

1/2" – 8" full port, 5" – 10" reduced port

SBV Ball Valves are ideally suited for positive shut-off, flow control and throttling of corrosive, abrasive or even toxic process media in either liquid or gaseous state.

Modular Design

Valves are available with handlever for manual quarter turn operation as per standard or with bare shaft for easy installation onto actuator units.

The sturdy design bodies are made of cast steel 1.0619 (WCB A216), RAL 5005 signal-blue epoxy-coated or compl. of SS316 casting 1.4408 (CF-8M), with resistant linings such as PFA or PFA-AS (conductive).



CE Conformity according to European Pressure Equipment Directive 2014/68/EU (PED)

Main Features

- Heavy-duty, robust construction, maintenance-free
- Body halves friction-locked (metal-to-metal)
- Bubble-tight shut-off throughout the full pressure and temperature range
- One-piece ball/shaft, PFA-encapsulated
- Zero stem leakage provided by an innovative, Live-loaded stem sealing mechanism
- Consistent low operating torque
- Maximum flow rates at lowest pressure drops
- Integrated ISO top flange for standard actuators
- Flange connections acc. to ANSI 150lbs (DIN optional) for installation into existing piping systems

Actuator Options



Automated

Body 1.0619 (WCB A216)/PFA-lined, pneumatic quarter turn actuator, DA or FC



Stainless Steel

Body 1.4408 (CF-8M)/PFA-lined, bare shaft



Padlock

Handlever on ISO top flange, with safety lock

Operating Conditions

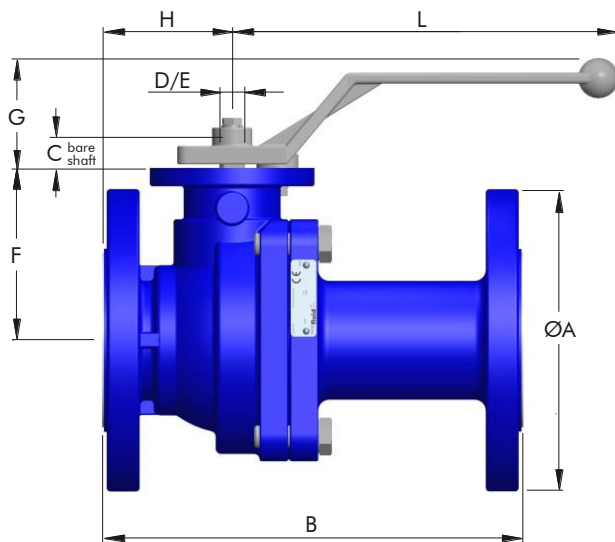
- Temperature range from -40°F up to +400°F, depending on lining material
- Vacuum-/Pressure range from 0.01 psia up to 232 psi, depending on size/pressure/temperature

Testing / Marking

- Pressure- and tightness testing acc. to EN 12266-1, leakage rate A, resp. API 598.
- Marking of valves on body and name plate acc. to EN 19.
- Material- resp. test certificates acc. to EN 10204-3.1/2.2/2.1

