

Free of maintenance stop valve with bellows seal - metallic sealing

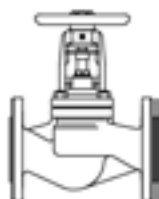
ARI-FABA®-Plus -

Straight through with flanges

- DIN DVGW-Type approval (EN-JS1049)
- EN ISO 15848-1 / TA - Luft
TÜV-Test-No. TA 07 2016 C04
- TRB 801 Annex II No. 45 (except EN-JL1040)

Grey cast iron
SG iron
Cast steel
Forged steel
Stainless steel

Fig. 046



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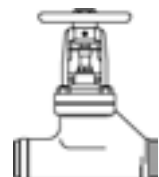
ARI-FABA®-Plus -

Straight through with butt weld ends

- EN ISO 15848-1 / TA - Luft
TÜV-Test-No. TA 07 2016 C04
- TRB 801 Annex II No. 45

Forged steel

Fig. 040



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ARI-FABA®-Plus -

Straight through with butt weld ends

- EN ISO 15848-1 / TA - Luft
TÜV-Test-No. TA 07 2016 C04
- TRB 801 Annex II No. 45

Cast steel

Fig. 040



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ARI-FABA®-Plus -

Y-pattern with flanges

- EN ISO 15848-1 / TA - Luft
TÜV-Test-No. TA 07 2016 C04
- TRB 801 Annex II No. 45

Stainless steel

Fig. 069



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ARI-FABA®-Plus -

Y-pattern with butt weld ends

- EN ISO 15848-1 / TA - Luft
TÜV-Test-No. TA 07 2016 C04
- TRB 801 Annex II No. 45

Cast steel
Stainless steel

Fig. 066



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ARI-FABA®-Plus -

Angle pattern with flanges

- EN ISO 15848-1 / TA - Luft
TÜV-Test-No. TA 07 2016 C04
- TRB 801 Annex II No. 45 (except EN-JL1040)

Grey cast iron
SG iron
Cast steel

Fig. 047



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Fig. 046



Features:

- Double wall bellows seal as standard
- Plug with marginal seat
- Stem with fine thread
- Flat lubricating nipple
- Locking device, countersunk
- Cast iron variations with nodular iron bonnet as standard
- Heat dissipating bonnet
- Bonnet optimised for accessories
- Secondary sealing: gland packing
- Position indicator as standard
- Non-rising handwheel
- Non-rotation lock for each nominal diameter
- External stem thread
- Stem with roll hardened thread

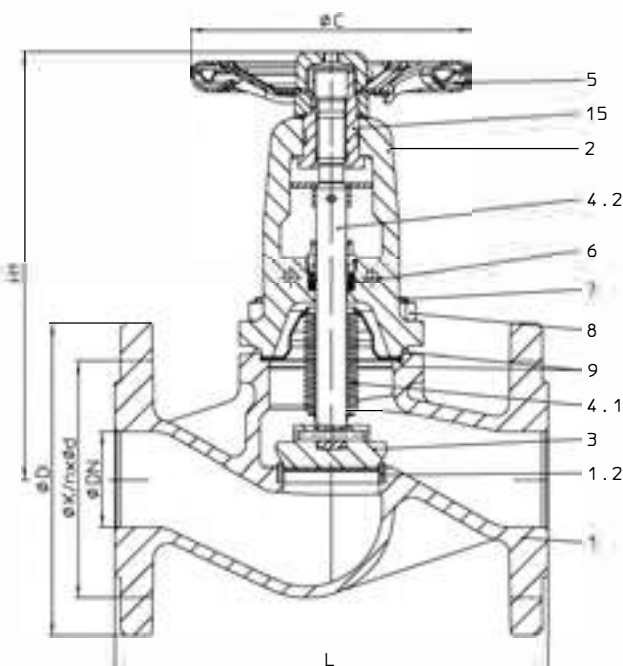
Stop valve - straight through with flanges and bellows seal (Grey cast iron, SG iron, Cast steel)


Figure-No.	Nominal pressure	Material	Nominal diameter
12.046	PN16	EN-JL1040	DN15-300
22.046	PN16	EN-JS1049	DN15-350
Test: • DIN DVGW-Reg. NG-4313AO 0772			
23.046	PN25	EN-JS1049	DN15-150
34.046	PN25	1.0619+N	DN200-400
35.046	PN40	1.0619+N	DN15-250

Test:	• EN ISO 15848-1 / TA - Luft TÜV-Test-No. TA 07 2016 C04
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Considered standards:	• EN 13709 (1.0619+N) • EN 13789 (EN-JL1040, EN-JS1049)
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Plug design:	• Plug with marginal seat standard
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At high differential pressures a balancing plug is necessary! (refer to page 12)

Parts				
Pos.	Sp.p.	Description	Fig. 12.046	Fig. 22. / 23.046
1		Body	EN-JL1040, EN-GJL-250	EN-JS1049, EN-GJS-400-18U-LT
1.2		Seat ring	X20Cr13+QT, 1.4021+QT	GP240GH+N, 1.0619+N
2		Bonnet	EN-JS1049, EN-GJS-400-18U-LT	GP240GH+N, 1.0619+N
3	x	Plug	≤ DN200: X20Cr13+QT, 1.4021+QT (hardened) / ≥ DN250: P265GH, 1.0425 / Stellite 21	
4		Spindle unit	--	
4.1	x	Bellows seal	X6CrNiMoTi17 12 2, 1.4571	
4.2		Stem	X20Cr13+QT, 1.4021+QT	
5		Handwheel	≤ DN125: St (cataphoretic coating) / ≥ DN150: EN-JL1040, EN-GJL-250 (epoxy-coating)	
6	x	Packing ring	Pure graphite	
7		Hexagon bolt	5.6	--
7		Stud	--	25CrMo4, 1.7218
8		Hexagon nut	--	C35E, 1.1181
9	x	Gasket	Pure graphite (CrNi laminated with graphite)	
15	x	Insert nuts	11SMn30+C, 1.0715+C	
L Spare parts				

DN	15	20	25	32	40	50	65	80	100	125	150	200	250	300	350	400
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Face-to-face dimension FTF series 1 acc. to DIN EN 558																
L	(mm)	130	150	160	180	200	230	290	310	350	400	480	600	730	850	1100

Dimensions																
Standard-flange dimensions refer to page 14																
H1	(mm)	205	205	210	210	225	230	245	265	365	395	430	550	720	775	1015
ØC	PN16	(mm)	125	125	125	125	150	150	175	175	225	300	400	520	520	640
	PN25	(mm)	125	125	125	125	150	150	175	175	300	300	400	520	520	640
	PN40	(mm)	125	125	125	125	150	150	175	225	300	300	400	520	520	--
Travel	(mm)	6	6	8	8	13	13	16	20	25	32	40	50	70	80	100
Kvs-value	(m³/h)	5,3	7,2	12	16	28,5	43	75	105	170	270	405	675	1090	1460	2640
Zeta-value	--	2,9	4,9	4,3	6,5	5	5,4	5,1	5,9	5,5	5,3	4,9	5,6	5,2	6,1	5,9

Zeta-value ... range of tolerance for Kvs-values acc. to VDI/VDE 2173

Weights																
12. / 22. / 23.046	(kg)	3,7	4,5	5,6	6,9	8,9	11	15,3	21,1	32,4	51,6	74	147	247	404	524
34.046	(kg)	--	--	--	--	--	--	--	--	--	--	--	168	268	395	629
35.046	(kg)	4,1	5,1	6,2	7,3	10,6	12,6	19,1	26,1	35	60,3	88	160	310	--	--

Information / restriction of technical rules need to be observed!

Operating and installation instructions can be downloaded at www.ari-armaturen.com.

ARI-Valves of EN-JL1040 are not allowed to be operated in systems acc. to TRD 110.

A production allowance acc. to TRB 801 No. 45 exists (acc. to TRB 801 No. 45 EN-JL1040 is not allowed.)

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 and Resistance list).

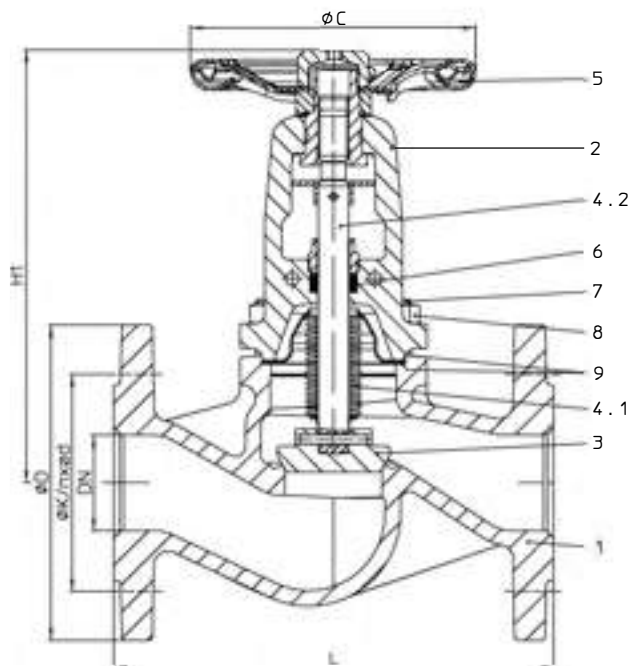
Stop valve - straight through with flanges and bellows seal (Stainless steel)


Figure-No.	Nominal pressure	Material	Nominal diameter
52.046	PN16	1.4408	DN15-250
62.046	PN16	1.4408 Body / 1.0619+N Cover	DN15-250
54.046	PN25	1.4408	DN200-250
64.046	PN25	1.4408 Body / 1.0619+N Cover	DN200-250
55.046	PN40	1.4408	DN15-150
65.046	PN40	1.4408 Body / 1.0619+N Cover	DN15-150

Test: • EN ISO 15848-1 / TA - Luft TÜV-Test-No. TA 07 2016 C04

Considered standards: • EN 13709 (1.0619+N, 1.4408)

Plug design: • Plug with marginal seat standard

At high differential pressures a balancing plug is necessary! (refer to page 12)

Parts			
Pos.	Sp.p.	Description	Fig. 52. / 54. / 55.046
1		Body	GX5CrNiMo19-11-2, 1.4408
2		Bonnet	GX5CrNiMo19-11-2, 1.4408
3	x	Plug	X6CrNiMoTi17 12 2, 1.4571
4		Spindle unit	—
4.1	x	Bellows seal	X6CrNiMoTi17 12 2, 1.4571
4.2		Stem	X6CrNiMoTi17 12 2, 1.4571
5	x	Handwheel	≤DN125: St (cataphoretic coating) / ≥DN150: EN-JL1040, EN-GJL-250 (epoxy-coating)
6		Packing ring	Pure graphite
7		Hexagon bolt	—
7		Stud	A4-70
8		Hexagon nut	A4
9	x	Gasket	Pure graphite (CrNi laminated with graphite)
L Spare parts			

DN	15	20	25	32	40	50	65	80	100	125	150	200	250
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Face-to-face dimension FTF series 1 acc. to DIN EN 558													
L	(mm)	130	150	160	180	200	230	290	310	350	400	480	730

Dimensions													
Standard-flange dimensions refer to page 14													
H1	(mm)	200	200	210	210	225	230	245	265	365	395	430	720
ØC	PN16	(mm)	125	125	125	125	150	150	175	175	225	300	520
	PN25	(mm)	125	125	125	125	150	150	175	175	300	300	520
	PN40	(mm)	125	125	125	125	150	150	175	225	300	300	520
	PN40	(mm)	125	125	125	125	150	150	175	225	300	300	520
Travel	(mm)	6	6	8	8	13	13	16	20	25	32	40	70
Kvs-value	(m³/h)	5,3	7,2	12	16	28,5	43	75	105	170	270	405	1090
Zeta-value	—	2,9	4,9	4,3	6,5	5	5,4	5,1	5,9	5,5	5,3	4,9	5,2

Zeta-value ... range of tolerance for Kvs-values acc. to VDI/VDE 2173

Weights													
52. / 54. / 62. / 55. / 64. / 65.046	(kg)	4,3	4,8	6,3	7,3	10,3	12,6	19	25	33	53	71	272

Information / restriction of technical rules need to be observed!

Operating and installation instructions can be downloaded at www.ari-armaturen.com.

A production allowance acc. to TRB 801 No. 45 exists

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 and Resistance list).

