

Butterfly valve VZAF

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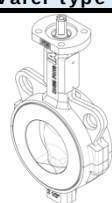
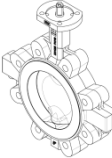
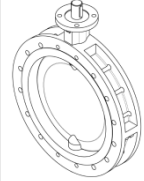


Butterfly valve VZAF

Key features and product range overview

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General	Construction	Characteristics	Supplier
 Nominal diameter DN32 ...DN900	• Wafer VZAF-C	• Ideal for very corrosive, aggressive and high purity application	• InterApp
 Flow rate Kv 4 ...81016 m³/h	• Lug VZAF-L • U-section VZAF-U	• Gas-tight • Large variety of body and liner material	

Version	Type	Nominal diameter [mm]	Rating norm	
Wafer type				
	VZAF-C	DN32 ...DN400	PN10 covered by PN16	
		DN450 ...DN600	PN10	
		DN32 ...DN600	PN16	
		DN40 ...DN400	Ansi cl. 150 covered by PN16	
		DN450 ...DN600	Ansi cl. 150	
Lug type				
	VZAF-L	DN32 ...DN150	PN10 covered by PN16	
		DN200 ...DN400	PN10	
		DN32 ...DN400	PN16	
		DN40 ...DN400	Ansi cl. 150	
U-section				
	VZAF-U	DN450 ...DN700	PN10	
		DN800 ...DN900	PN10	
		DN450 ...DN700	PN16	
		DN800 ...DN900	PN16	
		DN450 ...DN900	Ansi cl. 150	

Butterfly valve VZAF

Order information

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Modular system

- Individual selection by modular system, tailored for specific customer needs

- Scale of 3 different body materials
 9 different disc materials
 4 different liner materials
 3 different back liner materials
 several options available

- All parameters which are shown in type code can be ordered by

- KMAT part no.: 8041879

- Examples of typical configurations for following solutions:

Chemical applications, acids of all kinds
VZAF-C-100-16-S8PN16-H1EP80-V3-V3PFA-T1

Chlorine production
VZAF-C-200-10-S8PN16-H1EP80-V3-V3PFA-U3

Ultrapure water for semiconductor industry
VZAF-L-300-10-S8PN10-H1EP80-V3-V3PFA-T1

Pharmaceutical applications
VZAF-L-150-16-S8PN16-V13-V3-V3PL-T1

Butterfly valve VZAF

Type code part 1

		VZAF	-	C	-	32	-	6	-	S8	PN10	-	H1	PU80	-	V1	-	V1	PL	-	T1	-	C	-	E4	-	TA	-	EX4																										
Type																																																							
VZAF	Butterfly valve																																																						
Design																																																							
C	Ring housing with centring holes (Wafer)																																																						
L	Ring housing with threaded flange (Lug)																																																						
U	U-section housing																																																						
Nominal diameter DN																																																							
32	32 mm																																																						
40	40 mm																																																						
50	50 mm																																																						
65	65 mm																																																						
80	80 mm																																																						
100	100 mm																																																						
125	125 mm																																																						
150	150 mm																																																						
200	200 mm																																																						
250	250 mm																																																						
300	300 mm																																																						
350	350 mm																																																						
400	400 mm																																																						
450	450 mm																																																						
500	500 mm																																																						
600	600 mm																																																						
	700mm - 900mm on request																																																						
Nominal pressure																																																							
2,5	2.5 bar																													on request (available at DN750)																									
6	6 bar																													(available at DN350...DN750, DN800-DN900)																									
10	10 bar																													(available at DN200...DN300)																									
16	16 bar																													(available at DN32...DN150)																									
Connection standard																																																							
S8	DIN EN 1092-1																																																						
S9	ANSI Class 150																																																						
Nominal pressure connection standard																																																							
PN10	PN10																																																						
PN16	PN16																																																						
	Standard and just with [S9] ANSI Class 150																																																						
Housing material																																																							
V13	Stainless steel 1.4409																																																						
H1	Ductile cast iron, EN-GJS-400-15																																																						
Surface finish, housing																																																							
EP80	Epoxid coated 80 μ																																																						

Butterfly valve VZAF

Type code part 2

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VZAF - C - 32 - 6 - S8 PN10 - H1 PU80 - V1 - V1 PL - T1 - C - E4 - TA - EX4

