

ARI-ZETRIX® - Fig. 018 - Fully lugged process valve with metallic sealing - Triple offset
DN 80 - 600

ARI-ZETRIX®
with worm gear

- Self-locking
- With variable adjustment

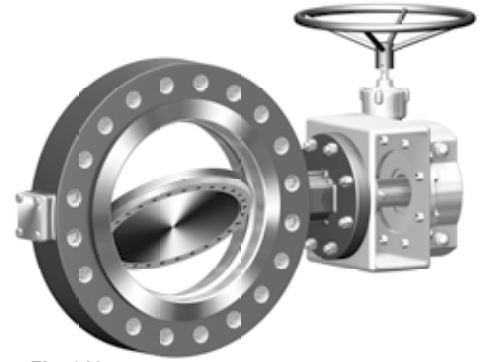
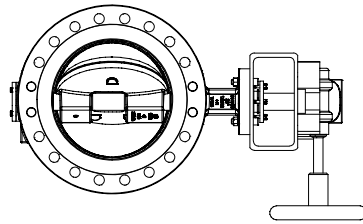
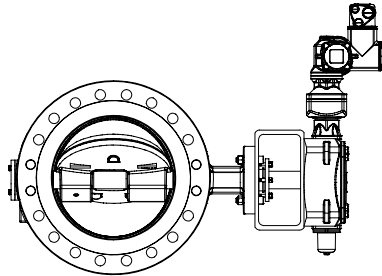


Fig. 018 -
ARI-ZETRIX® threaded flanged

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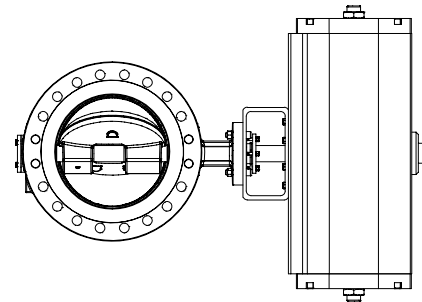
ARI-ZETRIX®
with electric rotary actuator
Auma or Schiebel

- For temporary service S2-15 min.
(or control: Auma S4 25%,
Schiebel S4 40%)
- 400V 50Hz (optional: 230V 50Hz)
- Enclosure IP 67



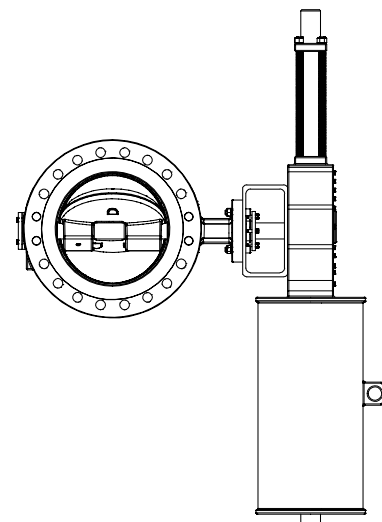
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ARI-ZETRIX®
with pneumatic actuator



on request

ARI-ZETRIX®
with hydraulic actuator



on request

Features:

- Threaded flange ends design
- Cast steel / stainless steel body, one-piece
- Triple offset construction:
Rotary movement (90°) without wear or friction
- Metallic sealing
- Stellite seat (Stellite® 21)
- Continuous stem, hardened bearings
with graphite protector ring
- Blow-out protected stem (optional: acc. to API 609)
- Vacuum-tight
- Firesafe acc. to ISO 10479 / API 607
- ATEX
- SIL
- NACE (optional)
- Packing acc. to EN ISO 15848-1/ TA-Luft (optional)

