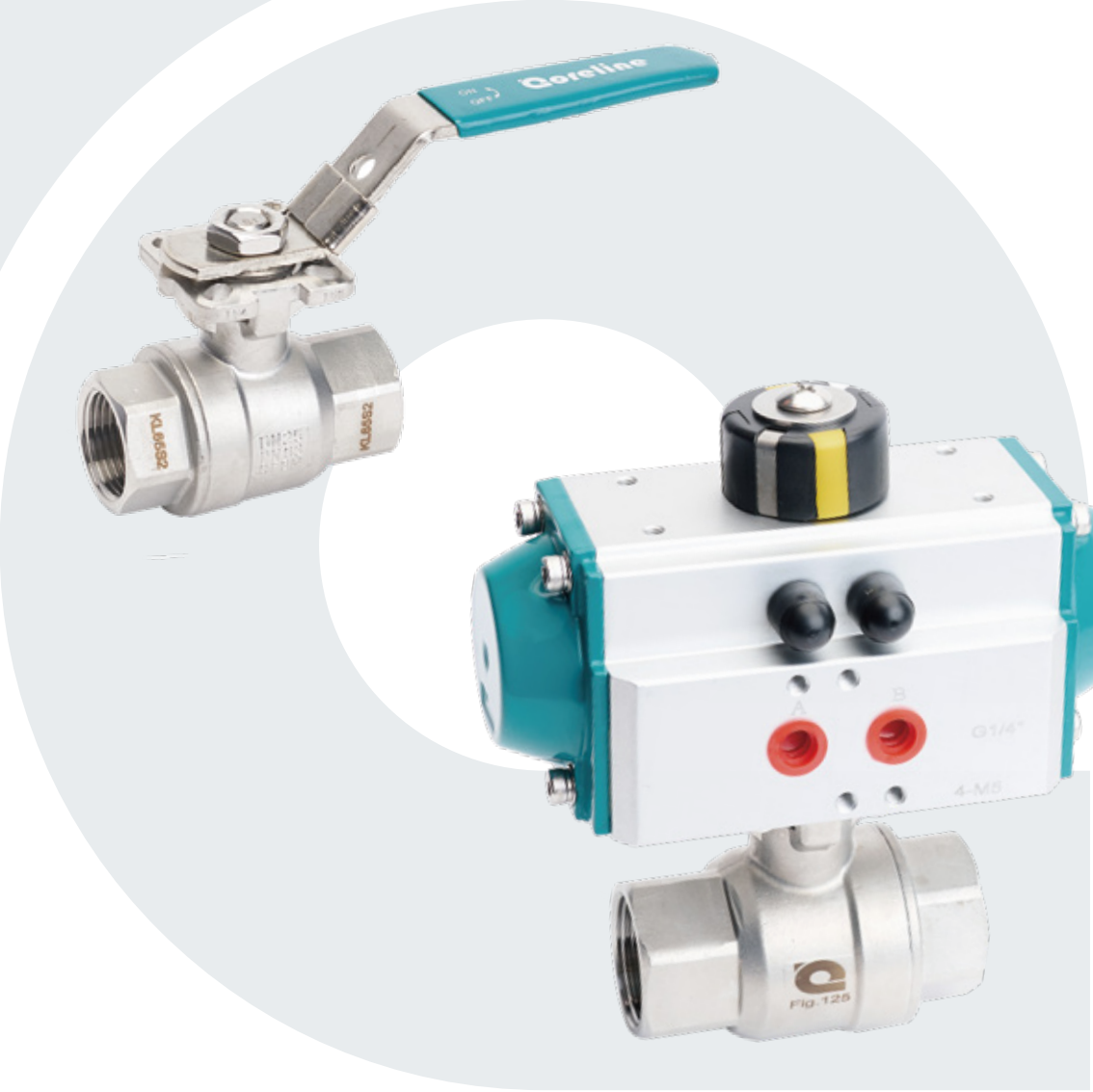
Coreline

2PC Thread ends ball valve

Fig.125

English



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General information, dimensions

