23	3.23	3.94	4.72	4.72	6.30	6.30	7.01	9.84
Cv	7	7	10	25	40	52	90	115	440	524

CBS-Series

# ViVtrol Series CU-Unibody Ball Valves

## ONE PIECE CARBON STEEL REDUCE PORT SCREWED END BALL VALVE

- One piece carbon steel body reduce port screwed ends
- 304SS Ball & Stem
- Blow-out proof stem
- 2000 PSI W.O.G. 1/4" – 2"
- 150 PSI saturated steam
- Threads conform to ANSI B1.20.1, BS21, DIN259/2999
- Conforms to NACE MR-01-75 specifications

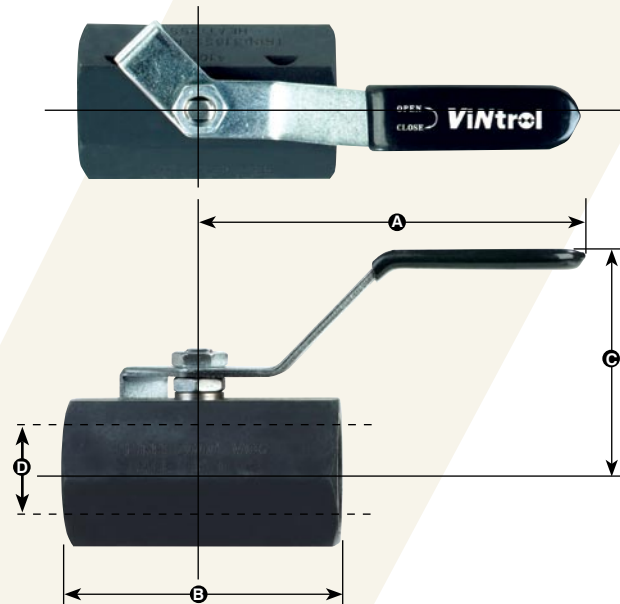


### Assembly Base Numbers

Size	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
Max. Working Pressure	2000							
Weight – LBS	.5	.5	.6	.8	1.4	2.4	3.1	5.0
Assembly Base No.	3025	3038	3050	3075	3100	3125	3150	3200
304SS Trim – Thd	-121N	-121N	-121N	-121N	-121N	-121N	-121N	-121N

### Materials List

Part	Material
Handle Grip	Vinyl
Handle	Plated CS
Handle Nut	Plated CS
Packing Bushing	Plated CS
Packing	PTFE
Stem	A276 316SS
Thrust Washer	Reinforced Teflon 15%GF
Seat Retainer	A108 CS GR1020
Seat	Reinforced Teflon 15%GF
Gasket	PTFE
Ball	A276 316SS
Body	CS A108 GR1020
Stem Washer	Plated CS



### Dimensions

Size	8	10	15	20	25	32	40	50
(mm/in)	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
<b>A</b>	60	80	90	100	110	110	130	130
	2.36	3.15	3.54	3.94	4.33	4.33	5.12	5.12
<b>B</b>	41	47	58	65	77	90	98	110
	1.61	1.85	2.28	2.56	3.03	3.54	3.86	4.33
<b>C</b>	30	30	54	66	68	71	75	80
	1.18	1.18	2.13	2.60	2.68	2.80	2.95	3.15
<b>D</b>	5	7	9	12.5	15	20	25	32
	0.20	0.28	0.35	0.49	0.59	0.79	0.98	1.26
<b>Cv</b>	1.5	3.5	4.5	8	15	33	40	70

CU-series

## ViNtrol Series CCS-Seal Welded Ball Valves

### SEAL WELDED WCB BODY FULL PORT SCREWED END BALL VALVE

- Full port screwed ends 2 piece carbon steel body
- 316SS Ball & Stem
- Blow-out proof stem
- Adjustable packing gland
- Locking lever handle
- Actuator mounting pad
- 2000 PSI W.O.G. 1/4" – 2"
- 150 PSI saturated steam
- Threads conform too ANSI B1.20.1, BS21, DIN259/2999
- Conforms to NACE MR-01-75 specifications
- Fire test & certified to API 607 4th Edition

