



Stainless Steel Valves Product Catalog

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STAINLESS STEEL FITTINGS & MORE

VNE Corporation, located in Janesville, WI - is a leading manufacturer of stainless steel fittings, valves, and specialty related products, both for sanitary and industrial applications. VNE also offers stainless steel sanitary and industrial tubing.

VNE Corporation is dedicated to continuing the traditions that have made its parent company a success; exceptional quality, advanced manufacturing technology, great customer service, and intensive research to develop new products directly related to customer needs. Our reputation is built on these principles.

VNE serves the dairy, food processing, beverage, pharmaceutical, brewery, cosmetics, chemical, water treatment, and many other industries. All orders - large or small - receive our immediate attention and carry the quality, name, and reputation of VNE.



Neumo Ehrenberg Group

The NEUMO Ehrenberg Group

The NEUMO Ehrenberg Group is one of the World's largest privately owned manufacturers and distributors of stainless steel products and metal cutting tools. Founded in Germany in 1947 by the late Senator Henry Ehrenberg, the NEUMO Ehrenberg group employs more than 1,300 people worldwide.

The group is an integrated network of member companies operating in three core areas: Stainless Steel Flow Technology, Tooling, and Stainless Steel Trading.

In addition to sales, manufacturing and warehousing locations across three continents, the group is represented through a well-developed network of distributors in more than 40 countries.

Worldwide, the NEUMO Ehrenberg group employs people that are dedicated to turning innovative ideas into leading products and engineering services in order to increase productivity, product quality and profitability for our customers.



51 SERIES BUTTERFLY VALVES

Butterfly Valves are available in Manual, Air Actuated, or Air Actuated with proximity switches and 24V Solenoid Valve. Clamp or Weld ends are standard. Other connections are available upon request.

Available seat materials include Silicone, Viton[®], and EPDM. Sizes range from 1[°] through 6[°]. All product contact surfaces are available in either T304L or T316L stainless steel.



BUTTERFLY VALVES SPECIFICATIONS....

ORDERING SPECIFICATIONS....

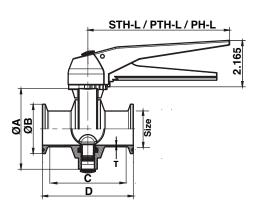
Size:	1" through 6" sizes	Specify:	• Quantity
Materials:	available T304L, T316L		 Product Description or Part number
Finish:	20 Ra μ-in. ID 32 Ra μ-in. OD		Size
Connections:	Clamp, Buttweld, other connections available upon request	Important Features:	 Material Type Choice of four handles are available.
Seat / Seals:	Silicone seats are standard - other seats available are EPDM and Viton®		Product Handle Type - 4 position and 12 position. Including a 12 position locking handle.
Pressure:	Maximum product pressure 145 psi		Surface finish meets 3A, FDA and USDA standards.
Temperature Rating:	15° - 200° F		Seats and Seals are FDA approved.
	Maximum short time sterilization temperature		Valves marked with heat numbers for full
	266°F EPDM 266°F Silicone 284°F Viton		identification and traceability. MTR'S available upon request



51 SERIES BUTTERFLY VALVES

MANUAL BUTTERFLY VALVES

Size	Α	В	С	D	STH-L	PTH-L	PH-L	Т	Torque in-lbs
1	3.071	1.988	1.969	2.598	5.709	5.709	5.350	0.065	17
1 1/2	3.386	1.988	1.969	2.756	5.709	5.709	5.350	0.065	40
2	3.937	2.519	2.047	2.992	5.709	5.709	5.350	0.065	78
2 1/2	4.528	3.051	2.205	3.150	5.709	5.709	5.350	0.065	111
3	5.040	3.582	2.283	3.307	5.709	5.709	6.420	0.065	160
4	6.063	4.685	2.520	4.094	5.709	5.709	6.420	0.083	280
6	8.858	6.567	3.150	5.118	*	*	7.280	0.109	531

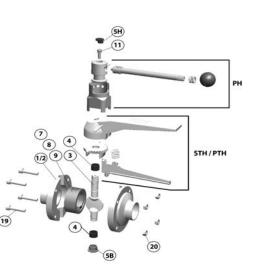


* Available with 4 position pull handle only

C column = Weld face to face dimension D column = Clamp face to face dimensions Locking trigger handle (LTH) dimensions match the stainless trigger handle (STH)

PARTS LIST

Item	Part Number	Description
1	51-BVP-1-(SIZE)*	Clamp Body
2	51-BVP-2-(SIZE)	Weld Body
3	51-BVP-3-(SIZE)	Disc
4	51-BVP-4-(SIZE)	ABS Bush
5B	51-BVP-5B-(SIZE)	ABS Cap Plug (bottom)
5H	51-BVP-5H-(SIZE)	ABS Cap Plug (handle)
7	51-BVP-7-(SIZE)	Silicone Seat (red)
8	51-BVP-8-(SIZE)	EPDM Seat (red)
9	51-BVP-9-(SIZE)	Viton® Seat (green)
11	51-BVP-11-(SIZE)	Handle Screw
19	51-BVP-19-(SIZE)	Bolt
20	51-BVP-20-(SIZE)	Nut
STH	51-BVP-STH-(SIZE)	12 position stainless trigger handle
LTH	51-BVP-LTH-(SIZE)	12 position stainless locking trigger handle
PTH	51-BVP-PTH-(SIZE)	12 position polymer trigger handle
PH	51-BVP-PH-(SIZE)	4 position pull handle



* To order above items in T316L stainless steel add a 6 before size. IE: 51-BVP-3-6-(SIZE)

** Included in handle kit - handle screw, cap plug (handle)

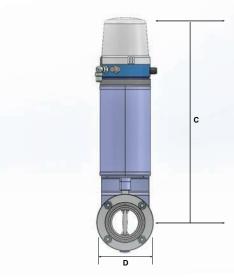


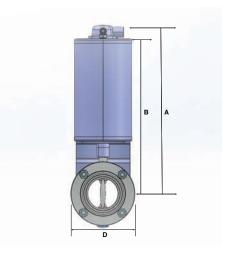
51 SERIES BUTTERFLY VALVES

PNEUMATICALLY OPERATED BUTTERFLY VALVE INFORMATION

- Corrosion resistant 304 stainless steel body
- · Polished surface finish and sanitary construction allows for easy cleaning
- · Air to open, spring to close is standard
- Unique design provides higher torque at final closing of disc
- One actuator fits 1" through 4" valves
- Air pressure required 72.5-145 psi to operate
- Temperature rating of actuator 15° 170°F
- · No spare parts required
- Maintenance free actuator

Reference the pneumatic actuator VBA section on pages 11-12 for detailed specifications.





DIMENSIONAL CHART

Size	Α	В	С	E
1	9.928	9.082	13.748	3.071
1 1/2	10.090	9.244	13.910	3.386
2	10.360	9.514	14.180	3.937
2 1/2	10.638	9.792	14.458	4.528
3	10.939	10.093	14.759	5.040
4	11.404	10.558	15.224	6.063



51 SERIES BUTTERFLY VALVE - PART NUMBERING

Example:		51W	-6	4.0	Α	v	VBA	Actua C -	ated Valve	s Only X	
Valve Body											
51CClam51WWeld51CWClam51PPlain51TThread51PTPlain51MMale51FFemale51FMFemale51QQ Lin51JPlain51HThread	o Ends (standard) Ends (standard) o by Weld Ends Bevel Ends ded Bevel Ends by Threaded Bevel E E Line Ends le E Line Ends le by Male E Line En e Ends John Perry Ends ded John Perry Ends by Threaded John Pe	ıds s									
Material Type											
Blank T304	-										
-6 T316	-										
Size											
1.0 2.5	6.0										
1.53.02.04.0											
	tor Docignotor										
Manual / Actua M Manu	al Valve										
	ted Valve										
Seat Material											
S Silico	ne										
E EPDN	1										
V Viton											
Actuator / Hand		امدام	a (ata								
	sition Stainless Trigg sition Stainless Lock										
	sition Polymer Trigge			indio							
	ition Pull Handle										
VBA Stainl	ess canister spring re	eturn pne	umat	ic actuate	or						
VMON Stain	ess canister spring re	eturn pne	umat	ic actuato	or w/ co	ontrol	head				
Fail Position / I											
O Fail C	•										
	losed (standard)										
Accessory 1	ed / Standard for VB)r								
	C VMON control hea			nen/clos	ed prov	vimity	switch wit	th I ED inc	licator		
	0 VMON control hea										
Accessory			, c			y					
	ed / Standard for VB	A Actuato	or								
China China		., iorada									

Rack and pinion or fully electric actuators available. Call VNE for sizing.

