

ARI-ZETRIX® ANSI - Fig. 016 - Double flanged process valve with metallic sealing - Triple offset

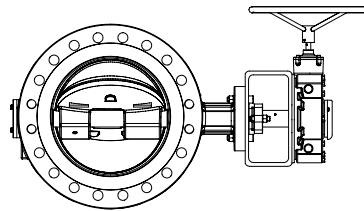
ARI-ZETRIX® ANSI - Fig. 018 - Fully lugged process valve with metallic sealing - Triple offset

ARI-ZETRIX® ANSI - Fig. 019 - Butt weld ended process valve with metallic sealing - Triple offset

ARI-ZETRIX® ANSI

with worm gear

- Self-locking
- With variable adjustment



Gear alignment A (standard)

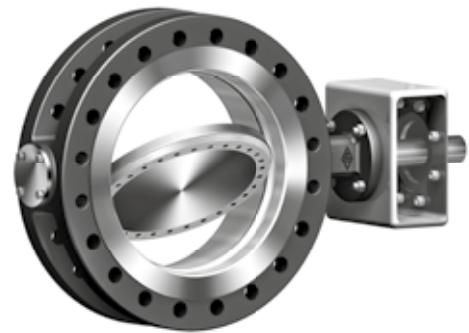


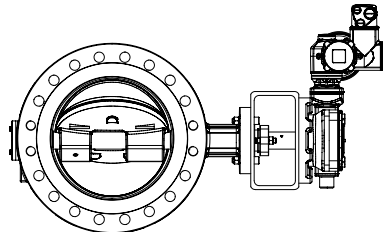
Fig. 016 -
ARI-ZETRIX® ANSI double flange

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ARI-ZETRIX® ANSI

**with electric rotary actuator
Auma or PS Automation**

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



Actuator alignment A (standard)

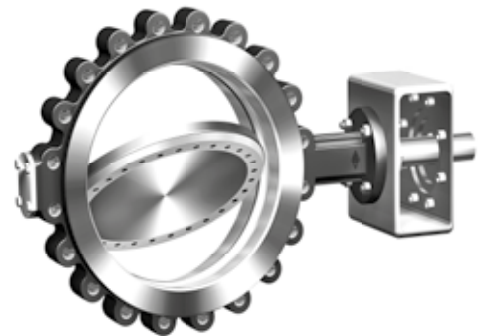
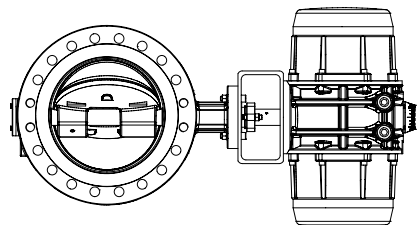


Fig. 018 -
ARI-ZETRIX® ANSI threaded flanged

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ARI-ZETRIX® ANSI

with pneumatic actuator



Actuator alignment A (standard)

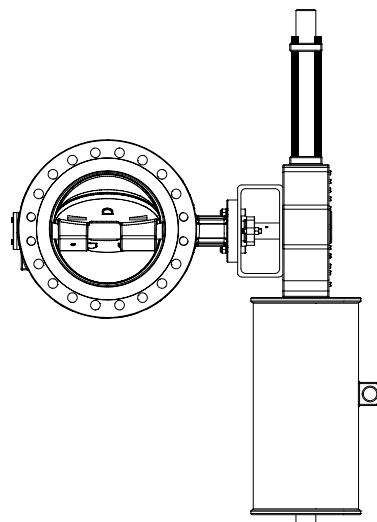


Fig. 019 -
ARI-ZETRIX® ANSI butt weld ends

on request

ARI-ZETRIX® ANSI

with hydraulic actuator



Actuator alignment A (standard) on request

Features:

- Double flange, threaded flange and butt weld 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
- Vacuum-tight
- Blow-out protected stem (optional: acc. to API 609)
- Firesafe acc. to ISO 10497 / API 607
- SIL
- Bidirektional
- ATEX
- NACE (optional)
- Packing acc. to EN ISO 15848-1/ TA-Luft (optional)

Double flanged process valve - Triple offset (Cast steel, Stainless steel)

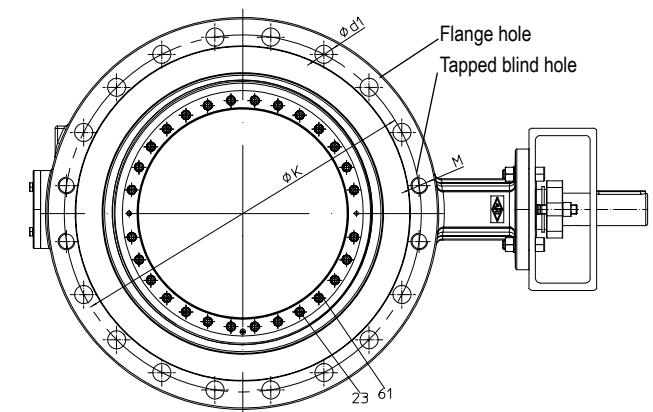
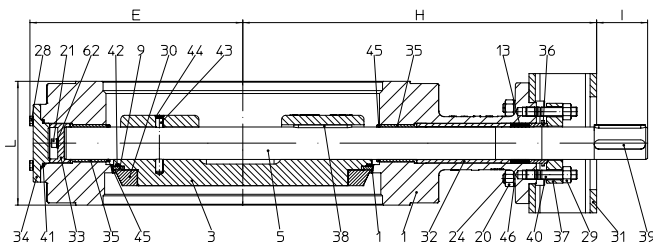


Figure	Nominal pressure	Material	Nominal diameter	Disc	Stem
32.016...90	ANSI150	SA216WCB	DN 80-1200 NPS 3"-48"	SA216WCB	SA276Gr.420 ¹⁾
35.016...90	ANSI300				
52.016...90	ANSI150	SA351CF8M	DN 80-1200 NPS 3"-48"	SA351CF8M	SA564Gr.630
55.016...90	ANSI300				

Face-to-face dimension series 13 acc. to DIN EN 558 / ISO 5752 / API 609 Cat. B (short pattern)



