ARI-PALTRA®-V - Fig.501 - Wafer type segmented ball valve

ARI-PALTRA®-V
with hand lever

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with worm gear

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ARI-PALTRA®-V
with electric rotary actuator
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with pneumatic actuator

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ARI-PALTRA®-V
with hydraulic actuator

on request

Fig.501 -
ARI-PALTRA®-V Wafer type

Features:

- Excellent control characteristics – Large rangeability
- Tightness up to a differential pressure of 40 bar
- Stainless steel body
- Metallic or PTFE+C sealing
- Replaceable seat ring
- Ball surface hard chrome plated

Wafer type segmented ball valve (Stainless steel)

Figure	Nominal pressure	Material	Nominal diameter	Sealing elements
52.501	PN16	1.4408	DN 150-200	PTFE (TC)
				Stellite (KC)
55.501	PN40	1.4408	DN 25-100	PTFE (TC)
				Stellite (KC)

Face-to-face dimension acc. to industry standard

Sealing elements PTFE (TC)

Sealing elements Stellite (KC)

Sealing element:	
• PTFE (TC)	-40°C up to 200°C
• Stellite (KC)	-40°C up to 260°C
Max. differential pressure:	
52.501	• 16 bar - standard
55.501	• 40 bar - standard

Actuation arrangement:	
• Hand lever • Worm gear • Electric actuator	• Pneumatic actuator • Hydraulic actuator
Sealing leakage test:	
PTFE (TC)	• DIN EN IEC 60534-4 leakage classVI
Stellite (KC)	• DIN EN IEC 60534-4 leakage class IV

Options on request

Parts

Pos.	Sp.p.	Description	Fig. 52.501 / 55.501
1		Body	1.4408
2		Clamping ring	1.4408
3		Ball segment with V-cut	1.4408
4		Stem	1.4404
5		Pivot	1.4404
6		Packing box flange	1.4404
7		Gland follower	1.4404
8		Subshaft cover	1.4404
9	x	Back-up-ring	1.4404
10	x	Washer	1.4401
11	x	Bearing strip	PTFE on stainless steel net
12 / 13	x	Axial-washer	PTFE on stainless steel net
14		Disc spring	1.4310
15 / 16	x	Gasket [1)]	978-C / SIGRAFLEX HOCHDRUCK PRO
17	x	Gasket	978-C / SIGRAFLEX HOCHDRUCK PRO
18	x	Box packing	Graphit
19	x	O-ring	EPDM
20		Thread pin	A4
21		Stud	A4-70
22		Socket screw	A4-70
24		Hexagon nut	A4-70
25		Seat ring	TC: PTFE / KC: 1.4436/Stellite
27		Supporting disc [2)]	1.4401
28	x	Gasket [2)]	978-C / SIGRAFLEX HOCHDRUCK PRO
29		Key	1.0503
30		Mounting bracket	1.0576
	└ Spare parts		

[1)] Only for KC-version
[2)] Only for TC-version

Information / restriction of technical rules need to be observed!
The engineer, designing a system or a plant, is responsible for the selection of the correct valve.
Resistance and suitability must be verified (contact manufacturer for information, refer to Product overview).

TC = **T**eflon seal and **C**hromed ball segment
KC = Stellited (**K**arkaistu) seal and **C**hromed ball segment

DN			25	32	40	50	65	80	100	150	200
Face-to-face dimension											
L		(mm)	50	55	60	75	100	100	115	160	200
Dimensions											
ØD (Outer diameter flange)		(mm)	65	75	90	105	120	140	160	216	273
E (Middle - bottom)		(mm)	59	67	79	83	91	99	123	133	191
H (Middle – mounting bracket)		(mm)	118	118	130	134	165	183	198,5	228,5	292
Weights											
1.4408	Fig. 52.501	(kg)	-	-	-	-	-	-	-	29,6	45,0
1.4408	Fig. 55.501	(kg)	1,9	2,1	3,5	4,7	7,6	8,8	12,8	-	-