Manual Valve

Standard version with handlever



Dimensions inch

Weights lbs

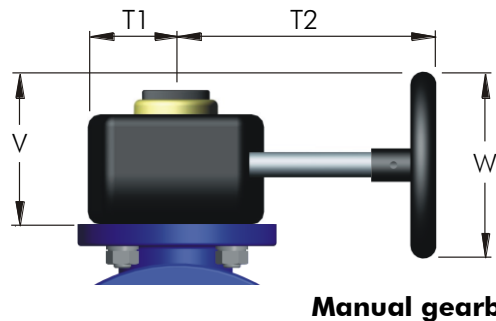
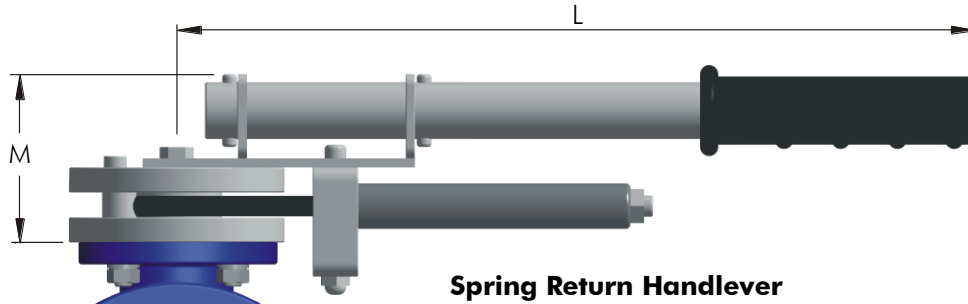
Size nom.	ØA	B	C Shaft end	D Dia.	E ¹⁾ DD	F	G	H	L	ISO Top	Valve only	Lever only
1/2"	3.74	5.12	0.75	0.55	0.43	2.52	2.28	1.97	6.34	F05	7.92	0.70
3/4"	4.13	5.91	0.75	0.55	0.43	2.60	2.28	1.97	6.34	F05	9.90	0.70
1"	4.25	5.00	0.75	0.55	0.43	2.76	2.28	1.97	6.34	F05	10.78	0.70
1 1/4"	5.51	7.09	0.75	0.55	0.43	2.95	2.28	2.36	6.34	F05	13.42	0.70
1 1/2"	5.00	6.50	0.75	0.55	0.43	3.43	2.28	2.52	8.31	F07	18.92	0.79
2"	6.00	7.00	0.75	0.55	0.43	3.70	2.28	2.80	8.31	F07	24.86	0.79
2 1/2"	7.00	7.50	0.91	0.71	0.55	4.17	2.28	3.03	12.56	F07	33.00	0.90
3"	7.50	8.00	0.91	0.71	0.55	4.53	2.44	3.19	12.56	F07	40.92	0.90
4"	9.00	9.00	0.91	0.94	0.67	5.12	2.44	3.62	12.56	F10	67.98	1.98
5"RP		10	0.91	0.94	0.67	5.12	2.44	4.06	12.56	F10		1.98
6"RP	11	10.5	0.91	0.94	0.67	5.12	2.44	4.41	12.56	F10	141.10	1.98
6"	11	10.5	1.18	1.18	0.87	7.44	-	5.16	-	F12	139.92	-
8"RP	13.38	11.5	1.18	1.18	0.87	7.44	-	7.87	-	F12	182.60	-
8"	13.38	18	1.38	1.97	0.55	9.25	-	5.63	-	F14	280.00	-
10"RP	16.00	13	1.38	1.97	0.55	9.25	-	6.38	-	F14	350.00	-

Face to face B acc. to ASME B16.10

¹⁾ 8" / 10" RP: 2x Keyway

Manual Valve

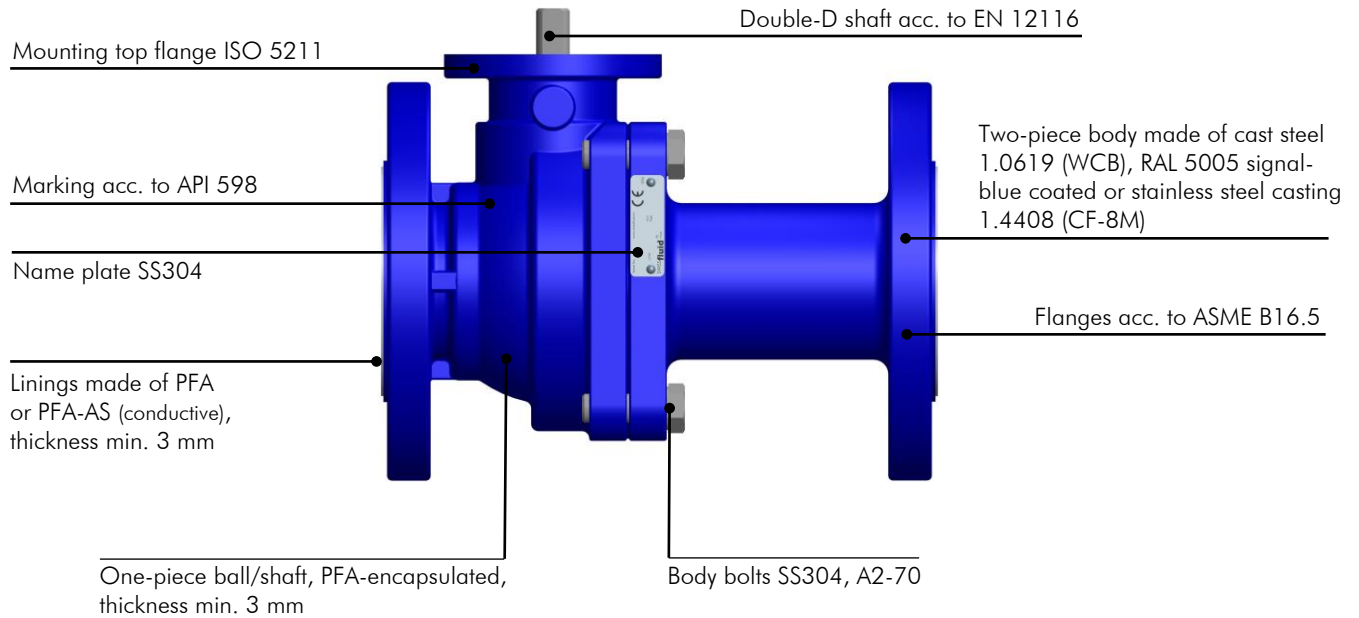
Versions with manual gearbox or spring return handlever



