



# MODEL 5-8 THREE-WAY DIRECT MOUNT COMPACT BALL VALVE





# APEX

## ■ Ball Valve Features

### 1. DIRECT ISO5211 MOUNTING PAD

Apex's mounting pad is designed for direct mounting of actuators that meet ISO5211 specification. The square stem is set perpendicular to the machined mounting pad to ensure proper alignment of mounted actuator. Alternatively, a manual locking handle can be installed for manual operation.

### 2. ACTIVE STEM SEALING MECHANISM

Apex incorporates a set of Belleville Washer to ensure tight sealing at all times. Whether it is temperature fluctuation or wear down due to friction, the spring-loaded washers dynamically tighten the seal.

### 3. BUBBLE TIGHT SEATING MECHANISM

Our three-way ball valve has four seats to ensure that ball to seat sealing is bubble tight at all flow configurations.

### 4. PORT AND BALL ALIGNMENT PIN INSERT

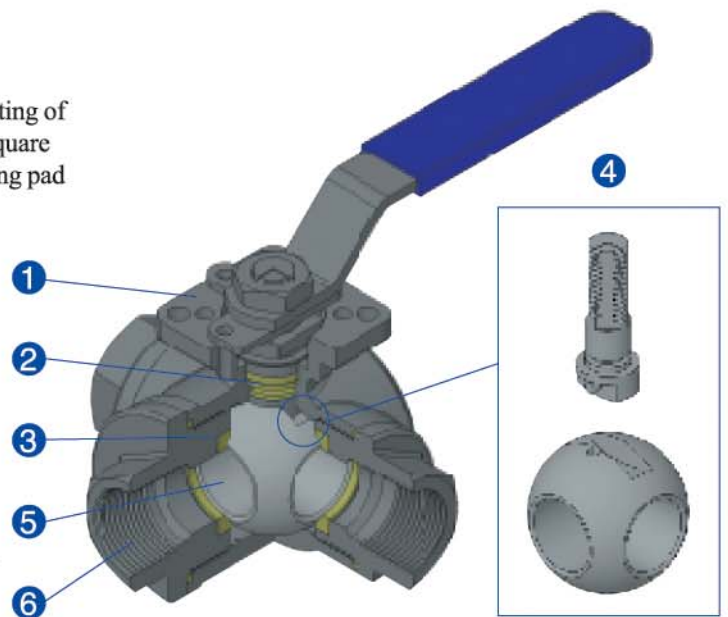
Apex built a pin insert into the stem making a floating ball design to have limited rolling effect. Rolling of the ball may cause the open port to misalign with the ball port. Our design maintains the flexibility of floating ball while limiting the rolling effect to a minimum.

### 5. FLEXIBILITY WITH WIDE RANGE OF FLOW CONFIGURATION

Our L-port and T-Port ball may be set for various configurations. Handle can be set at every 90 degrees to maximize flow pattern and the handle direction.

### 6. CHOICE OF FULL OR REDUCED PORT

With threaded end connection type, customer may choose between full port for maximum flow or reduced port for cost saving.