Namur mounted solenoid valves available on R&P actuators. Call VNE for options.

"B"SERIES BUTTERFLY VALVES

The "B" series butterfly valves are in the process of being discontinued. The valves will be limited to the supply available on hand or currently in production. Repair and maintenance components such as seats, stem bushings, manual handles, actuators and actuator accessories will still be available for purchase. The 51 series butterfly valves are readily available as an alternative option. If you have any questions regarding this transition please contact your regional sales manager.



ORDERING SPECIFICATIONS....

BUTTERFLY VALVES SPECIFICATIONS....

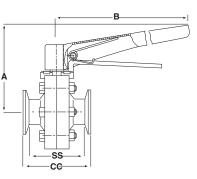
Size:	1" through 4" sizes available	Specify:	QuantityProduct Description or
Materials:	T304, T316L		Part number
Finish:	20 Ra μ-in. ID 32 Ra μ-in. OD		SizeMaterial Type
Connections:	Clamp, Buttweld, other connections available upon request	Important Features:	All stainless handle with eight positions is standard. Each position
Seat/Seals:	Silicone seats are standard- other seats available are EPDM and Viton®		is set in 45° increments Surface finish meets 3A, FDA and USDA
Pressure:	Maximum product pressure 145 psi		standards. Seats and Seals are FDA approved
Temperature Rating:	15° - 200° F		Valves marked with heat numbers for full identification
	Maximum short time sterilization temperature		and traceability. MTR's available upon request
	266°F EPDM 266°F Silicone 284°F Viton		

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"B" SERIES BUTTERFLY VALVE

Manual Butterfly Valve

Size	CC	SS	Α	В	# of Bolts
1	2.812	1.812	4.593	7.000	4
1 1/2	2.812	1.812	4.718	7.000	4
2	2.812	1.812	4.937	7.000	6
2 1/2	3.375	2.375	5.156	7.000	6
3	3.750	2.750	5.375	7.000	6
4	4.000	2.750	5.937	7.000	8



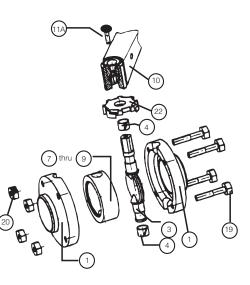
PART NUMBER SEQUENCE WHEN ORDERING MANUAL VALVES

Clamp Connections / Silicone Seat - EGCCB-(Valve Size) Weld Ends / Silicone Seat - EGSSB-(Valve Size)

Note: To order above items in T316L add a 6 before size (Ex: EGSSB-6-Size) Note: If other Elastomer is required add suffix as follows: (E) EPDM (V) Viton®

Parts List

Item	Part Number	Description
1	*BVP-B-96-1-(SIZE)	Body Half-Weld End
1A	*BVP-B-96-1A-(SIZE)	Body Half-Bevel Seat Thread**
2	*BVP-B-96-2-(SIZE)	Body Half-Clamp**
3	*BVP-B-96-3-(SIZE)-H	Disc
4	BVP-B-96-4-(SIZE)-H	Telfon Bushing (2 required)
7	BVP-B-96-7-(SIZE)-H	Seat - Silicone - Orange
8	BVP-B-96-8-(SIZE)-H	Seat - EDPM - Black
9	BVP-B-96-9-(SIZE)-H	Seat - Viton® - Dark Blue
10	BVP-B-96-10	All Stainless Handle
11A	BVP-B-96-11A	Allen Head Handle Seat Screw
19	BVP-B-96-19	Bolts for Body Half
19L	BVP-B-96-19L	Long Bolts for Mounting Actuator Bracket**
20	BVP-B-96-20	Nuts for Body Half
20A	BVP-B-96-20A	Wing Nuts for Body Half**
20AS	BVP-B-96-20AS	Wing Nuts for 3" Body Half Only**
22	BVP-B-96-22	Handle Seat



*To order above items in T316L stainless steel add a 6 before size. IE: BVP-B-96-1-6-SIZE **Item not shown in drawing

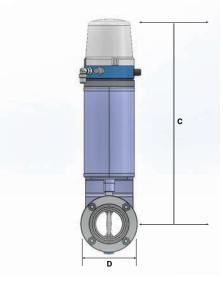


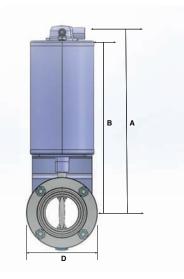
"B" SERIES BUTTERFLY VALVES

PNEUMATICALLY OPERATED BUTTERFLY VALVE INFORMATION

- · Corrosion resistant 304 stainless steel body
- · Polished surface finish and sanitary construction allows for easy cleaning
- · Air to open, spring to close is standard
- Unique design provides higher torque at final closing of disc
- One actuator fits 1" through 4" valves
- Air pressure required 72.5-145 psi to operate
- Temperature rating of actuator 15° 170°F
- · No spare parts required
- Maintenance free actuator

Reference the pneumatic actuator VBA section on pages 11-12 for detailed specifications.





DIMENSIONAL CHART

Size	Α	В	С	D
1	9.833	8.987	13.653	2.953
1 1/2	10.012	9.166	13.832	3.188
2	10.377	9.531	14.197	3.656
2 1/2	10.526	9.680	14.346	4.094
3	10.748	9.902	14.568	4.531
4	11.371	10.525	15.191	5.672