Sealing element:	
Graphite / SA240Gr.31803	-29°C up to 425°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 12)

Parts					
Pos.	Sp.p.	Description	ANSI150 / ANSI300		
			Fig. 32.016 / 35.016...90	Fig. 52.016 / 55.016...90	
1		Body	SA216WCB	SA351CF8M	
1.2		Seat	Stellit 21		
3		Disc	SA216WCB	SA351CF8M	
5		Stem	SA276Gr.420 ¹⁾	SA564Gr.630 / > 300°C: SA638Gr.660	
9	x	Lamellar seal ring	Graphite / SA240Gr.31803		
13	x	Packing unit	Graphite		
20		Hexagon nut	8 - A2B		
21		Hexagon socket screw	SA193-B8M2		
23		Hexagon socket screw	SA193-B8M2		
24		Hexagon screw	8.8-A2B		
28		Hexagon screw	SA193-B8M2		
29		Hexagon nut	SA194-8M		
30		Retaining ring	SA516Gr.60 (nickel plated)	SA240Gr.304	
31		Mounting bracket	SA618Gr.I (galvanized)		
32		Distance bushing	SA479Gr.304 / SA312-TP304		
33		Axial bearing	SA276Gr.420 ¹⁾ (hardened)	SA479Gr.304 (hardened)	
34		Bottom flange	SA105 (hardened)	SA479Gr.304 (hardened)	
35		Bushing	SA276Gr.420 ¹⁾ (hardened)	SA479Gr.304 / SA312-TP304 (hardened)	
36		Packing bushing	SA479Gr.304 / SA312-TP304		
37		Packing box flange	≤ DN 600: SA351CF8M / > DN 600: SA240Gr.304		
38 / 39		Parallel key	A4		
40		Stud	SA193-B8M2		
41	x	Spiral wounded gasket	Graphite / SA182F321		
42	x	Spiral wounded gasket	Graphite / Hastelloy C276, SB575		
43		Parallel pin	A4-70		
44		Retaining ring	SA276Gr.440B		
45		Packing ring	Graphite webbing		
46		Spring ring	Spring steel - A2B		
46		Wedge-lock Washers	A4		
61 / 62		Wedge-lock Washers	A4		
L Spare parts					

¹⁾ Heat treatment acc. to EN

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	700	800	900	1000	1200
NPS	3"	4"	5"	6"	8"	10"	12"	14"	16"	18"	20"	24"	28"	32"	36"	40"	48"

Face-to-face dimension series 13 acc. to DIN EN 558 / API 609 Cat. B (short pattern)																		
L	(mm)	114	127	140	140	152	165	178	190	216	222	229	267	292	318	330	410	470

Dimensions																			
ANSI 150	H	(mm)	292	288	344	344	371	498	552	588	662	661	712	763	838	896	998	1064	1244
	E	(mm)	127	150	184	185	204	239	267	305	337	380	392	460	538	618	673	732	874
	I	(mm)	45	45	55	55	55	55	65	65	80	80	110	110	120	165	165	165	200
ANSI 300	H	(mm)	292	288	344	344	400	575	601	636	661	681	762	819	868	996	1093	1155	1284
	E	(mm)	127	150	184	185	215	251	285	317	361	406	416	496	575	649	713	793	949
	I	(mm)	45	45	55	55	65	80	80	110	110	110	130	130	165	200	200	200	280

Standard-flange dimensions / Hexagon screw (Quantity, Thread, Length) per side																					
ANSI 150	Flange hole	ØK	(mm)	152,4	190,5	215,9	241,3	298,5	362	431,8	476,3	539,4	539,8	635	749,3	863,6	977,9	1085,8	1200,2	1422,4	
		n x Ød1	(mm)	--	4x19	4x22	4x22	4x22	8x26	8x26	8x29	12x29	12x32	16x32	16x35	24x35	24x41	28x41	32x41	36x41	
		Number of threads	(n)	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	8
	Screw	Thread ¹⁾²⁾	(in)	5/8 - 11UNC	5/8 - 11UNC	3/4 - 10UNC	3/4 - 10UNC	3/4 - 10UNC	7/8 - 9UNC	7/8 - 9UNC	1 - 8UNC	1 - 8UNC	1 1/8 - 8UNC	1 1/8 - 8UNC	1 1/4 - 8UNC	1 1/4 - 8UNC	1 1/2 - 8UNC	1 1/2 - 8UNC	1 1/2 - 8UNC	1 1/2 - 8UNC	
		Number ¹⁾	(n)	--	4	4	4	4	8	8	8	12	12	16	16	24	24	28	32	36	
		Length ¹⁾	(mm)	--	95	95	95	100	110	110	120	130	130	140	140	*	*	*	*	*	
		Number ²⁾	(n)	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	8
		Length ²⁾	(mm)	50	50	60	60	60	60	60	70	70	70	80	90	*	*	*	*	*	
		ØK	(mm)	168,3	200	235	269,9	330,2	387,4	450,8	514,4	571,5	628,6	685,8	812,8	939,8	1054,1	1168,4	1155,7	1371,6	
	n x Ød1	(mm)	4x22	4x22	4x22	8x22	8x26	12x29	12x32	16x32	16x35	20x35	20x35	20x41	24x45	24x51	28x54	28x45	28x51		
Number of threads	(n)	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4			
Screw	Thread ¹⁾²⁾	(in)	3/4 - 10UNC	3/4 - 10UNC	3/4 - 10UNC	3/4 - 10UNC	7/8 - 9UNC	1 - 8UNC	1 1/8 - 8UNC	1 1/8 - 8UNC	1 1/4 - 8UNC	1 1/4 - 8UNC	1 1/4 - 8UNC	1 1/2 - 8UNC	1 5/8 - 8UNC	1 7/8 - 8UNC	2 - 8UNC	1 5/8 - 8UNC	1 7/8 - 8UNC		
	Number ¹⁾	(n)	4	4	4	8	8	12	12	16	16	16	20	20	24	24	28	28	28		
	Length ¹⁾	(mm)	95	100	105	105	115	130	140	145	160	160	170	200	*	*	*	*	*		
	Number ²⁾	(n)	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4		
	Length ²⁾	(mm)	50	55	60	60	70	80	90	90	100	100	100	120	*	*	*	*	*		