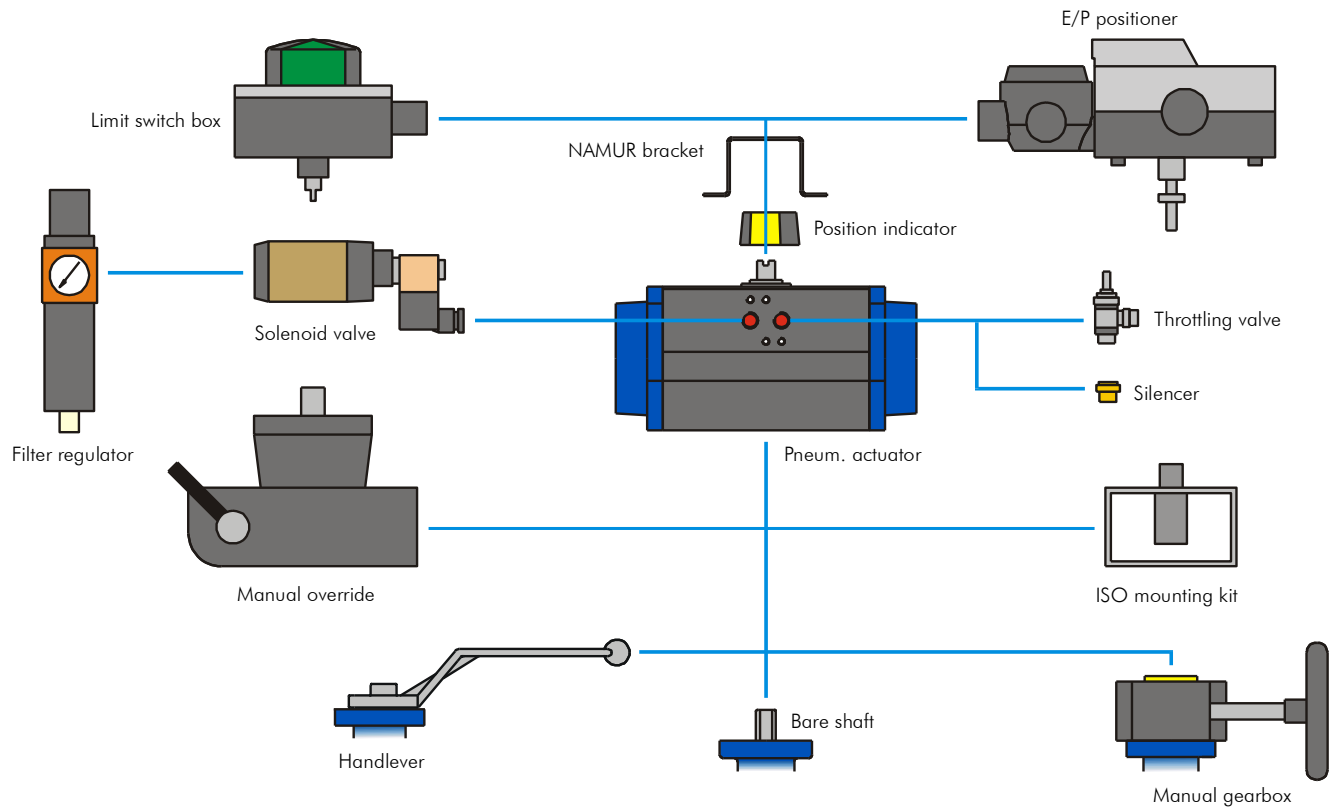
note: gearbox and spring return handlever to be mounted onto valve across to pipeline