"B" SERIES BUTTERFLY VALVE PNEUMATICALLY OPERATED - PART NUMBERING

Actuator VBA Stainless Canister Spring Return Pneumatic Actuator VMON24 Stainless Canister Spring Return Pneumatic Actuator with VMON Control Head - 24VDC Solenoid, Open and Close Proximity Switch with LED Indicator VMONASI Stainless Canister Spring Return Pneumatic Actuator with VMON Control Head -AS-13.0 Solenoid, Open and Close Proximity Switch with LED Indicator VMONASI Stainless Canister Spring Return Pneumatic Actuator with VMON Control Head -AS-13.0 Solenoid, Open and Close Proximity Switch with LED Indicator Valve Body CCB Clamp Ends (standard) SSB Weld Ends (standard) SSB Weld Ends (standard) SSB Valve Body CCB Clamp Ends (standard) SSB Weld Ends PPB Plain by Threaded Bevel Ends PTB Plain by Threaded Bevel Ends FFB Female E Line Ends GOB QLine Ends JJB Plain John Perry Ends JHB Plain by Threaded Joh	Example:		005	6				
VBA Stainless Canister Spring Return Pneumatic Actuator VMON24 Stainless Canister Spring Return Pneumatic Actuator with VMON Control Head - 24VDC Solenoid, Open and Close Proximity Switch with LED Indicator VMONASI Stainless Canister Spring Return Pneumatic Actuator with VMON Control Head - AS-13.0 Solenoid, Open and Close Proximity Switch with LED Indicator VMONASI Stainless Canister Spring Return Pneumatic Actuator with VMON Control Head - AS-13.0 Solenoid, Open and Close Proximity Switch with LED Indicator Valve Body CCB Clamp Ends (standard) SSB Weld Ends (standard) SSB Weld Ends (standard) SSB Weld Ends (standard) SSB Weld Ends CCB Clamp by Weld Ends PB Plain Bevel Ends PTB Plain Bevel Ends PTB Plain by Threaded Bevel Ends PTB Plain by Threaded Bevel Ends FTB FEB Female E Line Ends FTB Female E Line Ends FTB Female E Line Ends FTB Female by Male E Line Ends FMB Plain John Perry Ends JJB Plain John Perry Ends JHB Plain by Threaded John Perry Ends HEAD Plain By Threaded John Perry Ends JHB Plain by Threaded John Perry Ends HEAD Plain by Threaded John Perry Ends JHB Plain by Threaded John Perry Ends JHB Plain by Threaded John Perry Ends JHB Plain by Threaded John Perry Ends HEAD Plain by Threaded John Perry Ends HEAD Plain by Threaded John Perry Ends HEAD		VBA	ССВ	-6	NC	2.0 -	E	
Actuator with VMON Control Head - 24VDC Solenoid, Open and Close Proximity Switch with LED Indicator VMONASI Stainless Canister Spring Return Pneumatic Actuator with VMON Control Head -AS-I 3.0 Solenoid, Open and Close Proximity Switch with LED Indicator Valve Body CCB Clamp Ends (standard) SSB Weld Ends (standard) SSB Weld Ends (standard) CSB Clamp by Weld Ends PPB Plain Bevel Ends Threaded Bevel Ends PTB Plain by Threaded Bevel Ends MMB Male E Line Ends FFB Female E Line Ends FFB Female E Line Ends GQB O Line Ends JJB Plain John Perry Ends JHB Threaded John Perry Ends HHB Threaded John Perry Ends JHB Threaded John Perry Ends								
Actuator with VMON Control Head -AS-1 3.0 Solenoid, Open and Close Proximity Switch with LED Indicator Valve BoU CCB Clamp Ends (standard) SSB Weld Ends (standard) SSB Weld Ends (standard) CSB Clamp by Weld Ends PPB Plain Bevel Ends TTB Threaded Bevel Ends PTB Plain by Threaded Bevel Ends MMB Male E Line Ends FFB Female E Line Ends FFB Female E Line Ends FFB Female by Male E Line Ends FMB Female by Male E Line Ends QQB Q Line Ends JJB Plain John Perry Ends JHB Threaded John Perry Ends JHB Threaded John Perry Ends	VMON24	Actuator with VMON Control Head - 24VDC Solenoid, Open and Close Proximity Switch				l		
CCBClamp Ends (standard)SSBWeld Ends (standard)CSBClamp by Weld EndsPPBPlain Bevel EndsTTBThreaded Bevel EndsPTBPlain by Threaded Bevel EndsMMBMale E Line EndsFFBFemale E Line EndsFMBFemale by Male E Line EndsQQBQ Line EndsJJBPlain John Perry EndsJHBThreaded John Perry EndsJHBThreaded John Perry EndsJHBTataged John Perry Ends	VMONASI	Actuator with VMON Control Head -AS-I 3.0 Solenoid, Open and Close Proximity				l		
	CCB CI SSB W CSB CI PPB PI TTB TH PTB PI MMB M FFB Fe FMB Fe QQB Q JJB PI HHB TH JHB PI	lamp Ends (standard) Veld Ends (standard) lamp by Weld Ends lain Bevel Ends nreaded Bevel Ends lain by Threaded Bevel Ends ale E Line Ends emale E Line Ends emale by Male E Line Ends Line Ends lain John Perry Ends hreaded John Perry Ends lain by Threaded John Perry Ends						
-6 T316L Fail Position / Flow Pattern								
NO Fail Open	NO Fa	ail Open						
NC Fail Closed (standard)		ail Closed (standard)						
Size Image: Figure 1 Image: Figure 1	1.02.31.53.0	0						
Seat Material	Seat Materia	al						
S Silicone E EPDM								
V Viton								

Rack and pinion or fully electric actuators available. Call VNE for sizing. Namur mounted solenoid valves available on R&P actuators. Call VNE for options.



Pneumatic Actuator VBA

VBA Pneumatic Canister Actuator for Butterfly Valves

The latest innovation in VNE actuation technology is the VBA pneumatic actuator. The VBA comes standard with a visual position dome indicator allowing for local confirmation of open and close position. The position dome indicator can accommodate twin M12 threaded proximity sensors for remote position indication. The VBA pneumatic actuator allows for easy adaptation of control heads which can include open and close LED position indication controlled by two integrated position sensors combined with an integral solenoid.



VBA PNEUMATIC ACTUATOR SPECIFICATIONS....

ORDERING SPECIFICATIONS....

Size:	One actuator fits	Specify:	Quantity
	1" through 4" sizes		 Product Description or Part number
Materials:	T304		 Size and type of valve being
Finish:	Polished		mounted to
Pressure:	Minimum - 72.5 PSI Maximum - 145 PSI	Note: Mounting brackets see part number section	are purchased separately, please for details.
Air Connector: Thread/Push	1/8" BSP x 1/4"	Important Features:	Compact design
To Connect			Robust stainless steel construction
			Direct drive shaft with double bearing
			Optimized power tranmission
			Greater torque at opening and seating positions
			High Reliability - Tested to 1,000,000 cycles
			Built in position indicator
1 ZVNE Values Broduct Cotal			Holding devices for proximity switches included

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VBA PNEUMATIC CANISTER ACTUATOR INFORMATION

- The VBA canister actuator item ACT-VBA comes with the visual indicator kit as standard
- The visual indicator kit item ACT-VBA-VISKIT includes the components necessary to mount the visual position dome indicator. It also includes the push to connect air connector and four M10 bolts to mount the valve bracket.
- Valve brackets are sold separately for the 51 series butterfly valves. If you need assistance identifying which bracket is required, please contact VNE.
- The ACT-VBA actuator (introduced January 2020) is a direct replacement for the ACT-AP-NE-B actuator.

Parts List

Item	Part Number Description		
1	ACT-VBA	Actuator spring return + visual indicator kit	
2	ACT-VBA-VISKIT	Visual indicator kit	
3	51-BVP-VBA-BRACKET-1.0-2.5	51 series Butterfly Valve bracket 1" - 2.5"	
4	51-BVP-VBA-BRACKET-3.0	51 series Butterfly Valve bracket 3"	
5	51-BVP-VBA-BRACKET-4.0	51 series Butterfly Valve bracket 4"	
6	BVP-B-96-VBA-BRACKET	VBA-BRACKET B series Butterfly Valve bracket 1.0" - 4.0"	



ACT-VBA





51-BVP-VBA-BRACKET-1.0-2.5 51-BVP-VBA-BRACKET-3.0 51-BVP-VBA-BRACKET-4.0



BVP-B-96-VBA-BRACKET



Check Valve

BALL CHECK VALVES

Check Valves are widely used for both sanitary and industrial applications to prevent backflow of product.

Ball Check Valves are designed to allow full product flow during processing. Once the product flow stops the ball rolls back to the seat at inlet preventing back flow. Ball Check Valves are commonly used with liquid products and installed horizontally. Sizes range 1 1/2" - 3".



ORDERING SPECIFICATIONS....

