



Tank bottom valve, manually operated, stainless steel block material

- Fully integrated in Bürkert's Process Control Systems
- Monoblock – no welds
- Quality certifications FDA

Type 3235 can be combined with...



Type 8034
Flow meter



Type 2033
Tank bottom valve



Type 2103
Diaphragm valve

The Bürkert Tank Bottom Valve system is designed for control of ultra pure, sterile, aggressive or abrasive fluids. Enables especially optimal filling and emptying vessels with less dead leg.

The valve body consists of a block with no weld seam, machined out of high quality stainless steel. The tank bottom valve has two welding bevels to ease the welding and valve positioning operations.

The high quality diaphragms separate hermetically critical fluids from the actuator. The manual actuator in PPS or stainless steel can be sterilized.

Technical data	
Orifice	DN 15-100
Body materials	Stainless steel 1.4435BN2 / ASME BPE Fe < 0,5% / C ≤ 0,03%
Diaphragm materials	EPDM, PTFE/EPDM, advanced PTFE
Actuator materials Actuator and bonnet	PPS, stainless steel 1.4581
Pilot air ports	Stainless steel 1.4305
Surface finish (others on request) <ul style="list-style-type: none"> ▪ inside mechanical polished ▪ inside electro polished 	<ul style="list-style-type: none"> ▪ Ra ≤ 0,5 µm (ASME BPE SF1) (external Ra ≤ 1.6 µm) ▪ Ra ≤ 0,38 µm (ASME BPE SF4 / DIN HE4) (external Ra ≤ 1.6 µm)
Media temperature EPDM (AB), PTFE/EPDM (EA) EPDM (AD), advanced PTFE/EPDM (EU) Gylon®/EDPM laminated (ER) FKM (FF)	-10 to +130 °C (steam sterilisation +140 °C for 60 min) -5 to +143 °C (steam sterilisation +150 °C for 60 min) -5 to +130 °C (steam sterilisation +140 °C for 60 min) 0 to +130 °C (not recommended for steam)
Ambient temperature	+5 to +140 °C
Port connections Weld end acc. to	<ul style="list-style-type: none"> ▪ EN ISO 1127 / ISO 4200 ▪ DIN 11850 RG2 ▪ SMS 3008 ▪ ASME BPE ▪ BS 4825
Clamp acc. to	<ul style="list-style-type: none"> ▪ ISO 2852 ▪ ASME BPE ▪ DIN 32676

¹⁾Internal Ra < 0.1 µm/4 µlnch/500 Grit: on request

Technical data, continued

Orifice DN diaphragm [mm]	Kv-value water [m ³ /h]	Max. operating pressure (medium) for seal material EPDM and PTFE/EPDM [bar]
8	1.0	10
15	6.0	10
20	11.0	10
25	16.0	10
40	29.0	10
50	50.0	10 ¹⁾
80	160.0	10
100	235.0	5

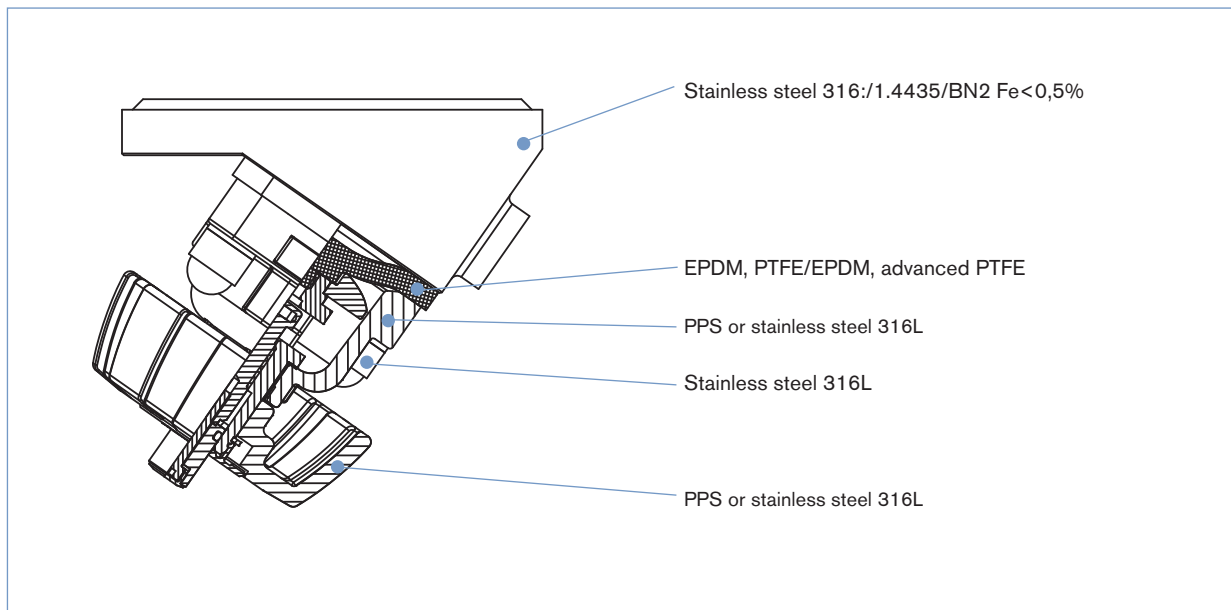
¹⁾Max. operating pressure 7 bar for bonnet and manual actuator in PPS.