¹⁾ Hexagon screws ²⁾ Hexagon screws for tapped blind hole ³⁾ to be determined by the customer

Weights for double flanged process valve																				
SA216WCB	ANSI 150	Fig. 32.016....90	(kg)	33	44	65	65	80	98	131	175	236	305	454	530	875	1192	1517	2110	3277
	ANSI 300	Fig. 35.016....90	(kg)	33	44	65	65	90	105	182	260	345	385	523	832	1181	1668	2033	2853	4241
SA351CF8M	ANSI 150	Fig. 52.016....90	(kg)	35	46	68	68	84	103	136	180	242	336	460	537	883	1204	1532	2131	3309
	ANSI 300	Fig. 55.016....90	(kg)	35	46	68	68	96	110	187	265	352	424	529	841	1192	1684	2053	2881	4282

Pressure-temperature-ratings Intermediate values for max. permissible operational pressures can be determined by linear interpolation of the given temperature / pressure chart.

acc. to ASME B16.34	ANSI		-29°C to 38 °C	50°C	100°C	150°C	200°C	250°C	300°C	350°C	400°C	425°C
SA216WCB	150	(bar)	19,6	19,2	17,7	15,8	13,8	12,1	10,2	8,4	6,5	5,5
SA216WCB	300	(bar)	51,1	50,1	46,6	45,1	43,8	41,9	39,8	37,6	34,7	28,8

acc. to ASME B16.34	ANSI		-29°C to 38 °C	50°C	100°C	150°C	200°C	250°C	300°C	350°C	400°C	425°C
SA351CF8M	150	(bar)	19,0	18,4	16,2	14,8	13,7	12,1	10,2	8,4	6,5	5,5
SA351CF8M	300	(bar)	49,6	48,1	42,2	38,5	35,7	33,4	31,6	30,3	29,4	29,1

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

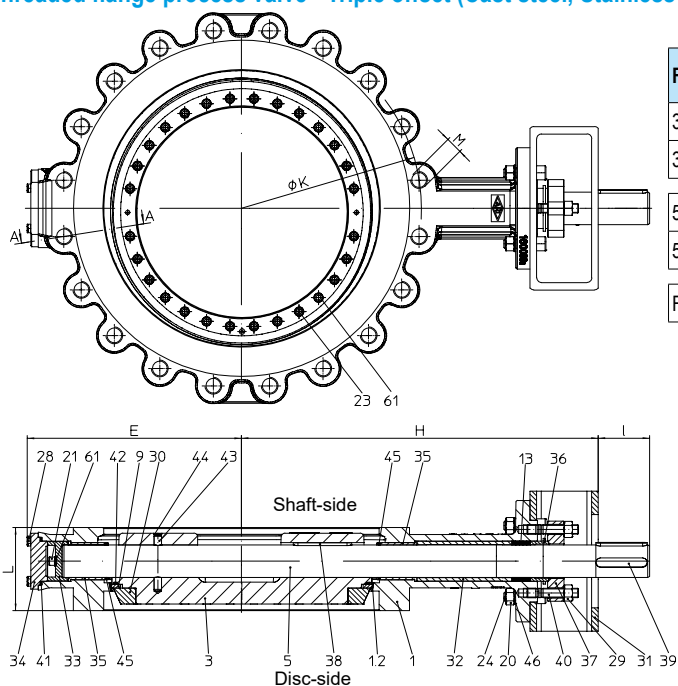


Figure	Nominal pressure	Material	Nominal diameter	Disc	Stem
32.018...90	ANSI150	SA216WCB	DN 80-600 NPS 3"-24"	SA216WCB	SA276Gr.420 ¹⁾
35.018...90	ANSI300				
52.018...90	ANSI150	SA351CF8M	DN 80-600 NPS 3"-24"	SA351CF8M	SA564Gr.630
55.018...90	ANSI300				

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

Sealing element:	
• Graphite / SA240Gr.31803	-29°C up to 425°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 16)

Parts					
Pos.	Sp.p.	Description	ANSI150 / ANSI300		
			Fig. 32.018 / 35.018...90	Fig. 52.018 / 55.018...90	
1		Body	SA216WCB	SA351CF8M	
1.2		Seat	Stellit 21		
3		Disc	SA216WCB	SA351CF8M	
5		Stem	SA276Gr.420 ¹⁾	SA564Gr.630 / >300°C: SA638Gr.660	
9	x	Lamellar seal ring	Graphite / SA240Gr.31803		
13	x	Packing unit	Graphite		
20		Hexagon nut	8 - A2B		
21		Hexagon socket screw	SA193-B8M2		
23		Hexagon socket screw	SA193-B8M2		
24		Hexagon screw	8.8-A2B		
28		Hexagon screw	SA193-B8M2		
29		Hexagon nut	SA194-8M		
30		Retaining ring	SA516Gr.60 (nickel plated)	SA240Gr.304	
31		Mounting bracket	SA618Gr.I (galvanized)		
32		Distance bushing	SA479Gr.304		
33		Axial bearing	SA276Gr.420 ¹⁾ (hardened)	SA240Gr.304 (hardened)	
34		Bottom flange	< NPS 10": SA516Gr.60 (hardened) ≥ NPS 10": SA105 (hardened)	< NPS 10": SA240Gr.304 (hardened) ≥ NPS 10": SA479Gr.304 (hardened)	
35		Bushing	SA276Gr.420 ¹⁾ (hardened)	SA479Gr.304 (hardened)	
36		Packing bushing	SA479Gr.304		
37		Packing box flange	SA351CF8M		
38 / 39		Parallel key	A4		
40		Stud	SA193-B8M2		
41	x	Spiral wounded gasket (≥ DN250)	Graphite / SA182F321		
42	x	Spiral wounded gasket	Graphite / Hastelloy C276, SB575		
43		Parallel pin	A4-70		
44		Retaining ring	SA276Gr.440B		
45		Packing ring	Graphite webbing		
46		Spring ring	Spring steel - A2B		
46		Wedge-lock Washers	A4		
61 / 62		Wedge-lock Washers	A4		
L Spare parts					