BALL CHECK VALVE S	SPECIFICATIONS	Specify:	Quantity
Size:	1 1/2" through 3" sizes available		 Product Description or Part number
Materials:	T316L		• Size
Finish:	32 Ra μ -in. ID/OD		
Connections:	Clamp, Buttweld, other connections available upon request	Important Features:	Precision machined seat to ensure positive shut off
Seats / Seals:	Buna ball and seats are standard - other seats available are Viton®. Metal detectable and EPDM are available as a special option		Two-piece design construction for easier alignment during installation Conform to 3A Sanitary Standards for vacuum breakers and check valves. Standard number 58-02. Certificate authorization number 3573. Seats and seals are FDA approved. Valves marked with heat numbers for full identification and traceability. MTR'S are available upon request

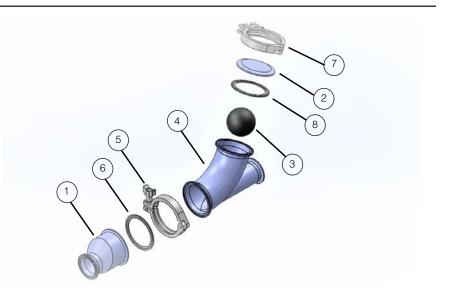


Check Valves

Ball Check Valve

PARTS BREAKDOWN

- 1. Seat body (Clamp)
- 1W. Seat body (Weld)
- 2. Cap
- 3B. Ball-(Buna-N)
- 3V. Ball-(Viton®)
- 4. Angle body
- 4W. Angle body-(Weld)
- 5. Body clamp
- 6B. Body gasket-(Buna-N)
- 6V. Body gasket-(Viton®)
- 7. Cap clamp
- 8B. Cap gasket-(Buna-N)
- 8V. Cap gasket-(Viton®)



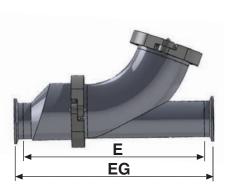
PART NUMBER SEQUENCE WHEN ORDERING COMPLETE VALVE:

Clamp connectionsEG45BY-6 (valve size)Weld endsE45BYWW-6 (valve size)Note: If Viton® elastomers are required, add "V" after sizeMetal detectable elastomer options are available. Please contact VNE for details.

PART NUMBER SEQUENCE WHEN ORDERING REPLACEMENT PARTS:

BCV (item number) - (valve size) Example: BCV3B-1.5 = Buna-N ball for 1.5 valve

	Actual Size	Overall	Overall Length		
Valve Size	Ball	EG Clamp	E Weld	Approx. Wt. Lbs.	
1 1/2	2.125	10.000	9.000	4.80	
2	2.625	11.000	10.000	6.30	
2 1/2	3.312	14.125	13.125	10.20	
3	3.312	13.625	12.625	11.50	





Check Valves

SPRING CHECK VALVE

Check Valves are widely used for both sanitary and industrial applications to prevent backflow of product.

Spring Check Valves are designed to prevent fluid from flowing back and to create a positive shutoff. They are commonly used with liquid products and installed in the vertical position.



ORDERING SPECIFICATIONS....

SPRING CHECK VALVE Size:	SPECIFICATIONS	Specify:	 Quantity Product Description or Part number
Materials: Finish:	T316L 32 Ra μ-in. ID/OD		• Size
Connections:	Clamp, Buttweld, other connections available upon request	Important Features:	One piece stem with O-Ring construction. (easy seal
Seats / Seals:	EPDM and Viton® are standard. Metal detectable, silicone and Kalrez®, are available as a special option.		replacement and positive shut off) Conform to 3A Sanitary Standards for vacuum
Pressure:	Maximum product pressure 145 psi		breakers and check valves. Standard number 58-02. Certificate authorization number 3573. Seats and seals
Temperature Rating:	0° - 200° F		valves marked with heat

numbers for full identification and traceability. MTR'S are available upon request

SPR



- 1. Lower body (Body)
- 2. Stem (2.0 thru 4.0 have guide fingers)
- 3. Spring (3-5 psi) (Available upon request)
- 3L. Spring Light (1-3 psi) Standard
- 4. O -Ring standard Viton
- 5. Stem guide
- 6. Upper body (Bonnet)
- 7. Body Clamp .5" and .75" = 13MHHM1.5 H Body Clamp 1.0" and 1.5" = 13MHHM2.5 - H Body Clamp 2.0" = 13MHHM3.0 - H Body Clamp 2.5" = 13MHHM4.0 - H Body Clamp 3.0" = 13MHHM5.0 - H Body Clamp 4.0" = 13MHP6.0
- Clamp Gasket .5" and .75" = EG40V 1.5 Clamp Gasket 1.0" and 1.5" = EG40V 2.5 Clamp Gasket 2.0" = EG40V 3.0 Clamp Gasket 2.5" = EG40V 4.0 Clamp Gasket 3.0" = EG40V 5.0 Clamp Gasket 4.0" = EG40V 6.0

(6)1000 mm - C

PART NUMBER SEQUENCE WHEN ORDERING COMPLETE VALVE:

45 (spring check) C (clamp) 6 (T316L) 2.0 (size) V (seat material) Example: 45C - 6 2.0 - V

When requesting O-Ring changes add the following to the end of part number

Note: V=Viton E=EDPM S=Silicone Metal detectable elastomer options are available. Please contact VNE for details **PART NUMBER SEQUENCE WHEN ORDERING REPLACEMENT PARTS:**

PART NUMBER SEQUENCE WHEN ORDERING REPLACEMENT

45-SCV (item number) - (valve size)

Example: 45-SCV1C-1.5 = Lower body clamp for 1.5 valve

	Overall		
Valve Size	Standard Clamp	Weld and Other	Approx Wt. Lbs.
1/2	3.500	A.O.R.	2.20
3/4	3.500	A.O.R.	2.20
1	4.125	A.O.R.	3.50
1 1/2	4.562	A.O.R.	3.50
2	5.062	A.O.R.	5.40
2 1/2	5.375	A.O.R.	6.00
3	6.125	A.O.R.	6.25
4	8.125	A.O.R.	16.00





Check Valves

AIR BLOW CHECK VALVE

Check Valves are widely used for both sanitary and industrial applications to prevent backflow of product.

Air Blow Check Valves are designed to evacuate lines of product or CIP solutions. Air Blow Check Valves are made of T316L Stainless Steel



ORDERING SPECIFICATIONS....

AIR BLOW CHECK VALV	/E SPECIFICATIONS	Specify:	• Quantity
Size:	1.5" through 4" sizes available		 Product Description or Part number
Materials:	T316L		• Size
Finish:	32 Ra μ -in. ID/OD		
Connections:	Clamp end only		
	EPDM seats are standard. Other seats available are Viton®	Important Features:	 Fail Safe Operation - backflow of product or CIP solution prevented by simple air to open, spring to close operation Easy Assembly / Disassembly Clamp connections permit quick disassembly and assembly for replacing Filter Media, cleaning or inspection Conform to 3A Sanitary Standards for vacuum breakers and check valves. Standard number 58-02. Certificate authorization number 3573. Seats and seals are FDA approved. Valves marked with heat numbers for full identification and traceability. MTR'S are available upon request

Check Valves

AIR BLOW CHECK VALVE

PARTS LIST

- 1A. Air Line Quick Disconnect fits all sizes .25" Standard / .375" Available
- 1B. Rubber Hose Barb = EG14RT-6L1.01" Standard / Other sizes available upon request
- 1C. FNPT Thermometer Cap = EG23B-6L1.0.5" Standard / Other sizes available upon request
- 2. Clamp fits all sizes = 13MHHM1.5
- 3. 1.5" EPDM Perforated Disc fits all sizes*
- 3V. 1.5" Viton® Perforated Disc fits all sizes*
- 4. Valve Body
- 5. Spring Retainer fits all sizes
- 6. Spring fits all sizes
- 7. Stem Guide fits all sizes
- 8. EPDM Stem fits all sizes
- 8V. Viton® Stem fits all sizes
- 9. Filter Disc fits all sizes (50 / PKG)
- * Hole diameter of disc: .1/2517 Micron equivalent

PART NUMBER SEQUENCE WHEN ORDERING COMPLETE VALVE

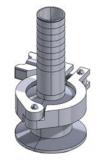
EG62A-6L SIZE = "A" Connection EG62B-6L SIZE = "B" Connection (shown) EG62C-6L SIZE = "C" Connection For Viton[®] Add "V" to end of part number

PART NUMBER SEQUENCE WHEN ORDERING REPLACEMENT PARTS:

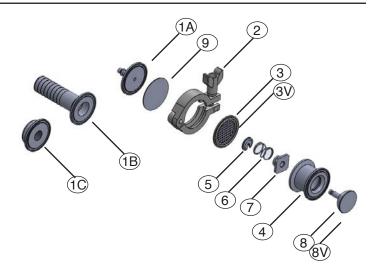
ABV (item number) - (valve size)