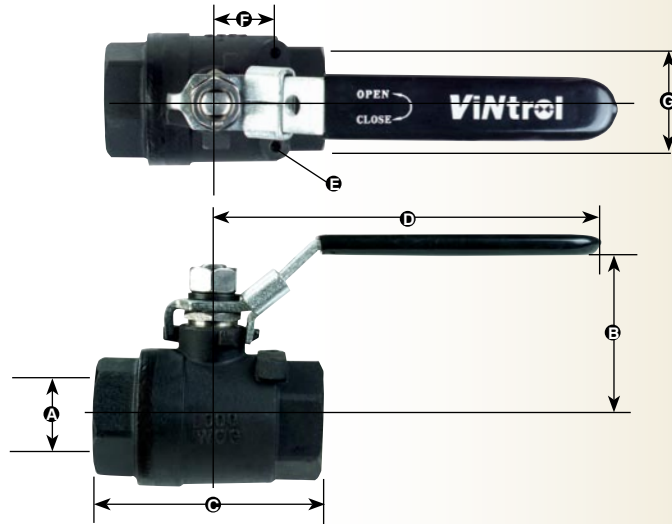


### Assembly Base Numbers

Size	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
Max. Working Pressure	2000							
Weight – LBS	.6	.6	.8	1.4	2.4	2.7	4.5	6.1
Assembly Base No.	3025	3038	3050	3075	3100	3125	3150	3200
316SS Trim – Thd	-122N	-122N	-122N	-122N	-122N	-122N	-122N	-122N

### Materials List

Part	Material
Handle Grip	Vinyl
Handle	Plated CS
Handle Nut	Plated CS
Gland	304SS
Stem	A276 316SS
Packing	PTFE
Thrust Washer	Reinforced Teflon 15%GF
Seat	Reinforced Teflon 15%GF
Ball	A276 316SS
Tailpiece	A216 WCB
Body	A216 WCB
Body Seal	PTFE



### Dimensions

Size	8	10	15	20	25	32	40	50
(mm/in)	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
A	9	13	15	20	25	32	38	50
	0.36	0.49	0.59	0.79	0.98	1.26	1.50	1.97
B	47	51	53	56	69	75	82	90
	1.86	1.99	2.07	2.21	2.72	2.95	3.22	3.54
C	48	52	64	72	84	94	111	124
	1.86	2.04	2.50	2.81	3.31	3.70	4.35	4.86
D	97	97	110	110	142	142	165	165
	3.82	3.82	4.33	4.33	5.57	5.57	6.50	6.50
E	10-24	10-24	10-24	10-24	10-24	1/4-20	1/4-20	1/4-20
F	12.7	12.7	12.7	22.4	22.4	22.4	22.4	25.4
	0.50	0.50	0.50	0.88	0.88	0.88	1.0	1.0
G	9.7	11.6	12.7	35	35	35	38.1	38.1
	1.12	1.12	1.12	1.38	1.38	1.38	1.5	1.5
Cv	6	9	14	30	60	104	150	360

CCS-Series

# ViNtrol Series CSS-Seal Welded Ball Valves

## SEAL WELDED CF8M BODY FULL PORT SCREWED END BALL VALVE

- Seal Welded CF8M body full port screwed ends
- 316SS Ball & Stem
- Blow-out proof stem/Floating ball
- Adjustable packing nut
- Locking lever handle
- Actuator mounting pad
- 2000 PSI W.O.G. 1/4" – 2"
- 150 PSI saturated steam
- Threads conform to ANSI B1.20.1, BS21, DIN259/2999
- Conforms to NACE MR-01-75 specifications
- Fire test & certified to API 607 4th Edition

