

# Vtek

## Controls™

### SERIES 31

3 PC 800 / 1000 WP



Series 31 - 3 Pc 1000 WP

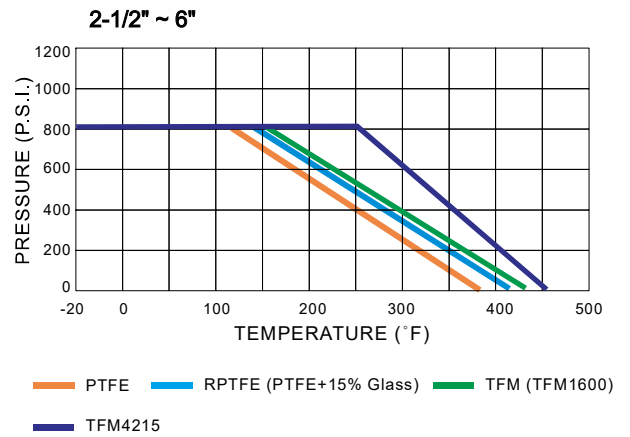
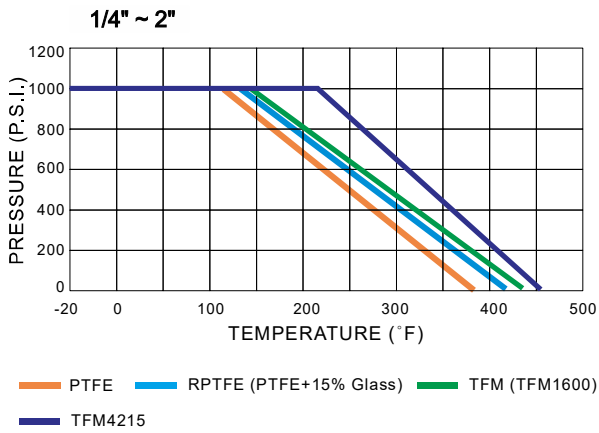
#### Design Specifications

- Full Port Sizes : (1/4" – 4" / DN 8 – DN 100)
- Body Materials: CF8M / WCB / CF3M / Duplex Alloy 20 / Duplex / Hastelloy C / Monel
- Seats: RTFE, PEEK, TFM1600, UHMWPE, CTFE (25%Carbon / 75%PTFE)
- ISO 5211 Direct Mount
- Full Port Pressure rating : 1/4" – 2" 1000psi, 2-1/2" - 4" 800psi
- Blow - Out Proof Stem
- General & Industrial Applications
- Adjustable External Packing Design

#### Standards

- ASME B16.34, ASME B16.11 BUTT WELD ASME B16.25 Flanged EN1024-3.1, ASME B16.5 ISO 5211, EN 10204-3.1
- Quality Assurance: ISO 9001, 5209
- Inspection and Test: API 598
- TA-Luft, ISO-15848
- CE 2014 /34/ EU

### Pressure Vs. Temperature Chart



- TFM4215 Carbon Teflon
- TFM 1600
- RPTFE (PTFE + 15% Glass)
- PTFE

### Breakaway Torque (RTFE) & Cv Value

SIZE.	Nm		Inch-Lb		Cv	
	Full port	Red. port	Full port	Red. port	Full port	Red. port
1/4"	5	-	44	-	7	-
3/8"	5	-	44	-	8	-
1/2"	7	-	62	-	15	-
3/4"	7	-	62	-	40	-
1"	11	-	97	-	70	-
1-1/4"	15	-	133	-	110	-
1-1/2"	24	-	212	-	250	-
2"	35	-	310	-	430	-
2-1/2"	50	-	442	-	700	-
3"	65	-	575	-	1100	-
4"	102	-	903	-	2000	-

Break Away Torque 30% safety factor included. Standard valves are assembled with silicon-free based lubricant.  
Torque for dry gas applications, please consult factory.