Example: ABV1A - .25 = .25" Air line quick disconnect (fits all sizes)

	Overall Length		A	oprox. Wt. Lt)S.	
Valve Size	EG62A	EG62B	EG62C	EG62A	EG62B	EG62C
1 1/2	2.500	4.875	2.000	1.20	1.25	1.30
2	2.500	4.875	2.000	1.35	1.40	1.45
2 1/2	2.500	4.875	2.000	1.45	1.50	1.55
3	2.500	4.875	2.000	1.65	1.70	1.75
4	2.500	4.875	2.000	2.15	2.20	2.25

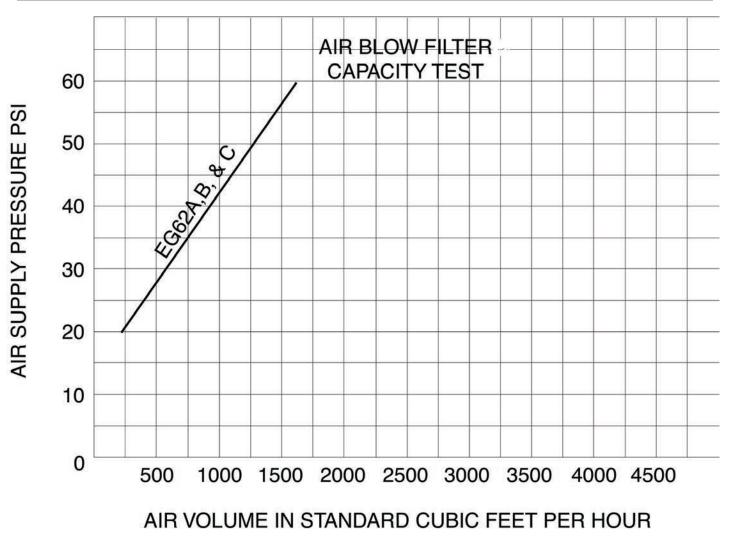






AIR BLOW CHECK VALVE

DISPOSABLE AIR FILTER MEDIA CAPACITY TEST



Note: The Air Blow Check Valve must be used with a Filter Disc. These Filter Discs are available in packages of 50.

Check Valves

"B"

"C

AIR BLOW CHECK VALVE

BALL CHECK WITH AIR BLOW CHECK VALVE

· Air Blow Check Valves are commonly used on ball check valves to evacuate lines of product or CIP solutions

· Easy assembly and disassembly of Air Blow Check Valve

Buna Ball Check Valve offered standard with EPDM Air Blow Check Valve with Viton[®] options

PARTS LIST

CLAMP

EG45ABA-6 SIZE = "A" Connection EG45ABB-6 SIZE = "B" Connection EG45ABC-6 SIZE = "C" Connection WELD E45WWABA-6 SIZE = "A" Connection E45WWABB-6 SIZE = "B" Connection E45WWABC-6 SIZE = "C" Connection

*For Viton[®] Ball, Stem, and Elastomers Add "V" to end of part number

* For parts list and dimensional information see individual components

- * For use on Ball Check Valves: 1 1/2" Ball Check Valve uses 2 1/2" Air Blow Valve
 - 2" Ball Check Valve uses 3" Air Blow Valve
 - 2 1/2" Ball Check Valve uses 4" Air Blow Valve
 - 3" Ball Check Valve uses 4" Air Blow Valve



STAINLESS STEEL VALVES PRODUCT CATALOG

2 - WAY BALL VALVES

Ball Valves are used in a wide variety of high pressure applications. Two factors make them popular. First, a full unrestricted flow that allows no product restrictions through the valve. Second, the three piece design and the removal of a minimal number of bolts allows service to be performed without removing the complete valve from the line.

VNE offers two way ball valves made of T316 (CF8M) stainless steel. PTFE seats are easily removed. Clamp and Weld ends are standard. Other connections are available upon request. 1/2[°] through 4[°] sizes are available.



ORDERING SPECIFICATIONS....

VNE offers many options on automated ball valves.

BALL VALVES SPECIFICATIONS....

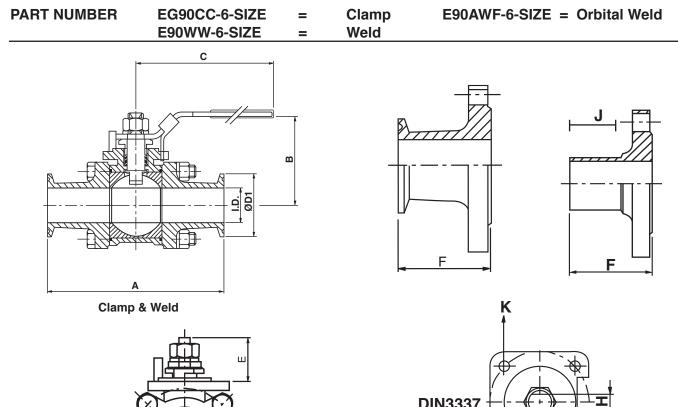
Specify: Quantity Size: 1/2" through 4" sizes available · Product Description or Part number Materials: Passivated 316 Stainless Steel (ASTM A351, CF8M) Size Finish: 20 Ra µ-in. ID **Important Features:** 3-piece design **Connections:** Clamp, Buttweld, Orbital Weld, other connections available Maintenance and servicing is upon request made easy with removal of a minimal number of bolts Seat / Seals: Dvneon TF 1641 PTFE Cavity filler, fully encapsulated Locking device handle **Pressure:** 1/2"- 1" 1,000psi ISO-5211 pad - Air Actuated 1 1/2"- 2" 1,000psi mounting kits available 2 1/2"-4" 600 psi Conform to 3A sanitary -65° to 320° F **Temperature Rating:** standards for Ball-Type valves. Standard number 68-00. Certificate authorization number 3511. Seat and seals

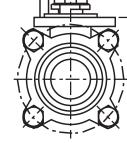
Valves marked with heat numbers for full identification and traceability. MTR'S are available upon request

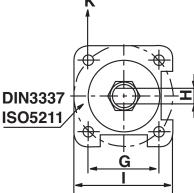
are FDA approved.

VNE Valves Product Catalog

CLAMP AND WELD VALVES







CLAMP & WELD DIMENSIONS

SIZE INCH	ISO- 5211	Α	В	с	I.D	OD	OD1	Е	F	G	н		J	к
шоп	5211	A	D		1.0	OD	ODT	E	Г 	G	п	-	J	<u> </u>
1/2	F03	4.646	2.362	5.197	0.370	0.500	0.984	0.709	1.291	1.000	0.196	1.456	0.750	10-24
3/4	F03	5.000	2.559	5.197	0.620	0.750	0.984	0.728	1.437	1.000	0.196	1.456	0.750	10-24
1	F04	6.000	2.717	6.496	0.870	1.000	1.984	0.886	1.575	1.770	0.256	1.653	0.875	10-24
1 1/2	F05	6.890	3.504	7.638	1.370	1.500	1.984	1.165	1.713	1.390	0.334	1.968	0.875	1/4-20
2	F06	7.480	3.819	7.638	1.870	2.000	2.516	1.165	1.803	1.390	0.334	1.968	0.875	1/4-20
2 1/2	F07	8.976	5.000	9.921	2.370	2.500	3.047	1.752	2.205	1.950	0.472	2.834	1.375	5/16-18
3	F07	10.236	5.315	9.921	2.870	3.000	3.579	1.752	2.539	1.950	0.472	2.834	1.750	5/16-18
4	F10	11.417	6.260	13.110	3.834	4.000	4.682	1.921	2.386	2.830	0.630	3.740	1.250	3/8-16

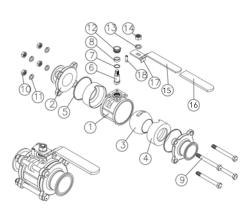
Also available with orbital weld end connections. Contact VNE for dimensions.