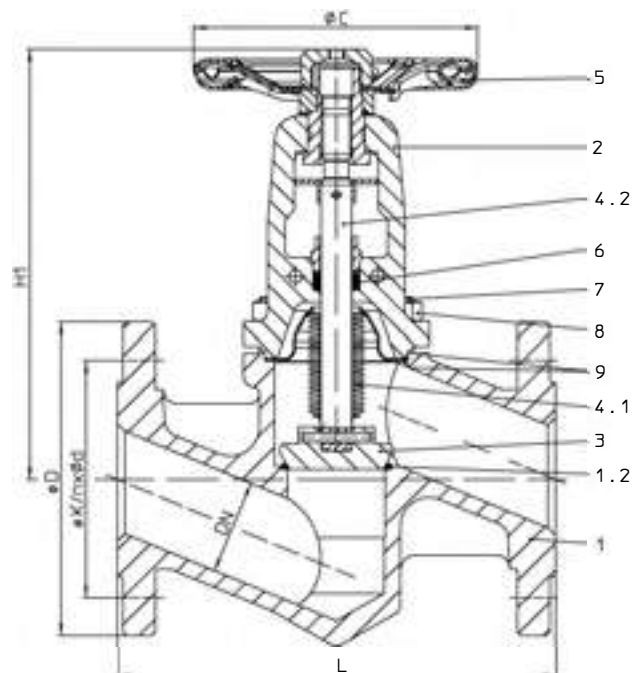
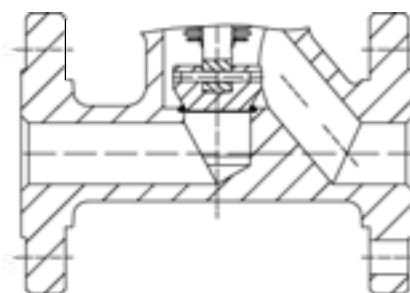
Stop valve - straight through with flanges and bellows seal (Forged steel)


Figure-No.	Nominal pressure	Material	Nominal diameter
45.046	PN40 DN >50 refer to Fig. 35.046 (1.0619+N)	1.0460	DN15-50
Test:	• EN ISO 15848-1 / TA - Luft TÜV-Test-No. TA 07 2016 C04		
Considered standards:	• EN 13709 (1.0460)		
Plug design:	• Plug with marginal seat standard		


DN40-50
DN15-32

Parts			
Pos.	Sp.p.	Description	Fig. 45.046
1		Body	P250 GH, 1.0460
1.2		Seat	G19 9 NbSi, 1.4551
2		Bonnet	GP240GH+N, 1.0619+N
3	x	Plug	X20Cr13+QT, 1.4021+QT (hardened)
4		Spindle unit	
4.1	x	Bellows seal	X6CrNiMoTi17 12 2, 1.4571
4.2		Stem	X20Cr13+QT, 1.4021+QT
5	x	Handwheel	Fe P01, 1.0330 (cataphoretic coating)
6		Packing ring	Pure graphite
7		Stud	25CrMo4, 1.7218
8		Hexagon nut	C35E, 1.1181
9	x	Gasket	Pure graphite (CrNi laminated with graphite)
L Spare parts			

DN	15	20	25	32	40	50
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Face-to-face dimension FTF series 1 acc. to DIN EN 558							
L	(mm)	130	150	160	180	200	230

Dimensions		Standard-flange dimensions refer to page 14					
H1	(mm)	215	215	225	230	230	230
ØC (PN40)	(mm)	125	125	125	125	150	150
Travel	(mm)	6	6	8	8	13	13
Kvs-value	(m³/h)	3,6	6,3	10	13	24	36
Zeta-value	—	6,2	6,4	6,2	9,9	7,1	7,7

Zeta-value ... range of tolerance for Kvs-values acc. to VDI/VDE 2173

Weights							
45.046	(kg)	3,8	4,8	5,5	7	10	12

Information / restriction of technical rules need to be observed!

Operating and installation instructions can be downloaded at www.ari-armaturen.com.

A production allowance acc. to TRB 801 No. 45 exists.

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 and Resistance list).

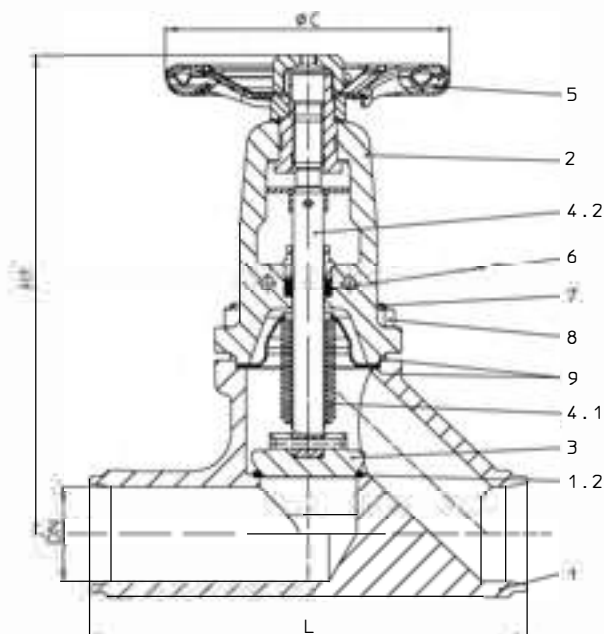
Stop valve - straight through with butt weld ends and bellows seal (Forged steel)


Figure-No.	Nominal pressure	Material	Nominal diameter
45.040	PN40	1.0460	DN15-50
	DN >50 refer to Fig. 35.040 (1.0619+N)		

Butt weld ends according to DIN EN 12627 - 4 (refer to page 11)

Test: • EN ISO 15848-1 / TA - Luft TÜV-Test-No. TA 07 2016 C04

Considered standards: • EN 13709 (1.0460)

Plug design: • Plug with marginal seat standard

Parts			
Pos.	Sp.p.	Description	Fig. 45.040
1		Body	P250 GH, 1.0460
1.2		Seat	G19 9 NbSi, 1.4551
2		Bonnet	GP240GH+N, 1.0619+N
3	x	Plug	X20Cr13+QT, 1.4021+QT (hardened)
4		Spindle unit	
4.1	x	Bellows seal	X6CrNiMoTi17 12 2, 1.4571
4.2		Stem	X20Cr13+QT, 1.4021+QT
5	x	Handwheel	Fe P01, 1.0330 (cataphoretic coating)
6		Packing ring	Pure graphite
7		Stud	25CrMo4, 1.7218
8		Hexagon nut	C35E, 1.1181
9	x	Gasket	Pure graphite (CrNi laminated with graphite)
	L Spare parts		

DN	15	20	25	32	40	50
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Face-to-face dimension ETE series 1 according to DIN EN 12982							
L	(mm)	130	150	160	180	200	230

Dimensions		Butt weld ends according to DIN EN 12627 - 4 (refer to page 11)					
H1	(mm)	215	215	225	230	250	255
ØC (PN40)	(mm)	125	125	125	125	150	150
Travel	(mm)	6	6	8	8	13	13
Kvs-value	(m³/h)	3,6	3,6	10	13	21	32
Zeta-value	—	6,2	6,4	6,2	9,9	9,3	9,7
Zeta-value ... range of tolerance for Kvs-values acc. to VDI/VDE 2173							

Weights							
45.040	(kg)	2,6	2,8	3,8	4,2	5,8	8,2

Information / restriction of technical rules need to be observed!

Operating and installation instructions can be downloaded at www.ari-armaturen.com.

A production allowance acc. to TRB 801 No. 45 exists

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 and Resistance list).

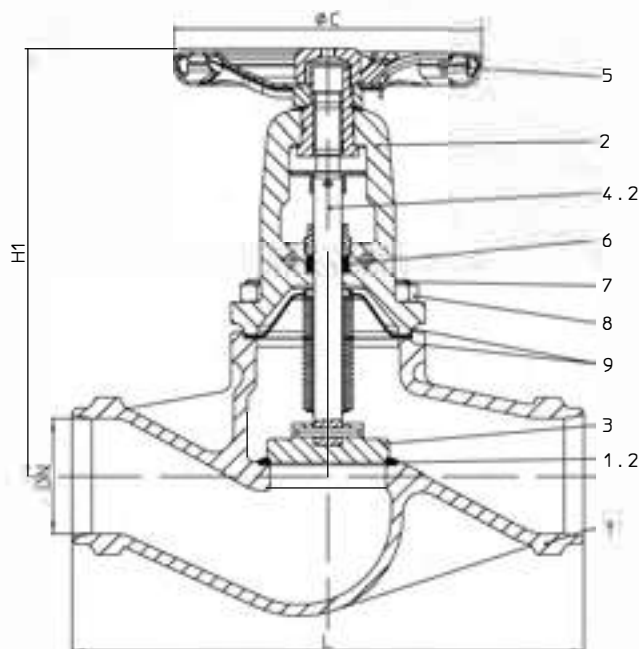
Stop valve - straight through with butt weld ends and bellows seal (Cast steel)


Figure-No.	Nominal pressure	Material	Nominal diameter
34.040	PN25	1.0619+N	DN200-300
35.040	PN40	1.0619+N	DN65-250

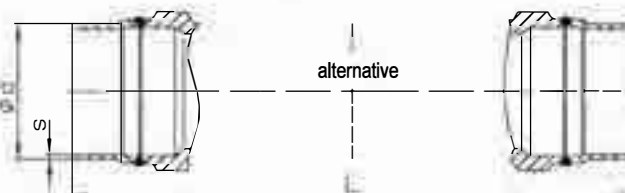
Butt weld ends according to DIN EN 12627 - 4 (refer to page 11)
alternative: DN 65-200 with shoed ends of P235GH

Test: • EN ISO 15848-1 / TA - Luft TÜV-Test-No. TA 07 2016 C04

Considered standards: • EN 13709 (1.0619+N)

Plug design: • Plug with marginal seat standard

At high differential pressures a balancing plug is necessary! (refer to page 12)



Parts			
Pos.	Sp.p.	Description	Fig. 34.040 / 35.040
1		Body	GP240GH+N, 1.0619+N
1.2		Seat	G19 9 NbSi, 1.4551
2		Bonnet	GP240GH+N, 1.0619+N
3	x	Plug	≤DN200: X20Cr13+QT, 1.4021+QT (hardened) / ≥DN250: P265GH, 1.0425 / Stellite 21
4		Spindle unit	
4.1	x	Bellows seal	X6CrNiMoTi17 12 2, 1.4571
4.2		Stem	X20Cr13+QT, 1.4021+QT
5	x	Handwheel	≤DN125: St (cataphoretic coating) / >DN125: EN-JL1040, EN-GJL-250 (epoxy-coating)
6		Packing ring	Pure graphite
7		Stud	25CrMo4, 1.7218
8		Hexagon nut	C35E, 1.1181
9	x	Gasket	Pure graphite (CrNi laminated with graphite)
L Spare parts			

DN	65	80	100	125	150	200	250	300
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Face-to-face dimension ETE series 1 according to DIN EN 12982

L (mm)	290	310	350	400	480	600	730	850
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Dimensions		Butt weld ends according to DIN EN 12627 - 4 (refer to page 11)							
H1	(mm)	245	265	365	395	430	550	720	775
	PN25 (mm)	—	—	—	—	—	520	520	520
	PN40 (mm)	175	225	300	300	400	520	520	—
Travel	(mm)	16	20	25	32	40	50	70	80
Kvs-value	(m³/h)	75	105	170	270	405	675	1090	1460
Zeta-value	—	5,1	5,9	5,5	5,3	4,9	5,6	5,2	6,1

Zeta-value ... range of tolerance for Kvs-values acc. to VDI/VDE 2173

Weights									
34.040	(kg)	—	—	—	—	—	160	242	370
35.040	(kg)	12	16,8	23,6	40	56	166	251	—

Information / restriction of technical rules need to be observed!

Operating and installation instructions can be downloaded at www.ari-armaturen.com.

A production allowance acc. to TRB 801 No. 45 exists

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 and Resistance list).