¹⁾ Heat treatment acc. to EN

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
NPS	3"	4"	5"	6"	8"	10"	12"	14"	16"	18"	20"	24"

Face-to-face dimension series 16 acc. to DIN EN 558 / ISO 5752													
L	(mm)	64	64	71	76	89	114	114	127	140	152	152	178

Dimensions														
ANSI 150	H	(mm)	292	288	334	344	371	498	552	588	662	661	712	764
	E	(mm)	131	154	189	188	211	239	267	305	337	380	392	459
	I	(mm)	45	45	55	55	55	55	65	65	80	80	110	110
ANSI 300	H	(mm)	292	288	334	344	400	575	601	636	661	681	762	819
	E	(mm)	131	154	189	188	225	251	285	317	361	406	417	496
	I	(mm)	45	45	55	55	65	80	80	110	110	110	130	130

Standard-flange dimensions / Threads (Dimensions, Number, Screw depth / length) per side															
ANSI 150	Flange hole	ØK	(mm)	152,4	190,5	215,9	241,3	298,4	362	431,8	476,3	539,8	577,9	635	749,3
		Total number of threads (M)	(n)	4	8	8	8	8	12	12	12	16	16	20	20
		Thread ^{1) 2)}	(in)	5/8 - 11UNC	5/8 - 11UNC	3/4 - 10UNC	3/4 - 10UNC	3/4 - 10UNC	7/8 - 9UNC	7/8 - 9UNC	1 - 8UNC	1 - 8UNC	1 1/8 - 8UN	1 1/8 - 8UN	1 1/4 - 8UN
	Screw	Number ¹⁾	(n)	4	8	8	8	8	12	12	12	16	16	16	16
		Thread depth disc side ¹⁾	(mm)	30	30	30	35	40	50	50	60	65	70	70	85
		Thread depth shaft side ¹⁾	(mm)	30	30	30	35	40	50	50	60	65	70	70	85
		Number ²⁾	(n)	-	-	-	-	-	-	-	-	-	-	4	4
		Thread depth disc side ²⁾	(mm)	-	-	-	-	-	-	-	-	-	-	50	79
		Thread depth shaft side ²⁾	(mm)	-	-	-	-	-	-	-	-	-	-	35	45
		ANSI 300	Flange hole	ØK	(mm)	168,3	200	235	269,9	330,2	387,4	450,8	514,4	571,5	628,6
Total number of threads (M)	(n)			8	8	8	12	12	16	16	20	20	24	24	24
Thread ^{1) 2)}	(in)			3/4 - 10UNC	3/4 - 10UNC	3/4 - 10UNC	3/4 - 10UNC	7/8 - 9UNC	1 - 8UNC	1 1/8 - 8UN	1 1/8 - 8UN	1 1/4 - 8UN	1 1/4 - 8UN	1 1/4 - 8UN	1 1/2 - 8UN
Screw	Number ¹⁾		(n)	8	8	8	8	8	12	12	16	16	20	20	20
	Thread depth disc side ¹⁾		(mm)	30	30	30	35	40	50	50	60	65	70	70	78
	Thread depth shaft side ¹⁾		(mm)	30	30	30	35	40	50	50	60	65	70	70	69
	Number ²⁾		(n)	-	-	-	4	4	4	4	4	4	4	4	4
	Thread depth disc side ²⁾		(mm)	-	-	-	22,5	33	36	32	25	38	34	35	44
	Thread depth shaft side ²⁾		(mm)	-	-	-	19,5	26	30	26	24	29	34	29	35

¹⁾ Tapped through hole ²⁾ Tapped blind hole in Shaft area

Caution: Thread sizes 1 1/2 8UN are not tapped all the way through

Weights for threaded flanged process valve															
SA216WCB	ANSI 150	Fig. 32.018....90	(kg)	24	29	41	45	64	74	121	152	192	221	416	446
		Fig. 35.018....90	(kg)	24	29	41	45	64	82	148	246	317	355	494	778
SA351CF8M	ANSI 300	Fig. 52.018....90	(kg)	26	31	42	47	68	78	128	158	198	244	422	458
		Fig. 55.018....90	(kg)	26	31	42	47	69	86	152	250	324	393	450	787

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 ASME B16.34	ANSI		-29°C to 38 °C	50°C	100°C	150°C	200°C	250°C	300°C	350°C	400°C	425°C
SA216WCB	150	(bar)	19,6	19,2	17,7	15,8	13,8	12,1	10,2	8,4	6,5	5,5
SA216WCB	300	(bar)	51,1	50,1	46,6	45,1	43,8	41,9	39,8	37,6	34,7	28,8

acc. to ASME B16.34	ANSI		-29°C to 38 °C	50°C	100°C	150°C	200°C	250°C	300°C	350°C	400°C	425°C
SA351CF8M	150	(bar)	19,0	18,4	16,2	14,8	13,7	12,1	10,2	8,4	6,5	5,5
SA351CF8M	300	(bar)	49,6	48,1	42,2	38,5	35,7	33,4	31,6	30,3	29,4	29,1

Butt weld ended process valve - Triple offset (Cast steel)

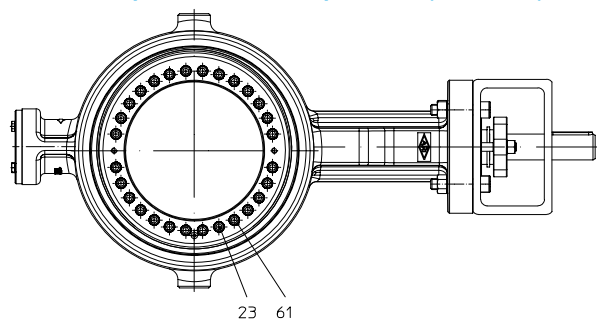
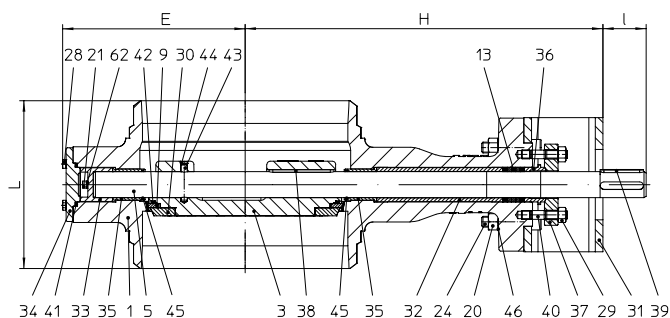