CLAMP AND WELD VALVES

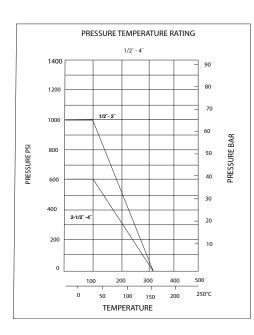
PARTS LIST

Part Number	Description	Material	Qty
BALL-1-(SIZE)	Body	ASTM-A351	1
BALL-2C-(SIZE)	Clamp End	ASTM-A351	2
BALL-2W-(SIZE)	Weld End	ASTM-A351	2
BALL-3-(SIZE)	Ball	A351-CF8M	1
BALL-4-(SIZE)*	Seat	PTFE	2*
BALL-5-(SIZE)*	Gasket	PTFE	2*
BALL-6-(SIZE)	Stem	AISI-316	1
BALL-7-(SIZE)*	Thrust Washer	PTFE	1*
BALL-8-(SIZE)*	Stem Packing	PTFE	1*
BALL-9-(SIZE)	Bolt	AISI-304	4
BALL-10-(SIZE)	Hex Nut	AISI-304	4
BALL-11-(SIZE)	Bolt Washer	AISI-304	4
BALL12-(SIZE)	Gland	AISI-304	1
BALL-13-(SIZE)	Washer	AISI-304	1
BALL-14-(SIZE)	Nut	AISI-304	1
BALL-15-(SIZE)	Handle	AISI-304	1
BALL-16-(SIZE)	Plastic Cover	Plastic	1
BALL-17-(SIZE)	Lock Device	AISI-304	1
BALL-18-(SIZE)	Stop Pin	AISI-304	1
BALLREPAIRKIT-(SIZE)	Repair Kit	Teflon	*Items above



* items included in the repair kit.

** 4" size valves will have 6 bolts, 6 hex nuts, and 6 washers



BALL VALVE TORQUE....

2- Way full port stainless steel 316 sanitary ball valve clamp weld-end.

1/2"	- Breakaway Torque	42	In-LBS
3/4"	- Breakaway Torque	58	In-LBS
1"	- Breakaway Torque	83	In-LBS
1 1/2 ["]	- Breakaway Torque	150	In-LBS
2"	- Breakaway Torque	298	In-LBS
2 1/2"	- Breakaway Torque	512	In-LBS
3"	- Breakaway Torque	685	In-LBS
4"	- Breakaway Torque	996	In-LBS

*To convert In/LBS to FT/LBS - x.083

ACTUATION MOUNTING ACCESSORIES

ISO 5211 MOUNTING KITS - T304 STAINLESS STEEL

Mounting kits are utilized when automating the VNE 2-way ball valves. Although VNE offers full automation packages sometimes it is required to use a specific brand actuator specified by the end user that we are not able to provide. These mounting kits will assist with mounting to any pneumatic or electric actuator with an ISO 5211 mounting pad and offset square or double star drive shaft. Mounting kit includes the bracket and drive coupler made from T304 Stainless steel. Stainless steel mounting hardware (bolts, threaded studs, washers, nuts) can be provided separately.

Part Number	ISO Pad	Bracket Height	G Din mm	nension inches	
BALLACTMOUNTKIT5/.75	F03, F04, F05	1.496	9	0.354	
BALLACTMOUNTKIT- 1.0	F04, F05, F07	1.496	11	0.433	
BALLACTMOUNTKIT- 1.5/2.0	F04, F05, F07	1.575	14	0.551	
BALLACTMOUNTKIT- 2.5/3.0	F07, F10, F12	2.756	17	0.669	
BALLACTMOUNTKIT- 4.0	F07, F10, F12	2.756	22	0.866	



STEM SHAFT / ALUMINUM INSERTS

Stem shaft inserts are utilized when the drive coupler of a mounting bracket or direct mount valve stem does not match the exact dimensions of the actuator drive shaft. Stem shaft inserts come in common ISO 5211 drive shaft dimensions and are made from aluminum. Other sizes, shapes and materials are available upon request.

Part Number	ID Dimension	OD Dimension			
INSERT .354 X .433	9 mm	11 mm			
INSERT .354 X .551	9 mm	14 mm			
INSERT .433 X .551	11 mm	14 mm			
INSERT .433 X .669	11mm	17 mm			
INSERT .551 X .669	14 mm	17 mm			
INSERT .551 X .866	14 mm	22 mm			
INSERT .669 X .866	17 mm	22 mm			
INSERT .669 X 1.063	17 mm	27 mm			
INSERT .866 X 1.063	22 mm	27 mm			



Valves Product Catalog



available upon request

3 - WAY BALL VALVES

Ball Valves are used in a wide variety of high pressure applications. A full unrestricted flow allows no product restrictions through the valve. Thus, allowing easy diversion.

VNE offers three way ball valves made of T316 (CF8M) stainless steel. With PTFE seats are easily removed. Clamp and Weld ends are standard. Other connections are available upon request. 1/2" through 4" sizes are available.

VNE offers many options on automated valves.



ORDERING SPECIFICATIONS....

BALL VALVES SPECIFICATIONS....

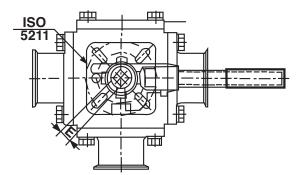
Specify: Quantity Size: 1/2" through 4" sizes available · Product Description or Part number Materials: Passivated 316 Stainless Steel (ASTM A351, CF8M) Size Finish: 20 Ra µ-in. ID 100% Tested **Important Features: Connections:** Clamp, Weld, other connections available Locking device handle upon request ISO-5211 mounting pads Dyneon TF 1641 PTFE Seat / Seals: standard on all valves Cavity filler, fully encapsulated Repair kits are available 1,000psi 1/2"- 2" **Pressure:** 2 1/2"- 3" 600psi Full Port L and T flow 4" 400 psi configurations are standard -65° to 320° F **Temperature Rating:** Conform to 3A sanitary standards for Ball-Type valves. Standard number 68-00. Certificate authorization number 3511. Seat and seals are FDA approved. Valves marked with heat numbers for full identification and traceability. MTR'S are

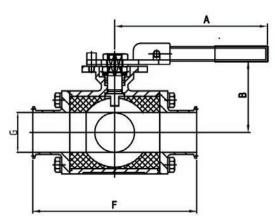
STAINLESS STEEL VALVES PRODUCT CATALOG

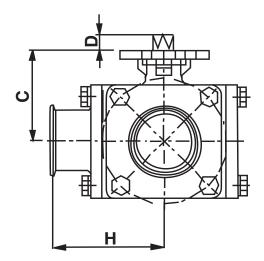
3 - WAY BALL VALVES

Clamp and Weld Valves (L Port) Part Number EG93CCC - 6 - Size = Clamp L Port Part Number E93WWW - 6 - Size = Weld L Port

Clamp and Weld Valves (T Port) Part Number EG93CCC - 6 - Size- T = Clamp T Port Part Number E93WWW - 6 - Size- T = Weld T Port







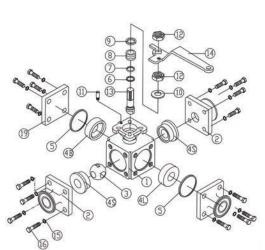
Size / Inch	ISO-5211	Α	В	С	D	E	F	G	н
1/2	F03/F04	4.764	3.071	1.752	0.354	0.354	4.646	0.370	2.322
3/4	F03/F04	4.764	3.228	1.890	0.354	0.354	5.000	0.620	2.499
1	F04/F05	5.394	3.543	2.323	0.433	0.433	6.000	0.870	2.999
1 1/2	F05/F07	7.165	4.173	2.835	0.551	0.551	6.890	1.370	3.444
2	F05/F07	7.165	4.516	3.228	0.551	0.551	7.480	1.870	3.740
2 1/2	F07/F10	14.606	4.291	3.976	0.669	0.669	8.976	2.370	4.212
3	F10/F12	15.984	5.276	4.941	0.886	0.866	10.236	2.870	4.803
4	F10/F12/F14	15.984	5.748	5.354	0.886	0.866	11.417	3.834	5.688