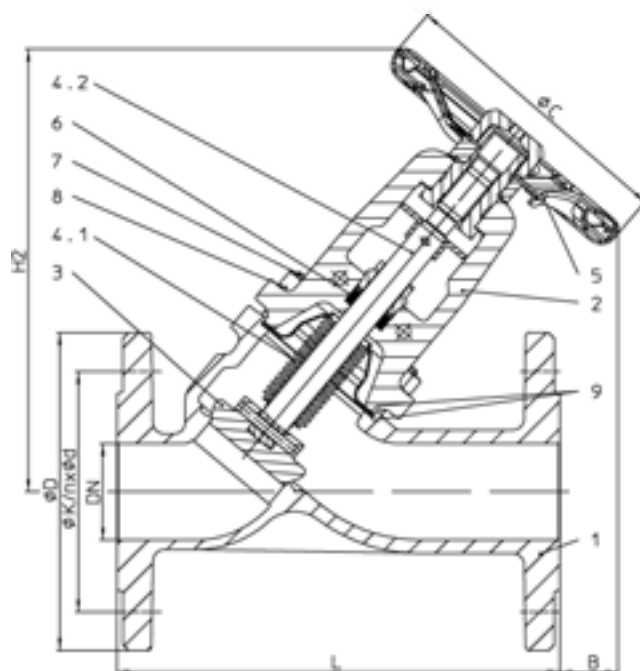
Stop valve - Y-pattern with flanges and bellows seal (Stainless steel)


Figure-No.	Nominal pressure	Material	Nominal diameter
52.069	PN16	1.4408	DN15-200
62.069	PN16	1.4408 Body / 1.0619+N Cover	DN15-200
54.069	PN25	1.4408	DN200
64.069	PN25	1.4408 Body / 1.0619+N Cover	DN200
55.069	PN40	1.4408	DN15-150
65.069	PN40	1.4408 Body / 1.0619+N Cover	DN15-150

Test: • EN ISO 15848-1 / TA - Luft TÜV-Test-No. TA 07 2016 C04

Considered standards: • EN 13709 (1.0619+N, 1.4408)

Plug design: • Plug with marginal seat standard

At high differential pressures a balancing plug is necessary! (refer to page 12)

Parts			
Pos.	Sp.p.	Description	Fig. 52.069 / Fig. 54.069 / Fig. 55.069
1		Body	GX5CrNiMo19-11-2, 1.4408
2		Bonnet	GX5CrNiMo19-11-2, 1.4408
3	x	Plug	X6CrNiMoTi17 12 2, 1.4571
4		Spindle unit	
4.1	x	Bellows seal	X6CrNiMoTi17 12 2, 1.4571
4.2		Stem	X6CrNiMoTi17 12 2, 1.4571
5	x	Handwheel	≤DN125: St (cataphoretic coating) / ≥DN150: EN-JL1040, EN-GJL-250 (epoxy-coating)
6		Packing ring	Pure graphite
7		Stud	A4-70
8		Hexagon nut	A4
9	x	Gasket	Pure graphite (CrNi laminated with graphite)
L Spare parts			

DN	15	20	25	32	40	50	65	80	100	125	150	200
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Face-to-face dimension FTF series 1 acc. to DIN EN 558												
L	(mm)	130	150	160	180	200	230	290	310	350	400	600

Dimensions												
H2	(mm)	195	195	205	205	235	235	265	295	380	415	615
ØC	PN16	(mm)	125	125	125	125	150	150	175	175	225	520
	PN25	(mm)	125	125	125	125	150	150	175	175	300	520
	PN40	(mm)	125	125	125	125	150	150	175	225	300	520
B	(mm)	95	70	70	55	65	35	15	50	120	100	140
Travel	(mm)	6	6	8	8	13	13	16	20	25	32	50
Kvs-value	(m³/h)	6,4	9,5	14,5	19,5	36	54	92	127	205	324	810
Zeta-value	—	2	2,8	3	4,4	3,2	3,4	3,4	4,1	3,8	3,7	3,9
Zeta-value ... range of tolerance for Kvs-values acc. to VDI/VDE 2173												

Weights												
52. / 54. / 62.069	(kg)	4	4,5	5,4	6,5	8,5	11,7	16	21,7	31,1	43,5	180
55. / 64. / 65.069	(kg)	4	4,5	5,4	6,5	8,5	11,7	16	21,7	31,1	43,5	186

Information / restriction of technical rules need to be observed!

Operating and installation instructions can be downloaded at www.ari-armaturen.com.

A production allowance acc. to TRB 801 No. 45 exists

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 and Resistance list).

Stop valve - Y-pattern with butt weld ends and bellows seal (Cast steel)

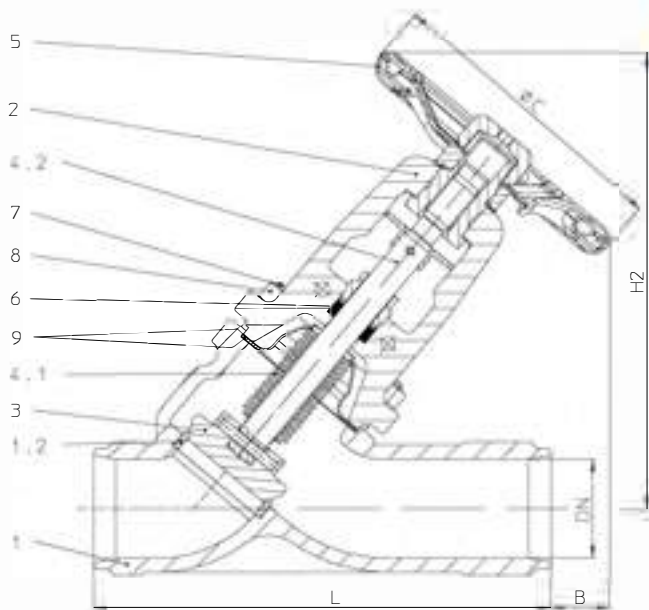


Figure-No.	Nominal pressure	Material	Nominal diameter
34.066	PN25	1.0619+N	DN200-300
35.066	PN40	1.0619+N	DN15-250

Butt weld ends according to DIN EN 12627 - 4 (refer to page 11)

Test: • EN ISO 15848-1 / TA - Luft TÜV-Test-No. TA 07 2016 C04

Considered standards: • EN 13709 (1.0619+N)

Plug design: • Plug with marginal seat standard

At high differential pressures a balancing plug is necessary! (refer to page 12)

Parts			
Pos.	Sp.p.	Description	Fig. 34./35.066
1		Body	GP240GH+N, 1.0619+N
1.2		Seat ring	≤DN80: X20Cr13+QT, 1.4021+QT / >DN80: G19 9 NbSi, 1.4551
2		Bonnet	GP240GH+N, 1.0619+N
3	x	Plug	≤DN200: X20Cr13+QT, 1.4021+QT (hardened) / ≥DN250: P265GH, 1.0425 / Stellite 21
4		Spindle unit	
4.1	x	Bellows seal	X6CrNiMoTi17 12 2, 1.4571
4.2		Stem	X20Cr13+QT, 1.4021+QT
5	x	Handwheel	≤DN125: St (cathaphoretic coating) / >DN125: EN-JL1040, EN-GJL-250 (epoxy-coating)
6		Packing ring	Pure graphite
7		Stud	25CrMo4, 1.7218
8		Hexagon nut	C35E, 1.1181
9	x	Gasket	Pure graphite (CrNi laminated with graphite)
L Spare parts			

DN	15	20	25	32	40	50	65	80	100	125	150	200	250	300
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Face-to-face dimension ETE series 1 according to DIN EN 12982

L (mm)	130	150	160	180	200	230	290	310	350	400	480	600	730	850
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Dimensions		Butt weld ends according to DIN EN 12627 - 4 (refer to page 11)														
H2		(mm)	195	195	205	205	235	235	265	295	380	415	480	615	740	795
B		(mm)	85	65	65	50	60	35	10	45	90	60	50	110	100	45
ØC	PN25	(mm)	--	--	--	--	--	--	--	--	--	--	--	520	520	520
	PN40	(mm)	125	125	125	125	150	150	175	225	300	300	400	520	520	--
Travel		(mm)	6	6	8	8	13	13	16	20	25	32	40	50	70	80
Kvs-value		(m³/h)	6,4	9,5	14,5	19,5	36	54	92	127	205	324	485	810	1310	1752
Zeta-value		--	2	2,8	3	4,4	3,2	3,4	3,4	4,1	3,8	3,7	3,4	3,9	3,6	4,2

Zeta-value ... range of tolerance for Kvs-values acc. to VDI/VDE 2173

Weights															
34.066	(kg)	—	—	—	—	—	—	—	—	—	—	—	138	230	317
35.066	(kg)	2.8	3	3.4	3.6	4.5	7.3	9	11.4	30	42	62	144	239	—

Information / restriction of technical rules need to be observed!

 Operating and installation instructions can be downloaded at www.ari-armaturen.com.

A production allowance acc. to TRB 801 No. 45 exists

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 and Resistance list).

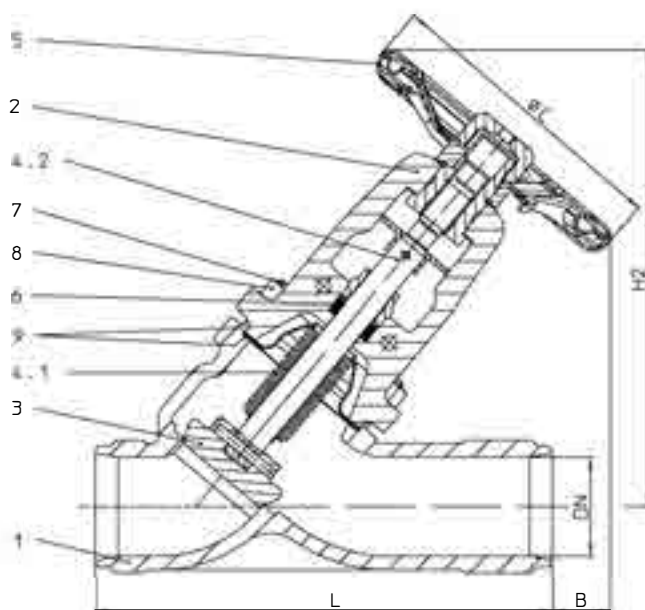
Stop valve - Y-pattern with butt weld ends and bellows seal (Stainless steel)


Figure-No.	Nominal pressure	Material	Nominal diameter
54.066	PN25	1.4581	DN200
55.066	PN40	1.4581	DN15-150

Butt weld ends according to DIN EN 12627 - 4 (refer to page 11)

Test: • EN ISO 15848-1 / TA - Luft TÜV-Test-No. TA 07 2016 C04

Considered standards: • EN 13709 (1.4581)

Plug design: • Plug with marginal seat standard

At high differential pressures a balancing plug is necessary! (refer to page 12)

Parts			
Pos.	Sp.p.	Description	Fig. 54./55.066
1		Body	GX5CrNiMoN19-11-2, 1.4581
2		Bonnet	GX5CrNiMo19-11-2, 1.4408
3	x	Plug	X6CrNiMoTi17 12 2, 1.4571
4		Spindle unit	
4.1	x	Bellows seal	X6CrNiMoTi17 12 2, 1.4571
4.2		Stem	X6CrNiMoTi17 12 2, 1.4571
5	x	Handwheel	≤DN125: St (cataphoretic coating) / >DN125: EN-JL1040, EN-GJL-250 (epoxy-coating)
6		Packing ring	Pure graphite
7		Stud	A2-70
8		Hexagon nut	A2
9	x	Gasket	Pure graphite (CrNi laminated with graphite)
L Spare parts			

DN	15	20	25	32	40	50	65	80	100	125	150	200
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Face-to-face dimension ETE series 1 according to DIN EN 12982													
L	(mm)	130	150	160	180	200	230	290	310	350	400	480	600

Dimensions		Butt weld ends according to DIN EN 12627 - 4 (refer to page 11)											
H2	(mm)	195	195	205	205	235	235	265	295	380	415	480	615
B	(mm)	85	65	65	50	60	35	10	45	90	60	50	110
ØC	PN25 (mm)	—	—	—	—	—	—	—	—	—	—	—	520
	PN40 (mm)	125	125	125	125	150	150	175	225	300	300	400	520
Travel	(mm)	6	6	8	8	13	13	16	20	25	32	40	50
Kvs-value	(m³/h)	6,4	9,5	14,5	19,5	36	54	92	127	205	324	485	810
Zeta-value	—	2	2,8	3	4,4	3,2	3,4	3,4	4,1	3,8	3,7	3,4	3,9

Zeta-value ... range of tolerance for Kvs-values acc. to VDI/VDE 2173

Weights													
54.066	(kg)	—	—	—	—	—	—	—	—	—	—	—	157
55.066	(kg)	3,2	3,6	4	4,8	6,8	8,5	10	13,8	32	45	66	157

Information / restriction of technical rules need to be observed!

Operating and installation instructions can be downloaded at www.ari-armaturen.com.

A production allowance acc. to TRB 801 No. 45 exists

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 and Resistance list).

