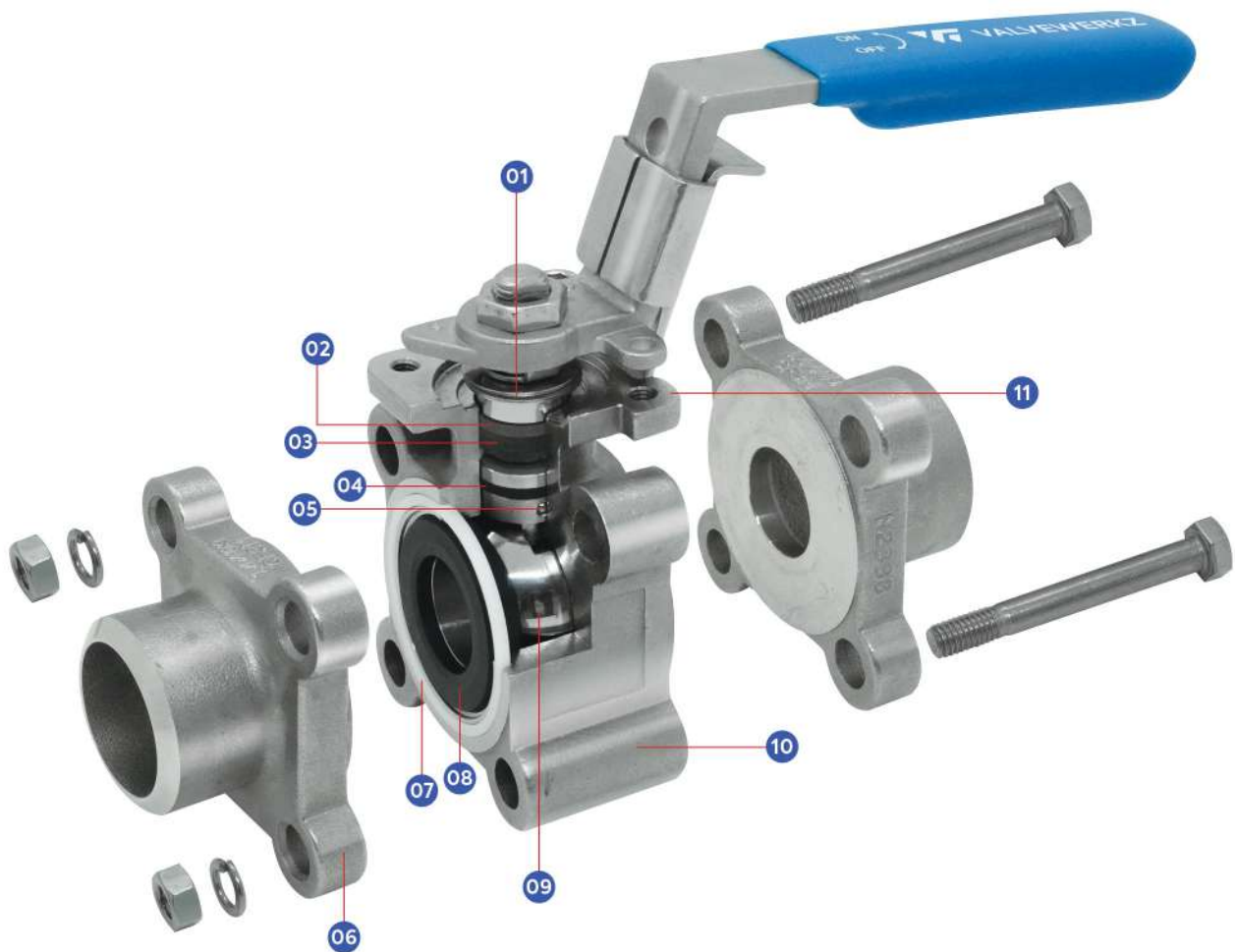
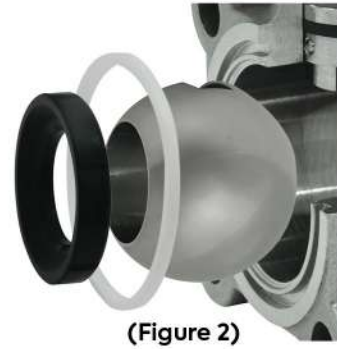
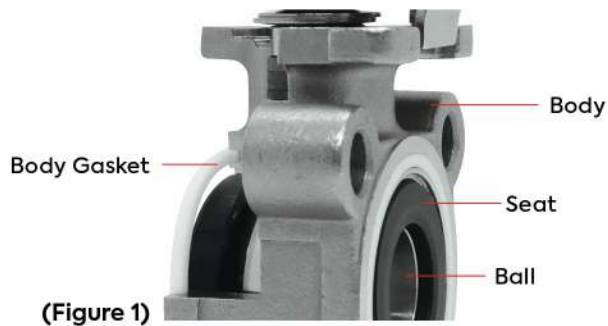


80 SERIES - HIGH PERFORMANCE

The ball valve consists of a body, end caps, and a ball. The ball is connected to the stem and rotates 90 degrees to enable on-off functionality. It is primarily used for pipeline on-off control and emergency shut-off applications. When equipped with a V-port ball, it can also be used for precise flow adjustment.