## ■ Options



**Model 5-8R:**  
Reduced Port Version  
1/4" ~ 2"

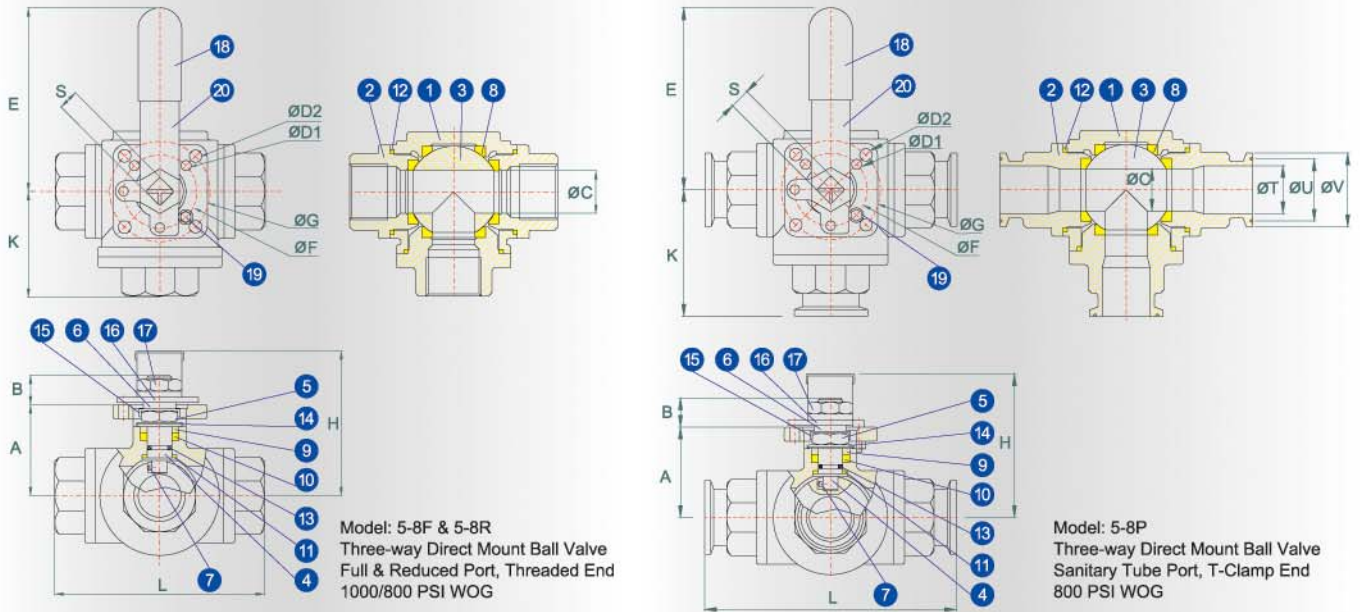


**Model 5-8F:**  
Full Port Version  
1/2" ~ 2"



**Model 5-8P:**  
T-Clamp Version  
1/2" ~ 2"

## Ball Valve Materials and Dimensions



### Materials List

NO.	PART NAME	MATERIAL	Q'TY
1	Body	ASTM A351 Gr. CF8M	1
2	End Cap	ASTM A351 Gr. CF8M	3
3	Ball	SUS316	1
4	Stem	SUS316	1
5	Stem Nut	SUS 304	1
6	Spacer	SUS 304	1
7	Pin Insert	SUS 316	1
8	Seat	PTFE *	4
9	Gland	SUS 304	1
10	Stem Packing	PTFE	1
11	Thrust Washer	RPTFE	1
12	Joint Gasket	PTFE	3
13	O-Ring	Viton	1
14	Belleville Washer	SUS 301	2
15	Lock Saddle	SUS 304	1
16	Locking Plate	SUS 304	1
17	Handle Nut	SUS 304	1
18	Handle Sleeve	Vinyl	1
19	Stop Pin	SUS 304	1
20	Handle	SUS 304	1

\* Other options available

### Dimensions (mm)

Model : 5-8F

SIZE	ØC	ØD1	ØD2	ØF	ØG	A	B	E	H	K	L	S
¼"	11	6.0	6.0	36	42	38	11	130	62	36	72	9
⅜"	12	6.0	6.0	36	42	39	11	130	62	36	72	9
½"	15	6.0	6.0	36	42	42	11	130	64	42	83	9
¾"	20	6.0	7.1	42	50	49	14	165	82	50	99	11
1"	25	6.0	7.1	42	50	55	14	165	89	56	112	11
1¼"	32	7.1	9.2	50	70	63	18	205	98	63	125	14
1½"	38	7.1	9.2	50	70	74	18	205	108	75	149	14
2"	50	9.2	11.4	70	102	93	22	325	140	87	174	17