Features

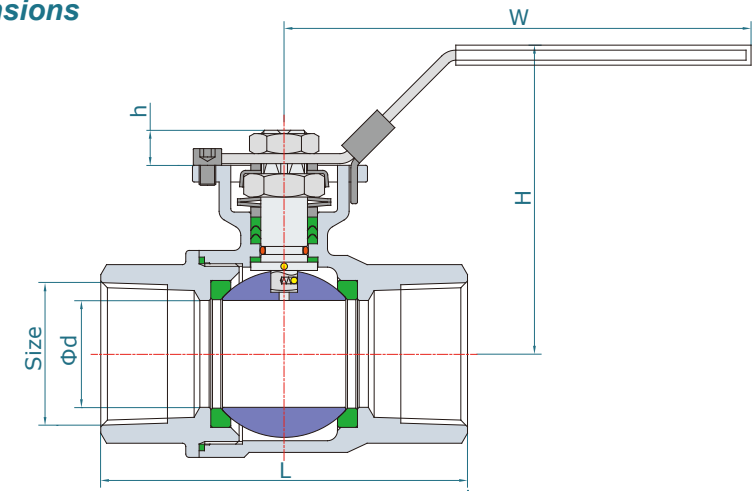
- Face to face dimension confirms to DIN3202 M3.
- Full bore for better Kv value.
- Solid ball for high performance tasks.
- Anti-static devices for ball - stem - body.
- Blow-out proof stem.
- Pressure relief hole in ball slot.
- ISO5211 direct mounting pad for easy automation.

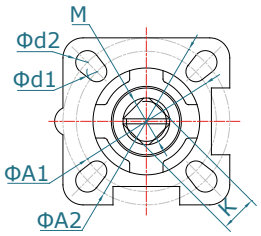
Specifications

Connection:	Thread ends BSPP, NPT, BSPT
Size range:	1/4" to 3"
Pressure rating:	1/4" - 2": PN63; 2 1/2" - 3": PN40
Face to face:	DIN3202 M3
Body/ball/stem:	SS316 (standard). Other materials available on request.
Seat:	PTFE. Other materials available on request.
Top flange:	ISO5211

ATEX, CE, SIL and EU1935/2004 (European food approval) for Coreline ball valves.

Dimensions





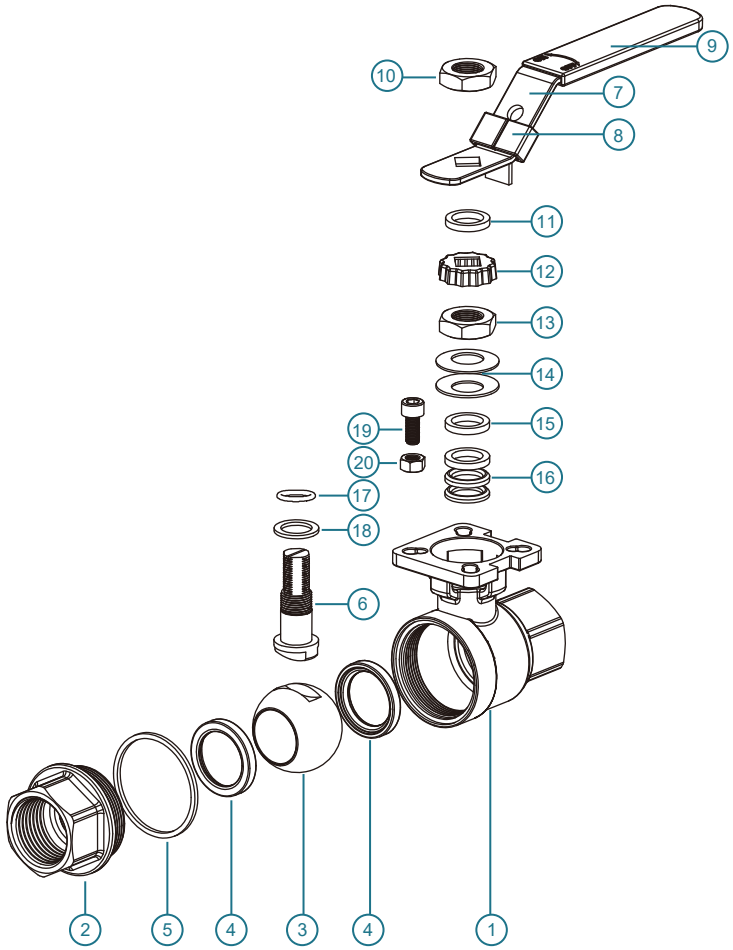
Size		Valve with handle				Mounting flange						Stem		
INCH	DN	d	L	H	W	ISO5211	A1	d1	ISO5211	A2	d2	k	h	M
1/4“	8	10	55	74	110	F04	42	3	F03	36	3	9	10	M12
3/8“	10	12	60	74	110	F04	42	3	F03	36	3	9	10	M12
1/2"	15	15	75	74	110	F04	42	3	F03	36	3	9	10	M12
3/4"	20	20	80	88	120	F04	42	3	F03	36	3	9	10	M12
1"	25	25	90	88	130	F05	50	3.5	F04	42	3	11	12	M14
1 1/4"	32	32	110	92	140	F05	50	3.5	F04	42	3	11	12	M14
1 1/2"	40	38	120	107	175	F07	70	4.5	F05	50	3.5	14	15	M18
2"	50	49	140	115	175	F07	70	4.5	F05	50	3.5	14	15	M18
2 1/2"	65	64	185	120	220	F07	70	4.5	F05	50	3.5	14	15	M18
3"	80	76	205	132	270	F10	102	5.5	F07	70	4.5	17	18	M22
4"	100	100	240	160	310	F10	102	5.5	F07	70	4.5	17	18	M22

