

BUTTERFLY VALVE SERIES VBF100

ESBE wafer butterfly valves series for PN16, DN20-200.



VBF125
Flange

OPERATION

The ESBE series VBF100 is a butterfly valve for the control and isolation of water in HVAC system. Typical usage is boiler isolation or heat pump change over from cooling to heating. The butterfly valve is a wafer type made in cast iron to be mounted between flanges PN6/10/16. The butterfly valve is delivered with handle for operation 0 .. 90° in 15 steps (6°/step). ESBE actuator series 90, ARC and ARD in combination with adapters are to be used for motorization.

The valve disk made of stainless steel is pressed into the soft-sealing EPDM seat by a rotary movement and ensures leakage rate A (tight).

MEDIA

ESBE VBF125 is designed to working with normal heating and cooling water (VDI2035).

- Maximum allowens of glycol is 50%
- Maximum allowens of ethanol is 30%

SERVICE AND MAINTENANCE

Butterfly valves are maintenance free. To avoid a torque increase during off season shut down, is it recommended to exercise the butterfly valve (full open and close) at least once a month.

ACCESSORIES

- Art. No.
- 13905100 _____ Adaptor kit VBF801, VBF100 - Series 90
 - 13905200 _ Adaptor kit VBF802, VBF100 - ARCx00, ARDx00
 - 13906000 ___ Thermometer VBF806 for VBF100, DN20-32
 - 13906100 _____ Thermometer VBF806 for VBF100, DN40
 - 13906200 ___ Thermometer VBF806 for VBF100, DN50-65
 - 13906300 ___ Thermometer VBF806 for VBF100, DN80-125
 - 13906400 __ Thermometer VBF806 for VBF100, DN150-200

BUTTERFLY VALVE DESIGNED FOR

- Heating
- Comfort Cooling
- Ventilation
- Zone

SUITABLE ACTUATORS

- Series 90
- Series ARC300, ARC600
- Series ARD100, ARD200

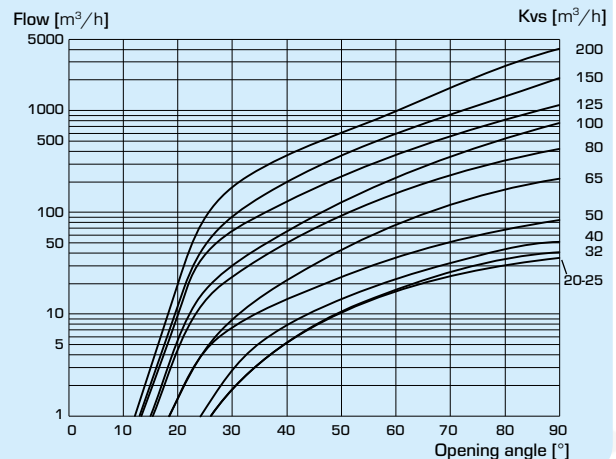
TECHNICAL DATA

Type: _____ 2-way valve
 Pressure class: _____ PN 16
 Flow characteristic A-AB: _____ see graph
 Leakage rate A: _____ EN 12266, ISO 5208 category 3
 Leakrate A-AB: _____ Tight sealing
 ΔP_{max} : _____ see graph
 Media temperature: _____ max. +130°C
 _____ min. -10°C
 Connection: _____ Flange PN 6/10/16, EN 1092
 _____ Top flange, EN ISO 5211

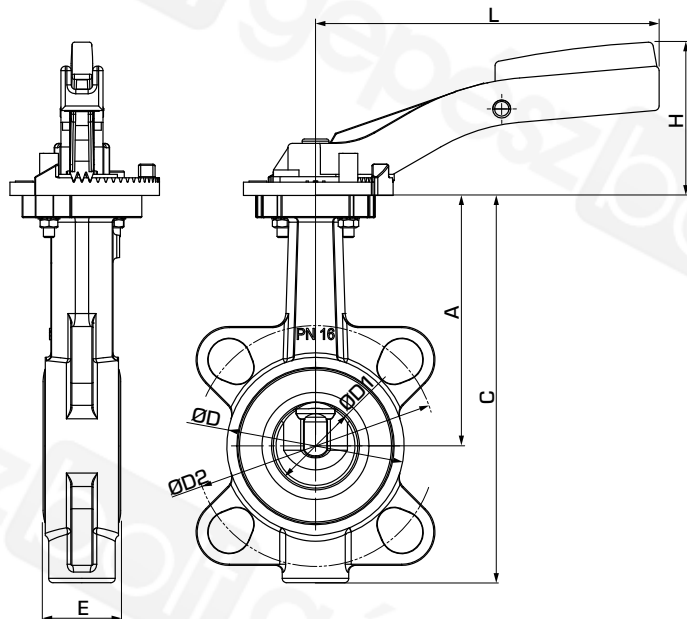
Material

Body: _____ Grey Cast Iron GG25, 0.6025
 Shaft: _____ Stainless steel X14CrMoS17, 1.4104/
 _____ X5CrNiMo17-12-2, 1.4401/
 _____ Hastelloy, 2.4883
 Disc: _____ Stainless steel G-X6CrNiMo18-10, 1.4408 A
 Seat: _____ EPDM
 Bearing bush: _____ Brass MS 58, 2.0401/
 _____ Polyamide PA66 / PTFE
 O-ring: _____ NBR / FPM