Approvals/certifications

- Certification of Conformity for Raw Material EN-ISO 10204 3.1
- Attestation of compliance with the order EN-ISO 10204 2.1
- Test report EN-ISO 10204 2.2
- 3A Certification on request
- Certification of Conformity for Pickling and Electropolishing Processes
- Certification of Conformity for the Surface Quality DIN4762-DIN4768-ISO/4287/1
- Attestation of compliance with FDA CFR No. 21.177.1550 for PTFE/EPDM and advanced PTFE/EPDM and 21.177.2600 for EPDM
- Test Certification and Conformity Certification for the Final Assembly of Diaphragm Valves
- ISO 9001 Certification

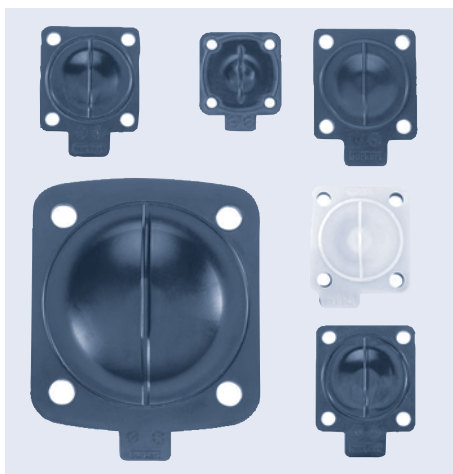
Note: Retrospective manufacturing certification for process diaphragm valves can not be made, therefore please notify when ordering.

Materials



Example of available diaphragm materials

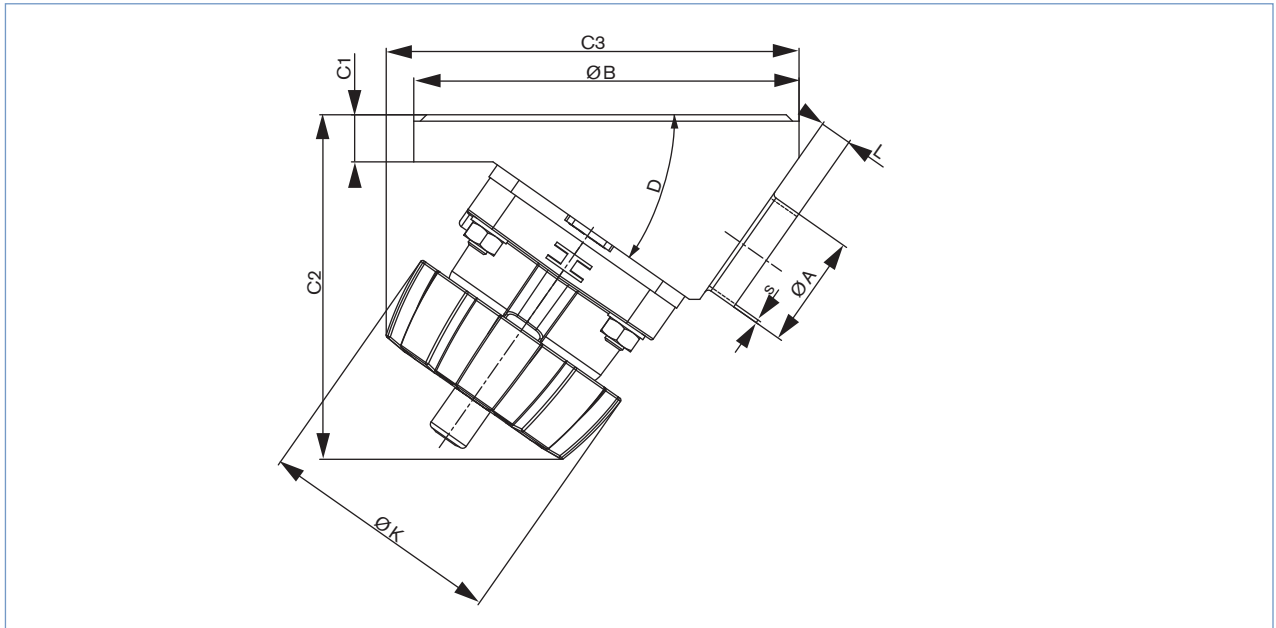
Developed to handle the unique challenges of hygienic and sterile applications, Bürkert offers diaphragms with precise material formula and physical tolerances. Bürkert diaphragms are available in a wide range of materials which have been proven in food & beverage, biotechnology, pharmaceutical and cosmetic industry applications. Diaphragms are tested during development and production to ensure reliability in critical processing environments.