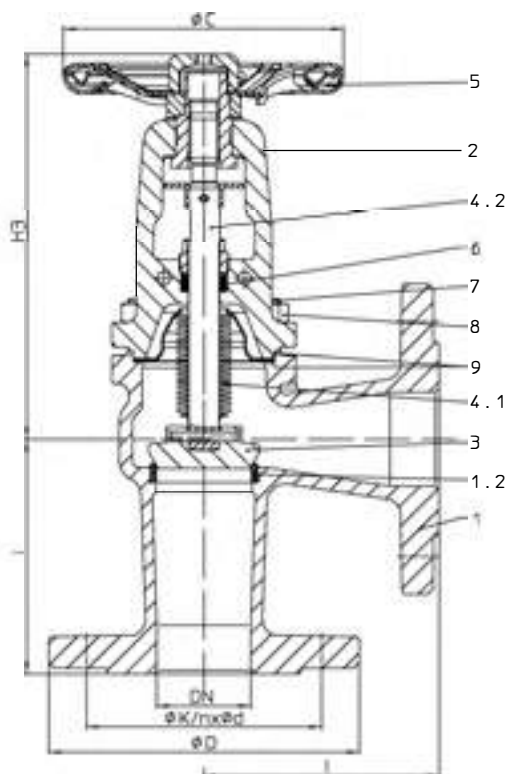
Stop valve - angle pattern with flanges and bellows seal (Grey cast iron, SG iron, Cast steel)


Figure-No.	Nominal pressure	Material	Nominal diameter
12.047	PN16	EN-JL1040	DN15-300
22.047	PN16	EN-JS1049	DN15-300
34.047	PN25	1.0619+N	DN200-300
35.047	PN40	1.0619+N	DN15-150

Test:	• EN ISO 15848-1 / TA - Luft TÜV-Test-No. TA 07 2016 C04
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Considered standards:	• EN 13709 (1.0619+N) • EN 13789 (EN-JL1040, EN-JS1049)
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Plug design:	• Plug with marginal seat standard
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At high differential pressures a balancing plug is necessary! (refer to page 12)	
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Parts					
Pos.	Sp.p.	Description	Fig. 12.047	Fig. 22.047	Fig. 34.047 / Fig. 35.047
1		Body	EN-JL1040, EN-GJL-250	EN-JS1049, EN-GJS-400-18U-LT	GP240GH+N, 1.0619+N
1.2		Seat ring	X20Cr13+QT, 1.4021+QT	X20Cr13+QT, 1.4021+QT	≤DN65: X20Cr13+QT, 1.4021+QT ≥DN80: G19 9 NbSi, 1.4551
2		Bonnet	EN-JS1049, EN-GJS-400-18U-LT	EN-JS1049, EN-GJS-400-18U-LT	GP240GH+N, 1.0619+N
3	x	Plug	≤DN200: X20Cr13+QT, 1.4021+QT (hardened) / >DN200: P265GH, 1.0425 / Stellite 21		
4	x	Spindle unit			
4.1		Bellows seal	X6CrNiMoTi17 12 2, 1.4571		
4.2		Stem	X20Cr13+QT, 1.4021+QT		
5	x	Handwheel	≤DN125: St (cataphoretic coating) / ≥DN150: EN-JL1040, EN-GJL-250 (epoxy-coating)		
6		Packing ring	Pure graphite		
7		Hexagon bolt	5.6	--	
7		Stud	--	25CrMo4, 1.7218	
8		Hexagon nut	--	C35E, 1.1181	
9	x	Gasket	Pure graphite (CrNi laminated with graphite)		
L Spare parts					

DN	15	20	25	32	40	50	65	80	100	125	150	200	250	300
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Face-to-face dimension CTF series 8 acc. to DIN EN 558														
I (mm)	90	95	100	105	115	125	145	155	175	200	225	275	325	375

Dimensions															Standard-flange dimensions refer to page 1		
H3		(mm)	190	190	195	195	210	210	220	235	325	345	370	485	615	665	
ØC	PN16	(mm)	125	125	125	125	150	150	175	175	225	300	400	520	520	520	
	PN25	(mm)	125	125	125	125	150	150	175	175	300	300	400	520	520	520	
	PN40	(mm)	125	125	125	125	150	150	175	225	300	300	400	520	—	—	
Travel		(mm)	6	6	8	8	13	13	16	20	25	32	40	50	70	80	
Kvs-value		(m³/h)	6	9	14	19	35	53	94	143	245	390	590	845	1360	1825	
Zeta-value		—	2,2	3,2	3,2	4,6	3,3	3,6	3,2	3,2	2,7	2,6	2,3	3,6	3,4	3,9	

Zeta-value ... range of tolerance for Kvs-values acc. to VDI/VDE 2173

Weights															
12. / 22.047	(kg)	3,7	4,4	5,1	6,5	8,3	11,2	14,6	19,4	29,4	44	58	145	221	298
34.047	(kg)	—	—	—	—	—	—	—	—	—	—	—	155	273	309
35.047	(kg)	4,6	6,4	6,7	7,5	10,1	12,7	17,5	22	34	49	60	—	—	—

Information / restriction of technical rules need to be observed!

Operating and installation instructions can be downloaded at www.ari-armaturen.com.

ARI-Valves of EN-JL1040 are not allowed to be operated in systems acc. to TRD 110.

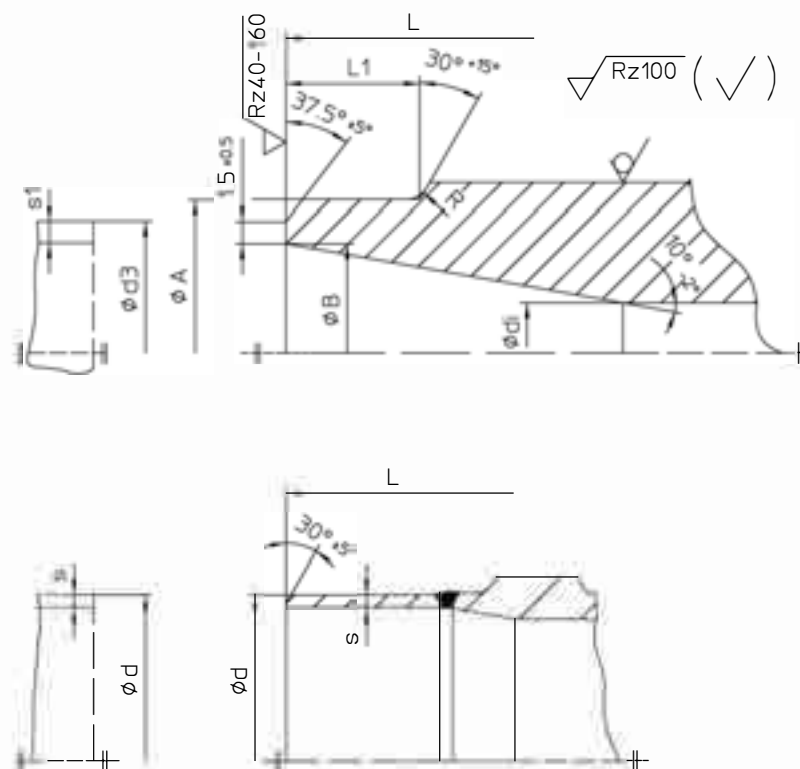
A production allowance acc. to TRB 801 No. 45 exists (acc. to TRB 801 No. 45 EN-JL1040 is not allowed.)

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 and Resistance list).

L = Face-to-face dimension

Edge shaping acc. to DIN EN ISO 5817



DN	15	20	25	32	40	50	65	80	100	125	150	200	250	300	350	400
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Butt weld ends according to DIN EN 12627

L	(mm)	130	150	160	180	200	230	290	310	350	400	480	600	730	850	980	1100
ØA	(mm)	22	28	35	44	50	62	77	91	117	144	172	223	278	329	362	413
ØB	(mm)	17,3	22,3	28,5	37,2	43,1	53,9	68,9	80,9	104,3	130,7	157,1	204,9	257	307,9	338	384,4
Ødi	(mm)	15	20	25	32	40	50	65	80	100	125	150	200	250	300	330	375
R	(mm)	3	3	3	3	3	3	3	3	3	3	3	5	5	5	5	5
L1 (similar)	(mm)	10	10	10	10	10	10	10	12	14	18	20	20	25	33	45	45
Ød3	(mm)	21,3	26,9	33,7	42,4	48,3	60,3	76,1	88,9	114,3	139,7	168,3	219,1	273	323,9	355,6	406,4
s1	(mm)	2	2,3	2,6	2,6	2,6	3,2	3,6	4	5	4,5	5,6	7,1	8	8	8,8	11

Face-to-face dimension ETE series 1 according to DIN EN 12982

Butt weld ends according to DIN EN 12627 Fig. 4

Weld joint according to DIN EN 29692 code number 1.3.3

The material used for ARI valves with butt weld ends are: GP240GH+N, 1.0619+N acc. to DIN EN 10213-2,
P250GH, 1.0460 acc. to DIN EN 10222-2,
GX5CrNiMoN19-11-2, 1.4581 acc. to DIN EN 10213-4.

DN	15	20	25	32	40	50	65	80	100	125	150	200	250	300	350	400
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Shoed ends of P235GH (Pipe connection ≙ welding neck flanges)

Ød	(mm)	-	-	-	-	-	-	76,1	88,9	114,3	139,7	168,3	219,1	-	-	-	-
Øs	(mm)	-	-	-	-	-	-	2,9	3,2	3,6	4	4,5	6,3	-	-	-	-

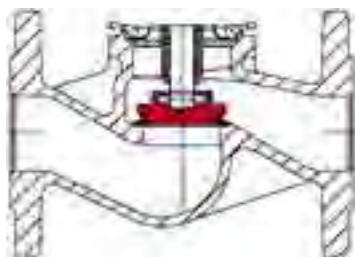
The material used for ARI valves with shoed ends (DN 65-200) P235GH according to DIN EN 10216-2.

Based on our experience we recommend electric welding process for connecting valves or strainers with tubes or with each other

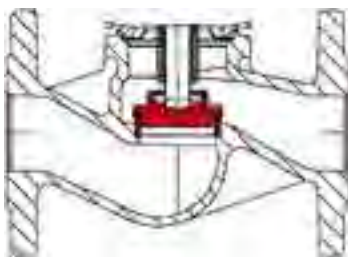
Lime based electrodes with an appropriate composite material should be used as filler material for welding.

Gas welding should be avoided.

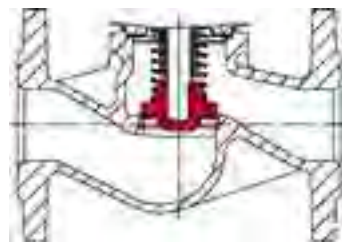
Due to the different material composition and material thickness of valves and tubes, gas welding is more susceptible to produce faults than electric welding (hardness cracks, coarse-grained structure).



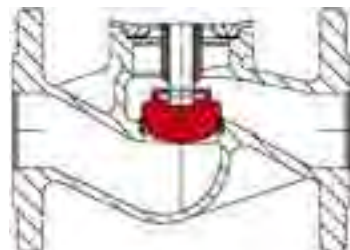
Isolation plug with marginal seat;
stellited seat and plug ¹⁾



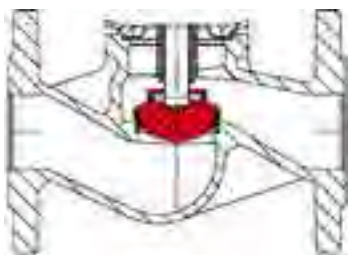
Plug with Soft seal
Max. operating temperature 200°C
at PTFE + 25% carbon



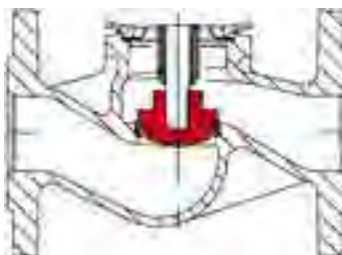
Screw down non-return plug with re-setting spring
(Set pressure refer to annex: Flow diagram)



Regulating plug with marginal seat ¹⁾

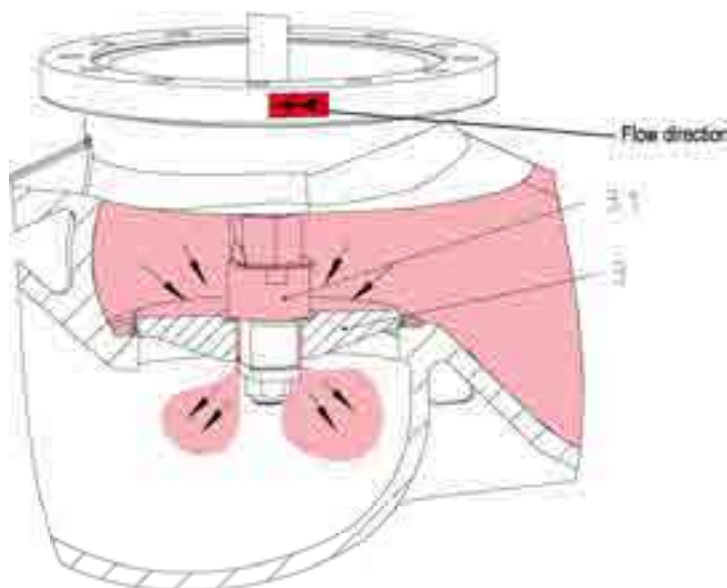


Regulating plug with soft seal ¹⁾
Max. operating temperature 200°C
at PTFE + 25% carbon



Screw down non-return regulating plug
with marginal seat ¹⁾
(Set pressure refer to annex: Flow diagram)

¹⁾ for max. permissible ΔP in throttling function, refer to annex: Flow diagram



Balancing plug
(Standard: DN15 - 300 with marginal seat, from DN350 with flat seat)

Valves with balancing plugs have to be installed with medium flowing over the plug (3) as indicated by flow direction arrow on valve body.

Working principles:

When the valve is closed, anticlockwise rotation of the hand wheel lifts the pilot plug (3.1) off the larger balancing plug (3).

This allows the medium to pass through the plug and equalizes the pressure of the medium under the plug (3). After the pressures have been equalized within the valves stated in the table, the valve can be opened by turning the valve further with normal manual force.

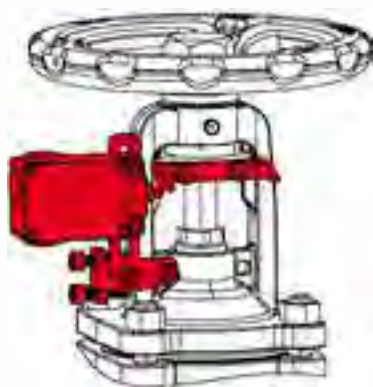
Balancing plugs are fully effective only in closed systems.