VALVE CHARACTERISTICS



BUTTERFLY VALVE SERIES VBF100



2-WAY BUTTERFLY VALVE SERIES VBF125

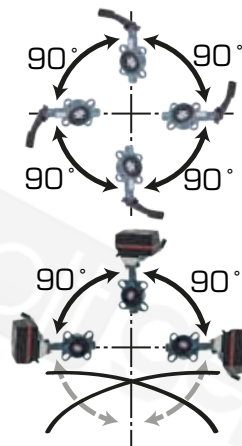
Art. No.	Reference	DN	Kvs*	A	C	D	D1	D2		E	H	L	Replaces	Weight [kg]
								PN6	PN16					
13900100	VBF125	20	32	104	149	59	31,5	65	75	33	70	155	MA20	1,5
13900200		25	36	104	149	63	31,5	75	85	33	70	155	MA25	1,5
13900300		32	40	104	154	68	31,5	90	100	33	70	155	MA30	1,6
13900400		40	50	113	179	80	38,0	100	110	33	70	155	MA40	2,0
13900500		50	85	126	210	95	48,5	110	125	43	70	155	MA50	2,4
13900600		65	215	134	227	115	63,5	130	145	46	70	155	MA65	3,1
13900700		80	420	157	261	138	78,5	150	160	46	80	195	MA80	4,2
13900800		100	800	167	282	158	98,5	170	180	52	80	195	MA100	5,4
13900900		125	1010	180	307	188	123,5	200	210	56	80	195	MA125	7,1
13901000		150	2100	203	353	212	148,0	225	240	56	100	276	MA150	10,1
13901100		200	4000	228	404	268	199,0	280	295	60	100	276	MA200	13,8

* Kvs-value in m³/h at a pressure drop of 1 bar.

INSTALLATION

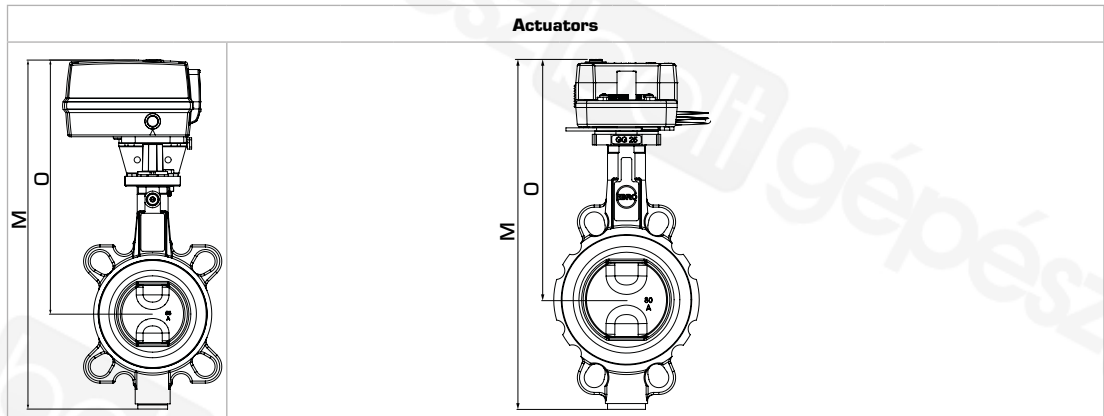
Before mounting the butterfly valve, make sure that pipes are clean, free from welding slugs. Make sure that valve flanges and counter flanges are aligned. Valve mounting is independent of flow direction.

With handlever butterfly valves could be installed in all positions.



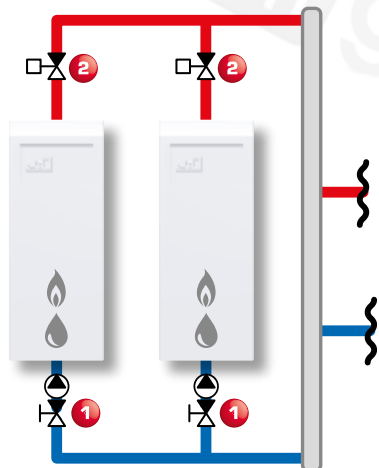
BUTTERFLY VALVE SERIES VBF100

SELECTION GUIDE - FOR USE TO ESBE ACTUATORS

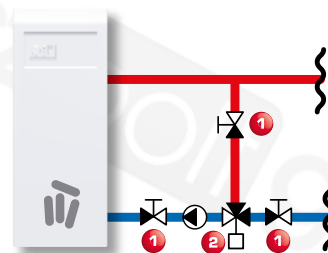


DN	90 - 15 Nm				ARC300 - 30 Nm			ARC600 - 60 Nm			ARD100 - 10 Nm			ARD100 - 20 Nm			
	Adaptor kit	M	O		Adaptor kit	M	O	Adaptor kit	M	O	Adaptor kit	M	O	Adaptor kit	M	O	
20	13905100	256	217								210	171			221	182	
25		262	217								216	171			227	182	
32		268	217								13905200	222	171			232	182
40		288	226									242	180		13905200	252	191
50		324	239													288	204
65		340	247												304	212	
80					13905200	332	228				363	259			339	235	
100							354	239		13905200	385	270					
125											410	282					
150																	
200																	