- EPDM (Ethylene Propylene Rubber)
- PTFE/EPDM
- advanced PTFE/EPDM
- FKM
- PTFE/FKM
- NBR

Dimensions [mm]

Body with weld end



EN ISO 1127 / ISO 4200

Orifice seat [mm]	Port connection [mm]	øA	s	øB	C1	C2	C3	D	øK	L
08	08	13.5	1.6	50	8	65	65	35°	34	5
15	15	21.3	1.6	65	12	103	103	35°	85	3
				85			109			8
20	20	26.9	1.6	85	12	109	118	35°	85	5.6
25	25	33.7	2	120	16	117	129	35°	85	8
40	32	42.4	2	150	18	147	180	35°	114	20
	40	48.3	2							15
50	50	60.3	2	180	22	162	194	35°	114	12
80	65	76.1	2	225	20	293	345	40°	223	16
	80	88.9	2.3							10

ASME BPE

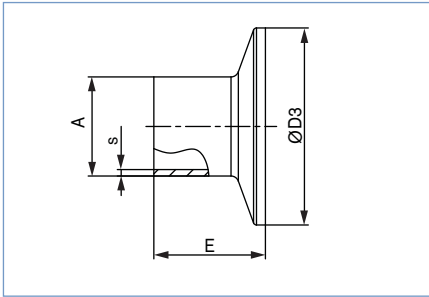
Orifice seat [mm]	Port connection [mm]	øA	s	øB	C1	C2	C3	D	øK	L
08	08	6.35	0.89	50	8	65	65	35°	34	9
15	15	12.7	1.65	85	12	103	109	35°	85	10
20	20	19.05	1.65	85	12	109	118	35°	85	8
25	25	25.4	1.65	120	16	117	129	35°	85	8
40	40	38.1	1.65	150	18	147	180	35°	114	15
50	40	38.1	1.65	180	22	162	194	35°	114	25
	50	50.8	1.65							15
	65	63.5	1.65							11
80	65	63.5	1.65	225	20	388	422	40°	–	25
	80	76.2	1.65	225	20	293	345	40°	223	16

DIN 11850 RG2

Orifice seat [mm]	Port connection [mm]	øA	s	øB	C1	C2	C3	D	øK	L
08	10	13	1.5	50	8	65	65	35°	34	6
15	15	19	1.5	85	12	103	109	35°	85	8
20	20	23	1.5	85	12	109	118	35°	85	7
25	25	29	1.5	120	16	117	129	35°	85	8
40	40	41	1.5	150	18	147	180	35°	114	20
50	50	53	1.5	180	22	162	194	35°	114	15
80	80	85	2.0	225	20	293	345	40°	223	16

Dimensions [mm], continued

Body with Clamp



ASME BPE

Orifice		A	s	D3	E
[mm]	[inch]				
08	1/4"	6.35	0.89	25.0	28.6
10	3/8"	9.53	0.89	25.0	28.6
15	1/2"	12.7	1.65	25.0	28.6
20	3/4"	19.05	1.65	25.0	28.6
25	1"	25.4	1.65	50.5	28.6
40	1 1/2"	38.1	1.65	50.5	28.6
50	2"	50.8	1.65	64.0	28.6
65	2 1/2"	63.5	1.65	77.5	28.6
80	3"	76.2	1.65	91.0	28.6
100	4"	101.6	2.11	119.0	28.6