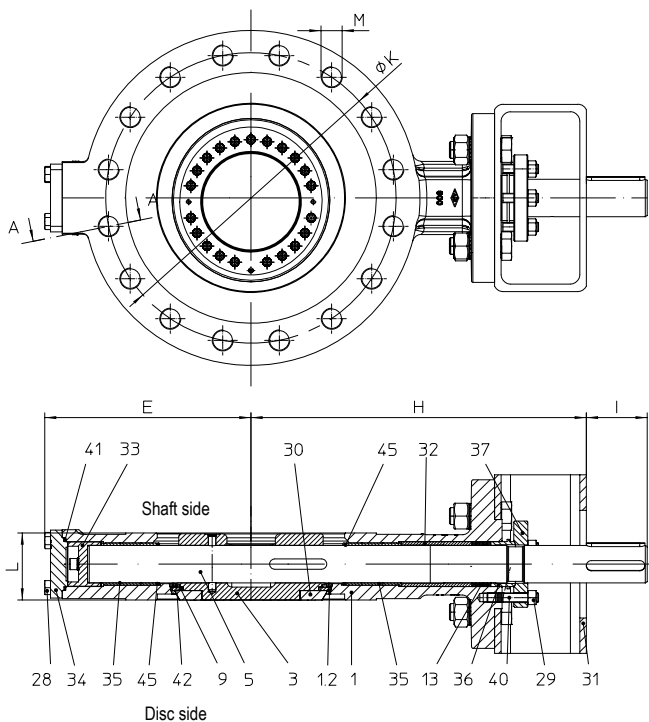
Threaded flange process valve - Triple offset (Cast steel, Stainless steel)


Figure	Nominal pressure	Material	Nominal diameter	Disc	Stem
36.018	PN 63	1.0619+N	DN 80-600	1.0619+N	1.4021+QT
37.018	PN 100	1.0619+N	DN 80-400	1.0619+N	1.4021+QT
56.018	PN 63	1.4408	DN 80-600	1.4408	1.4542
57.018	PN 100	1.4408	DN 80-400	1.4408	1.4542

Face-to-face dimension series 16 acc. to DIN EN 558 / ISO 5752

Sealing element:	
• Graphite / X2CrNiMoN22-5-3, 1.4462	-60°C to 400°C
Max. differential pressure:	
• = Nominal pressure	

Actuation arrangement:	
• Worm gear	• Pneumatic actuator
• Electric actuator	• Hydraulic actuator
Test:	
Sealing leakage test:	• DIN EN 12266-1 Leakage rate A

Options on request (refer to page 8)

Parts				
Pos.	Sp.p.	Description	Fig. 36./37.018	Fig. 56./57.018
1		Body	GP240GH+N, 1.0619+N	GX5CrNiMo19-11-2, 1.4408
1.2		Seat	Stellit 21	
3		Disc	GP240GH+N, 1.0619+N	GX5CrNiMo19-11-2, 1.4408
5		Stem	X20Cr13+QT, 1.4021+QT	X5CrNiCuNb16-4, 1.4542 - max. 300°C (1.4980 - max. 400°C)
9	x	Lamellar seal ring	Graphit / X2CrNiMoN22-5-3, 1.4462	
13	x	Packing unit	Graphit	
28		Hexagon screw	A4-70	
29		Hexagon nut	A4-70	
30		Retaining ring	< DN450: X20Cr13+QT, 1.4021+QT ≥ DN450: X5CrNi18-10, 1.4301	< DN450: X6CrNiTiMoVB25-15-2, 1.4980 ≥ DN450: X5CrNi18-10, 1.4301
31		Console	< DN600: S355J2H, 1.0576 (galvanized) ≥ DN600: E295, 1.0050	
32		Distance bush	X5CrNi18-10, 1.4301	
33		Axial bearing	X20Cr13+QT, 1.4021+QT (hardened)	X5CrNi18-10, 1.4301 (hardened)
34		Bottom flange	P265 GH, 1.0425 (hardened)	X5CrNi18-10, 1.4301 (hardened)
35		Bushing	< DN400: X20Cr13+QT, 1.4021+QT (hardened) ≥ DN400: X5CrNi18-10, 1.4301 (hardened)	X5CrNi18-10, 1.4301 (hardened)
36		Bushing	X5CrNi18-10, 1.4301	
37		Packing box flange	X5CrNi18-10, 1.4301	
40		Stud	A4-70	
41	x	Spiral wounded gasket	Graphite / X6CrNiTi18-10, 1.4541	
42	x	Spiral wounded gasket	Graphite / Hastelloy C276, 2.4819	
45		Packing ring	Graphite webbing	
L Spare parts				

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 fitness must be verified (contact manufacturer for information, refer to Product overview).