Pressure-temperature-ratings			**Intermediate values for max. permissible operational pressure can be determined by linear interpolation of the given temperature / pressure chart.**							
acc. to Högfors-Werknorm	**PN**		**-40 °C**	**0 °C**	**50 °C**	**100 °C**	**150 °C**	**200 °C**	**250 °C**	**260 °C**
1.4408	16	(bar)	16	16	16	15,1	13,7	12,7	11,9	11,7
1.4408	40	(bar)	40	40	40	38,1	34,2	30,2	28,0	27,6

Operating limits sealing element [1]	**Intermediate values for max. differential pressure can be determined by linear interpolation of the given temperature / pressure chart.**									
Sealing PTFE (TC)	**-40 °C**	**0 °C**	**50 °C**	**100 °C**	**120 °C**	**150 °C**	**180 °C**	**200 °C**	**250 °C**	**260 °C**
	16	16	16	16	16	11,5	7	4	-	-

[1] Note additional restrictions of the pressure-temperature-ratings!

DN				25	32	40	50	65	80	100	150	200
Operation torque (bi-directional flow)												
PN16-40	Sealing PTFE (TC)	Torque [2]	(Nm)	20	20	28	39	52	70	100	240	340

[2] For steam duty use the next size up

PALTRA®-V Wafer type segmented ball valve with hand lever

Opening and closing of the valves with the hand lever.

The segmented ball valve is opened when the hand lever points in the direction of the pipeline.

Parts			
Pos.	**Sp.p.**	**Description**	**Fig. 52.501 / 55.501**
50	x	Hand lever	
51	x	Clamp lever	
52		Stud	
53		Washer	
	└ Spare parts		

DN		**25**	**32**	**40**	**50**	**65**	**80**	**100**	**150**
Dimensions									
E	(mm)	59	67	79	83	91	99	123	133
H1 (to middle of valve)	(mm)	172	172	186,5	190,5	222	240	253,5	293,5
P1	(mm)	186	186	300	300	300	300	420	420

Weights with hand lever										
1.4408	Fig. 52.501	(kg)	-	-	-	-	-	-	-	33,4
1.4408	Fig. 55.501	(kg)	3,3	3,5	4,9	6,1	9,4	10,7	16,2	-

PALTRA®-V Wafer type segmented ball valve with worm gear

Opening and closing of the valves with the handwheel.

The position of the segmented ball can be seen on a position indicator on top of the gear.

Parts			
Pos.	**Sp.p.**	**Description**	**Fig. 52.501 / 55.501**
500	x	Worm gear	
	└ Spare parts		

DN		**25**	**32**	**40**	**50**	**65**	**80**	**100**	**150**	**200**
Dimensions										
b	(mm)	52	52	52	52	52	52	71	71	71
ØC	(mm)	200	200	200	200	200	200	200	200	300
E	(mm)	59	67	79	83	91	99	123	133	191
H1	(mm)	247	247	259	263	295	313	339	369	482,5
P2	(mm)	215	215	215	215	215	215	247	247	282
Type of gear		AB210	AB210N	AB210N	AB210N	AB210N	AB210N	AB550N	AB550N	AB550N

Weights with manual gear											
1.4408	Fig. 52.501	(kg)	-	-	-	-	-	-	-	34,7	54,1
1.4408	Fig. 55.501	(kg)	8,2	8,4	9,8	11,4	12,9	13,0	18,6	-	-

PALTRA®-V Wafer type segmented ball valve with electric rotary actuator Auma

DN		25	32	40	50	65	80	100	150	200
Dimensions										
E	(mm)	59	67	79	83	91	99	123	133	191
H	(mm)	118	118	130	134	165,5	183,5	199	228,5	192
H1	(mm)	403	403	415	419	450,5	468,5	484	514	582
C	(mm)	160	160	160	160	160	160	160	160	160
J	(mm)	63	63	63	63	63	63	63	63	63
P1	(mm)	293	293	293	293	293	293	293	293	321
P2	(mm)	97,5	97,5	97,5	97,5	97,5	97,5	97,5	97,5	128
P3	(mm)	299	299	299	299	299	299	299	299	312
P4	(mm)	218	218	218	218	218	218	218	218	205
Type of actuator		SA07.2-GS50.3 (51:1)-F07	SA07.2-GS50.3 (51:1)-F07	SA07.2-GS50.3 (51:1)-F07	SA07.2-GS50.3 (51:1)-F07	SA07.2-GS50.3 (51:1)-F07	SA07.2-GS50.3 (51:1)-F07	SA07.2-GS50.3 (51:1)-F10	SA07.2-GS50.3 (51:1)-F10	SA07.6-GS63.3 (51:1)-F12
Output drive	1/min	22	22	22	22	22	22	22	22	22
Operating time	s/90°	35	35	35	35	35	35	35	35	35