DIN 32676

Orifice [mm]	A	s	D3	E
10	1.5	34.0	18	
15	19	1.5	34.0	18
20	23	1.5	34.0	18
25	29	1.5	50.5	21.5
32	35	1.5	50.5	21.5
40	41	1.5	50.5	21.5
50	53	1.5	64.0	21.5
65	70	2.0	91.0	28

ISO 2852 for pipe ISO 4200

Orifice [mm]	A	s	D3	E
8	13.5	1.6	25.0	28.6
8	13.5	1.6	34.0	28.6
10	17.2	1.6	34.0	28.6
15	21.3	1.6	34.0	28.6
15	21.3	1.6	50.5	28.6
20	26.9	1.6	50.5	28.6
25	33.7	2	50.5	28.6
32	42.4	2	50.5	28.6
40	48.3	2	64.0	28.6
50	60.3	2	77.5	28.6
65	76.1	2	91.0	28.6
100	114.3	2.3	130.0	28.6

SMS

Orifice [mm]	A	s	D3	E
25	25	1.2	50.5	21.5
40	38	1.2	50.5	28.6
50	51	1.2	64.0	28.6

Valve features

Example

15 AB B VI F085 SA42 D050 NO09 + NO17 + AF71

Specification key

Please make a choice

ORIFICE [mm] (diaphragm)

- 08
- 15
- 20
- 25
- 40
- 50
- 80
- 100

SEAL MATERIAL

- AB EPDM in food quality
- EA PTFE
- FF FKM, advanced PTFE

PRODUCTION OF BODY

- B Monoblock

BODY MATERIAL

- VH 1.4435/AISI 316L
- VI 1.4435BN2/ASME BPE

Standard

FLANGE

- F050 DN08 (Ø 50 mm)
- F085 DN15 (Ø 85 mm)
- F085 DN20 (Ø 85 mm)
- F120 DN25 (Ø 120 mm)
- F150 DN40 (Ø 150 mm)
- F180 DN50 (Ø 180 mm)
- F225 DN80 (Ø 225 mm)
- F300 DN100 (Ø 300 mm)



VARIABLE CODES

Surface finish external		
-	clamped Ra ≤ 1.6 µm	standard
NO19	mechanical polished Ra ≤ 1.6 µm	
NO02	mechanical polished Ra ≤ 0.76 µm	
NO28	electro polished Ra ≤ 1.6 µm	
NO15	electro polished Ra ≤ 0.76 µm	
Surface finish, internal		
NO14	mechanical polished Ra ≤ 0.5 µm (ASME BPE SF1)	standard
NO06	mechanical polished Ra ≤ 0.76 µm (ASME BPE SF3 / DIN H2)	
NO17	electro polished Ra ≤ 0.38 µm (ASME BPE SF4 / DIN HE4)	standard
NO16	electro polished Ra ≤ 0.6 µm (ASME BPE SF6)	
Certificate		
NK52	3.1 Certificate	
Specific angle		
AF71	45° outlet angle	

ACTUATOR VERSION

D050	Top PPS, handwheel PPS
D058	Top stainless steel, Handwheel PPS for tank bottom
D085	Grey cast iron, white epoxy painted