INSTALLATION EXAMPLES



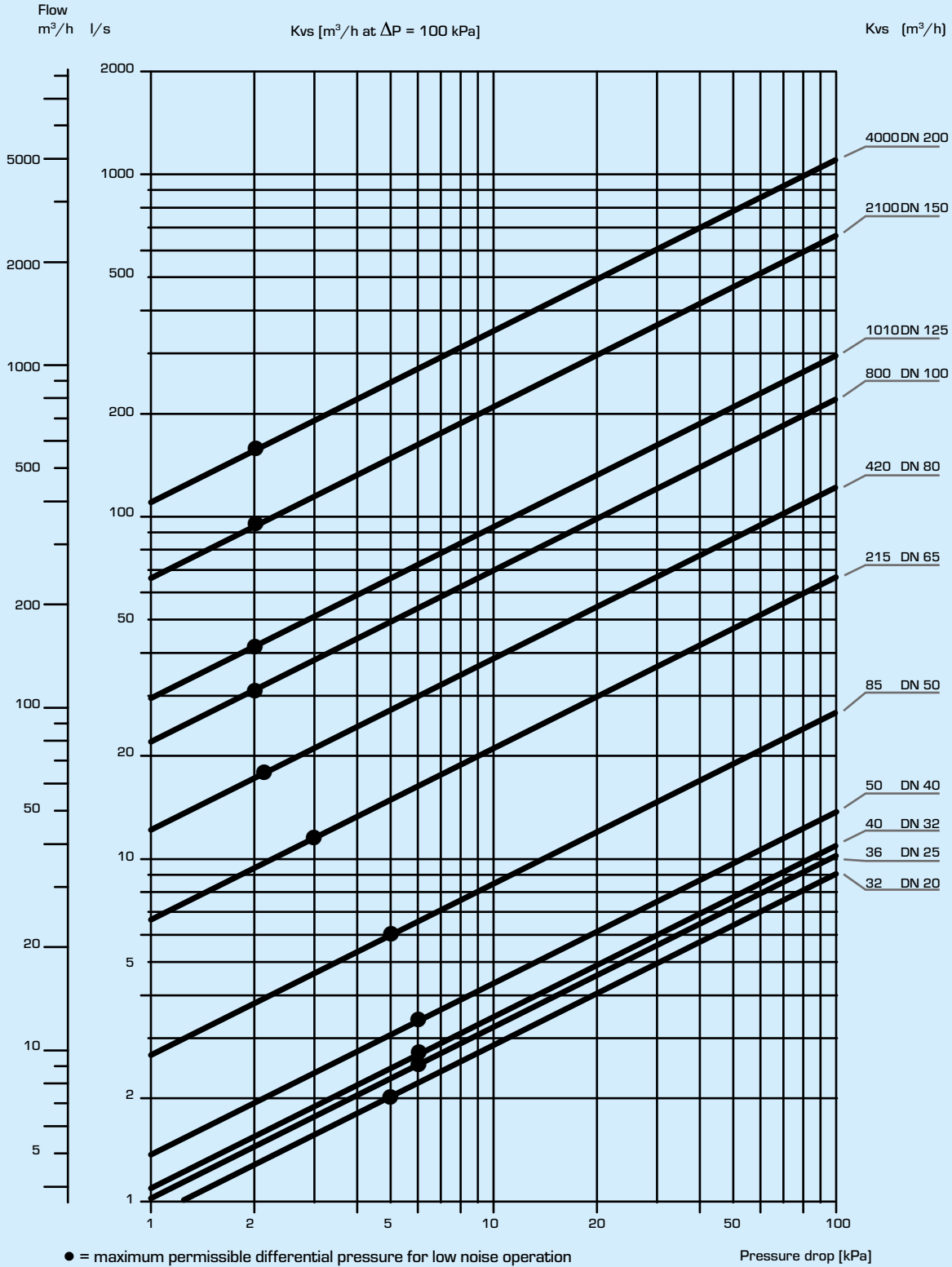
- 1 VBF125
- 2 VBF125 + 90/ARC/ARD



- 1 VBF125
- 2 3F + 90

BUTTERFLY VALVE SERIES VBF100

FLOW CHART



To be considered: As both the viscosity and the thermal conduction are affected when glycol is added to the system water, this fact has to be considered when dimensioning the valve. A good rule is to choose one size higher Kv-value when 30 – 50% glycol is added. A lower concentration of glycol may be disregarded. N.B.! Maximum 50% glycol for freezing protection and oxygen absorbing compounds are allowed as additives.