DN	80	100	125	150	200	250	300	350	400	450	500	600
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Face-to-face dimension series 16 acc. to DIN EN 558 / ISO 5752													
L	(mm)	64	64	71	76	89	114	114	127	143	--	152	178

Dimensions														
PN 63	H	(mm)	286	326	361	397	430	530	558	651	716	--	739	832
	E	(mm)	187	218	219	277	277	373	362	455	441	--	457	568
	I	(mm)	46	55	65	65	80	110	110	130	130	--	130	160
PN 100	H	(mm)	286	326	361	397	430	530	558	651	716	--	--	--
	E	(mm)	187	218	219	277	277	373	362	455	441	--	--	--
	I	(mm)	46	55	65	65	80	110	110	130	130	--	--	--

Standard-flange dimensions / Threads (Dimensions, Quantity, Screw depth) per side															
PN 63	Flange hole	ØK	(mm)	170	200	240	280	345	400	460	525	585	-	705	820
		Total number of threads (M)	(n)	8	8	8	8	12	12	16	16	16	-	20	20
		Thread ¹⁾²⁾	(mm)	M20	M24	M27	M30	M33	M33	M33	M36	M39	-	M45	M52
	Screw / threaded bolt	Number ¹⁾	(n)	8	8	8	8	8	8	12	12	12	-	16	16
		Thread depth ¹⁾	(mm)	32	33	35	38	37	45	51	58	63	-	64	64
		Number ²⁾	(n)	-	-	-	-	4	4	4	4	4	-	4	4
PN 100	Flange hole	ØK	(mm)	180	210	250	290	360	430	500	560	620	-	-	-
		Total number of threads (M)	(n)	8	8	8	12	12	12	16	16	16	-	-	-
		Thread ¹⁾²⁾	(mm)	M24	M27	M30	M30	M33	M36	M39	M45	M45	-	-	-
	Screw / threaded bolt	Number ¹⁾	(n)	8	8	8	8	8	8	12	12	12	-	-	-
		Thread depth ¹⁾	(mm)	32	33	35	38	37	48	51	54	63	-	-	-
		Number ²⁾	(n)	-	-	-	4	4	4	4	4	4	-	-	-
		Thread depth ²⁾	(mm)	-	-	-	21	27	34	23	24	30	-	-	-