Orifice	DIN EN ISO 1127 ISO 4200 DIN 11866 series B	SMS 3008	DIN 11850 series 0	DIN 11850 series 1 DIN EN 10357 series B	DIN 11850 series 2 DIN 11866 series A DIN EN 10357 series A	DIN 11850 series 3	BS 4825	ASME BPE DIN 11866 series C
DN 4			SC40 - 6.0x1.0					
DN 6	1/8"	SA78 - 10.2x1.6	SC41 - 8.0x1.0					SA89 - 3.17x0.56
DN 8	1/4"	SA40 - 13.5x1.6	SC42 - 10.0x1.0				SODB - 6.35x1.2	SA90 - 6.35x0.89
DN 10	3/8"	SA41 - 17.2x1.6		SF40 - 12.0x1.0	SD40 - 13.0x1.5	SE40 - 14.0x2.0	SODC - 9.53x1.2	SA91 - 9.53x0.89
DN 15	1/2"	SA42 - 21.3x1.6	SC43 - 18.0x1.5	SF41 - 18.0x1.0	SD42 - 19.0x1.5	SE42 - 20.0x2.0	SODD - 12.7x1.2	SA92 - 12.7x1.65
DN 20	3/4"	SA43 - 26.9x1.6	SC44 - 22.0x1.5	SF42 - 22.0x1.0	SD43 - 23.0x1.5	SE43 - 24.0x2.0	SODE - 19.05x1.2	SA93 - 19.05x1.65
DN 25	1"	SA44 - 33.7x2.0	SA60 - 25.0x1.2	SC45 - 28.0x1.5	SF43 - 28.0x1.0	SD44 - 29.0x1.5	SE44 - 30.0x2.0	SODF - 25.4x1.65
DN 32	1 1/4"	SA45 - 42.4x2.0	SA61 - 33.7x1.2	SC46 - 34.0x1.5	SF44 - 34.0x1.0	SD45 - 35.0x1.5	SE45 - 36.0x2.0	
DN 40	1 1/2"	SA46 - 48.3x2.0	SA62 - 38.0x1.2	SC47 - 40.0x1.5	SF45 - 40.0x1.0	SD46 - 41.0x1.5	SE46 - 42.0x2.0	SODH - 38.1x1.65
DN 50	2"	SA47 - 60.3x2.0	SA63 - 51.0x1.2	SC48 - 52.0x1.5	SF46 - 52.0x1.0	SD47 - 53.0x1.5	SE47 - 54.0x2.0	SODI - 50.8x1.65
DN 65	2 1/2"	SA48 - 76.1x2.0	SA64 - 63.5x1.6			SD48 - 70.0x2.0		SODJ - 63.5x1.65
DN 80	3"	SA49 - 88.9x2.3	SA65 - 76.1x1.6			SD49 - 85.0x2.0		SODK - 76.2x1.65
DN 100	4"	SA39 - 114.3x2.3	SA66 - 101.6x2.0			SD50 - 104.0x2.0	SODL - 101.6x2.11	SODL - 101.6x2.11

Orifice	Clamp 34.0 similar DIN 32676 series B (ISO-tube)	DIN 32676 Reihe A (DIN-Rohr)	DIN 32676 Reihe B (ISO-Rohr)	ASME BPE	BS 4825 Clamp BS 4825-3 Rohr BS 4825-1
DN 8	1/4"	TC51 - 13.5x1.6 Cl: 34.0	TD40 - 10.0x1.0 Cl: 25.0	TC40 - 13.5x1.6 Cl: 25.0	TG50 - 6.35x0.89 Cl: 25.0
DN 10	3/8"	TC41 - 17.2x1.6 Cl: 34.0	TD41 - 13.0x1.5 Cl: 34.0	TC53 - 17.2x1.6 Cl: 25.0	TG01 - 9.53x0.89 Cl: 25.0
DN 15	1/2"	TC42 - 21.3x1.6 Cl: 34.0	TD42 - 19.0x1.5 Cl: 34.0	TC52 - 21.3x1.6 Cl: 50.5	TG02 - 12.7x1.65 Cl: 25.0
DN 20	3/4"		TD43 - 23.0x1.5 Cl: 34.0	TC43 - 26.9x1.6 Cl: 50.5	TG03 - 19.05x1.65 Cl: 25.0
DN 25	1"		TD44 - 29.0x1.5 Cl: 50.5	TC44 - 33.7x2.0 Cl: 50.5	TG04 - 25.4x1.65 Cl: 50.5
DN 40	1 1/2"		TD46 - 41.0x1.5 Cl: 50.5	TC46 - 48.3x2.0 Cl: 64.0	TG05 - 38.1x1.65 Cl: 50.5
DN 50	2"		TD47 - 53.0x1.5 Cl: 64.0	TC47 - 60.3x2.0 Cl: 77.5	TG06 - 50.8x1.65 Cl: 64.0
DN 65	2 1/2"		TD48 - 70.0x2.0 Cl: 91.0	TC48 - 76.1x2.0 Cl: 91.0	TG07 - 63.5x1.65 Cl: 77.5
DN 80	3"			TC49 - 88.9x2.3 Cl: 106.0	TG08 - 76.2x1.65 Cl: 91.0
DN 100	4"			TC50 - 114.3x2.3 Cl: 130.0	TG09 - 101.6x2.11 Cl: 119.0

In case of special application conditions, please consult for advice.

Subject to alteration.
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