The pressures of the medium on either side of the plug can not be equalized if the medium is discharged into open air.

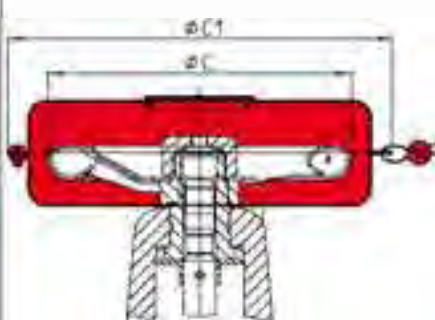
A bypass line or some other arrangement is necessary if too much time is required for pressure equalization owing to the volume in the piping system.

ARI-stop valves with differential pressures exceeding the following pressures, have to be fitted with pressure balancing plugs

DN		125	150	200	250	300	350	400	500
Gauge press. (ΔP)	(bar)	25	21	14	9	6	4,5	3,5	1,5

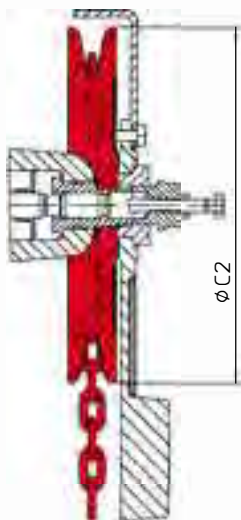


Limit switch


 Hood valve acc. to DIN EN 12828
 (tamper resistant handwheel cover)

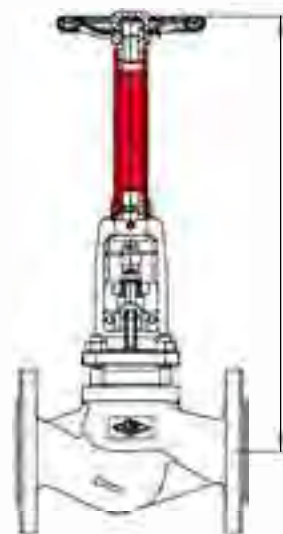
Size	DN (mm)	ØC (mm)	ØC1 (mm)
I	15-50	125	170
II	65-80	150	190
III	100-150	225	330

Handwheel-Ø from DN 65 reduced!

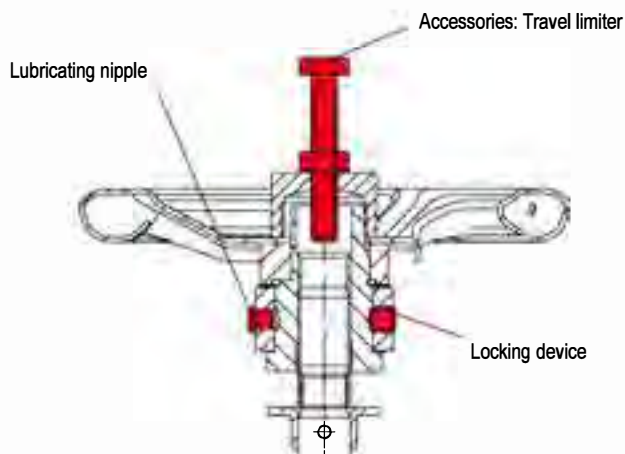


Chain wheel

DN (mm)	ØC2 (mm)	Weight (kg)
15-32	180	2,5
40-80	220	7
100-150	260	8,9
200-400	300	11



Stem extension (please specify height in your order)



Lubricating nipple / Locking device / Travel limiter

 Travel limiter
 (Accessories are not included !)

DN (mm)	Hexagon bolt (mm x mm)
15-80	M8 x 55
100	M12 x 70
125-150	M12 x 80
200	M12 x 100
250-300	M12 x 120
350-400	M16 x 160

DN	15	20	25	32	40	50	65	80	100	125	150	200	250	300	350	400	500
Standard-flange dimensions acc. to DIN EN 1092-1/-2																	
Flange holes / -thickness tol. acc. to DIN 2533/2544/2545																	
PN6	ØD	(mm)	80	90	100	120	130	140	160	190	210	240	265	320	--	--	--
	ØK	(mm)	55	65	75	90	100	110	130	150	170	200	225	280	--	--	--
	n x Ød	(mm)	4x11	4x11	4x11	4x14	4x14	4x14	4x14	4x18	4x18	8x18	8x18	8x18	--	--	--
PN16	ØD	(mm)	95	105	115	140	150	165	185	200	220	250	285	340	405	460	520
	ØK	(mm)	65	75	85	100	110	125	145	160	180	210	240	295	355	410	470
	n x Ød	(mm)	4x14	4x14	4x14	4x18	4x18	4x18	4x18 ¹⁾	8x18	8x18	8x18	8x22	12x22	12x26	12x26	16x26
PN25	ØD	(mm)	95	105	115	140	150	165	185	200	235	270	300	360	425	485	555
	ØK	(mm)	65	75	85	100	110	125	145	160	190	220	250	310	370	430	490
	n x Ød	(mm)	4x14	4x14	4x14	4x18	4x18	4x18	8x18	8x18	8x22	8x26	8x26	12x26	12x30	16x30	16x33
PN40	ØD	(mm)	95	105	115	140	150	165	185	200	235	270	300	375	450	515	580
	ØK	(mm)	65	75	85	100	110	125	145	160	190	220	250	320	385	450	510
	n x Ød	(mm)	4x14	4x14	4x14	4x18	4x18	4x18	8x18	8x18	8x22	8x26	8x26	12x30	12x33	16x33	16x36

¹⁾ also with 8 bore holes acc. to DIN EN 1092-1/-2 possible.

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

acc. to DIN EN 1092-2	-60°C to <-10°C ¹⁾	-10°C to 120°C	150°C	200°C	250°C	300°C	350°C	400°C	450°C
EN-JL1040 16 (bar)	--	16	14,4	12,8	11,2	9,6	--	--	--
EN-JS1049 16 (bar)	on request	16	15,5	14,7	13,9	12,8	11,2	--	--
EN-JS1049 25 (bar)	on request	25	24,3	23	21,8	20	17,5	--	--
EN-JS1049 40 (bar)	on request	40	38,8	36,8	34,8	32	28	--	--

acc. to manufacturers standard	-60°C to <-10°C ¹⁾	-10°C to 120°C	150°C	200°C	250°C	300°C	350°C	400°C	450°C
1.0619+N 25 (bar)	18,7	25	23,9	22	20	17,2	16	14,8	8,2
1.0619+N 40 (bar)	30	40	38,1	35	32	28	25,7	23,8	13,1
1.0460 25 (bar)	18,7	25	23,9	22	20	17,2	16	14,8	10
1.0460 40 (bar)	30	40	38,1	35	32	28	25,7	23,8	16

acc. to DIN EN 1092-1	-60°C to <-10°C ¹⁾	-10°C to 100°C	150°C	200°C	250°C	300°C	350°C	400°C	450°C
1.4408 16 (bar)	16	16	14,5	13,4	12,7	11,8	11,4	10,9	--
1.4408 25 (bar)	25	25	22,7	21	19,8	18,5	17,8	17,1	--
1.4408 40 (bar)	40	40	36,3	33,7	31,8	29,7	28,5	27,4	--
1.4581 16 (bar)	8	16	15,6	14,9	14,1	13,3	12,8	12,4	--
1.4581 25 (bar)	12,5	25	24,5	23,3	22,1	20,8	20,1	19,5	--
1.4581 40 (bar)	20	40	39,2	37,3	35,4	33,3	32,1	31,2	--

¹⁾ Studs and nuts made of A4-70 (at temperatures below -10°C)

Please indicate when ordering

- Figure-No.
- Nominal pressure
- Nominal diameter
- Special design / accessories

Example:

Figure 35.046; nominal pressure PN40; nominal diameter DN100.



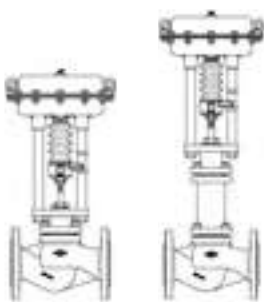
With pneumatic and electric actuators

ARI-STEVI® 440 / 441

Pneumatic actuator

ARI-DP 32-34 Tri

- Reversible pneumatic actuator
- Actuator with rolling diaphragm
- Air supply pressure max. 6 bar
- Stem protection by bellow
- Maintenance-free O-ring sealing
- Assembly of additional devices acc. to DIN IEC 60534-6



Page 4

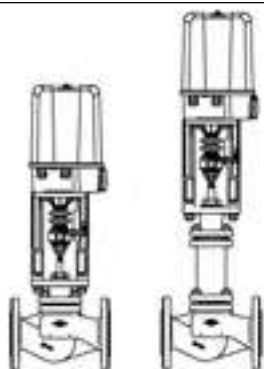
ARI-STEVI® 440 / 441

Electric actuator

ARI-PREMIO 2,2-25kN

ARI-PREMIO-Plus 2G 2,2-25kN

- Enclosure IP 65
- 2 torque switches
- Handwheel
- Additional devices available, e.g. potentiometer



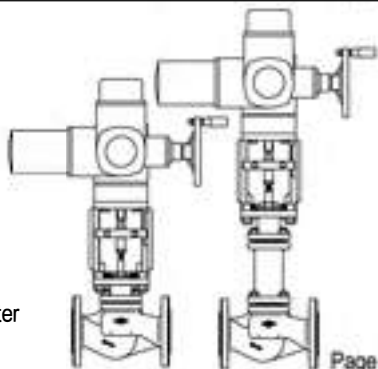
Page 12

ARI-STEVI® 440 / 441

Electric actuator

AUMA SAR 07.2-10.2

- Enclosure IP 67
- 2 torque switches
- 2 travel switches
- Handwheel
- Overheating protection for motor as standard
- Additional devices available, e.g. potentiometer
- Explosion proof version available



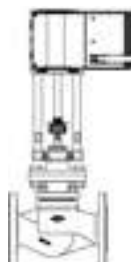
Page 14

ARI-STEVI® 440

Electric actuator with fail-safe function

FR1.2

- Operation mode for fail-safe function CLOSE
- Enclosure IP 66
- Operating time adjustable
- Additional devices available, e.g. potentiometer



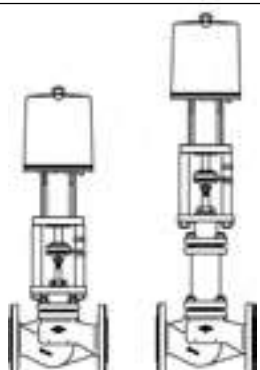
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ARI-STEVI® 440 / 441

Electric actuator with fail-safe function

FR2.1-2.2

- Fig. 440/441 with FR 2.1-2.2, actuator type approved acc. to DIN EN 14597
- Optional direction for safety reset, OPEN or CLOSE, as required
- Enclosure IP 54
- 1 travel switch for OPEN and CLOSE
- Additional devices available, e.g. potentiometer



Page 18



Fig. 440



Fig. 441

Figure	Nominal pressure	Material	Nominal diameter	Information / restriction of technical rules need to be observed! ARI-Valves of EN-JL1040 are not allowed to be operated in systems acc. to TRD 110. A production permission acc. to TRB 801 No. 45 is available. (acc. to TRB 801 No. 45 EN-JL1040 is not allowed.) 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 and Resistance list).
12.440 / 12.441	PN16	EN-JL1040	DN15-250	
22.440 / 22.441	PN16	EN-JS1049	DN15-250	
23.440 / 23.441	PN25	EN-JS1049	DN15-150	
34.440 / 34.441	PN25	1.0619+N	DN15-250	
35.440 / 35.441	PN40	1.0619+N	DN15-250	
54.440 / 54.441	PN25	1.4408	DN15-250	
55.440 / 55.441	PN40	1.4408	DN15-150	
Other materials and versions on request.				