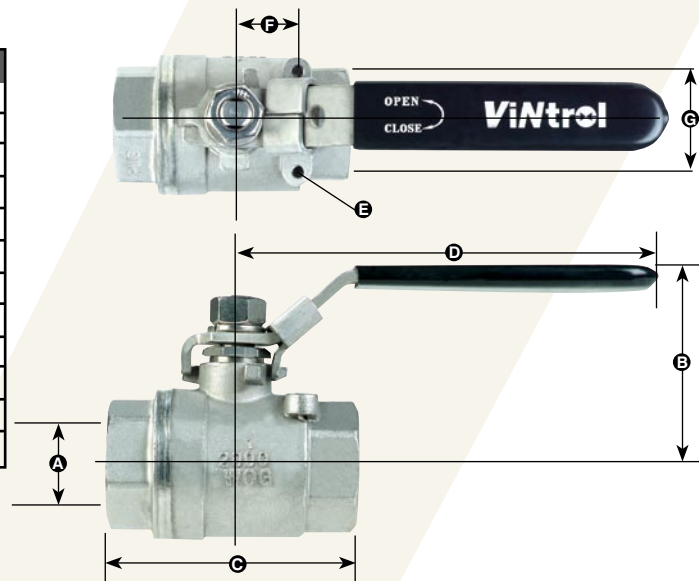


### Assembly Base Numbers

Size	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
Max. Working Pressure	2000							
Weight – LBS	.6	6	.8	1.4	2.7	2.7	4.5	6.1
Assembly Base No.	3025	3038	3050	3075	3100	3125	3150	3200
316SS Trim – Thd	-222N	-222N	-222N	-222N	-222N	-222N	-222N	-222N

### Materials List

Part	Material
Handle Grip	Vinyl
Handle	A276 304SS
Handle Nut	A276 304SS
Gland	A276 304SS
Stem	A276 316SS
Packing	PTFE
Thrust Washer	Reinforced Teflon 15%GF
Seat	Reinforced Teflon 15%GF
Ball	A276 316SS
Tailpiece	CF8M
Body	CF8M
Body Seal	PTFE



### Dimensions

Size	8	10	15	20	25	32	40	50
(mm/in)	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
A	9	13	15	20	25	32	38	50
	0.36	0.49	0.59	0.79	0.98	1.26	1.50	1.97
B	47	51	53	56	69	75	82	90
	1.86	1.99	2.07	2.21	2.72	2.95	3.22	3.54
C	48	52	64	72	84	94	111	124
	1.86	2.04	2.50	2.81	3.31	3.70	4.35	4.86
D	97	97	110	110	142	142	165	165
	3.82	3.82	4.33	4.33	5.57	5.57	6.50	6.50
E	10-24	10-24	10-24	10-24	10-24	1/4-20	1/4-20	1/4-20
F	12.7	12.7	12.7	22.4	22.4	22.4	22.4	25.4
	0.50	0.50	0.50	0.88	0.88	0.88	1.0	1.0
G	9.7	11.6	12.7	35	35	35	38.1	38.1
	1.12	1.12	1.12	1.38	1.38	1.38	1.5	1.5
Cv	6	9	14	30	60	104	150	360

CSS-series

## ViWtrol Series CH-High Pressure Ball Valves

THREE PIECE LCC and CF8M BODY SCREWED END BALL VALVE

- Blow-out proof stem
- 316 SS Ball and Stem
- 3000 PSI Sizes 1/4" – 2" Full Port
- 3000 PSI Sizes 1" & 2" Regular Port
- Fire Tested and Certified to API 607 4th Addition
- Standard Locking Handle
- Actuator Mounting Pad
- TFM Seats Standard
- Conforms to NACE MR-01-75 Standard and ANSI B16.34
- Ball Includes Pressure Equalization Hole to Prevent Trapped Pressure in Body Cavity

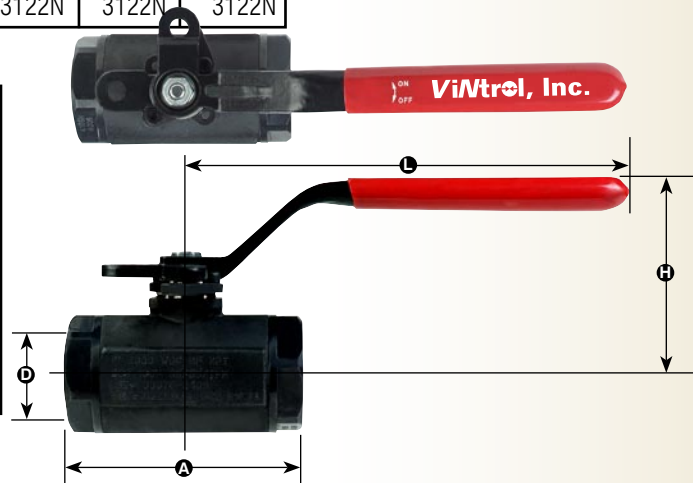


### Assembly Base Numbers

Size	1/4"	1/2"	3/4"	1"	1 1/2"	2"
Max. Working Pressure	3000 CWP					
Weight – LBS	1.61	1.61	2.93	5.16	10.70	11.29
Assembly Base No.	3025	3050	3075	3100	3150	3200
316 SS TRIM	3122N	3122N	3122N	3122N	3122N	3122N