¹⁾ Tapped through hole ²⁾ Tapped blind hole

Caution: Thread sizes ≥ M30 are not tapped all the way through

Thread pitch acc. to DIN 13-1

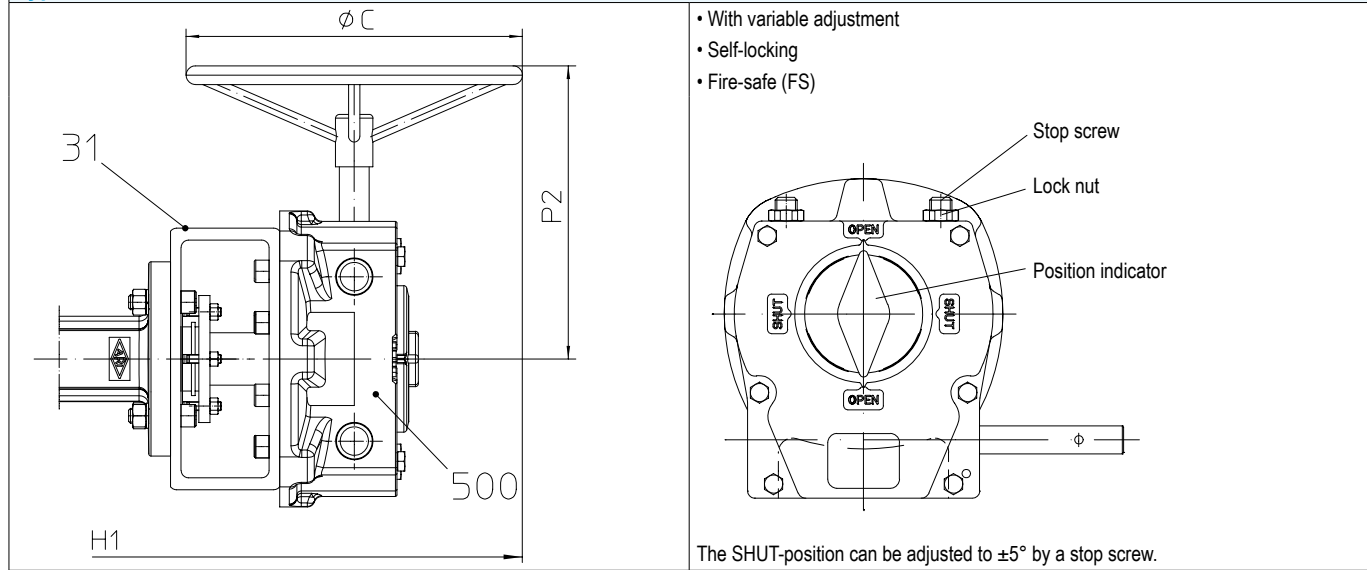
Thread depth is measured from flange face

Weights for threaded flanged process valve															
1.0619+N	PN 63	Fig. 36.018	(kg)	33	42	67	79	111	229	263	433	540	--	585	914
	PN 100	Fig. 37.018	(kg)	33	42	67	79	111	229	263	433	540	--	--	--
1.4408	PN 63	Fig. 56.018	(kg)	on request											
	PN 100	Fig. 57.018	(kg)	on request											

Pressure-temperature-ratings	Intermediate values for max. permissible operational pressures can be determined by linear interpolation of the given temperature / pressure chart.										
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acc. to manuf. standard	PN		-60°C to <-10°C	-10°C to 50 °C	100 °C	150 °C	200 °C	250 °C	300 °C	350 °C	400°C
1.0619+N	63	(bar)	on request	63	59	56	53	48	44	41	38
1.0619+N	100	(bar)		100	93	88	83	76	69	64	60

acc. to DIN EN 1092-1	PN		-60°C to <-10°C	-10°C to 100°C	150°C	200°C	250°C	300°C	350°C	400°C
1.4408	63	(bar)	on request	63	57,3	53,1	50,1	46,8	45	43,2
1.4408	100	(bar)		100	90,9	84,2	79,5	74,2	71,4	68,5

ZETRIX® process valve with worm gear
Typ: AB


Parts			
Pos.	Sp.p.	Description	Fig. 36./ 37.018; 56./ 57.018
31		Console	< DN600: S355J2H, 1.0576 (galvanized) ≥ DN600: E295, 1.0050
500		Worm gear	
L Spare parts			

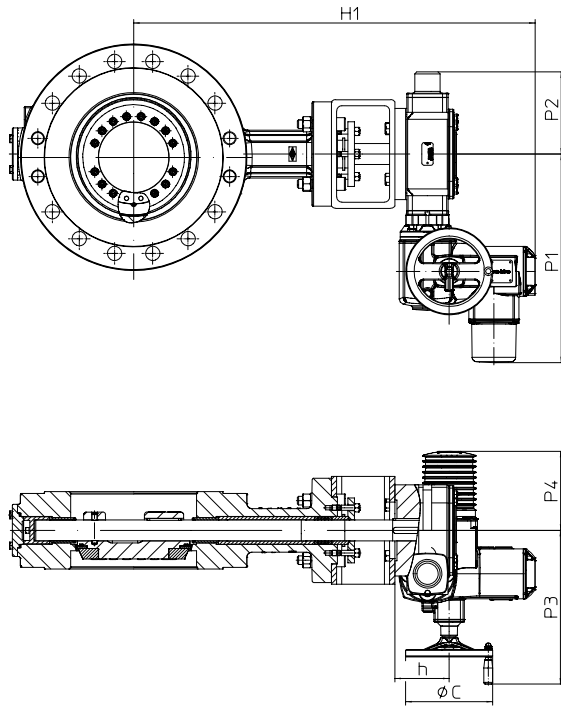
DN	80	100	125	150	200	250	300	350	400	450	500	600
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Dimensions			
PN 63	H1 (to middle of valve)	(mm)	on request
	P2	(mm)	
	ØC	(mm)	
	Type of gear		