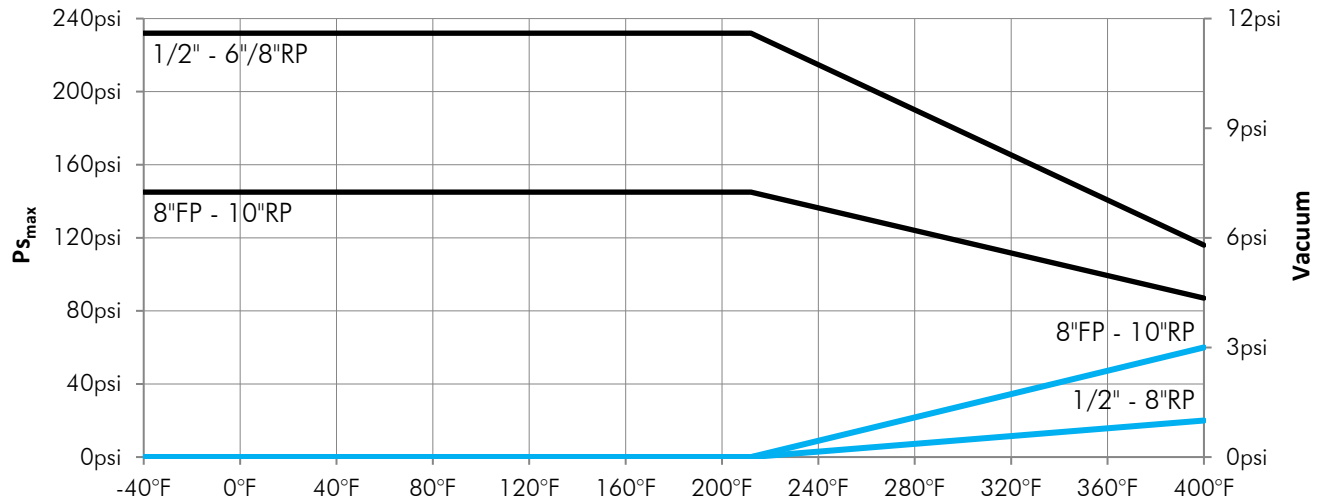
Size nom.	Dimensions inch						Weights lbs	
	L	M	T1	T2	V	W	SR Lever only	Gearbox only
1/2"	13.66	2.91	2.28	4.33	3.54	4.92	3.52	5.00
3/4"	13.66	2.91	2.28	4.33	3.54	4.92	3.52	5.00
1"	13.66	2.91	2.28	4.33	3.54	4.92	3.52	5.00
1 1/4"	16.38	2.91	2.28	4.33	3.54	4.92	4.40	5.00
1 1/2"	16.38	2.91	2.28	4.33	3.54	4.92	4.40	5.00
2"	16.38	2.91	2.28	4.33	3.54	4.92	4.40	5.00
2 1/2"	-	-	2.28	4.33	3.54	4.92	-	5.00
3"	-	-	2.28	4.33	3.54	4.92	-	5.00
4"	-	-	2.28	7.87	5.00	7.87	-	7.70
5" RP	-	-	2.28	7.87	5.00	7.87	-	7.70
6" RP	-	-	2.28	7.87	5.00	7.87	-	7.70
6"	-	-	2.87	11.02	7.48	11.81	-	15.00
8" RP	-	-	2.87	11.02	7.48	11.81	-	15.00
8"	-	-	3.54	15.75	9.65	15.75	-	38.00
10" RP	-	-	3.54	15.75	9.65	15.75	-	38.00

Construction of Valve



Mounting Options



Pressure-/Temperature Diagram


Low temperature or austenitic steels are required for use below 14°F operating temperature.