### Materials List

Part	Material
	Full Bore/Reduced Bore
Body/Adapter	A216 LCC
Ball/Stem	316 SS
Seats	TFM
Seals	Teflon/Graphite
Body/Adapter	A351 CF8M
Ball/Stem	316 SS
Seats	TFM
Seals	Teflon/Graphite



### Dimensions

Size (mm/in)	8 1/4"	15 1/2"	20 3/4"	25 1" FP	25 1" RP	40 1 1/2"	50 2" FP	50 2" RP
D Bore Sizes FXF	12.7	12.7	19.1	25.4	19	38.1	50.8	38
	.50	.50	.75	1.00	0.75	1.50	2.0	1.50
A End to End FXF	76.2	101.6	108.0	114.3	108	133.4	158.8	158.8
	3.00	4.00	4.25	4.50	4.25	5.25	6.25	6.25
A End to End SW	127	127	171	171	171	217	250	217
	5.0	5.0	6.73	6.73	6.73	8.54	9.84	8.54
L Length of Lever	165.0	165.0	205.7	205.7	205.7	254.0	315	254
	6.50	6.50	8.10	8.10	8.10	10.00	12.4	10.00
H Center to Lever	82.7	82.7	93.2	99.75	93.2	104.9	160	134.5
	1.92	1.92	2.56	3.93	3.67	4.13	6.3	5.3
CV	6	15	30	60	27	130	360	120

CH-Series

# ViVtrol Series CH-High Pressure Ball Valves

**THREE PIECE LCC and CF8M BODY SCREWED END BALL VALVE**

- Blow-out proof stem
- 316 SS Ball and Stem
- 6000 PSI Sizes – 1/4” – 2” Full Port
- 6000 PSI Sizes 1” – 2” Regular Port
- Fire Tested and Certified to API 607 4th Addition
- Standard Locking Handle
- Actuator Mounting Pad
- Peek Seats Standard
- Conforms to NACE MR-01-75 Standard and ANSI B16.34
- Ball Includes Pressure Equalization Hole to Prevent Trapped Pressure in Body Cavity

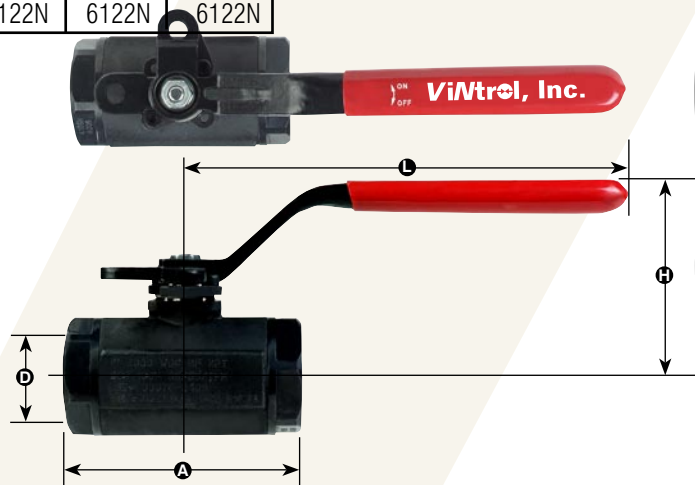


## Assembly Base Numbers

Size	1/4"	1/2"	3/4"	1"	1 1/2"	2"
Max. Working Pressure	6000 CWP					
Weight – LBS	1.61	1.61	2.93	5.16	10.70	11.29
Assembly Base No.	3025	3050	3075	3100	3150	3200
316 SS TRIM	6122N	6122N	6122N	6122N	6122N	6122N

## Materials List

Part	Material
	Full Bore/ Reduced Bore
Body/Adapter	A216 WCB
Ball/Stem	316 SS
Seats	Peek
Seals	Teflon/Graphite
Body/Adapter	A351 CF8M
Ball/Stem	316 SS
Seats	Peek
Seals	Teflon/Graphite