*) 1/4” and 3/8” share the same body pattern with 1/2”.

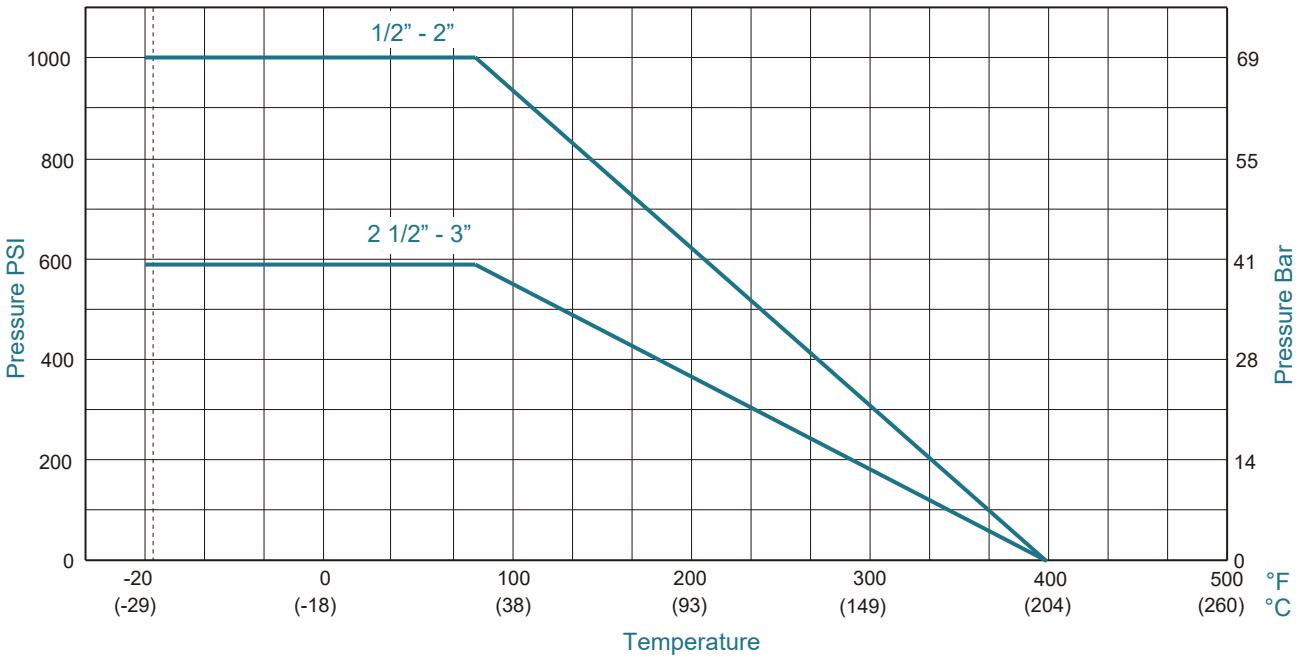
Material part list, pressure temperature curve