Torque Values in-lbs

Max. torque values for PFA-encapsulated balls and PFA-lined bodies

Size nom.	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"/5"RP 6"RP	6" 8"RP	8" 10"RP
Torque nom.	71	71	106	159	204	266	443	575	841	2,124	5,310
max. allow.	1,283	1,283	1,283	1,283	1,283	1,823	2,832	2,832	6,195	10,620	48,675

- Stated values to be break-away torques without any consideration of safety factors (min. 1.3) for pneum. actuators.

Flow Rate Values Cv usg/min.

Size nom.	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"/5"RP 6"RP	6" 8"RP	8" 10"RP
Flow Rate	19	36	58	100	140	212	430	615	962	2,320	3,945

Options
Cs-Ball

to prevent media residues inside ball cavity, for full drainage


V-Port-Ball

suitable for control applications, with various contours


Vented Ball

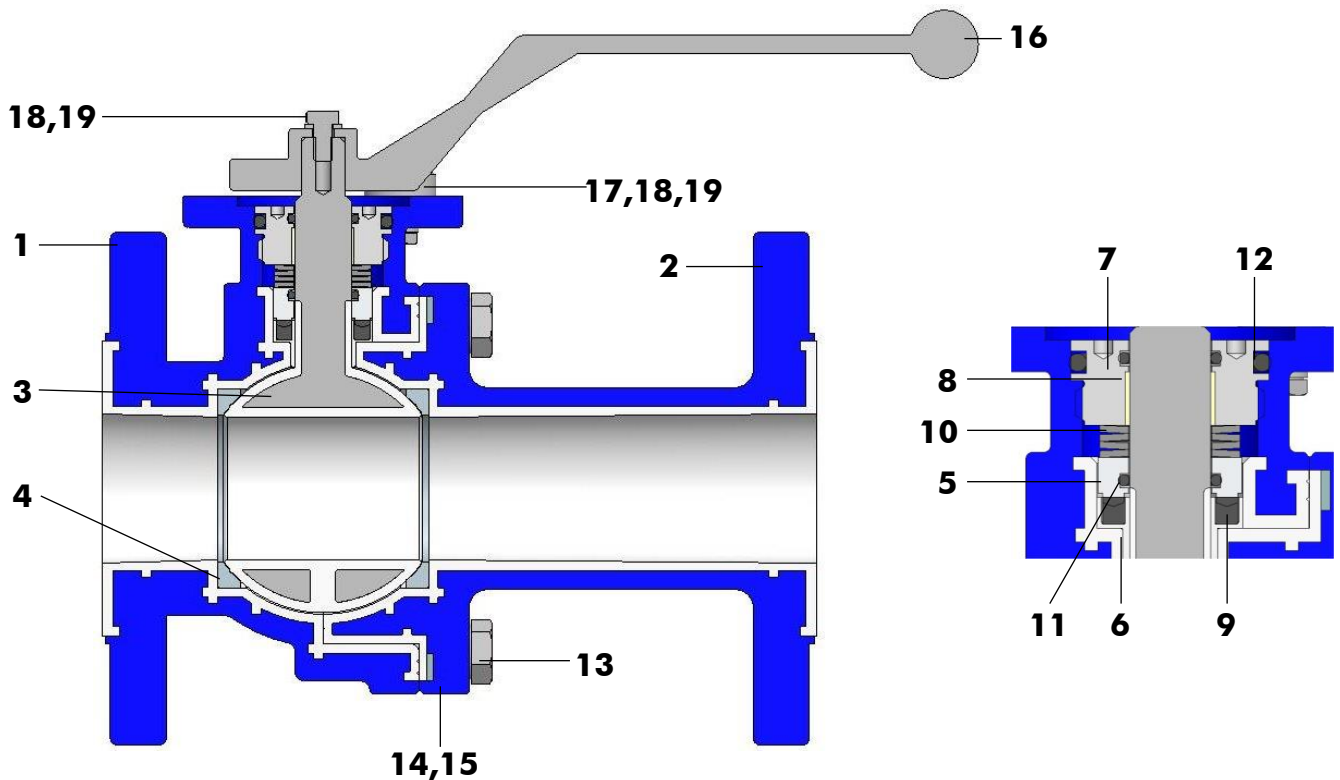
with drilled vent hole, suited for upstream pressure relief


