



90 Series

3-Piece Body Design

Full Bore

Sizes ¼" - 4"

PN64 ¼" - 2"

PN50 2 ½" - 4"

SS316 body

Threaded End, Socket Weld End, Butt Weld End

Super Live Load Loaded Packing System

Blowout-Proof Stem

Dual Anti-Static Device

ISO 5211 Direct Mounting Pad

Standard Seat:

RPTFE (max. 180°C)

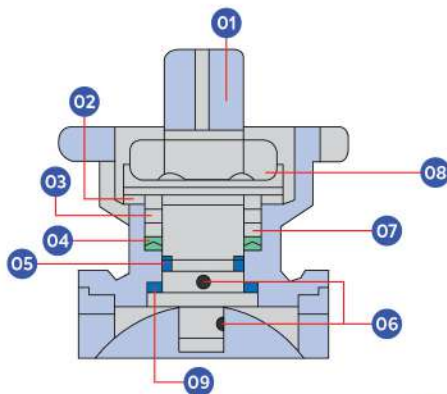
Seat Options:

25% Carbon filled PTFE (max. 220°C)

50% SS filled PTFE (max. 240°C)

Lockable Handle

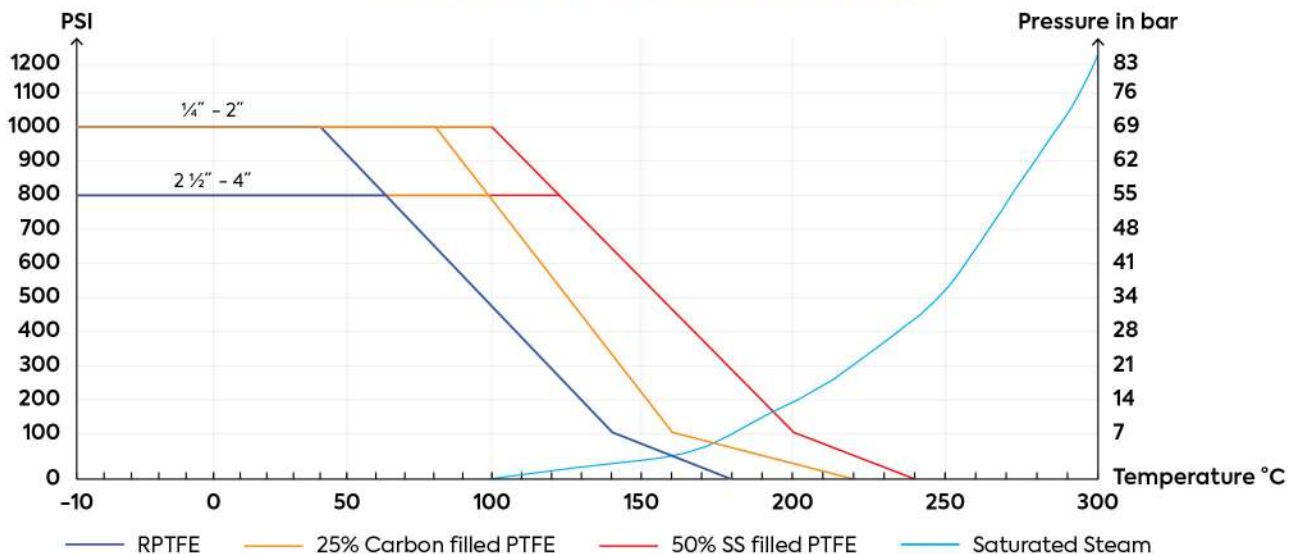
ValveWerkz 90 series ball valves feature a high quality investment cast body and ends. They are available ¼" - 4" with threaded, socket weld, and butt weld ends. Superior leak protection is accomplished by using a live-loaded packing system including Belleville washers and double "V" ring packing.