Part Name	Part Name
1. Belleville Washer	7. Body Gasket
2. Bushing	8. Seat
3. V-Ring Packing	9. Ball
4. Upper and Lower Stem Seal	10. Body
5. Dual Anti-Static Device	11. ISO 5211 Mounting Pad
6. End Cap	



1. Low Operating Torque

The seat provides elastic cushioning during ball rotation, ensuring smooth, uniform torque without jamming. (Figure 1)

2. Reliable Sealing

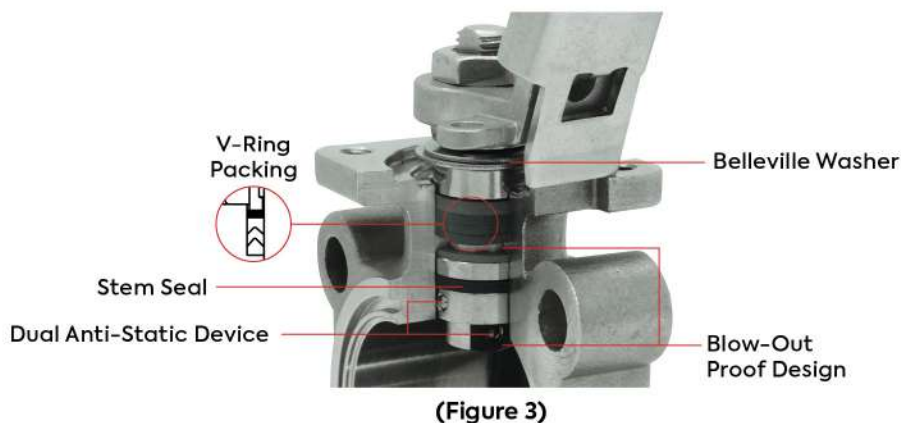
Once the valve is closed, the seat maintains a tight seal through self-sealing under media pressure. (Figure 2)

3. Extended Service Life

The elastic seat features a long pre-compression stroke, offering high wear compensation for longer durability.

4. Cold Flow Control Design

The seat's trimming and wrapping structure supports non-contact areas of the ball and seat. This design prevents cold flow deformation and enables high-pressure performance. (Figure 1)



5. Blow-Out Prevention

The stem includes an integral shoulder design to prevent blow-out and leakage. (Figure 3)

6. Anti-Static Protection

The anti-static design reduces the risk of safety hazards caused by static electricity. (Figure 3)

7. Effective Stem Sealing

An O-Ring on the valve stem offers excellent self-sealing capability, effectively sealing the valve cavity. (Figure 3)

8. Dual Stem Sealing

Designed to meet TA-LUFT emission control standards for enhanced sealing reliability. (Figure 3)

9. Self-Adjusting Packing

Two pre-loaded Belleville washers allow for automatic packing adjustment, minimising the need for re-tightening in low-leakage applications. (Figure 3)

10. Precision Engineering

ValveWerkz's valve designs integrate advanced CNC machining, structural optimisation, and precise component sizing — all tailored to meet strict cobarny specifications. This ensures high usability and maximised service life.



80 Series

3-Piece Body Design

Reduced Bore / Full Bore

Sizes ½" - 10"

½" - 1 ¼" PN100

1 ½" - 2 ½" PN64

3" - 4" PN50

5" - 10" PN16

WCB / SS316 body

Threaded End (½" - 4")

Socket Weld End (½" - 4")

Butt Weld End (½" - 10")

Superior Live Loaded Packing System

ISO 5211 Mounting Pad (Bracket Required)

Blowout-Proof Stem

Dual Anti-Static Devices

Standard Seat:

25% Carbon Filled PTFE - max. 250°C

Seat Options:

RPTFE - max. 230°C

50% SS Filled PTFE - max. 280°C

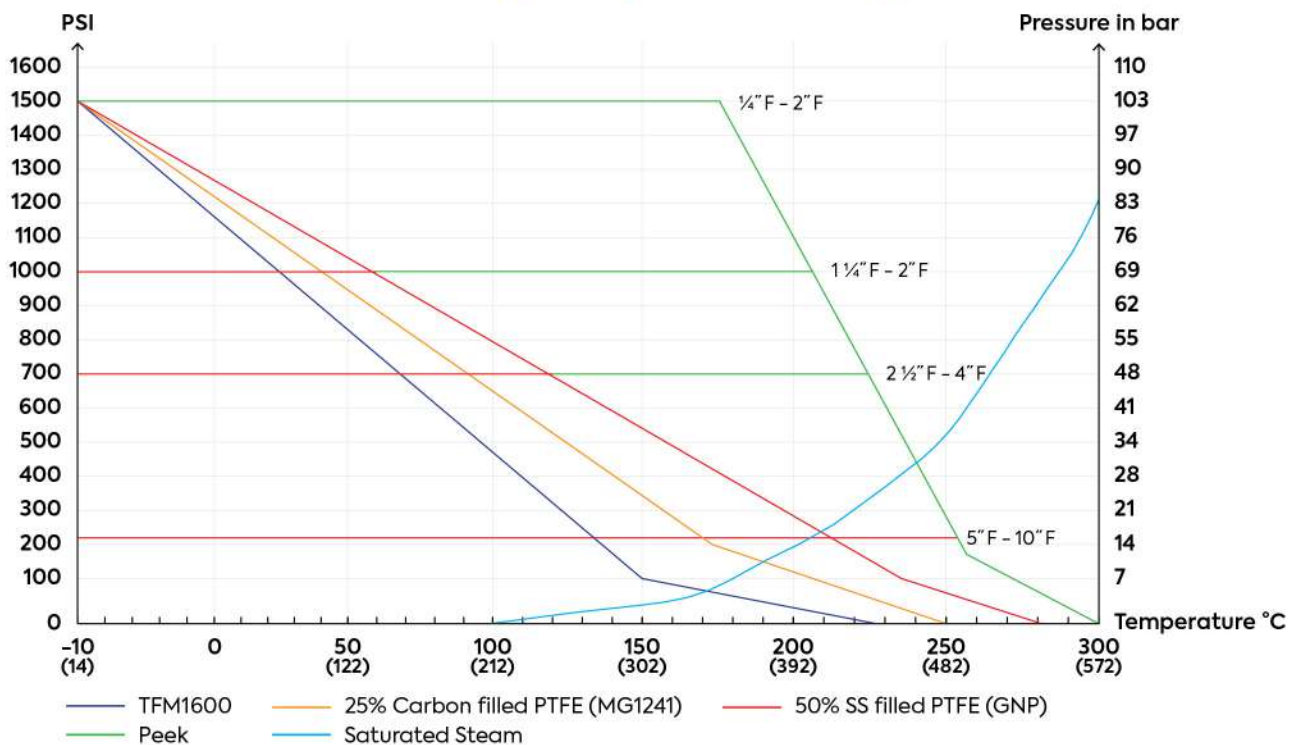
PEEK - max. 300°C

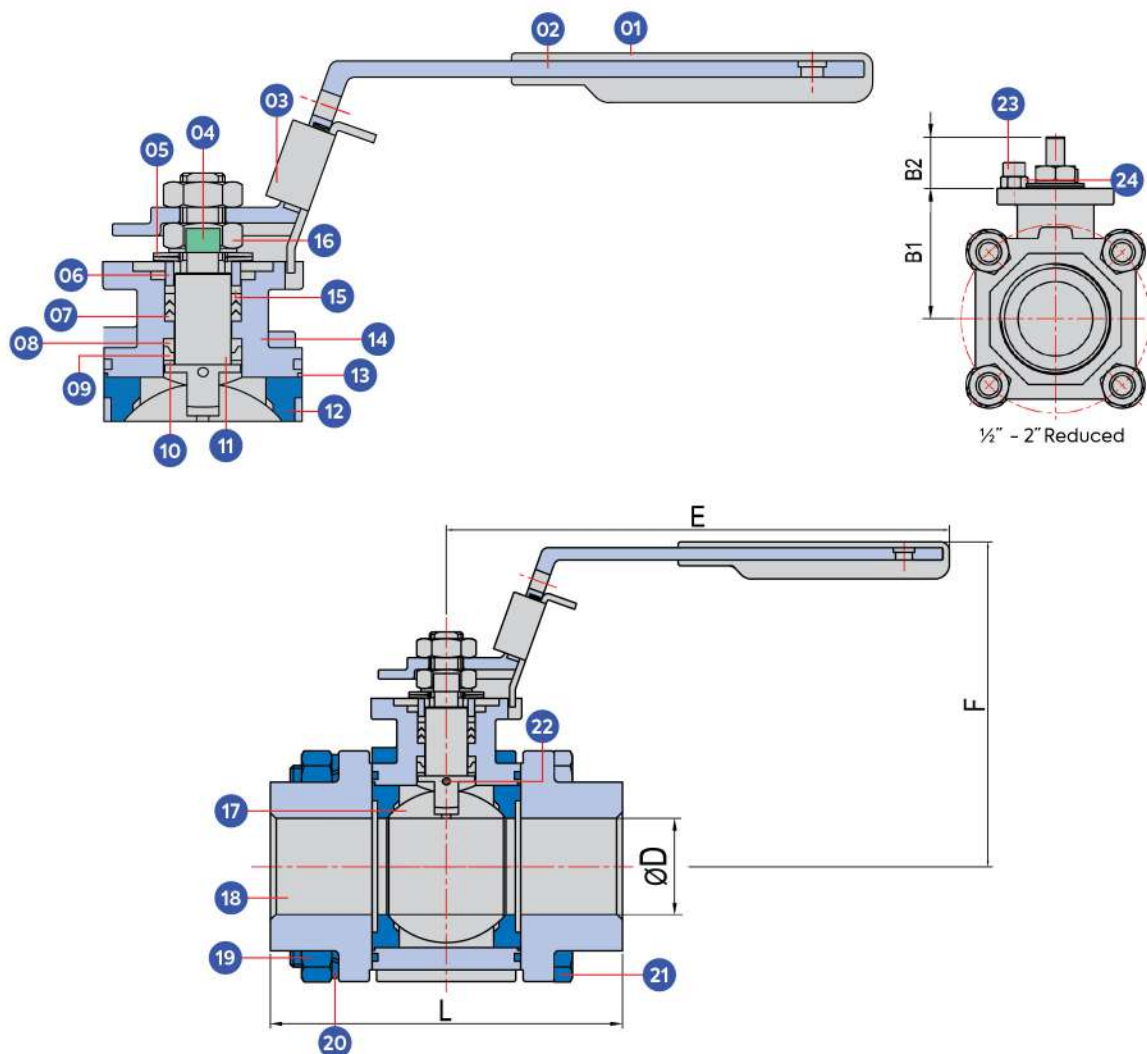
Lockable Handle (½" - 4")

Gearbox (5" - 10")

ValveWerkz 80 series 3-piece ball valve are one of the finest quality 3-piece valves in the market. The high quality investment casting feature a fully machined bore. The superior live-loaded packing system is accomplished with Belleville washers, "V" ring packing and a unique primary pyramidal stem seal. This advanced sealing system provides protection against stem leaks experienced by ordinary ball valve.