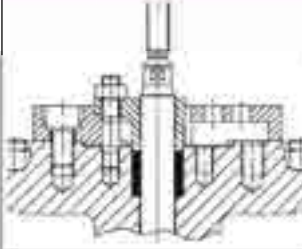
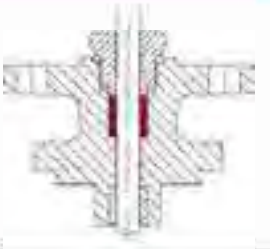
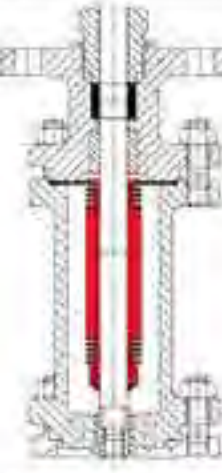
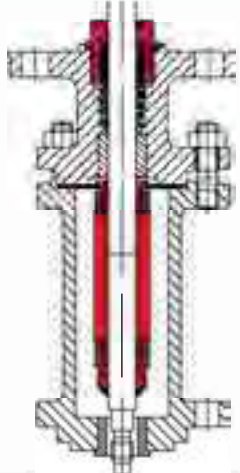
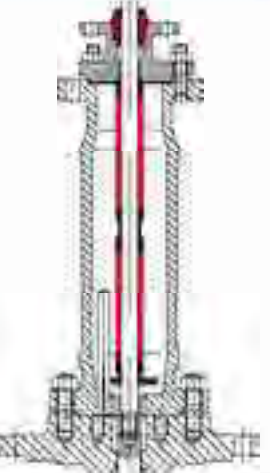
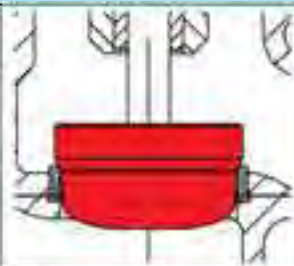
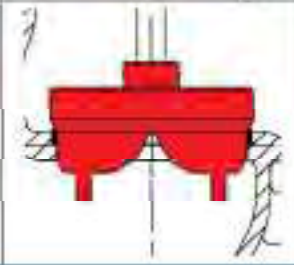
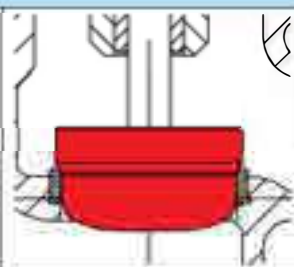
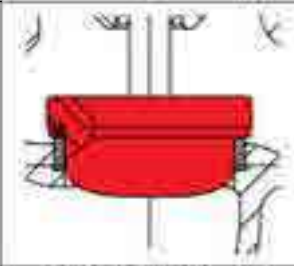
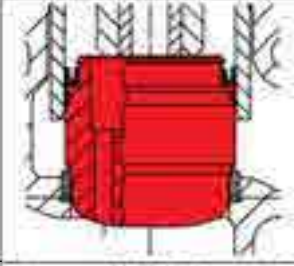
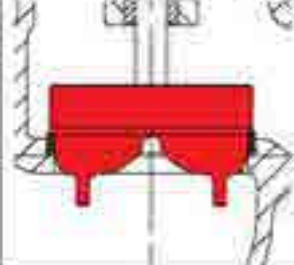
Stem sealing				
Fig. 440	standard		optional	
	DN15-150	DN200-250	DN15-250	DN15-250
	 I. PTFE-V-ring unit -10°C to 220°C	 II. PTFE-packing -10°C to 250°C	 I. EPDM-sealing -10°C to 150°C (allowed for water and steam up to 180°C)	 II. PTFE-packing -10°C to 250°C II. Pure graphite-packing -10°C to 450°C

Fig. 441	standard		optional	
	DN15-250		DN15-100	DN125-150
	 III. Stainless steel-bellow with pure graphite-packing -60°C to 450°C		 III. Stainless steel-bellow with V-ring unit -60°C to 220°C	 III. Stainless steel bellows seal with EPDM-sealing -60°C to 150°C (allowed for water and steam up to 180°C)

Pressure-temperature-ratings				Intermediate values for max. permissible operational pressures can be determined by linear interpolation of the given temperature / pressure chart.								
acc. to DIN EN 1092-2			-60°C to <-10°C ¹⁾	-10°C to 120°C	150°C	200°C	250°C	300°C	350°C	400°C	450°C	
EN-JL1040	PN16	(bar)	—	16	14,4	12,8	11,2	9,6	—	—	—	
EN-JS1049	PN16	(bar)	on request	16	15,5	14,7	13,9	12,8	11,2	—	—	
EN-JS1049	PN25	(bar)	on request	25	24,3	23	21,8	20	17,5	—	—	
acc. to manufacturers standard			-60°C to <-10°C ¹⁾	-10°C to 120°C	150°C	200°C	250°C	300°C	350°C	400°C	450°C	
1.0619+N	PN25	(bar)	18,7	25	23,9	22	20	17,2	16	14,8	8,2	
1.0619+N	PN40	(bar)	30	40	38,1	35	32	28	25,7	23,8	13,1	
acc. to DIN EN 1092-1			-60°C to <-10°C ¹⁾	-10°C to 100°C	150°C	200°C	250°C	300°C	350°C	400°C	450°C	
1.4408	PN40	(bar)	40	40	36,3	33,7	31,8	29,7	28,5	27,4	—	

¹⁾ Valve with extended bonnet. studs and nuts made of A4-70 (at temperatures below -10°C)

¹⁾ Valve with extended bonnet, studs and nuts made of A4-70 (at temperatures below -10°C)

Plug design standard			Guiding	Rangeability
DN15-150: Parabolic plug, metal seat	- Leakage class IV acc. to DIN EN 60534-4 - Flow characteristic: - equal percentage (glp) (from Kvs 100 modified) - linear (lin)		Stem	50 : 1
DN200-250: V-port plug, metal seat	- Leakage class IV acc. to DIN EN 60534-4 - from Kvs 63 - Flow characteristic: - equal percentage (glp) (from Kvs 100 modified) - linear (lin)		Stem / Seat ring	30 : 1
Plug design optional			Guiding	Rangeability
DN15-150: Parabolic plug, tight closure	- Leakage class IV-S1 acc. to DIN EN 60534-4 (special actuator forces necessary, refer to separate data sheet) - Flow characteristic: - equal percentage (glp) (from Kvs 100 modified) - linear (lin)		Stem	50 : 1
DN15-150: Parabolic plug with PTFE-Soft seal (max. 200°C)	- Leakage class VI acc. to DIN EN 60534-4 - Flow characteristic: - equal percentage (glp) (from Kvs 100 modified) - linear (lin)		Stem	50 : 1
DN25-150: Parabolic plug with Pressure balanced plug metal seat Piston seal: PTFE with stainless steel spring (max. 200°C)	- Leakage class IV acc. to DIN EN 60534-4 - from Kvs 6,3 - Flow characteristic: - equal percentage (glp) (from Kvs 100 modified) - linear (lin)		Stem	50 : 1
DN65-150: V-port plug metal seat	- Leakage class IV acc. to DIN EN 60534-4 - from Kvs 63 - Flow characteristic: - equal percentage (glp) (from Kvs 100 modified) - linear (lin)		Stem / Seat ring	30 : 1

Control valve in straightway form with pneumatic actuator ARI-DP

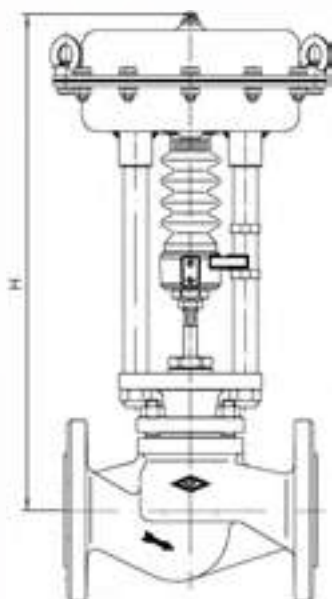


Fig. 440

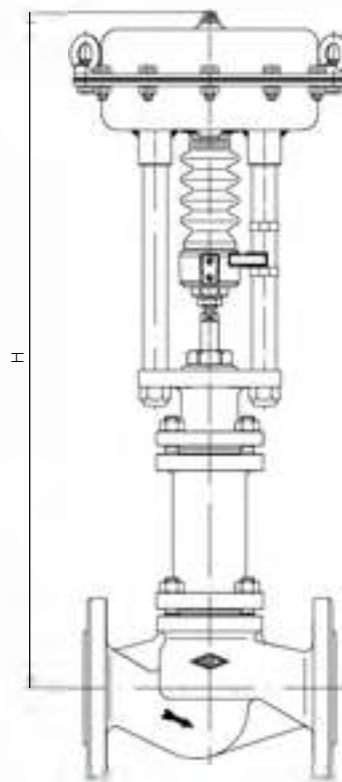
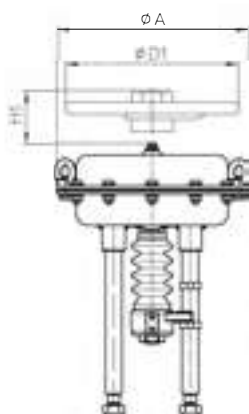
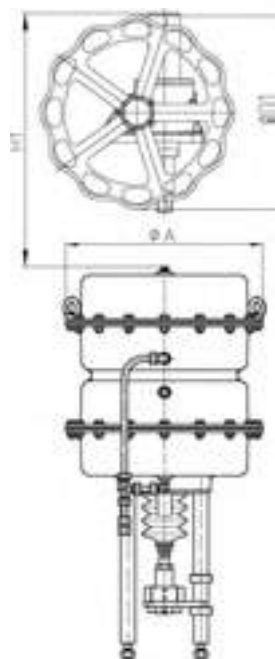
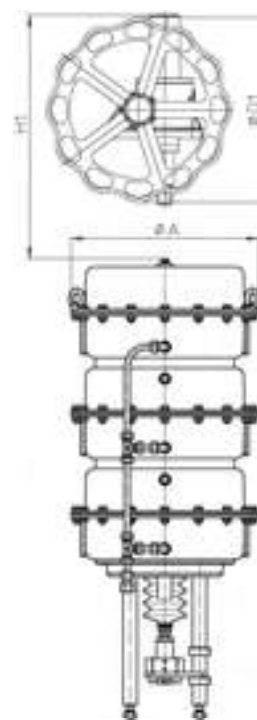


Fig. 441

Heights and weights

DN				15	20	25	32	40	50	65	80	100	125	150	200	250
Fig. 440	DP32	H	(mm)	442	442	450	450	457	463	465	480	499	–	–	–	–
		PN16	(kg)	13	13	14	16	18	21	26	31	42	–	–	–	–
		PN40	(kg)	13	14	15	17	19	22	29	35	48	–	–	–	–
	DP33	H	(mm)	497	497	505	505	512	518	531	546	565	–	–	–	–
		PN16	(kg)	19	19	20	22	24	27	32	37	48	–	–	–	–
		PN40	(kg)	19	20	21	23	25	28	35	41	54	–	–	–	–
	DP34	H	(mm)	–	–	–	–	–	–	666	681	680	719	779	841	901
		PN16	(kg)	–	–	–	–	–	–	62	67	78	95	118	190	304
		PN40	(kg)	–	–	–	–	–	–	65	71	84	101	122	222	336
	DP34T	H	(mm)	–	–	–	–	–	–	–	–	–	–	–	1091	1151
		PN16	(kg)	–	–	–	–	–	–	–	–	–	–	–	261	375
		PN40	(kg)	–	–	–	–	–	–	–	–	–	–	–	293	407
	DP34Tri	H	(mm)	–	–	–	–	–	–	–	–	–	–	–	1313	1373
		PN16	(kg)	–	–	–	–	–	–	–	–	–	–	–	295	409
		PN40	(kg)	–	–	–	–	–	–	–	–	–	–	–	327	441
Fig. 441	DP32	H	(mm)	627	627	635	635	626	628	701	713	729	–	–	–	–
		PN16	(kg)	17	17	18	21	23	26	29	40	55	–	–	–	–
		PN40	(kg)	19	21	23	26	32	35	42	52	68	–	–	–	–
	DP33	H	(mm)	682	682	690	690	681	683	767	779	795	–	–	–	–
		PN16	(kg)	23	23	24	27	29	32	35	46	61	–	–	–	–
		PN40	(kg)	25	27	29	32	38	41	48	58	74	–	–	–	–
	DP34	H	(mm)	–	–	–	–	–	–	902	914	930	1074	1105	1363	1427
		PN16	(kg)	–	–	–	–	–	–	65	76	91	111	132	212	326
		PN40	(kg)	–	–	–	–	–	–	78	88	104	121	138	247	362
	DP34T	H	(mm)	–	–	–	–	–	–	–	–	–	–	–	1542	1601
		PN16	(kg)	–	–	–	–	–	–	–	–	–	–	–	283	397
		PN40	(kg)	–	–	–	–	–	–	–	–	–	–	–	318	433
	DP34Tri	H	(mm)	–	–	–	–	–	–	–	–	–	–	–	1764	1823
		PN16	(kg)	–	–	–	–	–	–	–	–	–	–	–	317	431
		PN40	(kg)	–	–	–	–	–	–	–	–	–	–	–	352	467

Other dimensions refer to pages 20-21.


DP32 / DP33 / DP34

DP34T

DP34Tri

Actuator data		DP32	DP33	DP34	DP34T	DP34Tri	
Ø A	(mm)	250	300	405			
Effective diaphragm area	(cm²)	250	400	800	1600	2400	
Top mounted handwheel	Ø D1	(mm)	225	300	400		
	H1	(mm)	270	284	442	635	635
	Weight	(kg)	5		17	41	
Technical data for actuator refer to data sheet ARI-DP.							

max. permissible closing pressures on flow-to-open P2 = 0.
Observe pressure-temperature-limits, refer to page 2.