CLAMP AND WELD VALVES

PARTS LIST

Part Number	Description	Material	Qty
BALL-3-1-(SIZE)	Body	A351-CF8M	1
BALL-3-2C-(SIZE)	Clamp End	A351-CF8M	3
BALL-3-2W-(SIZE)	Weld End	A351-CF8M	3
BALL-3-3-(SIZE)	L-Port Ball	A351-CF8M	1
BALL-3-3-(SIZE)-T	T-Port Ball	A351-CF8M	1
BALL-3-4L-(SIZE)*	Seat Large	PTFE	2
BALL-3-4S-(SIZE)*	Seat Small	PTFE	1
BALL-3-4B-(SIZE)*	Seat Back	PTFE	1
BALL-3-5(SIZE)*	Gasket	PTFE	2
BALL-3-6-(SIZE)*	Thurst Washer	PTFE	1
BALL-3-7-(SIZE)*	O-Ring	VITON	1
BALL-3-8-(SIZE)*	Stem Packing	PTFE	1
BALL-3-9-(SIZE)	Ring	AISI-316	1
BALL-3-10-(SIZE)	Bevel Washer	AISI-304	1
BALL-3-11-(SIZE)	Stop Pin	AISI-316	1
BALL-3-12-(SIZE)	Nut	AISI-304	2
BALL-3-13-(SIZE)	Stem	AISI-316	1
BALL-3-14-(SIZE)	Handle	AISI-304	1
BALL-3-15-(SIZE)	Washer	AISI-304	16
BALL-3-16-(SIZE)	Bolt	AISI-304	16
BALL-3-17-(SIZE)	Prevailing Device	AISI-304	1
BALL-3-18-(SIZE)	Nut Handle	AISI-304	1
BALL-3-19-(SIZE)	Body Cap	A351-CF8M	1
BALL-3-KIT-(SIZE)	Repair Kit	PTFE/VITON	*items above



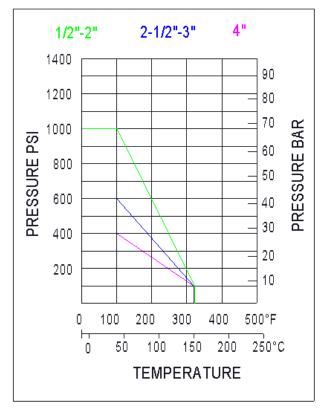
* items included in the repair kit

BALL VALVE TORQUE...

3-Way full port stainless steel 316 sanitary ball valve clamp and weld end. To convert In / LBS to Foot LBS X .083.

1/2"	-	Breakaway Torque	79	In-Lbs
3/4"	-	Breakaway Torque	85	In-Lbs
1"	-	Breakaway Torque	110	In-Lbs
1 1/2"	-	Breakaway Torque	290	In-Lbs
2"	-	Breakaway Torque	680	In-Lbs
2 1/2"	-	Breakaway Torque	1287	In-Lbs
3	-	Breakaway Torque	1770	In-Lbs
4"	-	Breakaway Torque	2200	In-Lbs

WORKING PRESSURE CHARTS





ACTUATED BALL VALVES

Ball Valves are used in a wide variety of high pressure applications. A full unrestricted flow allows no product restrictions through the valve. Thus, allowing easy diversion.

VNE offers 2-way and 3-way ball valves made of T316 (CF8M) stainless steel. Ball Valves are available in Manual, Pneumatically Actuated, and Electrically Actuated versions. We also offer a full line of control options. Limit switches, Solenoids, and Positioners can be included with your automated valve assembly. VNE Ball Valves feature PTFE seats that are easily removed. Clamp and Weld ends are standard. Other connections are available upon request.



VNE offers many options on automated valves.

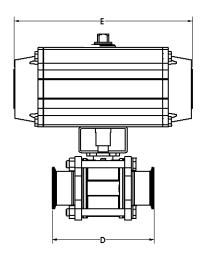
BALL VALVES SPECIFICATIONS....

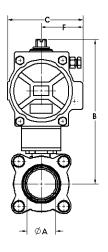
ORDERING SPECIFICATIONS....

Size:	1/2" through 4" sizes available	Specify:	• Quantity
Materials:	Passivated 316 Stainless Steel (ASTM A351, CF8M)		Product Description or Part number
Finish:	20 Ra μ-in. ID		SizeMaterial Type
Connections:	Clamp, Buttweld, Orbital Weld, other connections available upon request	Important Features:	100% Tested
Seat / Seals:	Dyneon TF 1641 PTFE Cavity filler, fully encapsulated		Available with pneumatic and electric actuators
Pressure:	Reference applicable manual valve specifications		Conform to 3A sanitary standards for Ball-Type valves. Standard number 68-00.
Temperature Rating:	Reference applicable manual valve specifications		Certificate authorization number 3511. Seat and seals are FDA approved
			Valves marked with heat

Valves marked with heat numbers for full identification and traceability. MTR'S are available upon request

29





DIMENSIONS 2-WAY SPRING RETURN ACTUATED VALVE

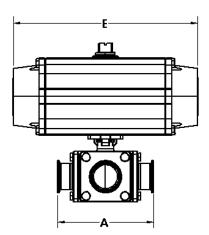
Valve Part Number Clamp End Valve	Size	A	В	С	D	E	F	Weight	Cv Value
90C.5C/52-5SC-XX	1/2	0.370	6.177	2.790	3.504	5.490	1.610	4.16	9
90C.75C/52-5SC-XX	3/4	0.620	6.355	2.790	3.976	5.490	1.610	4.46	26
90C1.0C/63-5SC-XX	1	0.870	6.814	3.170	4.488	6.380	1.770	6.75	61
90C1.5C/75-5SC-XX	1 1/2	1.370	8.075	3.720	5.512	8.150	2.070	12.70	193
90C2.0C/100-5SC-XX	2	1.870	9.227	4.850	6.142	10.690	2.680	22.80	432
90C2.5C/115-5SC-XX	2 1/2	2.370	12.490	5.390	7.756	12.910	2.870	41.88	728
90C3.0C/125-5SC-XX	3	2.870	13.303	5.830	9.016	14.410	3.150	51.40	1125
90C4.0C/161-5SC-XX	4	3.834	15.630	7.350	9.567	16.930	3.940	111.20	1986

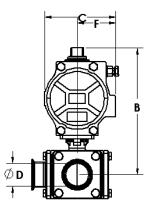
DIMENSIONS 2-WAY AIR TO AIR ACTUATED VALVE

Valve Part Number Clamp End Valve	Size	A	в	С	D	E	F	Weight	Cv Value
90C.5C/32DC-XX	1/2	0.370	5.214	1.770	3.504	4.650	0.890	2.62	9
90C.75C/52DC-XX	3/4	0.620	6.355	1.770	3.976	4.650	0.890	2.92	26
90C1.0C/52DC-XX	1	0.870	6.374	2.790	4.488	5.490	1.610	5.03	61
90C1.5C/63DC-XX	1 1/2	1.370	7.425	3.170	5.512	6.380	1.770	9.02	193
90C2.0C/75DC-XX	2	1.870	8.267	3.720	6.142	8.150	2.070	11.66	432
90C2.5C/85DC-XX	2 1/2	2.370	11.070	4.170	7.756	9.350	2.300	25.35	728
90C3.0C/85DC-XX	3	2.870	11.413	4.170	9.016	9.350	2.300	32.03	1125
90C4.0C/115DC-XX	4	3.834	13.640	5.390	9.567	12.910	2.870	63.91	1986

Dimensions shown are for assemblies sized for 80 PSI air supply. 1.2 Safety factor for clean liquid products. 90C part number designates a clamp end valve. -XX Designates no solenoid, control top or positioner. See part number structures on page 34 for designators for other end connections, fail positions and add on accessories.