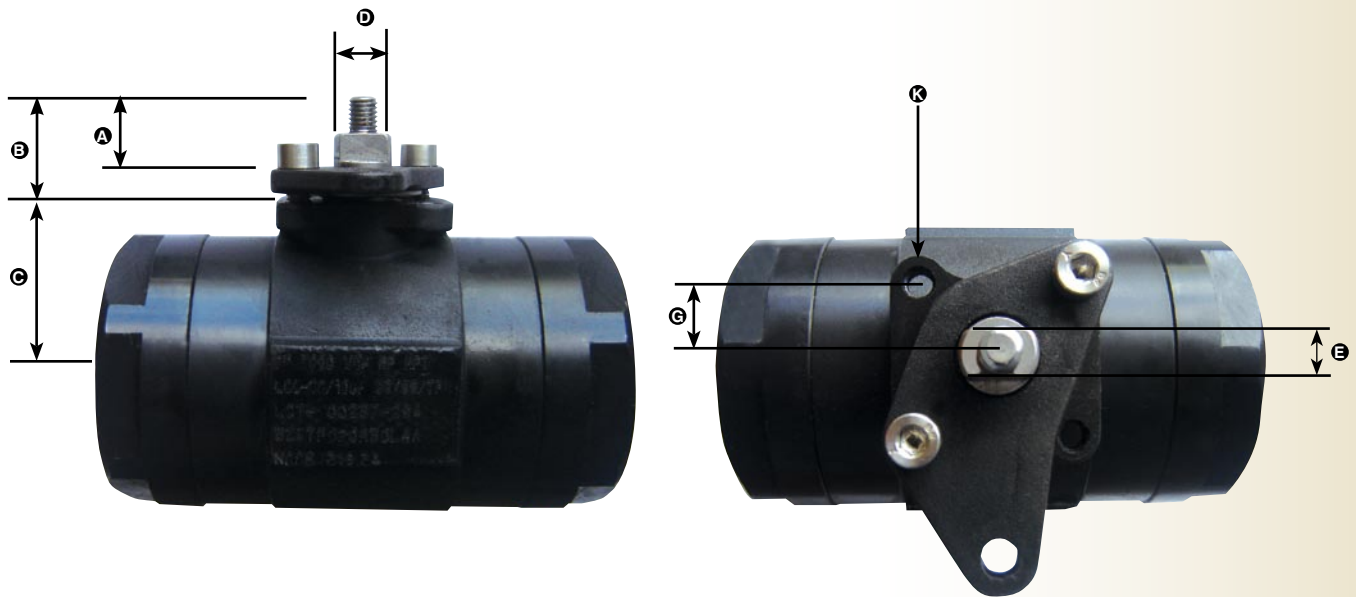


## Dimensions

Size (mm/in)	8 1/4"	15 1/2"	20 3/4"	25 1" FP	25 1" RP	40 1 1/2"	50 2" FP	50 2" RP
D Bore Sizes FXF	12.7	12.7	19	25.4	19	38	50.8	38
	.05	.05	.75	1.00	.75	1.50	2.0	1.50
A End to End FXF	98	111	98	137	133	160	188	159
	3.86	4.37	3.86	5.40	5.24	6.30	7.4	6.26
A End to End SW	127	127	171	215	171	217	250	217
	5.0	5.0	6.73	8.47	6.73	8.54	9.84	8.54
L Length of Lever	165	165	205	205	205	255	315	255
	6.50	6.50	8.07	8.07	8.97	10.0	12.4	10.0
H Center to Lever	82.7	82.7	93.2	99.75	93.2	134.5	160	134.5
	3.26	3.26	3.67	3.93	3.67	5.30	6.30	5.30
CV	6	15	30	60	27	130	360	120