Pressure / Temperature Ratings

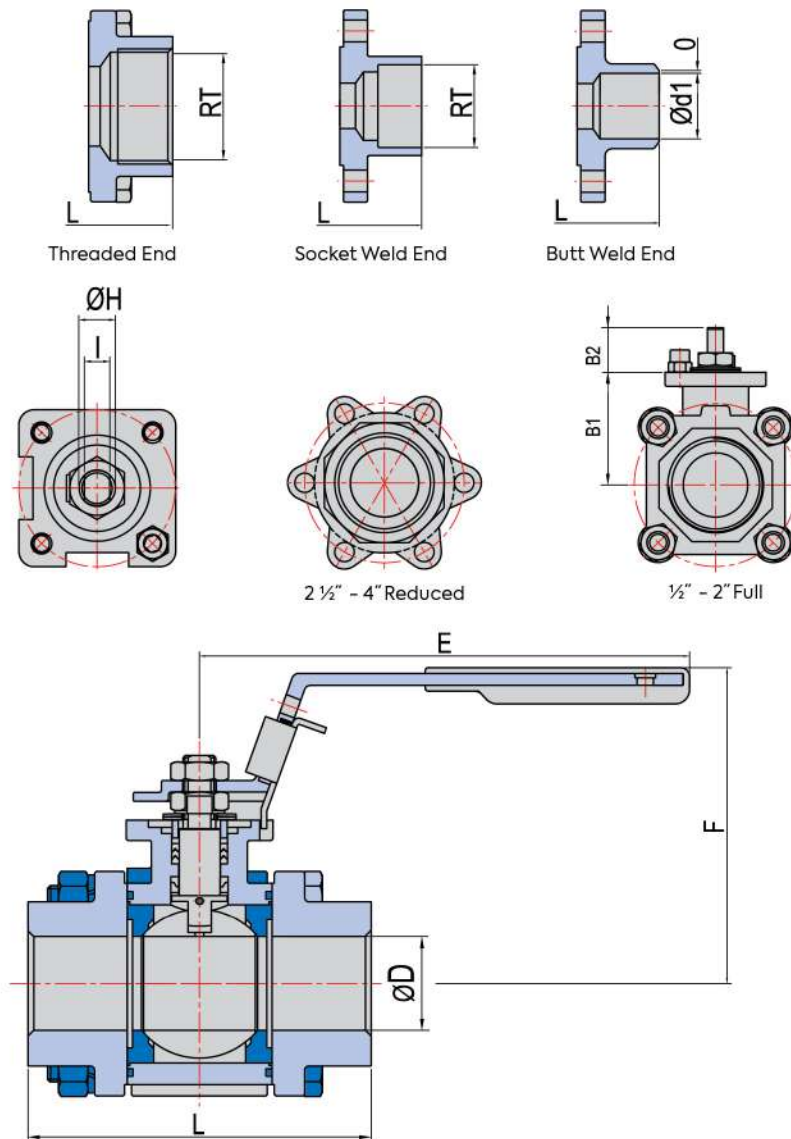




Part Name	Material
1. Handle Sleeve	VINYL
2. Handle	SUS304
3. Locking Device	SUS304
4. Lock Saddle	SUS304
5. Belleville Washer	SUS304
6. Gland	SUS304
7. V-Ring Packing*	MG1241
8. Upper Stem Seal*	TFM4215
9. Compress Ring*	SUS316
10. Lower Stem Seal*	50% S.S. Powder Filled PTFE
11. Stem	SUS316
12. Seat*	RPTFE / 50% SS Filled PTFE / 25% Carbon Filled PTFE / PEEK

Part Name	Material
13. Packing*	PTFE
14. Body	SUS316 / WCB
15. Bushing	50% S.S. Powder Filled PTFE
16. Stem Nut	SUS304
17. Ball	SUS316
18. End Cap	SUS316 / WCB
19. Bolt Nut	SUS304
20. Washer	SUS304
21. Bolt	SUS304
22. Anti-Static Device	Stainless Steel
23. Stop Pin	SUS304
24. Stop Pin Nut	SUS304

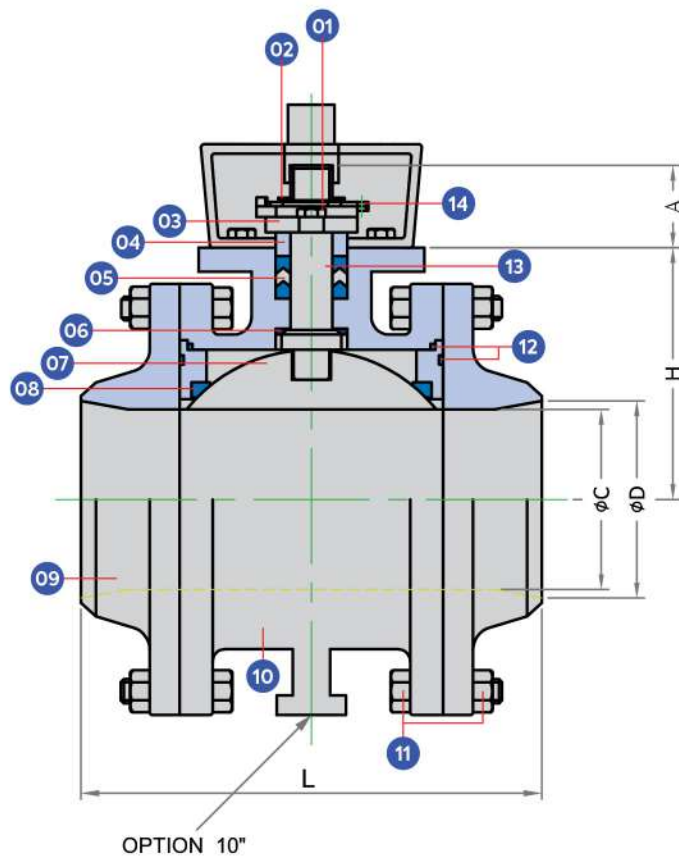
*Spare Parts available in Repair Kit. Please refer to page 59 for more details.