Shaft material

V1	Stainless steel 1.4404
V3	Stainless steel 1.4408
V10	Stainless steel 1.4435

Shut-off element material

V1	Stainless steel 1.4404
V3	Stainless steel 1.4408
ST1	Carbon steel 1.0577 (ST 52-3 N)

Surface finish, shut-off element

	None
PL	Polished
PFA	PFA coated
PFA1	PFA coated, anti-static

Seal material

T1	PTFE/silicone
T2	PTFE/EPDM
T3	PTFE/FPM
U1	PTFE Ultraflon/silicone
U2	PTFE Ultraflon/EPDM
U3	PTFE Ultraflon/FPM
T1A	PTFE/silicone, anti-static
T2A	PTFE/EPDM, anti static
T3A	PTFE/FPM, anti static
U1A	PTFE Ultraflon/silicone, anti static
U2A	PTFE Ultraflon/EPDM, anti static
U3A	PTFE Ultraflon/FPM, anti static

PWIS content

	Standard
C	PWIS-free

Clean room features

	None
E4	Clean-room approval ISO 14644-1 class ISO 4

Additional seal option

	None
TA	With TA-Luft packing in accordance with VDI 2440

EU approval

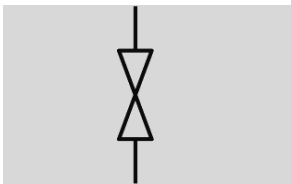
	None
EX4	II 2GD

Butterfly valve VZAF

Technical data

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Function



- Designed as Wafer, Lug or U-section



General technical data	
Process valve connection	
Valve function	2/2-way
Design	Butterfly valve in wafer, lug & u-section design
Sealing principle	Soft
Actuation type	Mechanical
Manual override	None
Approved for use in food industry	Yes
Switching position display	Slot direction on shaft = flow direction
Direction of flow	Reversible
Type of mounting	In-line installation
Mounting position	Any (DN 450 and bigger horizontal)
Based on connection standard	DIN EN 1092-1
	ANSI Class 150

Operating and environmental conditions	
Process valve nominal pressure ¹⁾	PN 10; PN 16 / Class 150
Vacuum [mbarA]	20 conditions: Nominal diameter [mm]: max. DN300 Liner: Ultraflon Media: neutral media without solid content, max. +80°C
Temperature of medium [°C]	-20 ... +200 (depending on material and other working conditions)

¹⁾ PN class to DIN EN 1333 / ASME B 16.5

ATEX description

Disc material	ATEX-description
All disc material	II 2GD(o) c IIC X
All not coated discs or with anti static coating (PFA1)	II 1GD(I)/2GD(o) c IIC X

Installation Note

In case of mounting the valve at the end of a line please note:	
Body type	Lug type [L]
Medium	only for non hazardous liquids, +10...+60°C
Max. working pressure	DN32-150 8 bar
	DN200-300 6 bar
	DN350-600 4 bar
	> DN 600 on request on request
	no water hammer!

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Technical data (Liner material information)

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Liner			
Code	Name DIN	Material	Temperature range [°C]
T2			-10 ... +130
Teflon® PTFE has excellent chemical resistance, electrical properties, high temperature performance, low temperature toughness, plus unique adhesion and flame resistance / with EPDM back-liner for high purity and silicone free applications			
T2A			-10 ... +130
Conductive Teflon® PTFE for ATEX applications			
U2			-10 ... +130
Ultraflon® is the material choice where high purity, low friction, high durability, excellent thermal resistance and chemical inertness characteristics are required / with silicone back-liner, for high purity applications			
U2A			-10 ... +130
Conductive Ultraflon® for ATEX applications			
T1			-40 ... +200
Teflon® PTFE has excellent chemical resistance, electrical properties, high temperature performance, low temperature toughness, plus unique adhesion and flame resistance / with silicone back-liner for standard applications			
T1A			-40 ... +200
Conductive Teflon® PTFE for ATEX applications			
U1			-40 ... +200
Ultraflon® is the material choice where high purity, low friction, high durability, excellent thermal resistance and chemical inertness characteristics are required / with silicone back-liner, for low and high temperature applications			
U1A			-40 ... +200
Conductive Ultraflon® for ATEX applications			
T3			-10 ... +160
Teflon® PTFE has excellent chemical resistance, electrical properties, high temperature performance, low temperature toughness, plus unique adhesion and flame resistance / with Viton back-liner for high corrosive applications			
T3A			-10 ... +160
Conductive Teflon® PTFE for ATEX applications			
U3			-10 ... +160
Ultraflon® is the material choice where high purity, low friction, high durability, excellent thermal resistance and chemical inertness characteristics are required / with Viton back-liner, it is the most corrosion resistant valve of our program range			
U3A			-10 ... +160
Conductive Ultraflon® for ATEX applications			