CH-Series

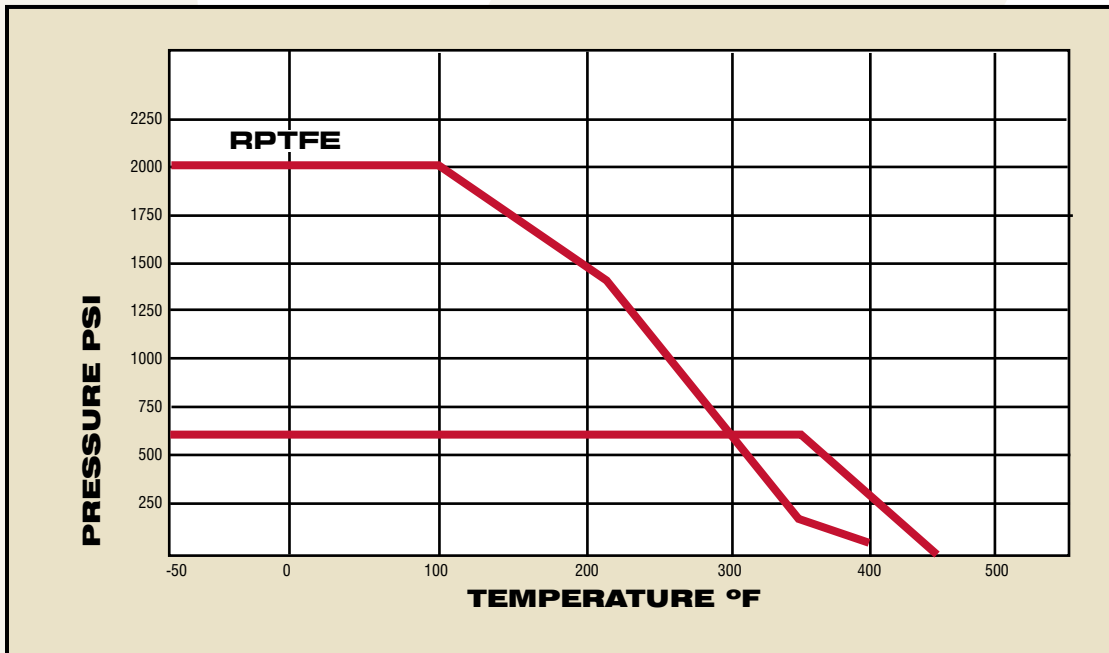
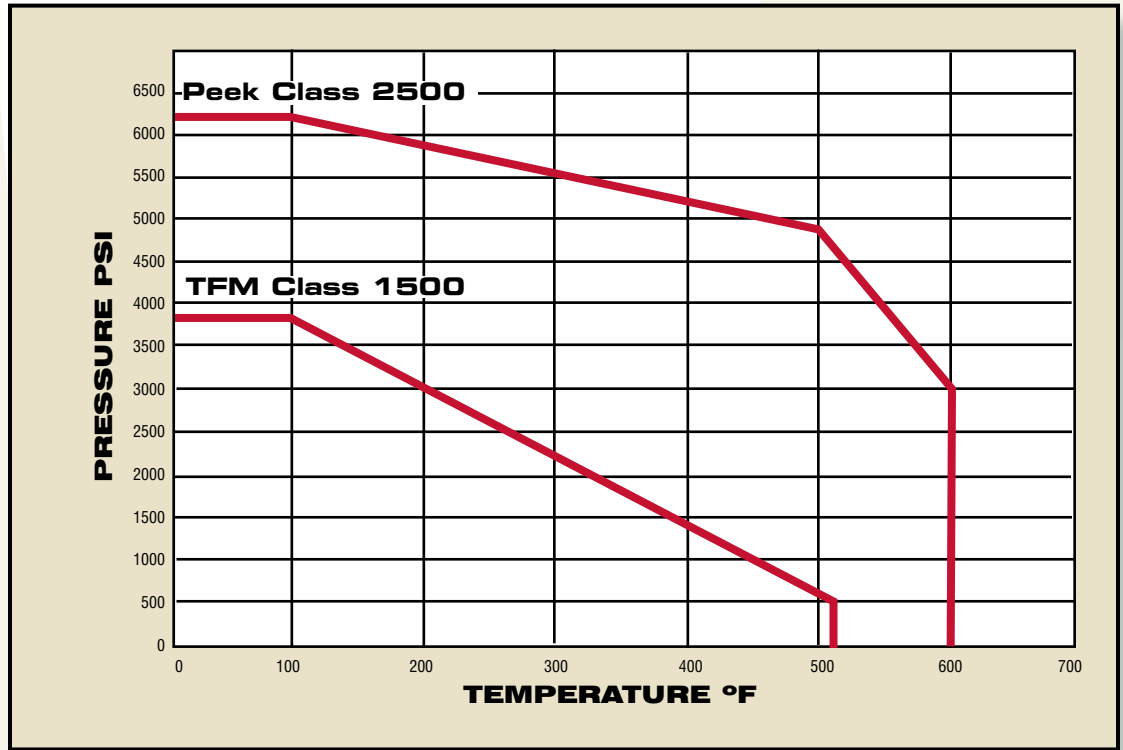
## ViWtrol SERIES CH ACTUATOR MOUNTING DIMENSIONS



