

NPS ½"–6"

SBC Ball Check Valves are ideally suited as reliable non-return flow control for liquid process media.

Modular Design

Valves are available with PTFE solid balls and sight glass window plates made of Borosilicate acc. to DIN 7080 as per standard.

The sturdy design bodies are made of cast steel 1.0619 (WCB), coating RAL 5005 signal-blue or stainless steel casting 1.4408 (CF8M), with resistant linings such as PFA or PFA-AS (conductive).



Main Features

- Heavy-duty, proven construction
- Maintenance-free
- Horizontal or vertical installation, flange connection acc. 1092-1, PN 16/40 oder ASME B16.5, CL 150
- No need of additional flange gaskets due to wide and chambered flange sealing surface
- PTFE solid or hollow balls, guides made of PTFE-R
- Large observation opening
- FDA-conform

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

Options

- Metal reinforced glass plates
- Quartz glasses
- FEP glass protection sheet
- Metal cover (without sight glass plates)
- Grounding cable

Operating Conditions

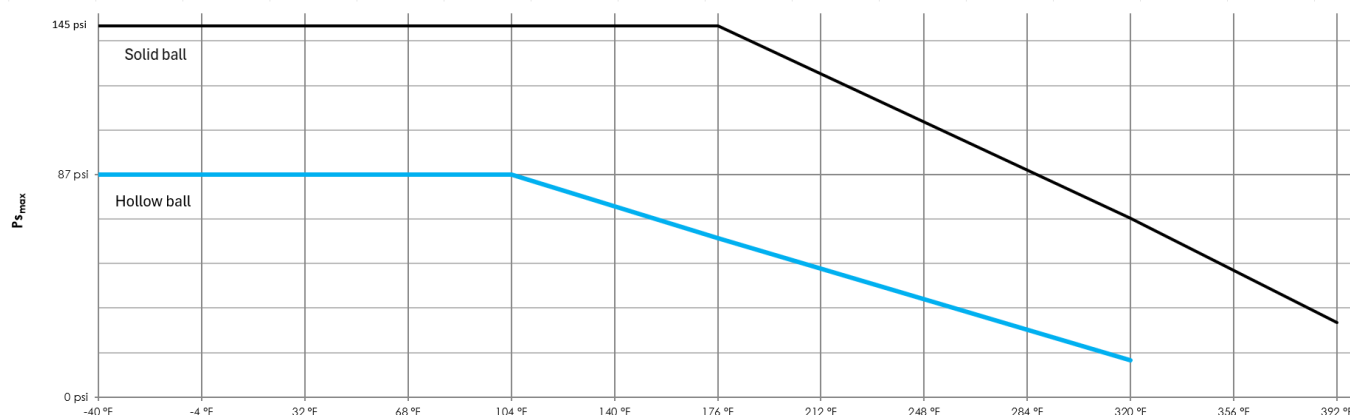
- Temperature range from –40 °F to +400 °F, depending on lining material
- Pressure range from 0.01 psi to 145 psi, depending on size/temperature

Testing/Marking

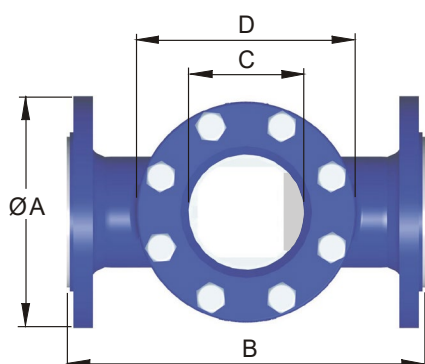
- Pressure- and tightness testing acc. to EN 12266-1, leakage rate A, resp. API 598
- High voltage testing of the plastic linings for freedom from pores at 35 kV
- Marking of valves on body acc. to EN 19
- Material- resp. test certificates acc. to EN 10204-3.1/2.2/2.1