Figure	Nominal pressure	Material	Nominal diameter	Disc	Stem
32.019...90	ANSI 150	SA216WCB	DN 80-800 NPS 3"-32"	SA216WCB	SA276Gr.420 ¹⁾
35.019...90	ANSI 300				

Face-to-face dimension series 14 acc. to DIN EN 12982



Sealing element:	
• Graphite / SA240Gr.31803	-29°C up to 425°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 16)

Parts			
Pos.	Sp.p.	Description	ANSI150 / ANSI300 Fig. 34./35.019
1		Body	SA2016WCB
1.2		Seat	Stellit 21
3		Disc	SA2016WCB
5		Stem	SA276Gr.420 ¹⁾
9	x	Lamellar seal ring	Graphite / SA240Gr.31803
13	x	Packing unit	Graphite
20		Hexagon nut	8 - A2B
21		Hexagon socket screw	SA193-B8M2
23		Hexagon socket screw	SA193-B8M2
24		Hexagon screw	8.8-A2B
28		Hexagon screw	SA193-B8M2
29		Hexagon nut	SA194-8M
30		Retaining ring	SA516Gr.60 (nickel plated)
31		Mounting bracket	SA618Gr.I (galvanized)
32		Distance bushing	SA479Gr.304
33		Axial bearing	SA276Gr.420 ¹⁾ (hardened)
34		Bottom flange	SA105 (hardened)
35		Bushing	SA276Gr.420 ¹⁾ (hardened)
36		Packing bushing	SA479Gr.304
37		Packing box flange	≤ DN 600: SA351CF8M / > DN 600: SA240Gr.304
38 / 39		Parallel key	A4
40		Stud	SA193-B8M2
41	x	Spiral wounded gasket (≥ DN250)	Graphite / SA182F321
42	x	Spiral wounded gasket	Graphite / Hastelloy C276, SB575
43		Parallel pin	A4-70
44		Retaining ring	SA276Gr.440B
45		Packing ring	Graphite webbing
46		Spring ring	Spring steel - A2B
46		Wedge-lock Washers	A4
61 / 62		Wedge-lock Washers	A4
L Spare parts			

¹⁾ Heat treatment acc. to EN

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	700	800
NPS	3"	4"	5"	6"	8"	10"	12"	14"	16"	18"	20"	24"	28"	32"

Face-to-face dimension series 14 acc. to DIN EN 12982															
L	(mm)	180	190	200	210	230	250	270	290	310	330	350	390	430	470

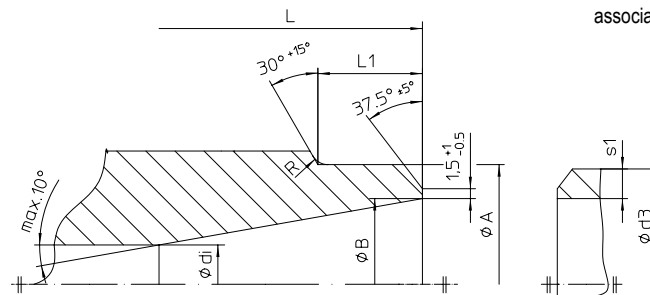
Dimensions																
ANSI 150	H	(mm)	292	288	344	344	371	498	552	588	662	661	712	763	838	896
	E	(mm)	131	154	188	188	211	240	268	306	338	380	393	460	538	618
	I	(mm)	45	45	55	55	55	55	65	65	80	80	110	110	120	165
ANSI 300	H	(mm)	292	288	344	344	400	575	601	636	661	681	762	819	868	997
	E	(mm)	131	154	188	188	226	252	285	317	361	406	417	496	475	649
	I	(mm)	45	45	55	55	65	80	80	110	110	110	130	130	165	200

Butt weld ends according to ASME B16.25															
ØA	(mm)	91	117	144	172	223	278	329	362	413	464	516	619	721	825
ØB (Schedule No.40)	(mm)	79,5 ¹⁾	102	128	154	203	254,5	303	333,5	381	428,5	478	574,5	679 ¹⁾	778
L1 (similar Figure 2(a))	(mm)	12	14	18	20	25	33	45	45	33	40	40	48	48	48
Ød3	(mm)	88,9	114,3	141,3	168,3	219,1	273	323,8	355,6	406,4	457,2	508	609,6	711	813
s1 (Schedule No.40)	(mm)	4,78 ¹⁾	6,02	6,55	7,11	8,18	9,27	10,31	11,13	12,7	14,27	15,09	17,48	15,88 ¹⁾	17,48

¹⁾ deviantly Schedule No.30

- ASME B16.25 Figure 2(a)
- Joint preparation acc. to - DIN EN ISO 9692-1
- Customer specific tube wall thickness acc. to ISO 4200
- Shoed ends (on request)
- Further, customer-specific dimensions on request

Edge shaping acc. to DIN EN ISO 5817



associated pipe dimensions: Ød3; s1

Our welded valve products are manufactured using the following materials: SA216WCB

Based on our experience we recommend electric welding process for connecting valves or strainers with tubes or with each other. Lime based electrodes with an appropriate composite material should be used as filler material for welding. Gas welding should be avoided. Due to the different material composition and material thickness of valves and tubes, gas welding is more susceptible to produce faults than electric welding (hardness cracks, coarse-grained structure).