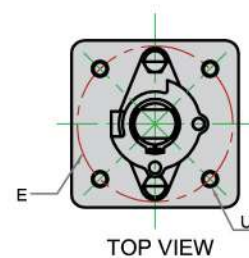
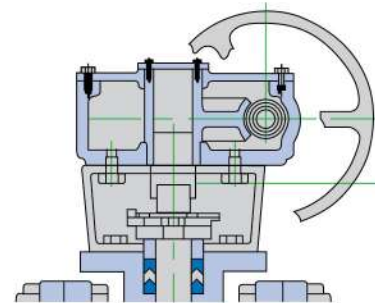
Dimensions(mm)

DN(mm)	Size	DN(mm)	Size	B1	B2	ØD	ØD1	E	F	ØH	I	L	O	RT	ISO5211	RB	FB	Weight(kg)
Full Bore		Reduced Bore																
8	¼"	-	-	27.7	12.7	12.7	9.5	120.0	66.0	8.0	5.0	66.8	0.5	14.1	F03	-	7.0	0.5
10	⅜"	15	½"	27.7	12.7	12.7	15.8	120.0	66.0	8.0	5.0	66.8	0.5	17.5	F03	10.0	8.0	0.6
15	½"	20	¾"	38.1	15.0	15.0	21.0	134.0	84.0	9.7	6.3	71.0	0.5	22.4	F04	19.0	25.0	0.9
20	¾"	25	1"	41.8	20.0	20.0	26.6	134.0	88.0	9.7	6.3	96.5	0.5	27.4	F04	42.0	50.0	1.4
25	1"	32	1 ¼"	51.6	21.4	25.4	35.1	167.0	98.0	11.2	8.0	109.0	0.5	34.2	F05	60.0	80.0	2.1
32	1 ¼"	40	1 ½"	55.9	21.7	32.0	41.2	167.0	101.0	11.2	8.0	117.0	0.5	43.0	F05	125.0	150.0	2.8
40	1 ½"	50	2"	66.2	25.6	28.0	53.0	204.0	117.0	16.0	9.5	128.3	1.0	49.0	F07	165.0	240.0	4.1
50	2"	65	2 ½"	75.4	25.2	50.8	68.4	204.0	125.0	16.0	9.5	141.5	1.0	61.1	F07	260.0	460.0	5.9
65	2 ½"	80	3"	89.4	42.7	65.0	77.8	250.0	165.0	22.3	17.0	174.0	1.6	77.1	F10	440.0	820.0	10.2
80	3"	100	4"	101.2	39.4	76.0	102.5	250.0	174.0	22.3	17.0	193.0	1.6	90.2	F10	780.0	1,250.0	15.8
100	4"	-	-	131.5	21.5	100.0	102.3	250.0	-	SQ22	17.0	240.0	1.6	115.5	F10	-	2,300.0	22.5

The information provided in this document is intended for informational purposes only and is subject to change without notice.



DN125 - DN250

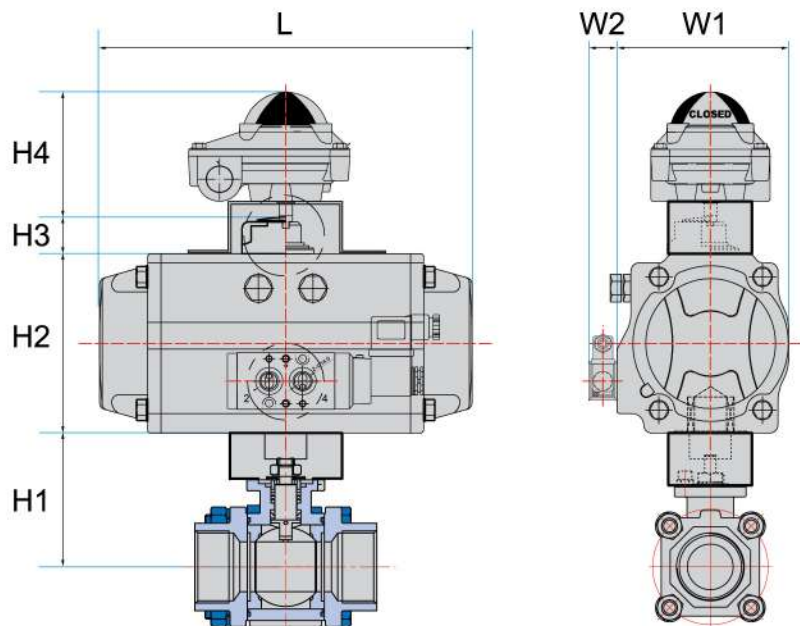


Part Name	Material
1. Snap Ring	SS304
2. Gland Bolt	SS304
3. Gland	A351 GR.CF8
4. Gland Bush	SS304
5. Packing	PTFE
6. Stem Seal	25% Carbon Filled PTFE
7. Ball	SS316/ SS304