PN 100	H1 (to middle of valve)	(mm)	on request
	P2	(mm)	
	ØC	(mm)	
	Type of gear		

Weights				
1.0619+N	PN 63	Fig. 36.018 with gear	(kg)	on request
	PN 100	Fig. 37.018 with gear	(kg)	
1.4408	PN 63	Fig. 56.018 with gear	(kg)	on request
	PN 100	Fig. 57.018 with gear	(kg)	

ZETRIX® process valve with electric rotary actuator



Actuator allocation on request

Type: Auma or Schiebel (further actuator types on request)

- for temporary service S2-15 min.
(or control: Auma S4 25%, Schiebel S4 40%)
- Enclosure IP 67
- Temperature guard in the motor
- Heating

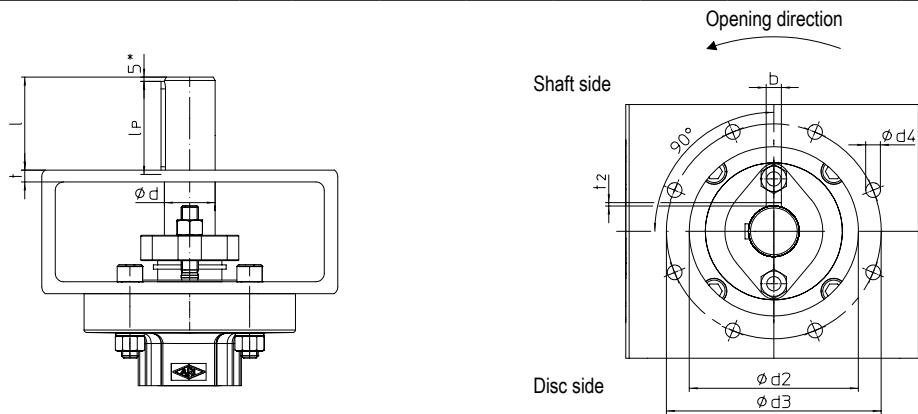
Voltages:

- 400V 50Hz (230V 50Hz)
- Other voltages on request

Accessories:

- Travel switch
- Potentiometer
- Auma Matic
- Valve positioner 0-10V / 4-20mA
- Position-transmitter

For connection refer to terminal connection in the operating instructions of the actuator!

Connection with 2 parallel keys 90° rotated (Standard)