DN					15	20	25	32	40	50	65	80	100	
Parabolic plug	Kvs-value		(m³/h)		4 2,5	6,3 4 / 2,5	10 6,3	16 10	25 16	40 25	63 40	100 63	160 100	
	max. diff. pressure ¹⁾		(bar)		40	40	40	40	30	20	8	4	1,5	
V-port plug	Kvs-value		(m³/h)		–	–	–	–	–	–	63	100	160	
	max. diff. pressure ¹⁾		(bar)		–	–	–	–	–	–	30	25	25	
Seat-ø			(mm)		21	21	27	31	41	51	66	81	101	
Travel			(mm)		20						30			
DP32 250 cm² Spring closes on air failure  (extended through spring)	Spring range (bar)	0,2-1,0	1,2	I.	(bar)	5,5	5,5	2,6	1,6					
				II.	(bar)	2,3	2,3							
				III.	(bar)									
		0,4-1,2	1,4	I.	(bar)	18,6	18,6	10,7	7,8	3,9	2,2			
				II.	(bar)	15,4	15,4	8,7	6,2	3	1,6			
				III.	(bar)	8,6	8,6	7,1	5	1,7				
		0,8-2,4	2,7	I.	(bar)	40	40	26,8	20,1	11	6,8	3,7	2,2	1,2
				II.	(bar)	40	40	24,8	18,6	10,2	6,3	3,2	1,9	1
				III.	(bar)	26,4	26,4	23,2	17,3	8,9	5,4	2,9	1,7	
		1,5-2,9	3,2	I.	(bar)			40	40	23,5	15			
				II.	(bar)			40	40	22,7	14,4			
				III.	(bar)	40	40	40	38,9	21,4	13,6			
		2,0-3,8	4,1	I.	(bar)					32,5	20,8			
				II.	(bar)					31,6	20,2			
				III.	(bar)				40	30,3	19,4			

DN					15	20	25	32	40	50	65	80	100
Parabolic plug	Kvs-value		(m³/h)		4 2,5	6,3 4 / 2,5	10 6,3	16 10	25 16	40 25	63 40	100 63	160 100
	max. diff. pressure ¹⁾		(bar)		40	40	40	40	30	20	8	4	1,5
V-port plug	Kvs-value		(m³/h)		–	–	–	–	–	–	63	100	160
	max. diff. pressure ¹⁾		(bar)		–	–	–	–	–	–	30	25	25
Seat-ø				(mm)	21	21	27	31	41	51	66	81	101
Travel				(mm)	20						30		
DP32 250 cm² Spring opens on air failure  (retracted through spring)	Air supply pressure min. (bar ²⁾)	1,4	I.	(bar)	18,6	18,6	10,7	7,8	3,9	2,2			
			II.	(bar)	15,4	15,4	8,7	6,2	3	1,6			
			III.	(bar)	8,6	8,6	7,1	5	1,7				
		2	I.	(bar)	40	40	34,9	26,3	14,6	9,2	5	3,1	1,8
			II.	(bar)	40	40	32,9	24,8	13,7	8,6	4,6	2,8	1,6
			III.	(bar)	35,2	35,2	31,3	23,5	12,4	7,7	4,3	2,6	1,5
		3	I.	(bar)			40	40	32,5	20,8	12	7,8	4,8
			II.	(bar)			40	40	31,6	20,2	11,6	7,5	4,6
			III.	(bar)	40	40	40	40	30,3	19,4	11,3	7,3	4,5
		4	I.	(bar)					40	32,4	19	12,4	7,8
			II.	(bar)					40	31,8	18,6	12,1	7,6
			III.	(bar)					40	31	18,3	11,9	7,5
		5	I.	(bar)						40	26	17	10,8
			II.	(bar)						40	25,6	16,7	10,6
			III.	(bar)						40	25,3	16,5	10,5
		6	I.	(bar)							33	21,7	13,8
			II.	(bar)							32,6	21,4	13,6
			III.	(bar)							32,3	21,2	13,5

I. Fig. 440: PTFE-V-ring unit / EPDM-sealing

II. Fig. 440: PTFE- / pure graphite-packing

III. Fig. 441: Bellows seal

¹⁾ max. differential pressure drop

²⁾ Air supply pressure max. to actuator: 6 bar Restriction: a) 5 bar b) 4,5 bar c) 4 bar d) 3,5 bar e) 3 bar

max. permissible closing pressures on flow-to-open P2 = 0.
Observe pressure-temperature-limits, refer to page 2.

DN				15	20	25	32	40	50	65	80	100			
Parabolic plug	Kvs-value		(m³/h)	4 2,5	6,3 4 / 2,5	10 6,3	16 10	25 16	40 25	63 40	100 63	160 100			
	max. diff. pressure ¹⁾		(bar)	40	40	40	40	30	20	8	4	1,5			
V-port plug	Kvs-value		(m³/h)	–	–	–	–	–	–	63	100	160			
	max. diff. pressure ¹⁾		(bar)	–	–	–	–	–	–	30	25	25			
Seat-ø			(mm)	21	21	27	31	41	51	66	81	101			
Travel			(mm)	20							30				
DP33 400 cm² Spring closes on air failure  (extended through spring)	Spring range (bar)	Air supply pressure min. (bar) ²⁾	1,2	I.	(bar)	13,3 c)	13,3 c)	7,4 c)	5,2 c)	2,4 c)	1,2 c)				
				II.	(bar)	10,1 c)	10,1 c)	5,4 c)	3,7 c)	1,5 c)					
				III.	(bar)	5 a)	5 a)	3,8 a)	2,5 a)						
			0,4-1,2	1,4	I.	(bar)	34,2 c)	34,2 c)	20,2 c)	15,1 c)	8,1 c)	4,9 c)	2,5	1,4	
					II.	(bar)	31 c)	31 c)	18,3 c)	13,6 c)	7,3 c)	4,4 c)	2,1	1,1	
					III.	(bar)	19,1 a)	19,1 a)	16,6 a)	12,3 a)	5,9 a)	3,5 a)	1,8 a)		
			0,8-2,4	2,7	I.	(bar)	40 a)	40 a)	40 a)	34,7 a)	19,5 a)	12,3 a)	7	4,4	2,6
					II.	(bar)	40 a)	40 a)	40 a)	33,2 a)	18,6 a)	11,8 a)	6,5	4,1	2,4
					III.	(bar)	40	40	40	31,9	17,3	10,9	6,2	3,9	2,3
			1,5-3,0	3,3	I.	(bar)							14,8	9,6	6
					II.	(bar)							14,3	9,3	5,8
					III.	(bar)							14	9,1	5,7
			1,7-2,7	3,1	I.	(bar)				40 a)	40 a)	29 a)			
					II.	(bar)				40 a)	40 a)	28,4 a)			
					III.	(bar)				40	40	27,6			
			2,0-4,0	4,5	I.	(bar)							20,3	13,3	8,4
					II.	(bar)							19,9	12,9	8,2
					III.	(bar)							19,6	12,8	8,1
			2,3-3,7	4,5	I.	(bar)					40				
					II.	(bar)					39,5				
					III.	(bar)					38,6				

DN				15	20	25	32	40	50	65	80	100		
Parabolic plug	Kvs-value		(m³/h)	4 2,5	6,3 4 / 2,5	10 6,3	16 10	25 16	40 25	63 40	100 63	160 100		
	max. diff. pressure ¹⁾		(bar)	40	40	40	40	30	20	8	4	1,5		
V-port plug	Kvs-value		(m³/h)	–	–	–	–	–	–	63	100	160		
	max. diff. pressure ¹⁾		(bar)	–	–	–	–	–	–	30	25	25		
Seat-ø			(mm)	21	21	27	31	41	51	66	81	101		
Travel			(mm)	20						30				
DP33 400 cm² Spring opens on air failure  (retracted through spring)	All supply pressure min. (bar ²⁾	1,4	I.	(bar)	34,2 d)	34,2 d)	20,2 d)	15,1 d)	8,1 d)	4,9 d)	2,5 d)	1,4 d)		
			II.	(bar)	31 d)	31 d)	18,3 d)	13,6 d)	7,3 d)	4,4 d)	2,1 d)	1,1 d)		
			III.	(bar)	19,1 d)	19,1 d)	16,6 d)	12,3 d)	5,9 d)	3,5 d)	1,8 d)			
		2	I.	(bar)	40 d)	40 d)	40 d)	40 d)	25,2 d)	16 d)	9,2 d)	5,9 d)	3,6 d)	
			II.	(bar)	40 d)	40 d)	40 d)	40 d)	24,3 d)	15,5 d)	8,7 d)	5,6 d)	3,4 d)	
			III.	(bar)	40 d)	40 d)	40 d)	40 d)	23 d)	14,6 d)	8,4 d)	5,4 d)	3,3 d)	
		3	I.	(bar)					40 d)	34,6 d)	20,3 d)	13,3 d)	8,4 d)	
			II.	(bar)					40 d)	34 d)	19,9 d)	12,9 d)	8,2 d)	
			III.	(bar)					40 d)	33,1 d)	19,6 d)	12,8 d)	8,1 d)	
		4	I.	(bar)						40 c)	31,4	20,6	13,1	
			II.	(bar)						40 c)	31	20,3	12,9	
			III.	(bar)						40 a)	30,7 a)	20,1 a)	12,8 a)	
		5	I.	(bar)							40	28	17,9	
			II.	(bar)							40	27,7	17,7	
			III.	(bar)							40 a)	27,5 a)	17,6 a)	
		6	I.	(bar)									35,4	22,7
			II.	(bar)									35,1	22,5

I. Fig. 440: PTFE-V-ring unit / EPDM-sealing

II. Fig. 440: PTFE- / pure graphite-packing

III. Fig. 441: Bellows seal

¹⁾ max. differential pressure drop

²⁾ Air supply pressure max. to actuator: 6 bar

Restriction: a) 5 bar b) 4,5 bar c) 4 bar d) 3,5 bar e) 3 bar

max. permissible closing pressures on flow-to-open P2 = 0.

Observe pressure-temperature-limits, refer to page 2.

DN				65	80	100	125	150	200	250			
Parabolic plug	Kvs-value		(m³/h)	63 40	100 63	160 100	250 160	400 250	—	—			
	max. diff. pressure ¹⁾		(bar)	8	4	1,5	1	1	—	—			
V-port plug	Kvs-value		(m³/h)	63	100	160	250	400	630	1000			
	max. diff. pressure ¹⁾		(bar)	30	25	25	10	10	5	5			
Seat-ø			(mm)	66	81	101	126	151	201	251			
Travel			(mm)	30			50		65				
DP34 800 cm² Spring closes on air failure  (extended through spring)	Spring range (bar)	Air supply pressure min. (bar) ²⁾	1,2	I.	(bar)	2,5 b)	1,5 b)						
				II.	(bar)	2,1 b)	1,2 b)						
				III.	(bar)	1,8 e)	1 e)						
			0,4-1,2	1,4	I.	(bar)	7 b)	4,4 b)	2,7 b)	1,6	1		
					II.	(bar)	6,6 b)	4,1 b)	2,5 b)	1,4			
					III.	(bar)	6,3 d)	3,9 d)	2,3 d)	1,2 a)			
			0,8-2,4	2,7	I.	(bar)	16	10,4	6,5	4	2,7		
					II.	(bar)	15,5	10,1	6,3	3,9	2,6		
					III.	(bar)	15,2 b)	9,9 b)	6,2 b)	3,7	2,5		
			1,0-2,0	2,4	I.	(bar)						1,9	1,1
					II.	(bar)						1,8	1,1
					III.	(bar)						1,7	1
			1,5-3,0	3,3	I.	(bar)				8,4	5,7		
					II.	(bar)				8,2	5,6		
					III.	(bar)				8,1	5,5		
			2,0-4,0	4,5	I.	(bar)				11,5	7,9	4,3	2,7
					II.	(bar)				11,3	7,8	4,2	2,6
					III.	(bar)				11,2	7,7	4,2	2,6
			2,1-3,0	3,3	I.	(bar)	40	29,7	19				
					II.	(bar)	40	29,4	18,8				
					III.	(bar)	40 a)	29,2 a)	18,7 a)				
			2,4-3,6	4,5	I.	(bar)			34,2	21,9			
					II.	(bar)			33,9	21,7			

DN				65	80	100	125	150	200	250	
Parabolic plug	Kvs-value		(m³/h)	63 40	100 63	160 100	250 160	400 250	—	—	
	max. diff. pressure ¹⁾		(bar)	8	4	1,5	1	1	—	—	
V-port plug	Kvs-value		(m³/h)	63	100	160	250	400	630	1000	
	max. diff. pressure ¹⁾		(bar)	30	25	25	10	10	5	5	
Seat-ø			(mm)	66	81	101	126	151	201	251	
Travel			(mm)	30			50		65		
DP34 800 cm² Spring opens on air failure  (retracted through spring)	Air supply pressure min. (bar ²⁾	1,4	I.	(bar)	7 b)	4,4 b)	2,7 b)	1,6	1		
			II.	(bar)	6,6 b)	4,1 b)	2,5 b)	1,4			
			III.	(bar)	6,3 e)	3,9 e)	2,3 e)	1,2 a)			
		2	I.	(bar)	20,5 b)	13,3 b)	8,4 b)	5,3	3,6	1,9	1,1
			II.	(bar)	20 b)	13 b)	8,2 b)	5,1	3,5	1,8	1,1
			III.	(bar)	19,7 e)	12,9 e)	8,1 e)	5 a)	3,4 a)	1,7 a)	1 a)
		3	I.	(bar)	40 b)	28,2 b)	18 b)	11,5	7,9	4,3	2,7
			II.	(bar)	40 b)	27,9 b)	17,8 b)	11,3	7,8	4,2	2,6
			III.	(bar)	40 e)	27,7 e)	17,7 e)	11,2 a)	7,7 a)	4,2 a)	2,6 a)
		4	I.	(bar)		40 b)	27,6 b)	17,7	12,2	6,8	4,3
			II.	(bar)		40 b)	27,5 b)	17,5	12,1	6,7	4,2
			III.	(bar)				17,4 a)	12 a)	6,6 a)	4,2 a)
		5	I.	(bar)				23,9	16,6	9,2	5,8
			II.	(bar)				23,7	16,5	9,1	5,8
			III.	(bar)				23,6 a)	16,3 a)	9,1 a)	5,8 a)
		6	I.	(bar)				30,9	20,9	11,7	7,4
			II.	(bar)				29,9	20,8	11,6	7,4

I. Fig. 440: PTFE-V-ring unit (DN15-150) / EPDM-sealing

II. Fig. 440: PTFE- / pure graphite-packing

III. Fig. 441: Bellows seal

¹⁾ max. differential pressure drop

²⁾ Air supply pressure max. to actuator: 6 bar Restriction: a) 5 bar b) 4,5 bar c) 4 bar d) 3,5 bar e) 3 bar

max. permissible closing pressures on flow-to-open P2 = 0.
Observe pressure-temperature-limits, refer to page 2.