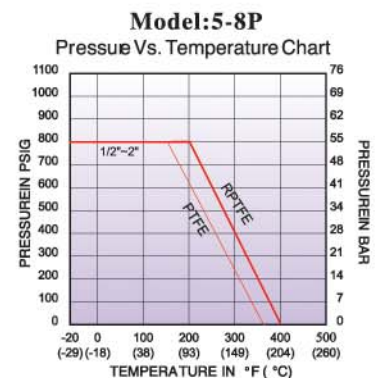
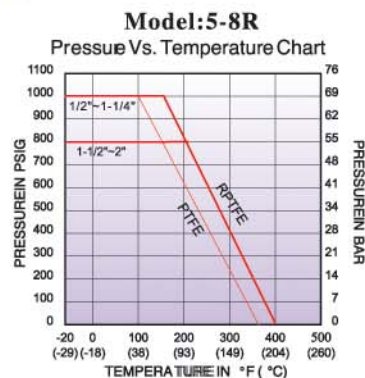
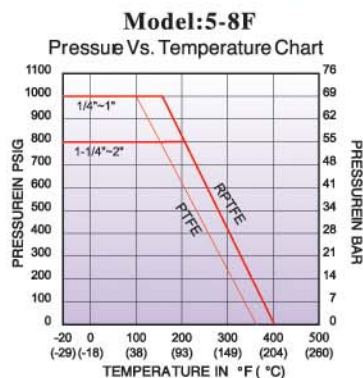
Model : 5-8R

SIZE	ØC	ØD1	ØD2	ØF	ØG	A	B	E	H	K	L	S
¼"	12	6.0	6.0	36	42	39	11	130	62	36	72	9
⅜"	15	6.0	6.0	36	42	42	11	130	64	42	83	9
1"	20	6.0	7.1	42	50	49	14	165	82	50	99	11
1¼"	25	6.0	7.1	42	50	55	14	165	89	56	112	11
1½"	32	7.1	9.2	50	70	63	18	205	98	63	125	14
2"	38	7.1	9.2	50	70	74	18	205	108	75	149	14

Model : 5-8P

SIZE	ØC	ØD1	ØD2	ØF	ØG	A	B	E	H	K	L	S	ØT	ØU	ØV
¼"	12	6.0	6.0	36	42	38	11	130	62	67	133	9	9.6	21.7	25.0
⅜"	12	6.0	6.0	36	42	38	11	130	62	71	142	9	15.8	21.7	25.0
1"	20	6.0	7.1	42	50	49	14	165	82	80	160	11	22.1	43.5	50.4
1½"	32	7.1	9.2	50	70	63	18	205	98	91	182	14	34.8	43.5	50.4
2"	38	7.1	9.2	50	70	74	18	205	108	108	216	14	47.5	56.5	63.9

## Pressure And Temperature Rating



## Actuated Ball Valve Dimensions

Dimensions for Valve with Double Acting Actuator (mm)

SIZE		Actuator Type	B	D	E	F	J	Q
5-8F	5-8R & 5-8P							
1/4"	N/A	PW	123	109	37.5	68.5	20	8
3/8"	1/2"	PW	124	109	37.5	68.5	20	8
1/2"	3/4"	PW	127	109	37.5	68.5	20	8
3/4"	1"	P00	159	125	44	80	30	10
1"	1 1/4"	P05	177	146	53	98	30	10
1 1/4"	1 1/2"	P10	190	182	55	102	30	10
1 1/2"	2"	P15	222	203	60	115	30	10
2"	N/A	P15	241	203	60	115	30	10