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Technical data (actuating torques & Kv values)

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Torques with PTFE liner, incl. safety factor

DN	32/40	50	65	80	100	125	150	200	250	300	350	400	450	500	600	700	750	800	900
Nm	21	25	39	43	73	87	146	189	330	476	675	900	1100	1300	1750	2100	2500	3100	4000

Kv values

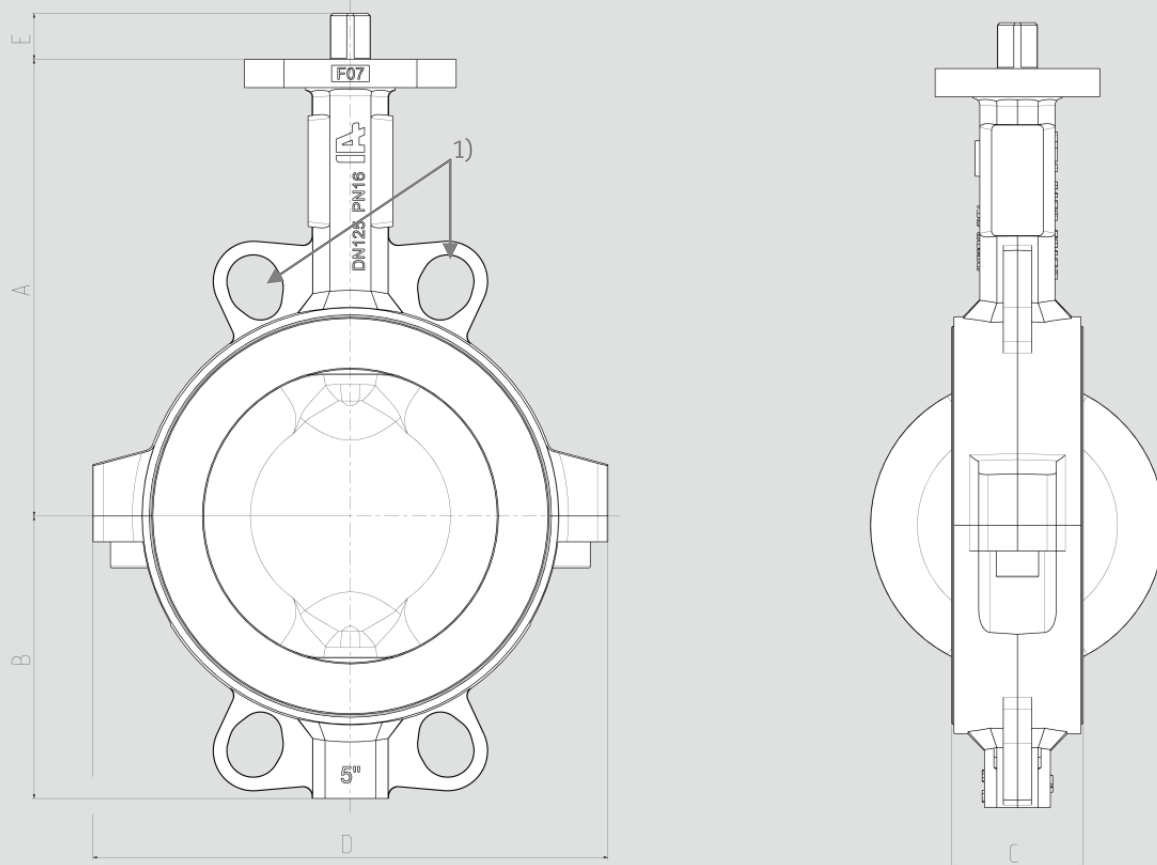
Nominal diameter	Kv values [m ³ /h] at opening angle of the valve							
	20°	30°	40°	50°	60°	70°	80°	90°
DN32/40	4	8	17	30	45	65	85	95
DN50	5	11	24	42	64	92	118	134
DN65	8	19	41	70	108	155	200	227
DN80	15	33	72	125	190	270	335	392
DN100	20	48	95	162	255	385	485	585
DN125	38	82	165	255	455	645	815	1015
DN150	60	130	235	395	645	955	1220	1495
DN200	95	230	465	795	1180	1815	2410	3050
DN250	175	350	710	1160	1610	2420	3650	4510
DN300	265	522	995	1720	2665	3965	5960	7210
DN350	350	660	1180	1800	2880	4550	7180	8760
DN400	510	985	1480	2450	4230	6550	9250	11350
DN450	665	1255	2230	3850	6250	9200	12250	14900
DN500	890	1620	2980	5350	8150	11800	15560	18000
DN600	970	2150	4180	7420	11350	16450	21200	24500
DN700	1060	2560	4868	8412	14359	23901	37638	48633
DN750	1217	2939	5588	9675	16484	27437	43207	55829
DN800	1402	3328	6351	11169	19073	32074	51820	63905
DN900	1915	4259	7897	13849	23887	41112	66771	81016