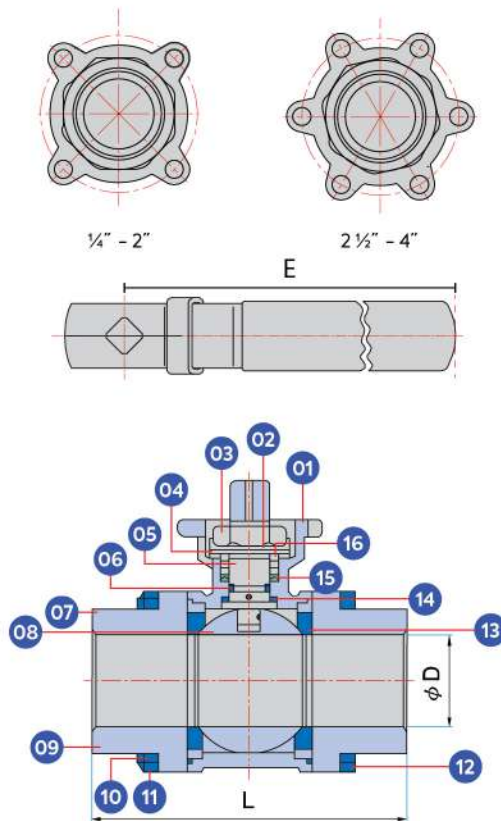
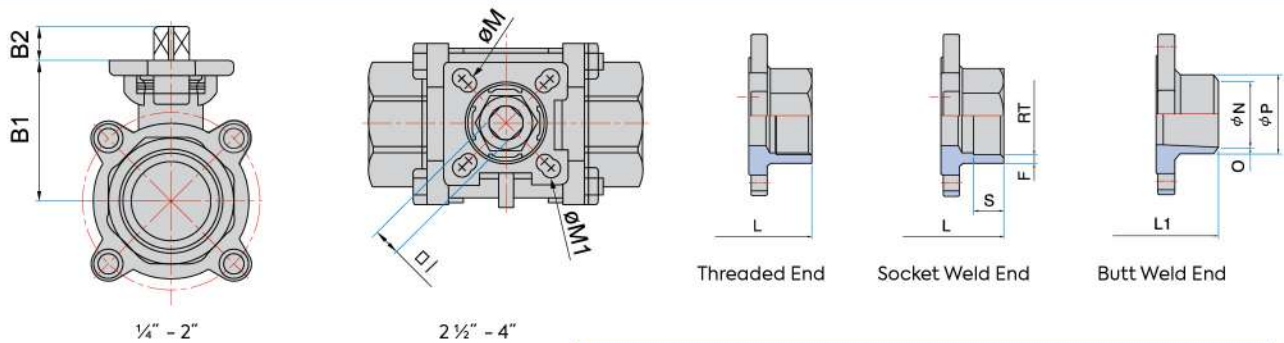


Part Name

1. Lock Saddle
2. Belleville Washer
3. Gland
4. V-Ring
5. Compress Ring & Lower/Stem Seal
6. Anti-Static Devices
7. Bushing
8. Stem Nut
9. O-Ring

Pressure / Temperature Ratings





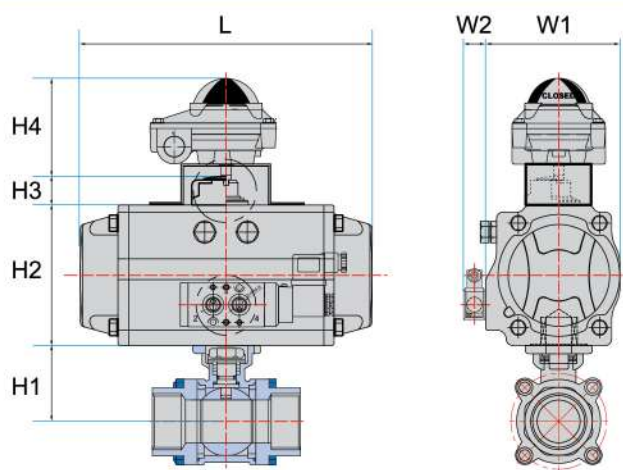
Part Name	Qty	Material
1. Body	1	SUS316 / WCB
2. Belleville Washer	2	SUS301
3. Stem Nut	1	SUS304
4. Gland	1	SUS304
5. Stem	1	SUS316
6. Stem Seal*	1	RPTFE
7. Joint Gasket*	2	RPTFE
8. Ball	1	SUS316
9. End Cap	1	SUS304
10. Bolt Nut	2	SUS316 / WCB
11. Washer	*	SUS304
12. Bolt	*	SUS304
13. Seat*	2	TFM1600
14. O-Ring	1	PTFE
15. V-Ring Packing*	1 Set	PTFE
16. Bushing*	1	50% S.S. Powder filled PTFE

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

Dimensions(mm)

Size(Inch)	B1	B2	ØD	E	F	ØM	ØM1	I	L	L1	O	ØP	RT	ISO 5211	CV	Weight(kg)
1/4"	40.2	9	11.6	136	3.6	5.5	5.5	9	60	70	1	18	14.2	F03, F04	7	0.62
3/8"	40.2	9	12.5	136	2	5.5	5.5	9	60	70	1	18	17.7	F03, F04	8	0.64
1/2"	40.2	9	15	136	2	5.5	5.5	9	69	69	1	22.7	21.9	F03, F04	15	0.68
3/4"	43.4	9	20	136	2.6	5.5	5.5	9	78	78	1	27.7	27.2	F03, F04	40	0.78
1"	52	11	25	152	3.2	6.5	6.5	11	84	84	1	33.5	33.9	F04, F05	70	1.18
1 1/4"	56.5	11	32	152	5.35	6.5	6.5	11	110	104	1	42.2	42.7	F04, F05	110	1.62
1 1/2"	65.7	15.5	36	190	5.7	6.5	8.5	14	120	119	1	48.8	48.8	F05, F07	250	2.7
2"	73.95	15.5	50	190	6.1	8.5	8.5	14	140	131	1	61	61.3	F05, F07	400	3.9
2 1/2"	93	16.5	65	287	7.15	9	11	17	185	190	1	78	74	F07, F10	600	8.89
3"	102	16.5	80	304	7.6	9	11	17	205	220	1	90.7	90	F07, F10	1100	12.4
4"	132	21.5	100	440	7.85	N/A	11	22	230	270	1	115.8	115.6	F10	2000	21.69