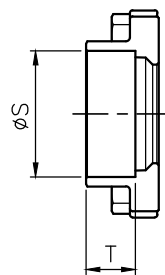
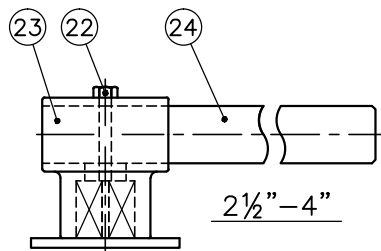
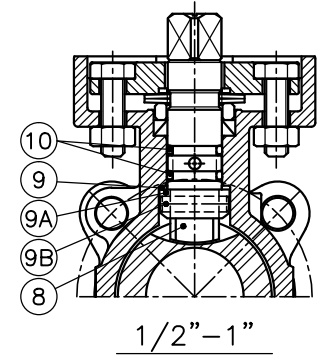
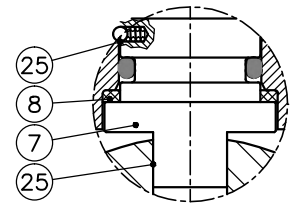
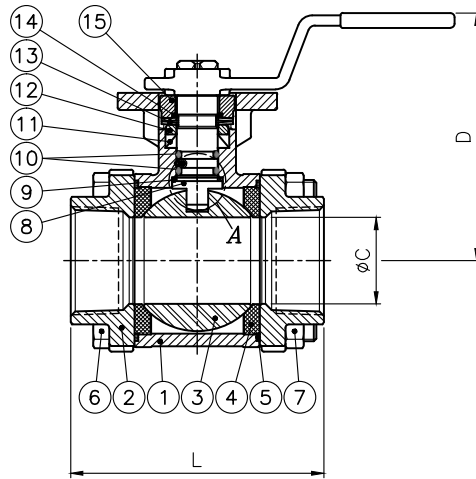
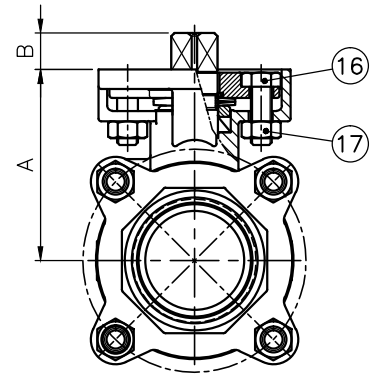
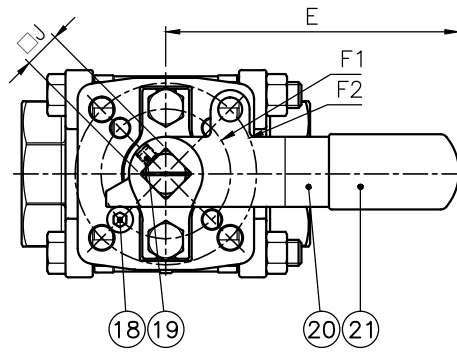
# Materials & Dimensions:

## Materials

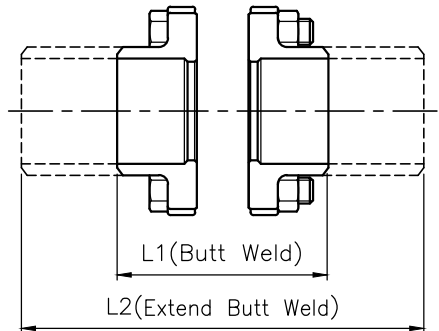
No.	PART	QTY	STAINLESS STEEL		CARBON STEEL	
			ASTM A351 GRADE CF8M	ASTM A216 GRADE WCB	ASTM A351 GRADE CF8M	ASTM A216 GRADE WCB
1	BODY	1	ASTM A351 GRADE CF8M	ASTM A216 GRADE WCB		
2	TH END CAP	2	ASTM A351 GRADE CF8M	ASTM A216 GRADE WCB		
2	BW/SW END CAP	2	ASTM A351 GRADE CF3M	ASTM A216 GRADE WCB		
3	BALL	1	ASTM A351 GRADE CF8M	ASTM A351 GRADE CF8M		
4	SEAT	2	RTFE	RTFE		
5	JOINT GASKET	2	TFM™-1600	TFM™-1600		
6	BODY BOLT	*	SS 304	SS 304 / B7		
7	NUT	1	SS 304	SS 304 / 2H		
8	STEM	1	SS 316	SS 304 / SS 316		
9	THRUST WASHER	1	RPTFE	RPTFE		
9A/B	CONNECTOR / PIN	1	SS 316	SS 316		
10	O-RING	1	VITON	VITON		
11	PACKING	1	PTFE	PTFE		
12	GLAND WASHER	1	SS 304	SS 304		
13	BELLEVILLE WASHER	1	SS 301	SS 301		
14	THRUST WASHER	1	RPTFE	RPTFE		
15	GLAND	1	A351 CF8	A351 CF8		
16	GLAND BOLT	1	SS 304	SS 304		
17	GLAND NUT	1	SS 304	SS 304		
18	STOP BOLT	1	SS 304	SS 304		
19	STOP BOLT NUT	1	SS 304	SS 304		
20	HANDLE	1	SS 304	SS 304		
21	HANDLE COVER	1	VINYL	VINYL		
22	HEX BOLT	2	SS 304	SS 304		
23	LEVER HEAD	1	SS 304	SS 304		
24	PIPE LEVER	2	STEEL	STEEL		
25	ANTI-STATIC DEVICE	1	SS 316	SS 316		