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Technical data

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Dimensions for Wafer type



1) > DN 450 2 x threads on valve neck and bottom

Size	A	B	C	D Ø	E ±0,5	Weight [kg]
32/40	105,8	69	33	105.8	19	1,7
50	118,4	68	43	118.4	19	2,3
65	132,5	78	46	132.5	19	2,9
80	144	92	46	144	19	3,4
100	173	107	52	173	19	5,1
125	219	120	56	219	19	6,9
150	247	134	56	247	25	10
200	295	162	60	295	25	14,1
250	367	199	68	367	32	22,9
300	419	230	78	419	32	32,9
350	428	254	78	428	40	50
400	473	287	102	473	42	68
450	528	320	114	528	65	100
500	588	360	127	588	65	122
600	686	415	154	686	90	180

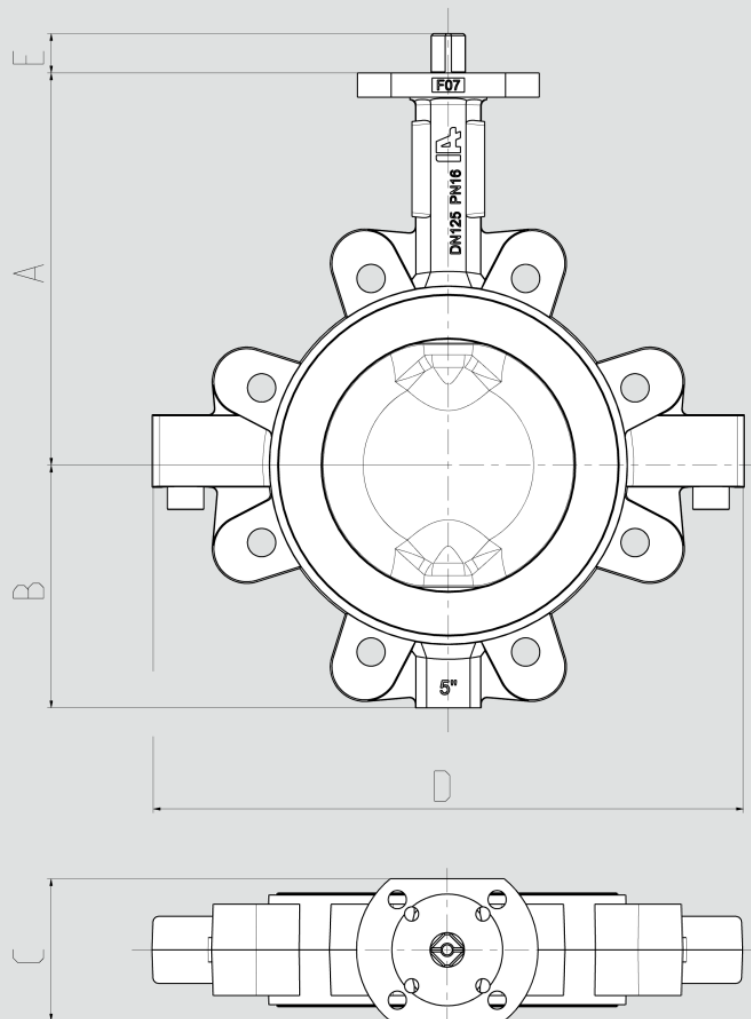
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Technical data