* For DN80 the dimension is 4 mm

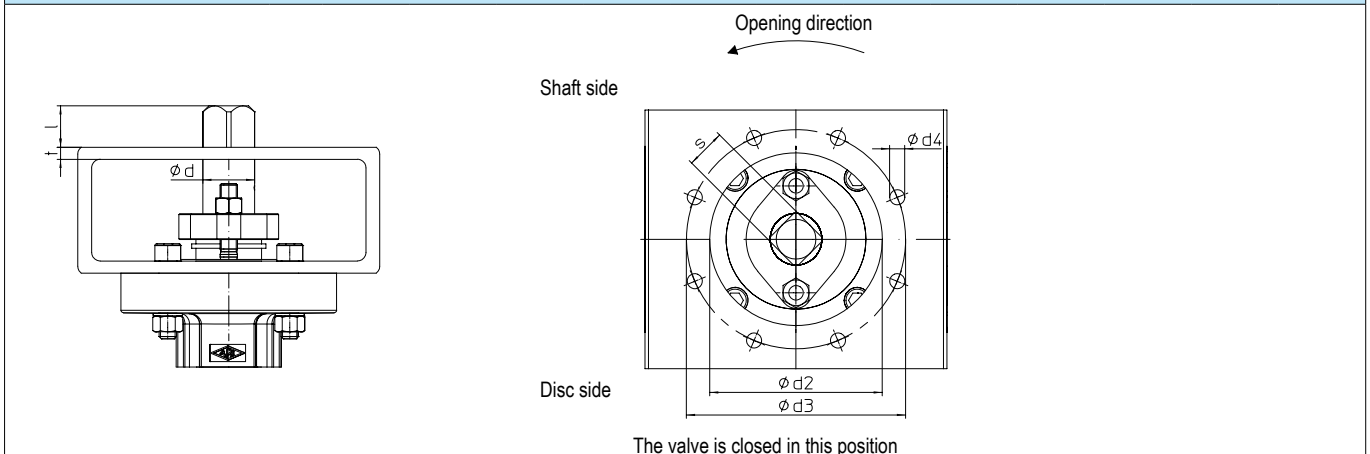
The valve is closed in this position

PN 63

DN	80	100	125	150	200	250	300	350	400	450	500	600
Connection EN ISO 5211	F12		F14		F16	F25		F30		-	F30	F35
ϕd (stem diameter)	(mm) 22	28	36		45	60		70	80	-	80	98
ϕd_4 (hole- ϕ)	(mm) 14	18		22	18		22		-	22	33	
ϕd_2 (inside- ϕ)	(mm) 85	100		130	200		230		-	230	260	
ϕd_3 (screw-hole circle)	(mm) 125	140		165	254		298		-	298	356	
l (bare stem length)	(mm) 46	55	65		80	110		130		-	130	160
l_p (parallel key length)	(mm) 45	56		80	90		125		-	125	140	
b (parallel key width)	(mm) 8	10		14	18		20	22	-	22	28	
t_2 (parallel key depth)	(mm) 4	5		5,5	7		7,5	9	-	9	10	
t (console wall thickness)	(mm) 8	8		8		14		14		-	14	22

PN 100

DN	80	100	125	150	200	250	300	350	400	450	500	600
Connection EN ISO 5211	F12		F14		F16	F25		F30		-	-	-
ϕd (stem diameter)	(mm) 22	28	36		45	60		70	80	-	-	-
ϕd_4 (hole- ϕ)	(mm) 14	18		22	18		22		-	-	-	
ϕd_2 (inside- ϕ)	(mm) 85	100		130	200		230		-	-	-	
ϕd_3 (screw-hole circle)	(mm) 125	140		165	254		298		-	-	-	
l (bare stem length)	(mm) 55	65	80		110		130	180		-	-	-
l_p (parallel key length)	(mm) 45	56		80	90		125		-	-	-	
b (parallel key width)	(mm) 8	10		14	18		20	22	-	-	-	
t_2 (parallel key depth)	(mm) 4	5		5,5	7		7,5	9	-	-	-	
t (console wall thickness)	(mm) 8	8		8		14		14		-	-	-

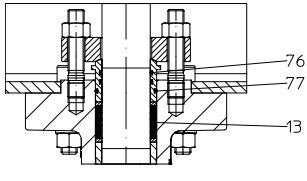
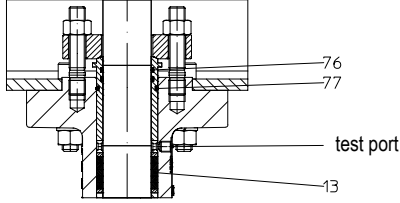
Connection with 4 square EN ISO 5211 (Optional)