SIZE	BORE	A	B	C	D	E	G	K
1/4 / 8	FP	0.43/11	0.74/19	0.98/25	0.47/12	0.26/6.5	0.47/12	M5X9 DEEP
3/8 / 10	FP	0.43/11	0.74/19	0.98/25	0.47/12	0.26/6.5	0.47/12	M5X9 DEEP
1/2 / 1	FP	0.43/11	0.74/19	0.98/25	0.47/12	0.26/6.5	0.47/12	M5X9 DEEP
3/4 / 20	FP	0.55/14	0.85/21	1.40/36	0.47/12	0.33/8.5	0.47/12	M5X9 DEEP
1 / 25	FP	0.55/14	0.86/22	1.65/42	0.47/12	0.33/8.5	0.47/12	M5X9 DEEP
	RP	0.55/14	0.85/21	1.40/36	0.47/12	0.33/8.5	0.47/12	M5X9 DEEP
1 1/2 / 40	FP	0.83/21	1.32/34	2.24/57	0.75/19	0.43/11	0.79/20	M8X10 DEEP
2 / 50	FP	1.18/30	1.89/48	3.03/77	1.00/25	0.59/15	0.94/24	M10
	RP	0.83/21	1.32/34	2.24/57	0.75/19	0.43/11	0.79/20	M8X10 DEEP

# Pressure Temperature Ratings

## CH-Series



## CCS-Series CSS-Series CU-Series CBS-Series



## CCS, CSS, CU and CBS Series BREAKAWAY TORQUE DATA (Kgf.cm/in-lbs)

PRESSURE PSI		0	500	1000	1500	2000
SIZE	SEAT MATERIAL					
1/2"	PTFE/RPTFE	59/51	82/71	101/88	108/94	118/102
3/4"	PTFE/RPTFE	93/81	121/105	134/116	142/123	152/132
1"	PTFE/RPTFE	124/108	172/149	183/159	188/163	196/170
1 1/4"	PTFE/RPTFE	180/156	263/228	327/284	372/323	432/375
1 1/2"	PTFE/RPTFE	328/285	399/346	474/412	535/464	490/425
2"	PTFE/RPTFE	588/510	881/765	1181/1025	1380/1196	1325/1150
2 1/2"	PTFE/RPTFE	770/668	1089/945	1286/1116	1408/1222	1622/1408
3"	PTFE/RPTFE	951/825	1475/1280	1636/1420	1776/1542	2132/1851
4"	PTFE/RPTFE	1240/1076	2093/1817			

## CH Series BREAKAWAY TORQUE DATA (Kgf.cm/in-lbs)

ASME CLASS PRESSURE PSI		0	150 285	300 740	600 1480	800 2000	900 2220	1500 3000	2500 6000
SIZE	SEAT MATERIAL								
1/2"	PEEK	74/54	85/74	98/85	118/102	135/117	147/128	197/171	247/214
	TEFLON/TFM	59/51	72/63	87/76	108/94	118/102	128/111	169/147	–
3/4"	PEEK	241/209	246/214	252/219	263/228	271/235	316/274	438/380	645/560
	TEFLON/TFM	93/81	110/96	128/111	142/123	152/132	164/142	217/187	–
1"	PEEK	294/255	294/255	294/255	308/267	328/285	346/302	530/460	783/680
	TEFLON/TFM	124/108	164/142	178/155	188/163	196/170	208/161	275/239	–
1 1/4"	TEFLON/TFM	180/156	227/197	290/252	372/323	432/375	450/391	594/516	–
1 1/2"	PEEK	655/533	646/561	716/622	820/712	835/725	859/746	1095/950	1486/1290
	TEFLON/TFM	328/285	362/314	430/373	535/464	490/425	510/443	673/585	–
2"	PEEK	859/746	1080/937	1522/1321	2120/1480	2154/1870	2294/1991	3370/2925	4297/3730
	TEFLON/TFM	588/510	729/633	1011/676	1380/1198	1325/1150	1420/1233	1874/1628	

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