Part Name	Material
8. Ball Seat	RPTFE / 50% SS Filled PTFE / 25% Carbon Filled PTFE / PEEK
9. Body	SS316/ WCB
10. Butt Weld End Cap	SS316/ WCB
11. Bolt & Nut	B8/8 / B7/2h
12. Gasket	PTFE
13. S2 Stem	SS316
14. Stop Plate	SS304

Dimensions(mm)

DN(mm) Size		DN(mm) Size		ØD		ØC		L		H	A	E	U	L		Weight(kg)	
FB	RB	FB	RB	FB	RB	FB	RB	FB	RB					FB	RB	FB	RB
-	-	125	5"	-	125.0	-	100.0	-	289.0	134.0	45.0	102.0	0.5	-	1,700	-	56.0
125	5"	150	6"	-	150.0	100.0	125.0	303.6	303.6	140.0	63.0	102.0	0.5	1,700	2,705	68.0	104.0
150	6"	200	8"	-	200.0	125.0	150.0	344.0	344.0	172.5	69.0	125.0	0.5	2,705	4,600	125.0	153.0
200	8"	250	10"	-	247.6	150.0	200.0	372.0	372.0	224.0	86.0	125.0	0.5	4,600	9,900	184.0	263.0
250	10"	-	-	-	-	200.0	-	520.0	-	267.0	86.0	125.0	0.5	9,900	-	316.0	-



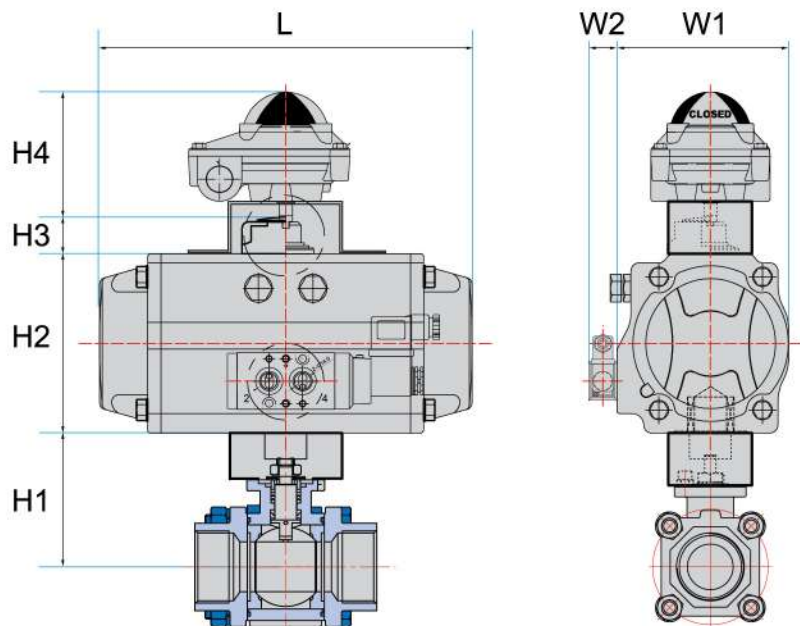
Pneumatic Actuator (Double Acting)

DN(mm)	Size	DN(mm)	Size	Torques	Actuator	H1	H2	H3	H4	W1	W2	L	Weight(kg)
FB		RB											
8	¼"	8	¼"	5.3	HP-50	66.7	73	20	90	72	29.5	144	3.01
10	⅜"	10	⅜"	5.3	HP-50	66.7	73	20	90	72	29.5	144	3.15
15	½"	15	½"	5.3	HP-50	77.1	73	20	90	72	29.5	144	3.38
20	¾"	20	¾"	7.8	HP-50	80.8	73	20	90	72	29.5	144	3.92
25	1"	25	1"	10.1	HP-50	91.6	73	20	90	72	29.5	144	4.56
32	1 ¼"	32	1 ¼"	13.1	HP-63	95.9	87	20	90	85	29.5	163	5.32
40	1 ½"	40	1 ½"	20.9	HP-66	106.2	87	20	90	85	29.5	202	7.19
50	2"	50	2"	29.7	HP-66	115.4	104	20	90	96	29.5	210	9.74
65	2 ½"	65	2 ½"	64.4	HP-88	157.4	116	20	90	108	29.5	247	14.61
80	3"	80	3"	84.5	HP-100	169.2	128	20	90	123	29.5	268	24.16
100	4"	100	4"	110.0	HP-115	199.5	146	20	90	141	29.5	316	30.86
125	5"	125	5"	375.0	HP-160	179.0	179	30	90	172	29.5	414	89.10
150	6"	150	6"	405.0	HP-160	203.0	196	30	90	190	29.5	467	146.10
200	8"	200	8"	510.0	HP-180	241.5	221	30	90	206	29.5	497	213.00
250	10"	250	10"	1,320.0	HP-211	290.0	256	30	90	236	29.5	504	369.00

The selection of the actuators are based on the below conditions:

- Air Supply Pressure : 5.5 bar
- Operating Pressure : 10 bar
- Safety Factor : 30%

*Compatible with various actuator types.