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Dimensions for Lug type



Size	A	B	C	D Ø	E ±0,5	Weight [kg]
32/40	125	69	33	136	19	2,4
50	134	68	43	162	19	3,2
65	145	78	46	170	19	4,1
80	160	92	46	216	19	6,2
100	175	107	52	254	19	9,3
125	194	120	56	293	19	10,7
150	210	134	56	315	25	12,9
200	239	162	60	389	25	22,3
250	275	199	68	483	32	32,4
300	310	230	78	543	32	46,9
350	349	254	78	564	40	87
400	379	287	102	620	42	98

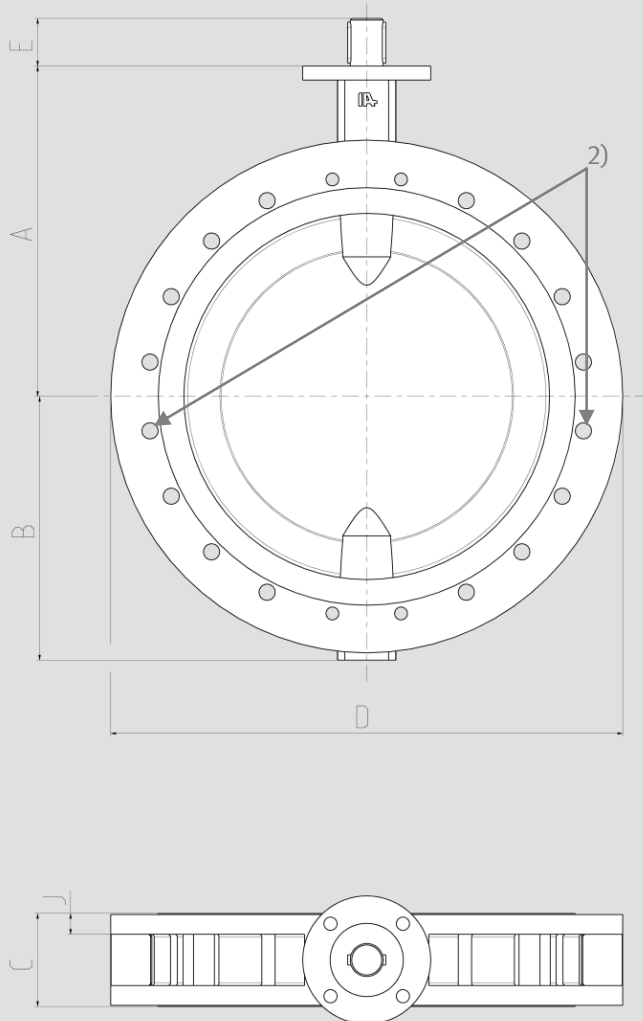
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Technical data

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Dimensions for U-section type



2) DN 600 - 900, 2 threads on both sides

Size	A	B	C	D Ø	J ±0,5	E ±0,5	Weight [kg]
450	426	320	114	630	20,5	65	140
500	451	360	127	700	24,5	65	175
600	555	415	154	820	28	90	275
700	605	482	165	930	30	80	423
800	658	550	190	1060	30	108	670
900	710	602	203	1160	35	128	880

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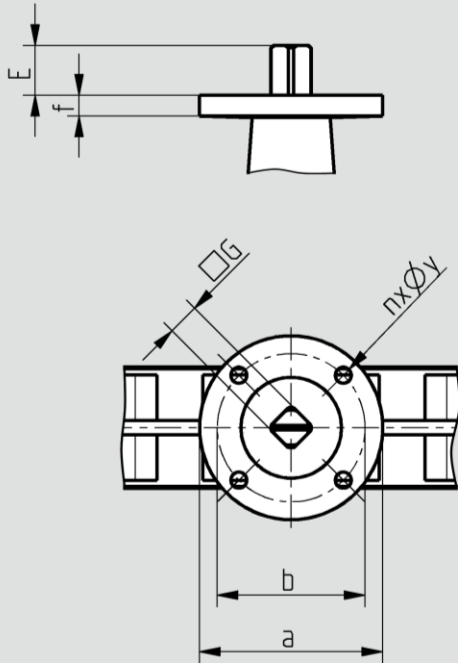
Butterfly valve VZAF