Pressure-/Temperature-Diagram

Low-temperature or austenitic steels are required for use below -10 °C operating temperature



Technical Data



Standard Materials of Components

Body	Cast Steel 1.0619 (WCB) 5005 epoxy-coated
Flange	Cast Steel 1.0619 (WCB) 5005 epoxy-coated
Lining	PFA (opt. PFA-AS conductive)
Solid Ball	PTFE (opt. with hollow ball)
Ball Guide	PTFE-R (glassfibre-reinforced)
Glas plate	Borosilicate 8488 to DIN 7080
Gasket	C-4400, asbestos-free
Bolts	A2-70 1.4310

Dimensions in inch

NPS Size	ØA ANSI	B ANSI	ØC	□ØD	ØGlass	lbs ANSI
1/2"	3.50	5.12	1.30	□2.76	1.78 x 0.40	6.2
3/4"	3.88	5.91	1.30	□2.76	1.78 x 0.40	7.1
1"	4.25	5.00	1.89	□3.35	2.50 x 0.40	12.8
1 1/2"	5.00	6.50	2.56	□4.33	3.12 x 0.48	19.4
2"	6.00	7.00	3.15	□4.72	3.95 x 0.60	27.3
2 1/2"	7.00	8.50	3.15	Ø6.89	3.95 x 0.60	68.1
3"	7.50	9.50	3.94	Ø7.48	4.92 x 0.80	59.1
4"	9.00	11.50	4.92	Ø8.27	5.90 x 0.98	81.8
6"	11.00	14.00	7.87	Ø11.42	8.85 x 0.98	145.5