Material part list

Item No.	Part name	Material
1	Body	A351 CF8M
		A351 CF8
		A216 WCB
2	Cap	A351 CF8M
		A351 CF8
		A216 WCB
3	Ball	SS316
		SS304
4	Seat	PTFE
5	Gasket	PTFE
6	Stem	SS316
		SS304
7	Handle	SS304
8	Locking device	SS304
9	Handle sleeve	Vinyl
10	Nut	SS304
11	Washer	SS304
12	Lock cap	SS304
13	Nut	SS304
14	Belleville washer	SS304
15	Gland	SS304
16	V-ring packing	PTFE
17	Stem sealing	PTFE
18	O-ring	FPM
19	Stop bolt	SS304
20	Nut	SS304



Pressure temperature curve - PTFE



Technical data

Size		Torque - Valve [1]	Kv - 90° [2]	Weight
INCH	DN	[Nm]	[m³/h]	[kg]
1/2"	15	8	11	0.5
3/4"	20	8	28	0.6
1"	25	16	48	0.9
1 1/4"	32	18	70	1.4
1 1/2"	40	26	105	2.2
2"	50	28	208	3.1
2 1/2“	65	60	275	6.2
3“	80	95	490	9.8

1) Torque values include 30% safty factor.
2） Kv-value rated flow coefficients (m³/h at 1 bar △P).

Service factor [SF]	Multiply by	Medium factor [MF]	Multiply by
ON/OFF operation	1.00	Clean, particle free, non-lubricating (water, alcohol, etc)	1.00
Modulating operation	1.20	Clean, particle free, lubricating (oils, hydraulic fluid, etc)	0.80
Once per day operations	1.20	*) Slurries or heavily corroded, solvents and contaminated systems	2.00
Once every two days or a “Plant Critical” operation	1.50	Gas, saturated steam or superheated steam, clean	1.00~1.30

Sizing torque = Basic torque * [MF] * [SF]
*) Using ball valves in contaminated systems will reduce life time.

Double acting sizing - Air supply 6bar

Fig.125			Sizing - Fig.540 Double acting			
INCH	DN	Torque /Nm	SIZE	Output torque /Nm	ISO5211	Stem
1/2"	15	8	40	14.3	F03+F05	11×11
3/4"	20	8	40	14.3	F03+F05	11×11
1"	25	16	50	21.6	F03+F05	11×11
1 1/4"	32	18	50	21.6	F03+F05	11×11
1 1/2"	40	26	65	43.9	F03+F05	14×14
2"	50	28	65	43.9	F03+F05	14×14
2 1/2"	65	60	75	68.2	F05+F07	14×14
3"	80	95	85	100.1	F05+F07	17×17

Spring return sizing - Air supply 6bar

Fig.125			Sizing - Fig.541 Spring return				
INCH	DN	Torque /Nm	SIZE	Torque air /Nm 0° - 90°	Torque spring /Nm 90° - 0°	ISO5211	Stem
1/2"	15	8	50 S12	13.2 - 9.3	12.4 - 8.4	F03+F05	9×9
3/4"	20	8	50 S12	13.2 - 9.3	12.4 - 8.4	F03+F05	9×9
1"	25	16	65 S10	26.5 - 17.7	26.2 - 17.4	F03+F05	11×11
1 1/4"	32	18	65 S10	26.5 - 17.7	26.2 - 17.4	F03+F05	11×11
1 1/2"	40	26	75 S12	42.5 - 27.7	40.4 - 25.7	F05+F07	14×14
2"	50	28	75 S12	42.5 - 27.7	40.4 - 25.7	F05+F07	14×14
2 1/2"	65	57	95 S12	87.6 - 57	83.6 - 53	F05+F07	14×14
3"	80	95	125 S12	205 - 134	193.3 - 122.4	F07+F10	17×17

The contents of this catalogue are confidential and proprietary to Coreline, we reserve the right to change the specifications without any notice.

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