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



Pneumatic Actuator (Double Acting)

DN(mm)	Size(Inch)	Torques	Actuator	H1	H2	H3	H4	W1	W2	L	Weight(kg)
8	¼"	5	HP-50	40.20	73.00	20.00	90.00	72.00	29.50	144.00	2.24
10	⅜"	5	HP-50	40.20	73.00	20.00	90.00	72.00	29.50	144.00	2.26
15	½"	5	HP-50	40.20	73.00	20.00	90.00	72.00	29.50	144.00	2.30
20	¾"	7	HP-50	43.40	73.00	20.00	90.00	72.00	29.50	144.00	3.02
25	1"	12	HP-50	52.00	73.00	20.00	90.00	72.00	29.50	144.00	3.42
32	1 ¼"	17	HP-63	56.50	87.00	20.00	90.00	85.00	29.50	163.00	4.38
40	1 ½"	22	HP-63	65.70	87.00	20.00	90.00	85.00	29.50	163.00	5.46
50	2"	26	HP-66	73.95	87.00	20.00	90.00	85.00	29.50	202.00	7.38
65	2 ½"	40	HP-75	93.00	104.00	20.00	90.00	96.00	29.50	210.00	12.97
80	3"	50	HP-88	102.00	116.00	20.00	90.00	108.00	29.50	247.00	17.78
100	4"	90	HP-100	132.00	128.00	20.00	90.00	123.00	29.50	268.00	28.77

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

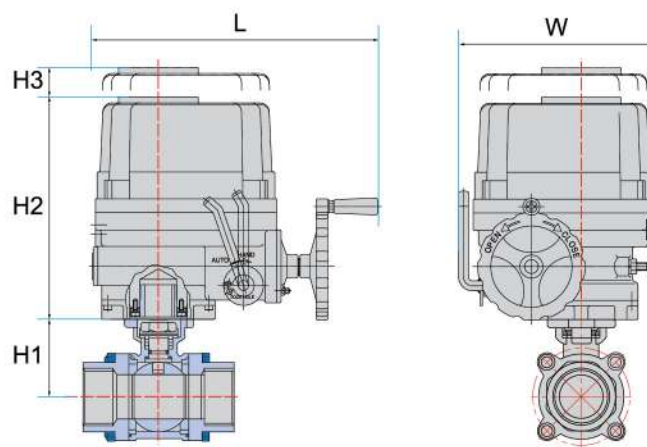
- Air Supply Pressure : 5.5 bar
- Operating Pressure : 10 bar
- Safety Factor : 30%

Pneumatic Actuator (Single Acting)

DN(mm)	Size(Inch)	Torques	Actuator	H1	H2	H3	H4	W1	W2	L	Weight(kg)
8	¼"	5	HP-50S (S11)	73.00	20.00	90.00	90.00	72.00	29.50	144.00	2.96
10	⅜"	5	HP-50S (S11)	73.00	20.00	90.00	90.00	72.00	29.50	144.00	2.98
15	½"	5	HP-50S (S11)	73.00	20.00	90.00	90.00	72.00	29.50	144.00	3.02
20	¾"	7	HP-63S (S11)	87.00	20.00	90.00	90.00	85.00	29.50	163.00	3.73
25	1"	12	HP-63S (S11)	87.00	20.00	90.00	90.00	85.00	29.50	202.00	4.89
32	1 ¼"	17	HP-75S (S11)	104.00	20.00	90.00	90.00	96.00	29.50	210.00	6.06
40	1 ½"	22	HP-88S (S11)	116.00	20.00	90.00	90.00	108.00	29.50	247.00	8.70
50	2"	26	HP-88S (S11)	116.00	20.00	90.00	90.00	108.00	29.50	247.00	9.90
65	2 ½"	40	HP-100S (S11)	128.00	30.00	90.00	90.00	123.00	29.50	268.00	16.83
80	3"	50	HP-115S (S11)	146.00	30.00	90.00	90.00	141.00	29.50	316.00	23.81
100	4"	90	HP-145S (S11)	179.00	30.00	90.00	90.00	172.00	29.50	414.00	39.09