PN 63

DN		80	100	125	150	200	250	300	350	400	450	500	600
Connection EN ISO 5211		F12		F14		F16	F25		F30		-	F30	F35
ϕd (stem diameter)	(mm)	22	28	36		45	60		70	80	-	80	98
$\phi d4$ (hole- ϕ)	(mm)	14		18		22	18		22		-	22	33
$\phi d2$ (inside- ϕ)	(mm)	85		100		130	200		230		-	230	260
$\phi d3$ (screw-hole circle)	(mm)	125		140		165	254		298		-	298	356
l (bare stem length)	(mm)	19	24	29			48		57		-	57	on request
s (width across flats)	(mm)	17	22	27			46		55		-	55	
t (console wall thickness)	(mm)	8				14				-		14	22

PN 100

DN		80	100	125	150	200	250	300	350	400	450	500	600
Connection EN ISO 5211		F12		F14		F16	F25		F30		-	-	-
ϕd (stem diameter)	(mm)	22	28	36		45	60		70	80	-	-	-
$\phi d4$ (hole- ϕ)	(mm)	14		18		22	18		22		-	-	-
$\phi d2$ (inside- ϕ)	(mm)	85		100		130	200		230		-	-	-
$\phi d3$ (screw-hole circle)	(mm)	125		140		165	254		298		-	-	-
l (bare stem length)	(mm)	19	24	29			48		57		-	-	-
s (width across flats)	(mm)	17	22	27			46		55		-	-	-
t (console wall thickness)	(mm)	8				14				-		-	-

Options
- Design acc. to EN ISO 15848-1 - Design acc. to EN ISO 15848-1 / TA-Luft with additional secondary sealing (O-rings) - Threaded joint, f. ex. 1/4" with screw connection on the stem extension and/or on the bottom flange (e.g. Test-, buffer-, flushing port) - Full metal sealing ring for special applications(on request) - Blow-out protected stem acc. to API 609 - Sealing against toxic media (on request) - Design acc. to NACE MR 0103 (on request)

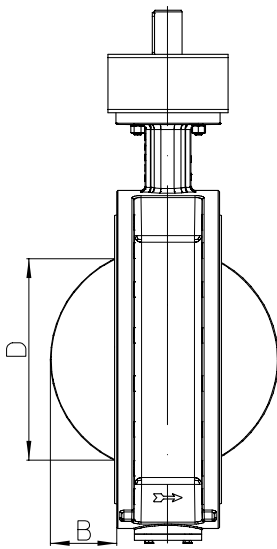
Option: Design acc. to EN ISO 15848-1 / TA-Luft with additional secondary sealing (O-Ring)
<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>Graphite EN ISO 15848-1 with O-Rings</p> </div> <div style="text-align: center;">  <p>Graphite EN ISO 15848-1 with O-Rings and test port</p> </div> </div> <ul style="list-style-type: none"> For critical media (f.ex. Thermal oil, steams...) „Double“ security due to secondary sealing (Pos. 76/77) Leakage monitoring due to test port (Information required when ordering)

O-Rings			
Pos.	Material	Temperature range ¹⁾	Applications (Examples)
76 / 77	Tetrafluoroethylene / propylene (FEPM)	-15 °C to +300 °C	Thermal oil / Hydrocarbons, hot water, steam, ammonia, sour gas, amine, Methanol
	Special compound (XTR-F)	-15 °C to +350 °C	Thermal oil, most aggressive media (strong acids/bases)
	Fluorocarbon - rubber (FKM)	-60 °C to +230 °C	Cryogenic applications, concentrated acids, hydrocarbons
	Ethylene-Propylene-Diene-Rubber (EPDM)	-60 °C to +200 °C	Hot water, steam, cryogenic applications, ammonia
¹⁾ May be lower by other components			

For the correct design of the O-rings, the operating conditions must be stated before ordering.