## Torque Values

Model : 5-8F

Model : 5-8R & 5-8P

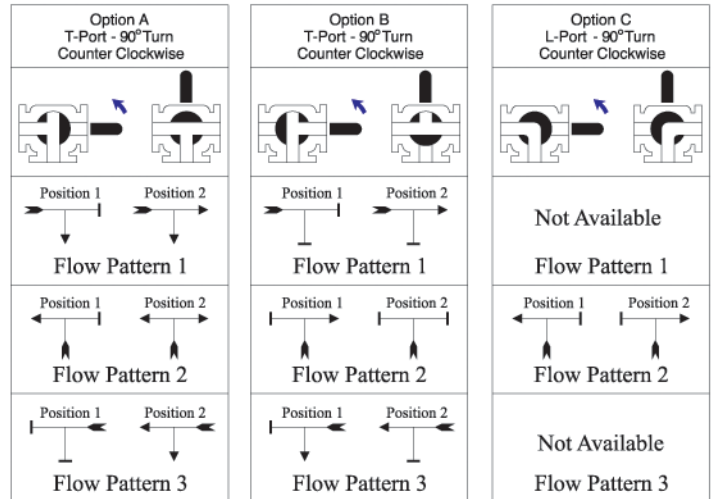
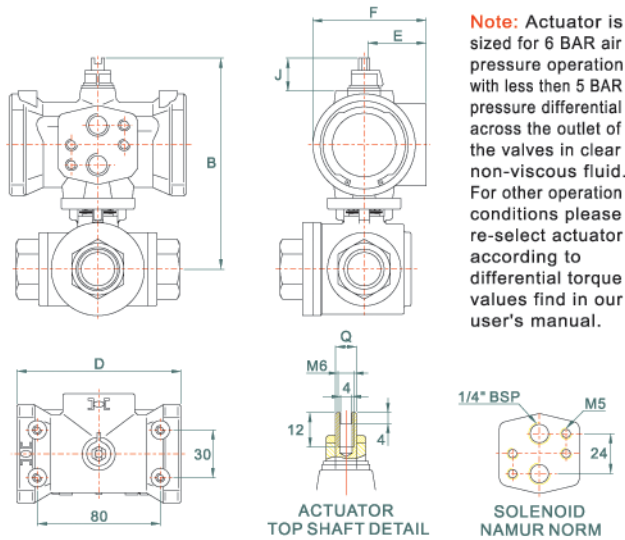
SIZE	IN-LB	NM
1/4"	84	9.5
3/8"	84	9.5
1/2"	103	11.6
3/4"	145	16.4
1"	276	31.2
1 1/4"	447	50.5
1 1/2"	546	61.7
2"	678	76.6

SIZE	IN-LB	NM
1/2"	84	9.5
3/4"	103	11.6
1"	145	16.4
1 1/4"	276	31.2
1 1/2"	447	50.5
2"	546	61.7

Note: Torque Value listed is for ball valve at differential pressure of 75PSI (5 Bars) with clear liquid. 20% safety factor has been added to the value

## Flow Configurations

As a standard our ball valves are shipped with Option A for T-Port configuration and Option C for L-Port configuration if customer does not explicitly specify particular option in the purchase order



← Up Stream (Flow Origin)      | No Flow  
 ← Down Stream (Flow End)      | Flow Path

## Ordering Information

Item	Selection	Code
Valve Type:	Model 5-8 Three-Piece Ball Valve	N58
Orifice/End Cap Type:	Full Port Threaded End	F
	Reduced Port Threaded End	R
	Tube Point T-Clamp End	P
Ball Port:	L-Port	L
	T-Port	T
Body Material:	316 Stainless Steel (ASTM A351 Gr. CF8M or DIN1.4408)	6
	316L Stainless Steel (ASTM A351 Gr. CF3M or DIN1.4409)	L
End Cap Material:	316 Stainless Steel (ASTM A351 Gr. CF8M or DIN1.4408)	6
	316L Stainless Steel (ASTM A351 Gr. CF3M or DIN1.4409)	L
Seat Material:	PTFE	P
	RPTFE	R
Size:	1/4"(DN8)=01, 3/8"(DN10)=02, 1/2"(DN15)=03, 3/4"(DN20)=04, 1"(DN25)=05, 1 1/4"(DN32)=06, 1 1/2"(DN40)=07, 2"(DN50)=08	

## Ordering Example

Type	Orifice/Cap Type	Ball Port	Body	Cap	Seat	Size
N58 (Three-Piece)	F (Full Port Threaded End)	L (L-Port)	6 (SS316)	6 (SS316)	P (PTFE)	08 (2")