DN	80	100	125	150	200	250	300	350	400	450	500	600	700	800
NPS	3"	4"	5"	6"	8"	10"	12"	14"	16"	18"	20"	24"	28"	32"

Weights for butt weld ended process valve																	
SA216WCB	ANSI 150	Fig. 32.019...90	(kg)	22	26	36	38	52	67	92	110	161	195	356	420	714	1002
	ANSI 300	Fig. 35.019...90	(kg)	22	26	36	38	59	78	113	165	208	256	371	577	807	1214

Pressure-temperature-ratings Intermediate values for max. permissible operational pressures can be determined by linear interpolation of the given temperature / pressure chart.

acc. to ASME B16.34	ANSI		-29°C to 38°C	50°C	100°C	150°C	200°C	250°C	300°C	350°C	400°C	425°C
SA216WCB	150	(bar)	19,6	19,2	17,7	15,8	13,8	12,1	10,2	8,4	6,5	5,5
	300	(bar)	51,1	50,1	46,6	45,1	43,8	41,9	39,8	37,6	34,7	28,8

ZETRIX® ANSI process valve with worm gear

Typ: AB

- With variable adjustment
- Self-locking
- Fire-safe (FS)

Stainless steel position indicator

Stainless steel stop screw

The SHUT-position can be adjusted to $\pm 5^\circ$ by a stop screw.

Mark on shaft for valve OPEN and CLOSE positions.

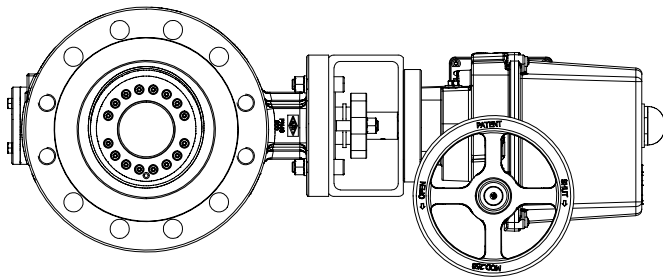
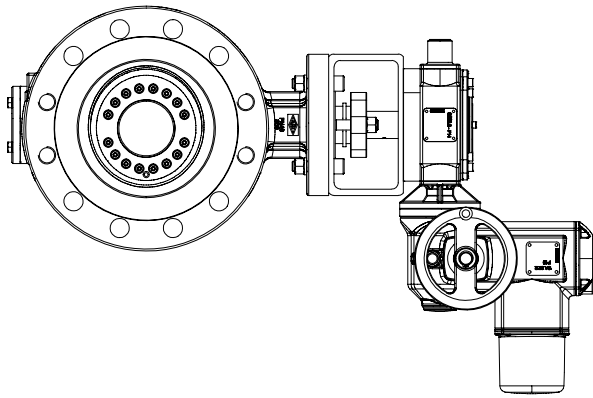
Parts			
Pos.	Sp.p.	Description	Fig. 32./35.016....90; 52./55.016....90; 32./35.018....90; 52./55.018....90; 34./35.019....90
31		Mounting bracket	SA618Gr.I (zinc coated)
500		Worm gear	
L Spare parts			

DN	80	100	125	150	200	250	300	350	400	450	500	600	700-1200
NPS	3"	4"	5"	6"	8"	10"	12"	14"	16"	18"	20"	24"	28"-48"

Dimensions															
ANSI 150	H1 (to middle of valve)	(mm)	395	395	585	585	612	739	844	880	960	1109	1017	1068	on request
	P2	(mm)	217	217	297	297	297	297	305	305	346	346	417	417	
	ØC	(mm)	150	150	400	400	400	400	500	500	500	500	500	500	
	Type of gear		AB210 FS	AB215 FS	AB550 FS	AB550 FS	AB550 FS	AB550 FS	AB880 FS	AB880 FS	AB1250 FS	AB1250 FS	AB1950 PR4 FS	AB1950 PR4 FS	

ANSI 300	H1 (to middle of valve)	(mm)	395	395	585	585	692	873	899	941	966	986	1071	1128	on request
	P2	(mm)	217	217	297	297	305	346	346	417	417	417	470	470	
	ØC	(mm)	150	150	400	400	500	500	500	500	500	500	500	500	
	Type of gear		AB210 FS	AB215 FS	AB550 FS	AB550 FS	AB880 FS	AB1250 FS	AB1250 FS	AB1950 PR4 FS	AB1950 PR4 FS	AB1950 PR4 FS	AB6800 PR4 FS	AB6800 PR6 FS	

Weights																
SA216WCB	ANSI 150	Fig. 32.016....90 with gear	(kg)	37	48	73	73	88	106	146	190	263	303	495	575	on request
	ANSI 300	Fig. 35.016....90 with gear	(kg)	37	48	73	73	105	120	209	301	390	441	607	916	
	ANSI 150	Fig. 32.018....90 with gear	(kg)	28	33	49	53	72	74	136	167	219	249	457	491	
	ANSI 300	Fig. 35.018....90 with gear	(kg)	28	33	49	53	79	82	175	287	362	412	578	862	
	ANSI 150	Fig. 34.019....90 with gear	(kg)	26	30	44	46	60	75	102	120	174	208	393	457	
	ANSI 300	Fig. 35.019....90 with gear	(kg)	26	30	44	46	69	91	126	178	245	293	446	652	
SA351CF8M	ANSI 150	Fig. 52.016....90 with gear	(kg)	39	50	76	76	92	111	151	195	269	309	501	582	
	ANSI 300	Fig. 55.016....90 with gear	(kg)	39	50	76	76	111	125	214	306	397	458	613	925	
	ANSI 150	Fig. 52.018....90 with gear	(kg)	30	35	50	55	76	78	166	173	225	265	463	503	
	ANSI 300	Fig. 55.018....90 with gear	(kg)	30	35	50	55	84	86	179	291	369	443	534	871	

ZETRIX® process valve with electric rotary actuator

Type: Auma (further makes 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!