\* 1/4" THRU 1 1/2" QTY = 4 PCS

\* 2" THRU 4" QTY = 6 PCS



SOCKET WELD



BUTT WELD

## Dimensions (IN)

SIZE	A	B	C	D	E	J	ISO 5211		L	L1	L2	SOCKET WELD		BUTT WELD			
							F1	F2				S	T	Sch. 10		Sch. 40	
														P	Q	P	Q
1/4"	50.5	9	11.1	83	125	9	F3	F4	60.5	60.5	120	14.0	12.7	10.0	18.5	10.0	18.5
3/8"	50.5	9	11.1	83	125	9	F3	F4	60.5	60.5	120	17.5	12.7	13.7	18.5	13.1	18.5
1/2"	50.5	9	15	83	125	9	F3	F4	63.5	63.5	140	21.7	12.7	17.1	22.9	15.5	22.9
3/4"	54.5	9	20	87	125	9	F3	F4	75.5	75.5	140	27.1	14.3	22.5	28.3	20.6	28.3
1"	61	11	25	95	160	11	F4	F5	86	86	152	33.8	15.9	27.8	35.2	26.7	35.2
1 1/4"	66	11	31.8	100	160	11	F4	F5	96	104	165	42.6	17.5	36.6	43.9	35.1	43.9
1 1/2"	73.5	14	38	108	202	14	F5	F7	111	117	190	48.6	19.1	42.7	49.8	40.5	49.8
2"	82.5	14	50	118	202	14	F5	F7	129	138	203	61.1	22.2	54.7	62.0	52.4	62.0
2 1/2"	106.5	17	65	156	310	17	F7	F10	152.5	170	254	74.0	22.2	66.8	77.0	65.0	77.0
3"	116.5	17	80	166	310	17	F7	F10	168.5	192	280	90.0	25.4	82.7	91.0	80.0	91.0
4"	151.5	22	100	210	305	22	F10	F12	212.5	226	308	115.6	28.5	108.1	115.0	100.0	115.0

Vtek Controls reserves the right to change product designs and dimensional specifications without notice.

# V-Ball Control & Options:

## Series 31 V-Port Control Ball Valves

V-Port ball valves are used to control the flow. It delivers a precise flow control while retaining the durability and tight shutoff characteristics of a ball valve, excellent for regulating service. It is a compact and economical solution compared to traditional systems.

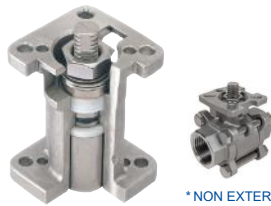
Available in 30°, 60°, and 90° V-notch configurations. V-Port ball valves feature an integrated V-notch machined directly into the ball, not a seat insert, this design not only improves flow characteristics but also eliminates the need for frequent seat replacement.

### Options:

Spring Handle



Fugitive Emissions\*



\*NON EXTERNAL  
ADJUSTING TYPE ONLY

V-Ball



## Ordering:

Series	Port	Body Material	Ball	Stem	End Connection	Size
31	FP - Full Port V1 - V-port 15 Deg V3 - V-port 30 Deg V6 - V-port 60 Deg V9 - V-port 90 Deg	S - Stainless Steel C - Carbon Steel L - 316L St. Steel F - Duplex St. St. H - Hastelloy	S - 316 SS L - 316 L M - Monel D - Duplex St. St.	S - 316 SS L - 316 L M - Monel D - Duplex St. St.	TN - Threaded SW - Socket Weld BW - Butt Weld EW - Extended Butt Weld F1 - ANSI. 150 RF F3 - ANSI 300 RF	0025 - 1/4" 0038 - 3/8" 0050 - 1/2" 0075 - 3/4" 0100 - 1" 0125 - 1-1/4" 0150 - 1-1/2" 0200 - 2" 0250 - 2-1/2" 0300 - 3" 0400 - 4"
Seats	Packing	Body Seal	Operator	Options	Stem O-ring	
R - RTFE P - PTFE S - 50/50 STFE C - CTFE T - TFM™-1600 U - UHMWPE	P - PTFE T - TFM™-1600 U - UHMWPE	P - PTFE T - TFM™-1600 U - UHMWPE	Blank - Bare Stem L - Locking Handle G - Gear Operated O - Oval Handle S - Spring Return Handle	Blank - No Options V - Vented Ball O - Oxygen Cleaned F - Fugetive Emissions Bonnet	Blank - Viton Standard 4 - Kalrez E - EPDM S - Silicone	

Vtek Controls, LLC reserves the right to make revisions to it's product, specifications, literature, and related information without notice.

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