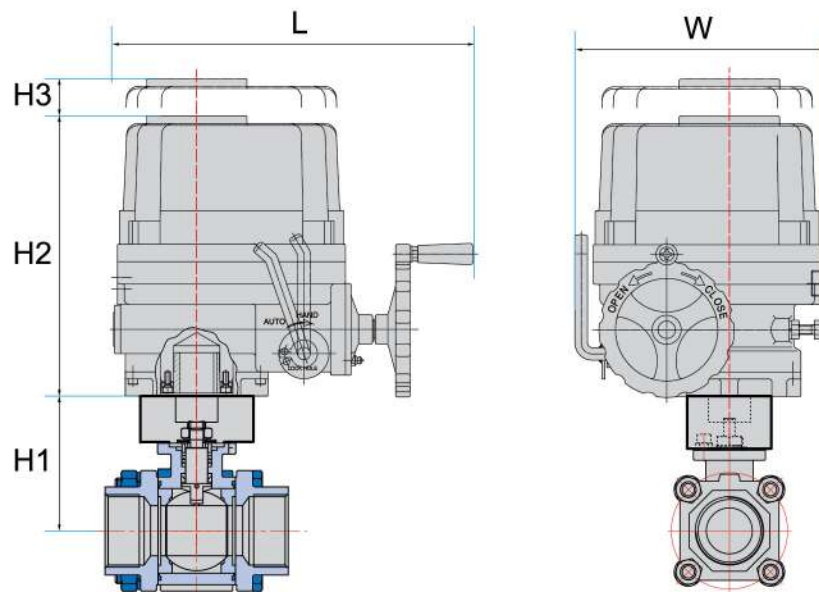
Pneumatic Actuator (Single Acting)

DN(mm)	Size	DN(mm)	Size	Torques	Actuator	H1	H2	H3	H4	W1	W2	L	Weight(kg)
FB		RB											
8	¼"	-	-	5.3	HP-63S (S11)	66.7	87	20	90	85	29.5	163	3.72
10	⅜"	15	½"	5.3	HP-63S (S11)	66.7	87	20	90	85	29.5	163	3.86
15	½"	20	¾"	5.3	HP-63S (S11)	77.1	87	20	90	85	29.5	163	4.09
20	¾"	25	1"	7.8	HP-66S (S11)	80.8	87	20	90	85	29.5	202	4.63
25	1"	32	1 ¼"	10.1	HP-75S (S11)	91.6	87	20	90	85	29.5	202	6.03
32	1 ¼"	40	1 ½"	13.1	HP-75S (S11)	95.9	104	20	90	96	29.5	210	6.79
40	1 ½"	50	2"	20.9	HP-88S (S11)	106.2	116	20	90	108	29.5	247	8.87
50	2"	65	2 ½"	29.7	HP-100S (S11)	115.4	128	20	90	123	29.5	268	12.26
65	2 ½"	80	3"	64.4	HP-125S (S11)	157.4	159	20	90	151	29.5	347	18.47
80	3"	100	4"	84.5	HP-145 (S11)	169.2	179	20	90	172	29.5	414	31.28
100	4"	125	5"	110.0	HP-145 (S11)	199.5	179	30	90	172	29.5	414	41.18
125	5"	150	6"	375.0	HP-200 (S11)	179.0	247	30	90	227	29.5	555	114.10
150	6"	200	8"	405.0	HP-211 (S11)	203.0	256	30	90	236	29.5	669	192.10
200	8"	250	10"	510.0	HP-212 (S11)	241.5	256	30	90	236	29.5	1,022	290.20
250	10"	-	-	1,320.0	-	290.0	-	-	-	-	-	-	-

The selection of the actuators are based on the below conditions:

- Air Supply Pressure : 5.5 bar
- Operating Pressure : 10 bar
- Safety Factor : 30%
- Air to Open, Spring to Close

*Compatible with various actuator types.



Electric Actuator

DN(mm)	Size	DN(mm)	Size	Torques	Actuator	H1	H2	H3	W	L	Weight(kg)
FB		RB									
8	¼"	-	-	5.3	HQ-004	66.7	124.3	-	88.6	166.6	3.05
10	⅜"	15	½"	5.3	HQ-004	66.7	124.3	-	88.6	166.6	3.19
15	½"	20	¾"	5.3	HQ-004	77.1	124.3	-	88.6	166.6	3.42
20	¾"	25	1"	7.8	HQ-004	80.8	124.3	-	88.6	166.6	3.96
25	1"	32	1 ¼"	10.1	HQ-004	91.6	124.3	-	88.6	166.6	4.60
32	1 ¼"	40	1 ½"	13.1	HQ-004	95.9	124.3	-	88.6	166.6	5.36
40	1 ½"	50	2"	20.9	HQ-006	106.2	137.0	-	88.6	126.0	6.71
50	2"	65	2 ½"	29.7	HQ-006	115.4	235.0	-	105.0	126.0	10.34
65	2 ½"	80	3"	64.4	HQ-015	157.4	235.0	-	105.0	338.0	14.61
80	3"	100	4"	84.5	HQ-020	169.2	268.0	160	229.0	338.0	34.76
100	4"	-	-	110.0	HQ-020	199.5	268.0	160	229.0	338.0	41.46

The selection of the actuators are based on the below conditions:

- Air Supply Pressure : 5.5 bar
- Operating Pressure : 10 bar
- Safety Factor : 30%

*Compatible with various actuator types.