Type: PS Automation PSQ AMS

- Operating modes: S2-30 Min, S4 50% ED@ 25°C
- Enclosure IP 67
- with integrated positioner
- Optional: With fail-safe function based on supercapacitor (PSCP)

Voltages:

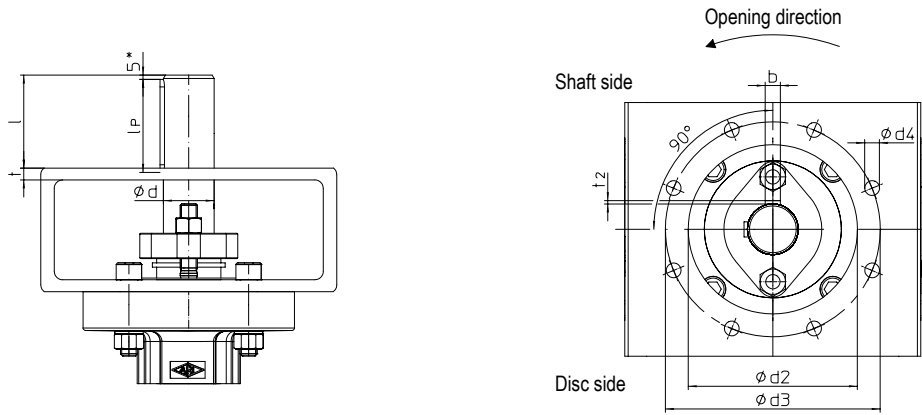
- 3Ph 400V 50Hz, 1Ph 230VAC, 24 VAC/DC
- Other voltages on request

Accessories:

- Travel limit switch (2WE)
- Power failure protection / fail-safe (PSCP)
- Fieldbus
- Local control (PSC.2)
- (For more options, see the actuator data sheets)

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

Actuator allocation on request

Connection with 2 parallel keys 90° rotated EN ISO 5211 (Standard)


* For DN80 the dimension is 4 mm

The valve is closed in this position

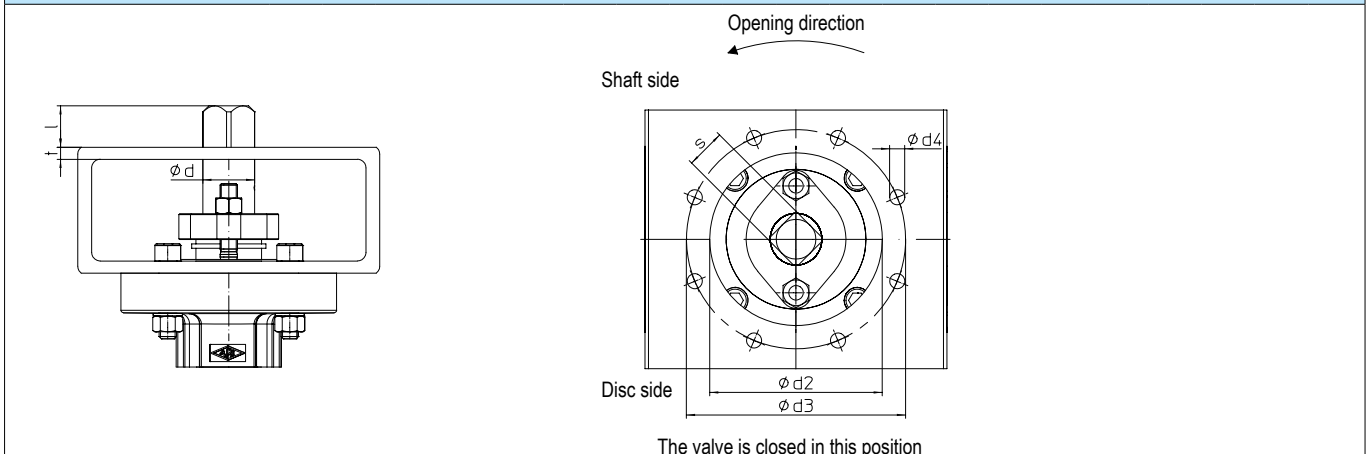
ANSI150

DN	80	100	125 (Fig. 018)	125	150	200	250	300	350	400	450	500	600	700	800	900	1000	1200
NPS	3"	4"	5"	5"	6"	8"	10"	12"	14"	16"	18"	20"	24"	28"	32"	36"	40"	48"
Connection EN ISO 5211	F10		F12				F14		F16	F16	F25		F30	F35	F35	F35	F40	F40
Ø d (stem diameter) (mm)	22	28		36			42		48	50	60	70	98	110	120	130	160	160
Ø d4 (hole-Ø) (mm)	11	13			17				21		17		21	33			39	39
Ø d2 (inside-Ø) (mm)	70	85			100				130		200		230	260			300	300
Ø d3 (screw-hole circle) (mm)	102	125			140				165		254		298	356			406	406
l (bare stem length) (mm)	45	55			65				80		110		120	165			200	200
lp (parallel key length) (mm)	45	50		56			63		80		110		140	160		180	220	220
b (parallel key width) (mm)	6	8		10			12		14		18	20	28		32		40	40
t2 (parallel key depth) (mm)	2,8	3,3			3,8				4,4		4,9	4,9	6,4		7,4		9,4	9,4
t (Mounting bracket wall thickness) (mm)	8			8				12		14		14		22			27	27

ANSI300

DN	80	100	125 (Fig. 018)	125	150	200	250	300	350	400	450	500	600	700	800	900	1000	1200		
NPS	3"	4"	5"	5"	6"	8"	10"	12"	14"	16"	18"	20"	24"	28"	32"	36"	40"	48"		
Connection EN ISO 5211	F10		F12				F14		F16		F25		F25	F30		F35	F40	F40	F40	F48
Ø d (stem diameter) (mm)	22	28		36			42		48		60		70	80	110	120	145	160	190	190
Ø d4 (hole-Ø) (mm)	11	13			17				21		17		21		33	39			39	39
Ø d2 (inside-Ø) (mm)	70	85			100				130		200		230		260	300			370	370
Ø d3 (screw-hole circle) (mm)	102	125			140				165		254		298		356	406			483	483
l (bare stem length) (mm)	45	55			65				80		110		130		165	200			280	280
lp (parallel key length) (mm)	45	50		56			63		80		110		125		180	200	220		280	280
b (parallel key width) (mm)	6	8		10			12		14		18		20	22	28	32	36	40	45	45
t2 (parallel key depth) (mm)	2,8	3,3			3,8				4,4		4,9		5,4	6,4	7,4	8,4	9,4	10,4	10,4	10,4
t (Mounting bracket wall thickness) (mm)	8			8				12		14		14		22		27			37	37

4-square connection on request.