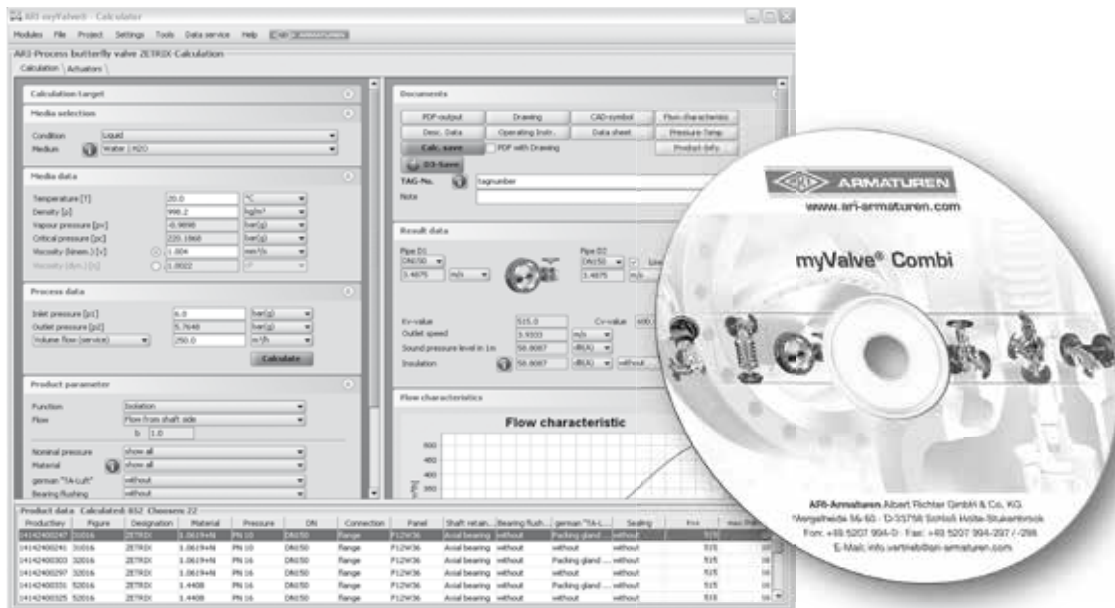
Kvs-value / Zeta-value (Fig. 018)																							
DN		80	100	125	150	200	250	300	350	400	450	500	600										
PN 63	Kvs-Wert	on request																					
	Zeta-Wert												--										
PN 100	Kvs-Wert												on request										
	Zeta-Wert																						

Difference between disc outside-diameter and face-to-face for threaded flange design													
DN		80	100	125	150	200	250	300	350	400	450	500	600
B	(mm)	8,6	22,3	28,9	37,2	60,9	72,5	89,1	105,7	117,7	--	168,3	202,2
D	(mm)	43,4	75,2	94,8	114,8	171,5	207,5	245,4	284,1	320,3	--	431,7	520,6



myValve® - Your Valve Sizing-Program.

myValve® is a powerful software tool that not only helps you size your system components; it also gives you instant access to all other data about the selected product, such as order information, spare parts drawings, operating instructions, data sheets, etc., whenever you need it.


Contents:
Module ARI-process valve ZETRIX-calculation

- Sizing of flow quantity Kv, volume flow Q, pressure drop p, sound level; Selecting the valve size with given capacity; Selection of the actuator.
- Calculation of torque for actuators in flow from shaft side and flow from disc side, as well as dynamic torque curves to show the maximum value and the opening angle at which it is reached.

Media:
Integrated media-data bank (more than 160 media) with conditions:

- Vapours / gases
- Steam (saturated and superheated)
- Liquids

Special features:

- Project administration of the calculation and product data incl. spare part drawings concerning to project and tag number.
- Direct output or calculation and product data in PDF format.
- Product data could be taken for a direct order.
- SI- and ANSI-units with direct conversion to another data bank.
- Settings with over pressure or absolute pressure.
- All ARI valves are integrated in a data bank.
- Direct access concerning to the product on data sheets, operating instructions, pressure-temperature-diagram and spare part drawings
- Operation in company networks possible (no complex installations on individually PC's necessary).
- Extensive catalogue extending over several product groups.

System Requirements:

Windows operating systems, Linux, etc.