DIMENSIONS 3-WAY SPRING RETURN ACTUATED VALVE

Valve Part Number Clamp End Valve	Size	А	В	С	D	E	F	Weight	Cv Value
93C.5C/63-5S1-XX	1/2	4.646	7.170	3.170	0.370	6.380	1.770	7.59	L=8 T=6
93C.75C/63-5S1-XX	3/4	5.000	7.290	3.170	0.620	6.380	1.770	8.29	L=17 T=13
93C1.0C/75-5S1-XX	1	6.000	6.920	3.720	0.870	8.150	2.070	13.70	L=25 T=19
93C1.5C/100-5S1-XX	1 1/2	6.890	8.380	4.850	1.370	10.690	2.680	27.40	L=62 T= 46
93C2.0C/125-5S1-XX	2	7.480	10.080	4.290	1.870	9.650	2.360	47.01	L=148 T=92
93C2.5C/161-5S1-XX	2 1/2	8.976	12.680	7.350	2.370	16.930	3.940	93.04	L=247 T=156
93C3.0C/161-6S1-XX	3	10.236	13.740	7.350	2.870	16.930	3.940	110.04	L=351 T=230
93C4.0C/181-6S1-XX	4	11.417	15.350	8.040	3.834	18.980	4.020	133.10	Contact VNE

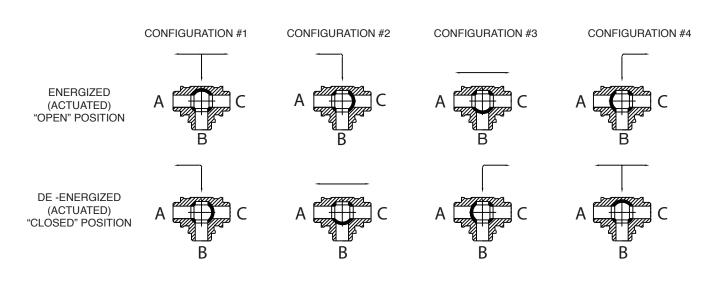
DIMENSIONS 3-WAY AIR TO AIR ACTUATED VALVE

Valve Part Number Clamp End Valve	Size	A	в	с	D	E	F	Weight	Cv Value
93C.5C/52D1-XX	1/2	4.646	5.280	2.790	0.370	5.490	1.610	6.25	L=8 T=6
93C.75C/52D1-XX	3/4	5.000	5.400	2.790	0.620	5.490	1.610	7.25	L=17 T=13
93C1.0C/52D1-XX	1	6.000	5.850	2.790	0.870	5.490	1.610	9.25	L=25 T=19
93C1.5C/75D1-XX	1 1/2	6.890	7.420	3.720	1.370	8.150	2.070	19.51	L=62 T= 46
93C2.0C/85D1-XX	2	7.480	10.080	4.290	1.870	9.650	2.360	21.39	L=148 T=92
93C2.5C/115D1-XX	2 1/2	8.976	10.290	5.390	2.370	12.910	2.870	45.75	L=247 T=156
93C3.0C/115D1-XX	3	10.236	11.360	5.390	2.870	12.910	2.870	62.75	L=351 T=230
93C4.0C/140D1-XX	4	11.417	13.660	6.630	3.834	15.790	3.540	96.46	Contact VNE

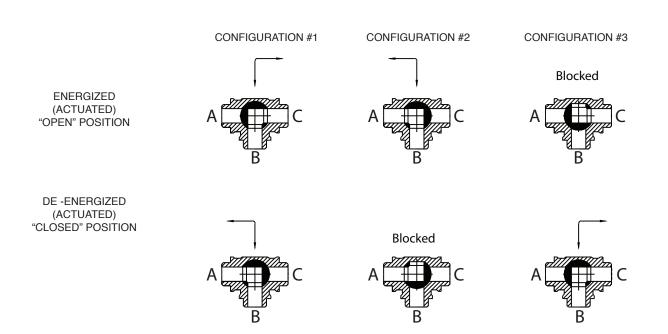
Dimensions shown are for assemblies sized for 80 PSI air supply. 1.2 Safety factor for clean liquid products. 93C part number designates a clamp end valve. -XX Designates no solenoid, control top or positioner. See part number structures on page 34 for designators for other end connections, flow configurations and add on accessories.

3-WAY BALL VALVE CONFIGURATION OPTIONS Standard Actuator (CW to Close, CCW to Open)

T-Port Design



L-Port Design

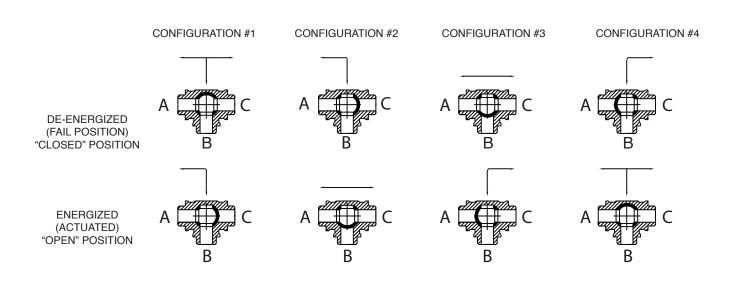


180° rotation actuators allowing for 2 or 3 position control are available upon request

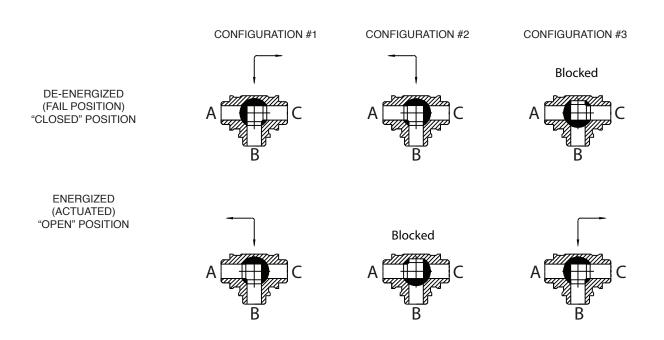


3-WAY BALL VALVE CONFIGURATION OPTIONS Reverse Actuator (CCW to Close, CW to Open)

T-Port Design



L-Port Design



180° rotation actuators allowing for 2 or 3 position control are available upon request

ACTUATED BALL VALVE PART NUMBERING

Example:		90C	1.0	С	/	*	S	С	- X	х
Valve Bo 90C 93C 93W 93CT 93WT 90AW 93AW	dy Clamp 2-Way Weld 2-Way Clamp 3-Way Weld 3-Way L Port Clamp 3-Way T port Weld 3-Way T Port Orbital Weld 2-Way Orbital Weld 3-way									
Size .5 .75 1.0 Finish	1.5 3.0 2.0 4.0 2.5						I		l	
C D	Standard 20 Ra ID 15 Ra EP ID									
Actuator *Standard	I sizing for 80 PSI air supply and 1.2 safety fac	ctor is lis	sted on	page	s 30)&31				
Action S D E P Q	Spring Return Double Acting Fully Electric Stainless Steel Spring Return Stainless Steel Double Acting									
Fail Posi O C 1 2 3 4 R1 R2 R3 R4	tion / Flow Pattern 2-Way Fail Open 2-Way Fail Closed (Standard) 3-Way Configuration 1 (Standard) 3-Way Configuration 2 3-Way Configuration 3 3-Way Configuration 4 Reverse-Acting 3-Way Configuration 1 Reverse-Acting 3-Way Configuration 2 Reverse-Acting 3-Way Configuration 3 Reverse-Acting 3-Way Configuration 4									
Accesso X A B	r y 1 (Solenoid) Ommitted 120VAC Nema 4 24VDC Nema 4									
X A	ry 2 (Limit Switch) Ommitted 2SPDT Mech. Limit Switches / Dome Ind. Ne uss our full line of automated valve accessorie									

Call to discuss our full line of automated valve accessories.

*Conditions such as pressure, temperature, type of media, amount and kind of suspended material in the media, and frequency of operation all affect proper actuator sizing.

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