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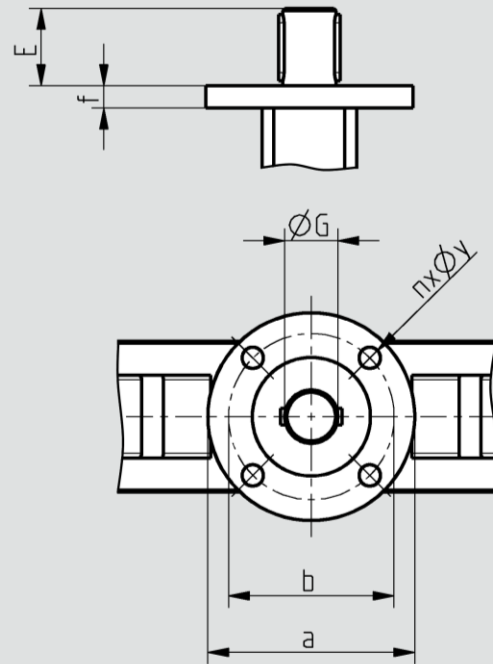
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Dimensions for all types

DN32-400



DN450 -900

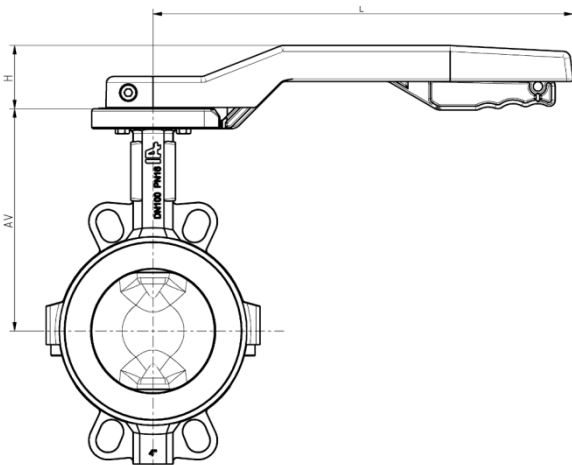


Size	E ±0,5	G	d	e	f ±1	ISO	a Ø	b Ø	n x Øy
32/40	19	□11	-	-	9	F05	65	50	4x7
50	19	□11	-	-	9,5	F05	65	50	4x7
65	19	□11	-	-	9	F05	65	50	4x7
80	19	□11	-	-	9	F05	65	50	4x7
100	19	□14	-	-	12	F05/07	90	50/70	4x7/9
125	19	□14	-	-	12	F05/07	90	50/70	4x7/9
150	25	□17	-	-	12	F07	90	70	4x9
200	25	□17	-	-	15	F07/10	125	70/102	4x9/11
250	32	□22	-	-	15	F10	125	102	4x11
300	32	□22	-	-	15	F10	125	102	4x11
350	40	□27	-	-	17	F12	155	125	4x13,5
400	42	□27	-	-	17	F12	155	125	4x13,5
450	65	Ø45	20	12	21	F14	175	140	4x18
500	65	Ø45	22	14	20	F14	175	140	4x18
600	90	Ø60	22	14	26	F16	210	165	4x22
700	80	Ø72	22	14	26	F16	210	165	4x22
750	91	Ø60	28	16	24,5	F16	210	165	4x22
800	108	Ø80	32	18	28,5	F25	300	254	8x18
900	128	Ø98	32	18	35,5	F30	350	298	8x22

Hand lever for VZAF

Selection assistance for part no.

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Dimension hand lever							
Design	Nominal size (DN)	Part No.	Type Code	AV	H	L	Weight [kg]
	32/40	3298217	VAOH-F6-F05-11-180-H9-RA10-AL	125	41	180	0.4
	50	3298218	VAOH-F6-F05-11-240-H9-RA10-AL	134	43	243	0.5
	65	3298218	VAOH-F6-F05-11-240-H9-RA10-AL	145	43	243	0.5
	80	3298218	VAOH-F6-F05-11-240-H9-RA10-AL	160	43	243	0.5
	100	3298225	VAOH-F6-F07-14-340-H9-RA10-AL	175	43	340	0.6
	125	3298225	VAOH-F6-F07-14-340-H9-RA10-AL	194	43	340	0.6
	150	3298225	VAOH-F6-F07-14-340-H9-RA10-AL	210	51	340	0.6