Connection with 4 square EN ISO 5211 (Optional)

ANSI150

DN	80	100	125 (Fig. 018)	125	150	200	250	300	350	400	450	500	600	700	800	900	1000	1200
NPS	3"	4"	5"	5"	6"	8"	10"	12"	14"	16"	18"	20"	24"	28"	32"	36"	40"	48"
Connection EN ISO 5211	F10		F12				F14		F16		F25		F30		F35			F40
Ø d (stem diameter)	(mm) 22	28		36			42		48	50	60	70	98	110	120	130	160	
Ø d4 (hole-Ø)	(mm) 11	13				17		21		17		21		33			39	
Ø d2 (inside-Ø)	(mm) 70	85				100		130		200		230		260			300	
Ø d3 (screw-hole circle)	(mm) 102	125				140		165		254		298		356			406	
l (bare stem length)	(mm) 19	24		29			38		48		57	on request						
s (width across flats)	(mm) 17	22		27			36		46		55	on request						
t (Mounting bracket wall thickness)	(mm)	8					12		14		22		27		37			

ANSI300

DN	80	100	125 (Fig. 018)	125	150	200	250	300	350	400	450	500	600	700	800	900	1000	1200	
NPS	3"	4"	5"	5"	6"	8"	10"	12"	14"	16"	18"	20"	24"	28"	32"	36"	40"	48"	
Connection EN ISO 5211	F10		F12				F14	F16		F25			F30		F35		F40		F48
Ø d (stem diameter)	(mm) 22	28		36		42		48	60			70	80	110	120	145	160	190	
Ø d4 (hole-Ø)	(mm) 11	13			17		21		17		21		33		39				
Ø d2 (inside-Ø)	(mm) 70	85			100		130		200			230		260		300		370	
Ø d3 (screw-hole circle)	(mm) 102	125			140		165		254			298		356		406		483	
l (bare stem length)	(mm) 19	24		29		38			48		57		on request						
s (width across flats)	(mm) 17	22		27		36			46		55		on request						
t (Mounting bracket wall thickness)	(mm)	8					12		14			22		27		37			

Optionen
<ul style="list-style-type: none"> - Design acc. to EN ISO 15848-1 - Design acc. to EN ISO 15848-1/ TA-Luft add. 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 in 1.4571 for special applications - Blow-out protected stem acc. to API 609 - Sealing against toxic media (on request) - Heating jacket (on request) - Cavity free design (on request) - Design acc. to NACE MR 0103 / NACE MR 0175 (on request) - Additional pick-up on the stem with inductive limit switches (OPEN / CLOSE) - Special materials (z.B. Duplex 1.4470) on request - Stainless steel internal parts

Options:	
<ul style="list-style-type: none"> - Design acc. to EN ISO 15848-1 - TA-Luft with add. secondary sealing (O-Ring) 	
<p style="text-align: center;">Graphite EN ISO 15848-1 with O-Rings</p>	<p style="text-align: center;">Graphite EN ISO 15848-1 with O-Rings and test port</p>
<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, hydrogen, 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⁾ Temperature range may be smaller owing to other limiting components / operating conditions			

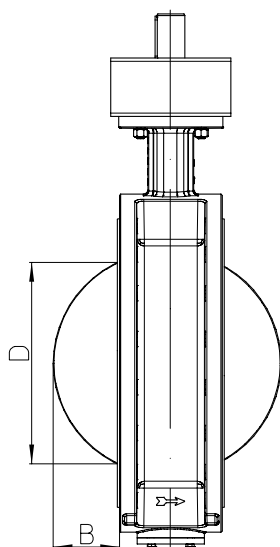
For the correct design of the O-rings, the operating conditions must be stated before ordering.

Kvs-value / Zeta-value																		
DN		80	100	125	150	200	250	300	350	400	450	500	600	700	800	900	1000	1200
NPS		3"	4"	5"	6"	8"	10"	12"	14"	16"	18"	20"	24"	28"	32"	36"	40"	48"
ANSI150	Kvs-value (m ³ /h)	100	190	345	515	1245	2110	3195	4230	5650	8165	9260	13520	25350	34408	39850	49495	69740
	Zeta-value	--	6,54	4,42	3,28	3,05	1,65	1,40	1,27	1,34	1,28	0,98	1,16	1,13	0,59	0,55	0,65	0,65
ANSI300	Kvs-value (m ³ /h)	100	190	345	515	1020	1940	2915	3765	5090	7312	8235	12445	23240	29920	37208	44422	62025
	Zeta-value	--	6,54	4,42	3,28	3,05	2,46	1,66	1,52	1,69	1,58	1,23	1,47	1,34	0,71	0,73	0,75	0,81

Difference between disc outside-diameter and face-to-face for double flange design																		
DN		80	100	125	150	200	250	300	350	400	450	500	600	700	800	900	1000	1200
NPS		3"	4"	5"	6"	8"	10"	12"	14"	16"	18"	20"	24"	28"	32"	36"	40"	48"
B	(mm)	--	--	--	--	28,5	43,5	57,5	77	87,4	113	132,5	165,5	208	245	283	285	351
D	(mm)	--	--	--	--	123,3	169,3	209,6	261,3	301,6	373	411	503	614	715	797	854	1034

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
NPS		3"	4"	5"	6"	8"	10"	12"	14"	16"	18"	20"	24"
B	(mm)	9	21	27	38	60	69	89	105	127	148	171	213
D	(mm)	43	73,5	91	118	168,5	204	247,5	292,5	342,5	403	444	542

Difference between disc outside-diameter and face-to-face for butt weld ends design															
DN		80	100	125	150	200	250	300	350	400	450	500	600	700	800
NPS		3"	4"	5"	6"	8"	10"	12"	14"	16"	18"	20"	24"	28"	32"
B	(mm)	--	--	--	--	--	--	9	23	37	59	69	99	139	170
D	(mm)	--	--	--	--	--	--	87	161	215	292	327	424	541	636



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.