Overall lengths to DIN EN 558-1 Range 1 resp. ASME B16.10

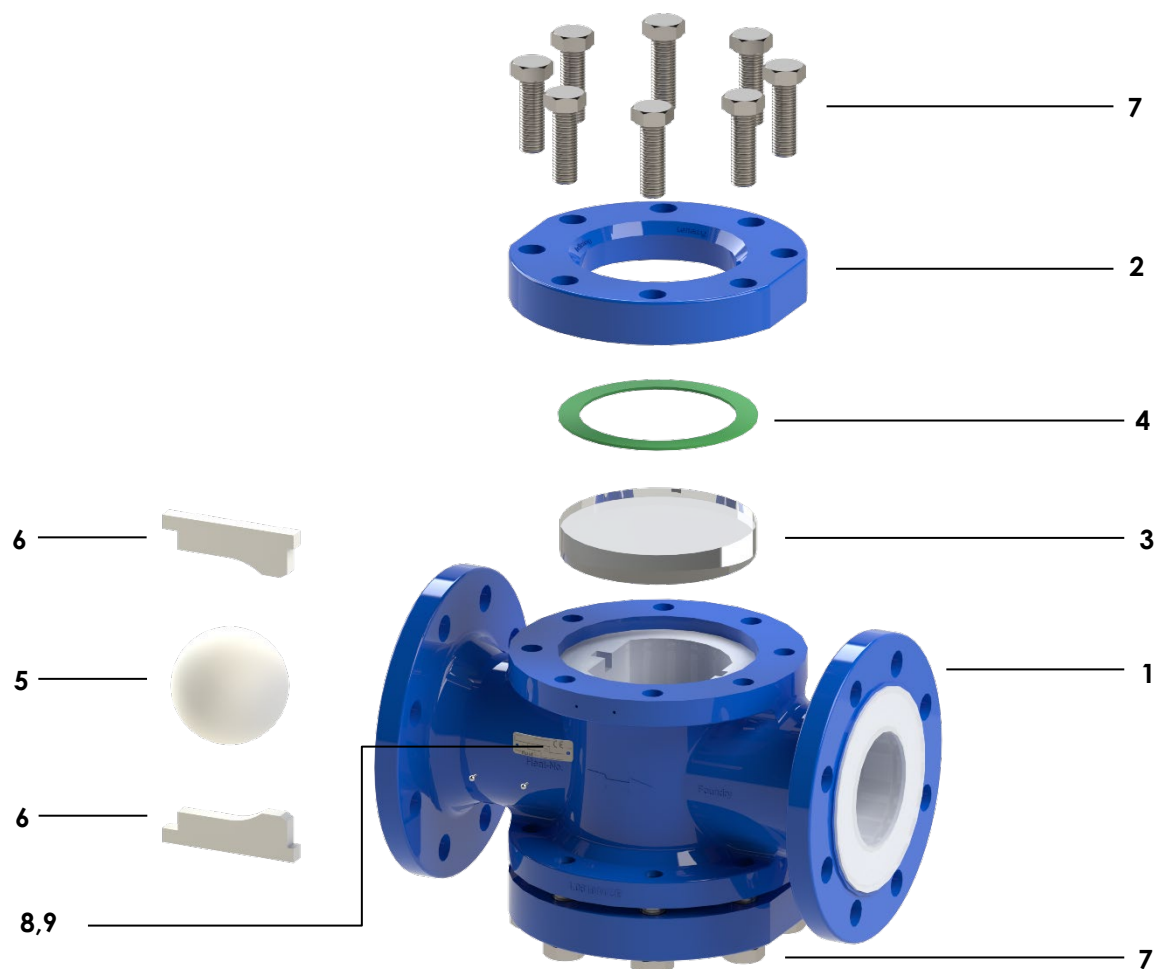
Other sizes and materials upon request

Body flange: 2 1/2" and 3" ANSI with threaded holes 5/8" UNC, 6" ANSI with threaded holes 3/4" UNC

Standard version (Picture showing DN 80 PN 16, PFA-lined)

Part List

Valve compl.



Item	Qty.	Description	Material Description	Material No. DIN 17440/41
1	1	Body PFA-lined, RAL 5005	WCB/PFA	1.0619
2	2	Flange, RAL 5005	WCB/PFA	1.0619
3	2	Glass Plate DIN 7080	Borosilicate	8488
4	2	Gasket	C-4400	
5	1	Solid Ball	PTFE	
6	2	Ball Guide	PTFE-R	
7	16	Hex. Head Screw	A2-70	1.4310
8	1	Name Plate 42 x 14 CE	A2	1.4301
9	2	Hammer Screw	A2	1.4310

Spezification

Project-/Customer Data

Inquiry/Date:

Ref. SF

Project:		Contact Person:		Phone:	
Company:		Function:		E-Mail:	
Address:		Department:		Mobile:	
ZIP/Place:		Phone direct:			

Operation Conditions

Media/Chemical Composition:

☐ Liquid	☐ Powdery	☐ Crystallizing	☐ Sticky	☐ Spec. Grav. ____
☐ Gaseous	☐ Solids ____ %	☐ Viscous	☐ Flow Velocity ____ ft/s	
☐ Abrasive	☐ Particle. ____ mm	☐ Visc. ____ cp	☐ Flow Rate ____ usg/min	

Pressure

max. ____ bar

min. ____ bar

Temperature

max. ____ °C

min. ____ °C

Mode

☐ Continuous

☐ _____

Installation/Environment

☐ Horizontal

☐ Vertical

☐ _____

☐ Room dry

☐ Room humid

☐ Outdoor

Remarks:

SBC Product Code

Specification of a complete Ball Check Valve SBC Series

Product Code	Size	Flange connection	Body	Body lining	Glass plate	Options
SBC	-	-	-	-	-	-
	NPS ½"-6"	PN 16 PN 40 Class 150 JIS 10 K	G10 1.0619 G15 1.4408	A85 PFA A86 PFA-AS	Gb Glass plate PN 16 Gb40 Glass plate PN 40 Gr Reinforced glass Gq Quartz glass	B7 B7 Body bolts Hb PTFE Hollow ball RAL Special coating GC Grounding cable