Weights with electric actuator											
1.4408	Fig. 52.501	(kg)	-	-	-	-	-	-	-	56,6	77,0
1.4408	Fig. 55.501	(kg)	28,9	29,1	30,5	31,7	34,6	35,8	39,8	-	-

PALTRA®-V Wafer type segmented ball valve with pneumatic rotary actuator AIR-TORQUE

DN		25	32	40	50	65	80	100	150	200
Dimensions										
E	(mm)	59	68	79	83	91	99	123	133	191
H1	(mm)	253	253	265	281	340	370	406	436	587
P1	(mm)	56,5	56,5	56,5	63	77	77	86	86	111,5
P2	(mm)	62	62	62	73	85	85	102	102	140
P3	(mm)	241	241	241	259	304	333	394,5	394,5	528
Type of actuator										
Spring opens Actuating pressure actuator 6 bar [1]	TC	SO00100-6	SO00100-6	SO00100-6	SO00150-6	SO00220-6	SO00300-6	SO00450-6	SO00450-6	SO01200-6
	KC	SO00100-6	SO00100-6	SO00100-6	SO00150-6	SO00220-6	SO00300-6	SO00450-6	SO00450-6	SO01200-6
Spring closes Actuating pressure actuator 6 bar [1]	TC	SC00100-6	SC00100-6	SC00100-6	SC00150-6	SC00220-6	SC00300-6	SC00450-6	SC00450-6	SC01200-6
	KC	SC00100-6	SC00100-6	SC00100-6	SC00150-6	SC00220-6	SC00300-6	SC00450-6	SC00450-6	SC01200-6
Double acting Actuating pressure actuator 6 bar [1]	TC	DR00030U	DR00030U	DR00060U	DR00060U	DR00100U	DR00100U	DR00150U	DR00220U	DR00450U
	KC	DR00030U	DR00030U	DR00060U	DR00060U	DR00100U	DR00100U	DR00150U	DR00220U	DR00450U

Weights with pneumatic actuator [2]											
1.4408	Fig. 52.501	(kg)	-	-	-	-	-	-	-	51,7	96,6
1.4408	Fig. 55.501	(kg)	11,3	11,5	12,9	15,7	22,0	26,2	34,9	-	-

For steam duty use the next actuator up

[1] other actuating pressure on request

[2] with largest actuator option

Actuator flange connection, with 2 parallel keys 180° rotated

DN		25	32	40	50	65	80	100	150	200
Connection EN ISO 5211		F07	F07	F07	F07	F07	F07	F10	F10	F12
Ød (stem diameter)	(mm)	11	11	15	15	20	20	25	25	30
Ød2 (inside diameter)	(mm)	55	55	55	55	55	55	70	70	85
Ød3 (screw-hole circle diameter)	(mm)	70	70	70	70	70	70	102	102	125
n x Ød4 (Number x hole-Ø)	(mm)	4x9	4x9	4x9	4x9	4x9	4x9	4x11	4x11	4x13
C (parallel key length)	(mm)	20	20	25	25	32	32	36	36	36
G (parallel key width)	(mm)	3	3	5	5	6	6	8	8	8
l (bare stem length)	(mm)	25	25	35	35	30	30	35	35	49
t (mounting bracket wall thickness)	(mm)	5	5	5	5	6	6	6	6	8

Kvs-value / Zeta-value										
DN		**25**	**32**	**40**	**50**	**65**	**80**	**100**	**150**	**200**
Kvs-value	(m^3/h)	14	26	42	75	100	180	280	390	950
Zeta-value	--	3,18	2,48	2,32	1,78	2,85	2,02	2,04	5,2	2,83

Control characteristic									
DN	**25**	**32**	**40**	**50**	**65**	**80**	**100**	**150**	**200**
Rangeability	50:1		100:1						
Characteristic	modified equal percentage								

Kv-Diagram

Detailed flow characteristics available on request

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