REQUEST FOR QUOTE

**STEP 1**

Find the model series

**STEP 2**

Define the specification/
valve code

**STEP 3**

Fill up ordering sheet (back of the brochure) or Scan the QR code below

**STEP 4**

Submit your order via our website or contact your local partner

**STEP 5**

Prepare for confirmation and delivery

*For further assistance with placing your order, please contact your local partner.
A sales engineer will be assigned to assist you.

Valve Coding Sheet 80 Series

01	—	02	—	03	—	04	—	05	—	06																																																																																						
Design <table><tr><td>Code</td><td>Material</td></tr><tr><td>F</td><td>Full Bore</td></tr><tr><td>R</td><td>Reduced Bore</td></tr></table>	Code	Material	F	Full Bore	R	Reduced Bore		Body Material <table><tr><td>Code</td><td>Material</td></tr><tr><td>C1</td><td>WCB</td></tr><tr><td>S2</td><td>SS316</td></tr></table>	Code	Material	C1	WCB	S2	SS316		Seat Material <table><tr><td>Code</td><td>Material</td></tr><tr><td>T</td><td>PTFE</td></tr><tr><td>M</td><td>25% Carbon Filled PTFE</td></tr><tr><td>G</td><td>50% SS Filled PTFE</td></tr><tr><td>P</td><td>Peek</td></tr></table>	Code	Material	T	PTFE	M	25% Carbon Filled PTFE	G	50% SS Filled PTFE	P	Peek		Pressure Rating/Size <table><tr><td>Code</td><td>Pressure</td><td>Size</td></tr><tr><td>A</td><td>PN100</td><td>½"</td></tr><tr><td>B</td><td>PN100</td><td>¾"</td></tr><tr><td>C</td><td>PN100</td><td>1"</td></tr><tr><td>D</td><td>PN100</td><td>1¼"</td></tr><tr><td>E</td><td>PN64</td><td>1½"</td></tr><tr><td>F</td><td>PN64</td><td>2"</td></tr><tr><td>G</td><td>PN64</td><td>2½"</td></tr><tr><td>H</td><td>PN50</td><td>3"</td></tr><tr><td>I</td><td>PN50</td><td>4"</td></tr><tr><td>J</td><td>PN16</td><td>5"</td></tr><tr><td>K</td><td>PN16</td><td>6"</td></tr><tr><td>L</td><td>PN16</td><td>8"</td></tr><tr><td>M</td><td>PN16</td><td>10"</td></tr></table>	Code	Pressure	Size	A	PN100	½"	B	PN100	¾"	C	PN100	1"	D	PN100	1¼"	E	PN64	1½"	F	PN64	2"	G	PN64	2½"	H	PN50	3"	I	PN50	4"	J	PN16	5"	K	PN16	6"	L	PN16	8"	M	PN16	10"		Connection <table><tr><td>Code</td><td>Material</td></tr><tr><td>B</td><td>BSP</td></tr><tr><td>N</td><td>NPT</td></tr><tr><td>S</td><td>Socket Weld</td></tr><tr><td>W</td><td>Butt Weld</td></tr><tr><td>X</td><td>Others (To be specified)</td></tr></table>	Code	Material	B	BSP	N	NPT	S	Socket Weld	W	Butt Weld	X	Others (To be specified)		Operation <table><tr><td>Code</td><td>Type</td></tr><tr><td>L</td><td>Lever</td></tr><tr><td>D</td><td>Double Acting</td></tr><tr><td>S</td><td>Pneumatic Actuated Single Acting</td></tr><tr><td>E</td><td>Pneumatic Actuated Electric Actuated</td></tr></table>	Code	Type	L	Lever	D	Double Acting	S	Pneumatic Actuated Single Acting	E	Pneumatic Actuated Electric Actuated
Code	Material																																																																																															
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D	PN100	1¼"																																																																																														
E	PN64	1½"																																																																																														
F	PN64	2"																																																																																														
G	PN64	2½"																																																																																														
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E	Pneumatic Actuated Electric Actuated																																																																																															

Your Valve Ordering Code:

80	01	02	03	04	05	06
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Example:

80 Series – RS2TABL reduced bore.
Reduced Bore. SS316 Material. PTFE Seat. Pressure Rating of PN100, ½ inch size.
Connection Type of BSPT – Tapped. Lever Operating type.

*For special material or customisation, please refer to our sales engineer.



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ORDERING FORM

Tel: +65 6909 1221
Email: enquiry@valvewerkz.com
Website: www.valvewerkz.com

Repair Kits Available

Extend the life of your valves with ready-to-order repair kits. Swap out critical parts like bushings, seals, and seats on-site without replacing the whole valve. It's faster, more economical, and keeps your operations moving.

50 & 90 Series

Part Name	Qty
50 Series	
1. Bushing	-
2. Packing	1
3. Stem Seal	1
4. O-Ring Packing	1
5. Seat	2
90 Series	
1. Bushing	1
2a. V-Ring Packing	1 Set (3 pcs)
3. Stem Seal	1
4. O-Ring Packing	1
5. Seat	2

80 Series

Part Name	Qty
1. Bushing	1
2. V-Ring Packing	1 Set (3 pcs)
3. Upper Stem Seal	1
4. Compress Ring	1
5. Stem Seal	1
6. Seat	2
7. Body Gasket	2