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



Electric Actuator

DN(mm)	Size(Inch)	Torques	Actuator	H1	H2	H3	W	L	Weight(kg)
8	1/4"	5	HQ-004	40.20	124.30	N/A	88.60	166.60	2.90
10	3/8"	5	HQ-004	40.20	124.30	N/A	88.60	166.60	2.92
15	1/2"	5	HQ-004	40.20	124.30	N/A	88.60	166.60	2.96
20	3/4"	7	HQ-004	43.40	124.30	N/A	88.60	166.60	3.06
25	1"	12	HQ-004	52.00	124.30	N/A	88.60	166.60	3.46
32	1 1/4"	17	HQ-004	56.50	124.30	N/A	88.60	166.60	3.90
40	1 1/2"	22	HQ-004	65.70	124.30	N/A	88.60	166.60	4.98
50	2"	26	HQ-006	73.95	137.00	N/A	105.00	126.00	7.98
65	2 1/2"	40	HQ-008	93.00	235.00	120.00	170.00	258.00	17.37
80	3"	50	HQ-010	102.00	235.00	120.00	170.00	258.00	20.88
100	4"	90	HQ-015	132.00	268.00	160.00	229.00	338.00	39.37

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

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

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 90 Series

01	02	03	04	05																																																																							
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Body Material <table border="1"> <thead> <tr> <th>Code</th> <th>Material</th> </tr> </thead> <tbody> <tr> <td>S2</td> <td>SS316</td> </tr> </tbody> </table>	Code	Material	S2	SS316	Seat Material <table border="1"> <thead> <tr> <th>Code</th> <th>Material</th> </tr> </thead> <tbody> <tr> <td>T</td> <td>RPTFE</td> </tr> <tr> <td>M</td> <td>25% Carbon Filled PTFE</td> </tr> <tr> <td>G</td> <td>50% SS Filled PTFE</td> </tr> </tbody> </table>	Code	Material	T	RPTFE	M	25% Carbon Filled PTFE	G	50% SS Filled PTFE	Pressure Rating/Size <table border="1"> <thead> <tr> <th>Code</th> <th>Pressure</th> <th>Size</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>PN64</td> <td>1/4"</td> </tr> <tr> <td>B</td> <td>PN64</td> <td>3/8"</td> </tr> <tr> <td>C</td> <td>PN64</td> <td>1/2"</td> </tr> <tr> <td>D</td> <td>PN64</td> <td>3/4"</td> </tr> <tr> <td>E</td> <td>PN64</td> <td>1"</td> </tr> <tr> <td>F</td> <td>PN64</td> <td>1 1/4"</td> </tr> <tr> <td>G</td> <td>PN64</td> <td>1 1/2"</td> </tr> <tr> <td>H</td> <td>PN64</td> <td>2"</td> </tr> <tr> <td>I</td> <td>PN50</td> <td>3"</td> </tr> <tr> <td>J</td> <td>PN50</td> <td>4"</td> </tr> </tbody> </table>	Code	Pressure	Size	A	PN64	1/4"	B	PN64	3/8"	C	PN64	1/2"	D	PN64	3/4"	E	PN64	1"	F	PN64	1 1/4"	G	PN64	1 1/2"	H	PN64	2"	I	PN50	3"	J	PN50	4"	Connection <table border="1"> <thead> <tr> <th>Code</th> <th>Material</th> </tr> </thead> <tbody> <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> </tbody> </table>	Code	Material	B	BSP	N	NPT	S	Socket Weld	W	Butt Weld	X	Others (To be specified)	Operation <table border="1"> <thead> <tr> <th>Code</th> <th>Type</th> </tr> </thead> <tbody> <tr> <td>L</td> <td>Lever</td> </tr> <tr> <td>D</td> <td>Double Acting</td> </tr> <tr> <td>S</td> <td>Pneumatic Actuated</td> </tr> <tr> <td>S</td> <td>Single Acting</td> </tr> <tr> <td>E</td> <td>Pneumatic Actuated</td> </tr> <tr> <td>E</td> <td>Electric Actuated</td> </tr> </tbody> </table>	Code	Type	L	Lever	D	Double Acting	S	Pneumatic Actuated	S	Single Acting	E	Pneumatic Actuated	E	Electric Actuated
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Your Valve Ordering Code:

90	01	02	03	04	05
	S2				

Example:

90 Series – S2TABL reduced bore.
SS316 Material. RPTFE Seat. Pressure Rating of PN64, 3/8 inch size. Connection Type of BSPT – Tapered. Lever Operating type.

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



SCAN FOR ONLINE
ORDERING FORM

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