Typical Service Applications

- Chemical CPI
- Petro-Chemical
- Bio-Technical
- Pharmaceutical Industry
- Pulp and Paper
- Food Processing
- Paint and Pigments
- Fertilizers
- Textile Industry
- Mining and Steel
- Water Treatment

special versions upon request

Standard Version (Picture showing valve with body WCB A216, PFA-lined, with handle)

 Parts List
 Manual Valve compl.


Item	Qty.	Description	Material Description	Material No. DIN 17440/41
1	1	Body Half Left, lined, RAL 5005 epoxy coated	WCB/PFA	1.0619
2	1	Body Half Right, lined, RAL 5005 epoxy coated	WCB/PFA	1.0619
3	1	Ball/Shaft one-piece, encapsulated	Duplex/PFA	1.4462
4	2	Ball Seat	PTFE	
5	1	Pressure Sleeve	SS316L	1.4404
6	1	Sealing Sleeve	PTFE	
7	1	Threaded Bushing	SS316L	1.4404
8	1	Bearing	C.Steel/PTFE	
9	1	Elastomer Insert	FPM	
10	4	Belleville Spring	Spring Steel	1.8159
11	2	O-Ring	FPM	
12	1	O-Ring	FPM	
13	4	Hex. Head Cap Screw	A2-70	1.4310
14	1	Name Plate 42 x 14 CE	A2	1.4301
15	2	Hammer Screw 2.49 x 4.76	A2	1.4310
16	1	Handlever	SS304	1.4308
17	1	Stop	SS316L	1.4404
18	2	Hex. Head Cap Screw	A2-70	1.4310
19	2	Lock Washer	SS304	1.4310

Specification

Project-/Customer Data		Inquiry/Date: _____		Ref. SF _____	
Company:		Contact Person:		Phone:	
Address:		Function:		Fax:	
ZIP/Place:		Department:		E-mail:	
Project:		Phone direct:		Mobile:	

Operating Conditions
Media / Chemical Composition:

<input type="checkbox"/> liquid	<input type="checkbox"/> powdery	<input type="checkbox"/> crystallizing	<input type="checkbox"/> sticky	<input type="checkbox"/> Spec. Grav. ____
<input type="checkbox"/> gaseous	<input type="checkbox"/> Solids ____ %	<input type="checkbox"/> viscous	<input type="checkbox"/> Flow Velocity ____ ft/sec	
<input type="checkbox"/> abrasive	<input type="checkbox"/> Particle ____ mm	<input type="checkbox"/> Visc. ____ cp	<input type="checkbox"/> Flow Rate ____ usg/min	

Pressure

 max. ____ bar
 min. ____ bar

Temperature

 max. ____ °C
 min. ____ °C

Mode
 On/Off
 Flow Control
 ____ cycles/ ____

Installation / Environment
 horizontal
 vertical
 Room dry
 Room humid
 outdoor

Remarks:

SBV Product Code

Specification of a complete Ball Valve SBV Series

Product code	Nom. size	Flange conn.	Body	Lining body	Elastomer	Ball encaps./solid	Shaft end	Options
SBV	4"	150#	G10	A85	E67	U85	DD	
	½" – 8" 6"RP – 10"RP DN15-200	ANSI150# ANSI300# PN16 PN40 JIS 10K	G10 WCB G15 CF-8M	A85 PFA A86 PFA-AS A88 PVDF A89 PP A91 ETFE	E60 EPDM E67 FPM E68 VMQ	U85 PFA U86 PFA-AS U88 PVDF U89 PP U91 ETFE S32 SS316L S40 Tit. Gr.2 S41 Tit. Gr.7 S43 Hast. C-276	DD DD drive SP SQ parallel SR SQ 45° rot.	Cs Cs ball Vh vented ball Vp15 15° V-port Vp30 30° V-port Vp45 45° V-port Vp60 60° V-port B7 B7 body bolts Ti Ti body bolts RAL... special paint

Note: actuator options and accessories to be specified on orders separately.