

## 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.

VNE offers many options on automated ball valves.



### BALL VALVES SPECIFICATIONS....

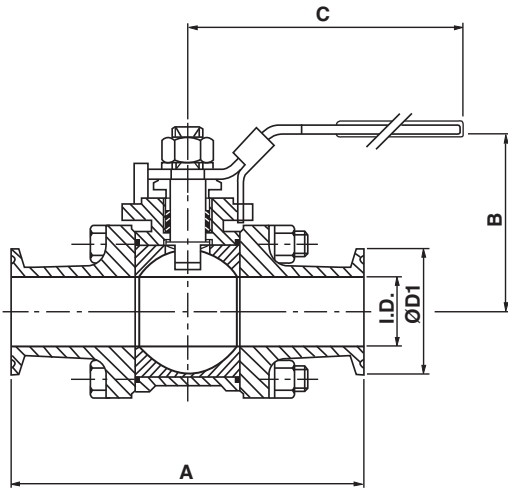
<b>Size:</b>	1/2" through 4" sizes available
<b>Materials:</b>	Passivated 316 Stainless Steel (ASTM A351, CF8M)
<b>Finish:</b>	20 Ra $\mu$ -in. ID
<b>Connections:</b>	Clamp, Buttweld, Orbital Weld, other connections available upon request
<b>Seat / Seals:</b>	Dyneon TF 1641 PTFE Cavity filler, fully encapsulated
<b>Pressure:</b>	1/2" - 1" 1,000psi 1 1/2" - 2" 1,000psi 2 1/2" - 4" 600 psi
<b>Temperature Rating:</b>	-65° to 320° F

### ORDERING SPECIFICATIONS....

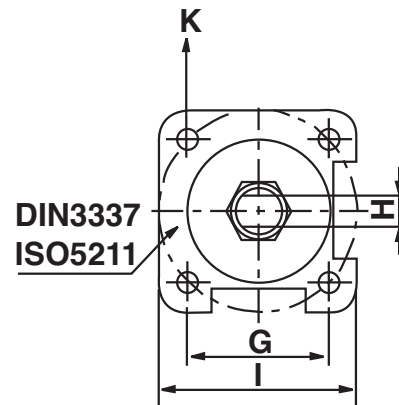
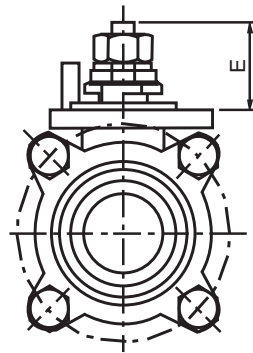
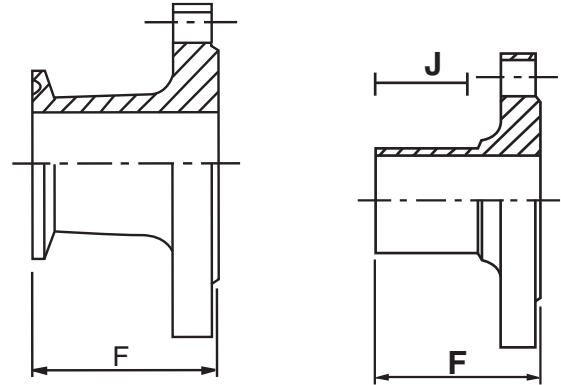
<b>Specify:</b>	<ul style="list-style-type: none"> <li>• Quantity</li> <li>• Product Description or Part number</li> <li>• Size</li> </ul>
<b>Important Features:</b>	<ul style="list-style-type: none"> <li>3-piece design</li> <li>Maintenance and servicing is made easy with removal of a minimal number of bolts</li> <li>Locking device handle</li> <li>ISO-5211 pad - Air Actuated mounting kits available</li> <li>Conform to 3A sanitary standards for Ball-Type valves. Standard number 68-00. Certificate authorization number 3511. Seat and seals are FDA approved.</li> <li>Valves marked with heat numbers for full identification and traceability. MTR'S are available upon request</li> </ul>

## CLAMP AND WELD VALVES

PART NUMBER EG90CC-6-SIZE = Clamp E90AWF-6-SIZE = Orbital Weld  
E90WW-6-SIZE = Weld



Clamp & Weld



## CLAMP & WELD DIMENSIONS

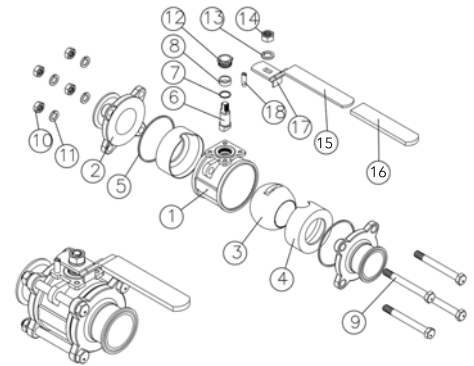
SIZE INCH	ISO-5211	A	B	C	I.D	OD	OD1	E	F	G	H	I	J	K
1/2	F03	4.646	2.362	5.197	0.370	0.500	0.984	0.709	1.291	1.000	0.196	1.456	0.750	10-24
3/4	F03	5.000	2.559	5.197	0.620	0.750	0.984	0.728	1.437	1.000	0.196	1.456	0.750	10-24
1	F04	6.000	2.717	6.496	0.870	1.000	1.984	0.886	1.575	1.770	0.256	1.653	0.875	10-24
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.

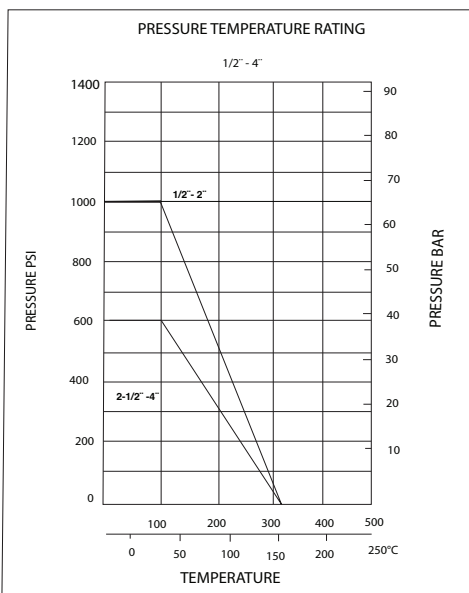
\*\* 4" size valves will have 6 bolts, 6 hex nuts, and 6 washers

### 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

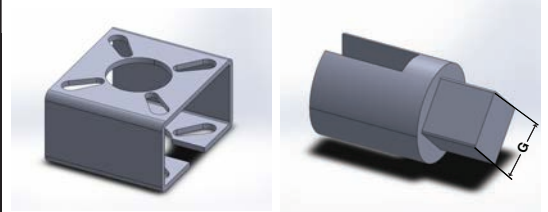


## ACTUATION MOUNTING ACCESSORIES

### 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 Dimension	
			mm	inches
BALLACTMOUNTKIT- .5/.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