DN						200	250		
V-port plug	Kvs-value		(m³/h)		630	1000			
	max. diff. pressure ¹⁾		(bar)		5	5			
Seat-ø					(mm)	201	251		
Travel					(mm)	65			
DP34T 1600 cm² Spring closes on air failure  (extended through spring)	Spring range (bar)	0,4-1,2	Air supply pressure min. (bar) ²⁾	1,7	I.	(bar)	1,4 b)		
					II.	(bar)	1,3 b)		
					III.	(bar)	1,2 d)		
		1,0-2,0		2,5	I.	(bar)	4,3 a)	2,7 a)	
					II.	(bar)	4,2 a)	2,6 a)	
					III.	(bar)	4,2 c)	2,6 c)	
	2,0-4,0			4,5	I.	(bar)	9,2	5,8	
					II.	(bar)	9,1	5,8	
					III.	(bar)	9,1	5,8	

DN				200		250		
V-port plug	Kvs-value		(m³/h)		630		1000	
	max. diff. pressure ¹⁾		(bar)		5		5	
Seat-ø			(mm)		201		251	
Travel			(mm)		65			
DP34T 1600 cm² Spring opens on air failure  (retracted through spring)	Air supply pressure min. (bar) ²⁾	1,5	I.	(bar)	1,9 b)		1,1 b)	
			II.	(bar)	1,8 b)		1,1 b)	
			III.	(bar)	1,7 e)		1 e)	
		2	I.	(bar)	4,3 b)		2,7 b)	
			II.	(bar)	4,2 b)		2,6 b)	
			III.	(bar)	4,2 e)		2,6 e)	
		3	I.	(bar)	9,2 b)		5,8 b)	
			II.	(bar)	9,1 b)		5,8 b)	
			III.	(bar)	9,1 e)		5,8 e)	
		4	I.	(bar)	14,1 b)		9 b)	
			II.	(bar)	14 b)		8,9 b)	
		4,5	I.	(bar)	16,6 b)		10,6 b)	
II.	(bar)		16,5 b)		10,5 b)			

I. Fig. 440: EPDM-sealing

II. Fig. 440: PTFE- / pure graphite-packing

III. Fig. 441: Bellows seal

¹⁾ max. differential pressure drop

²⁾ Air supply pressure max. to actuator: 6 bar

Restriction: a) 5 bar b) 4,5 bar c) 4 bar d) 3,5 bar e) 3 bar

max. permissible closing pressures on flow-to-open P2 = 0.
Observe pressure-temperature-limits, refer to page 2.

DN				200		250		
V-port plug	Kvs-value		(m ³ /h)	630		1000		
	max. diff. pressure ¹⁾		(bar)	5		5		
Seat-ø			(mm)	201		251		
Travel			(mm)	65				
DP34Tri 2400 cm² Spring closes on air failure  (extended through spring)	Spring range (bar)	0,4-1,2	Air supply pressure min. (bar ²⁾	1,7	I.	(bar)	2,4 d)	1,4 d)
					II.	(bar)	2,3 d)	1,4 d)
					III.	(bar)	2,2 f)	1,4 f)
		1,0-2,0		2,5	I.	(bar)	6,8 b)	4,3 b)
					II.	(bar)	6,7 b)	4,2 b)
					III.	(bar)	6,6 d)	4,2 d)
		1,5-3,0		3,5	I.	(bar)	10,4 a)	6,6 a)
					II.	(bar)	10,3 a)	6,6 a)
					III.	(bar)	10,3 b)	6,5 b)
		2,0-4,0		4,5	I.	(bar)	14,1	9
					II.	(bar)	14	8,9

- I. Fig. 440: EPDM-sealing
II. Fig. 440: PTFE- / pure graphite-packing
III. Fig. 441: Bellows seal

¹⁾ max. differential pressure drop

²⁾ Air supply pressure max. to actuator: 5 bar Restriction: a) 5 bar b) 4,5 bar c) 4 bar d) 3,5 bar e) 3 bar

Control valve in straightway form with electric actuator ARI-PREMIO

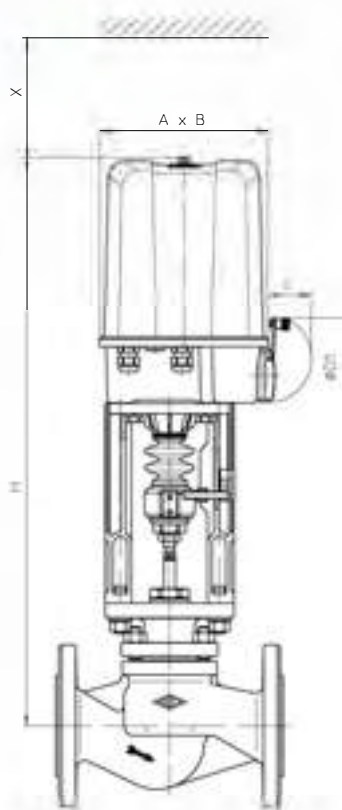


Fig. 440

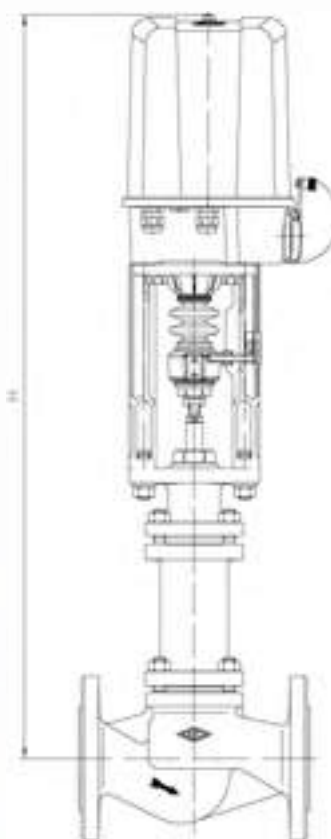


Fig. 441

Actuator data		2,2 - 5 kN	12 - 25 kN
A	(mm)	171	210
B	(mm)	156	184
C	(mm)	50	90
Ø D1	(mm)	90	130
X	(mm)	150	200

Technical data for actuator refer to data sheet ARI-PREMIO/PREMIO-Plus 2G

Heights and weights

DN				15	20	25	32	40	50	65	80	100	125	150	200	250
Fig. 440	2,2 kN	H	(mm)	551	551	559	559	566	572	585	600	619	—	—	—	—
		PN16	(kg)	9	10	11	12	14	17	22	28	38	—	—	—	—
		PN40	(kg)	10	11	12	13	15	18	25	31	44	—	—	—	—
	5 kN	H	(mm)	551	551	559	559	566	572	585	600	619	678	738	—	—
		PN16	(kg)	—	—	12	13	15	18	23	29	39	56	79	—	—
		PN40	(kg)	—	—	13	14	17	20	27	33	45	62	84	—	—
	12 kN	H	(mm)	—	—	—	—	740	746	759	774	793	832	892	993	1053
		PN16	(kg)	—	—	—	—	19	22	27	33	43	60	83	155	270
		PN40	(kg)	—	—	—	—	21	24	31	37	49	66	88	187	302
	25 kN	H	(mm)	—	—	—	—	—	—	—	—	—	832	892	949	1009
		PN16	(kg)	—	—	—	—	—	—	—	—	—	61	84	156	271
		PN40	(kg)	—	—	—	—	—	—	—	—	—	67	89	188	303
Fig. 441	2,2 kN	H	(mm)	736	736	744	744	733	737	821	833	849	—	—	—	—
		PN16	(kg)	13	13	14	17	19	22	25	36	51	—	—	—	—
		PN40	(kg)	15	17	19	22	28	31	38	48	64	—	—	—	—
	5 kN	H	(mm)	736	736	744	744	735	737	821	833	849	1033	1064	—	—
		PN16	(kg)	15	15	16	18	21	23	26	37	53	72	94	—	—
		PN40	(kg)	17	18	21	24	30	32	39	49	66	83	99	—	—
	12 kN	H	(mm)	—	—	—	—	909	911	995	1007	1023	1187	1218	1429	1493
		PN16	(kg)	—	—	—	—	25	27	30	41	57	76	89	179	293
		PN40	(kg)	—	—	—	—	34	36	43	53	70	87	103	214	329
	25 kN	H	(mm)	—	—	—	—	—	—	—	—	—	1187	1218	1429	1493
		PN16	(kg)	—	—	—	—	—	—	—	—	—	77	90	180	294
		PN40	(kg)	—	—	—	—	—	—	—	—	—	88	104	215	330

Other dimensions refer to pages 20-21.

max. permissible closing pressures on flow-to-open P2 = 0.
Observe pressure-temperature-limits, refer to page 2.

DN			15	20	25	32	40	50	65	80	100	125	150	200	250		
Parabolic plug	Kvs-value	(m³/h)	4 2,5	6,3 4 / 2,5	10 6,3	16 10	25 16	40 25	63 40	100 63	160 100	250 160	400 250	–	–		
	max. diff. pressure ¹⁾	(bar)	40	40	40	40	30	20	8	4	1,5	1	1	–	–		
V-port plug	Kvs-value	(m³/h)	–	–	–	–	–	–	63	100	160	250	400	630	1000		
	max. diff. pressure ¹⁾	(bar)	–	–	–	–	–	–	30	25	25	10	10	5	5		
Seat-Ø		(mm)	21	21	27	31	41	51	66	81	101	126	151	201	251		
Travel		(mm)	20						30			50		65			
2,2 kN	Closing pressure	I.	(bar)	40	40	30,8	23,1	12,8	8	4,3	2,7	1,5					
		II.	(bar)	40	40	28,8	21,6	11,9	7,4	3,9	2,3	1,3					
		III.	(bar)	30,7	30,7	27,1	20,4	10,6	6,5	3,6	2,2	1,2					
	Operating time		(s)	53						79							
	Operating speed ²⁾		(mm/s)	0,38													
5 kN	Closing pressure	I.	(bar)			40	40	33,2	21,3	12,3	8	4,9	3	2			
		II.	(bar)			40	40	32,3	20,7	11,9	7,6	4,7	2,9	1,9			
		III.	(bar)	40	40	40	40	31	19,8	11,6	7,5	4,6	2,7	1,8			
	Operating time		(s)	53						79			132				
	Operating speed		(mm/s)	0,38													
12 kN	Closing pressure	I.	(bar)					40	40	32,3	21,2	13,5	8,5	5,9	3,2	2	
		II.	(bar)					40	40	31,8	20,9	13,3	8,4	5,8	3,1	1,9	
		III.	(bar)					40	40	31,6	20,7	13,2	8,2	5,6	3	1,9	
	Operating time		(s)					53		79			132		171		
	Operating speed		(mm/s)					0,38									
15 kN	Closing pressure	I.	(bar)							40	26,9	17,2	10,9	7,5	4,1	2,6	
		II.	(bar)							40	26,6	17	10,8	7,4	4	2,5	
		III.	(bar)							40	26,4	16,9	10,6	7,3	4	2,5	
	Operating time		(s)							79			132		171		
	Operating speed		(mm/s)							0,38							
25 kN	Closing pressure	I.	(bar)										18,7	13	7,2	4,6	
		II.	(bar)										18,5	12,8	7,1	4,5	
		III.	(bar)										18,5	12,8	7,1	4,5	
	Operating time		(s)										132		171		
	Operating speed		(mm/s)										0,38				

Further operating speeds: refer to data sheet ARI-PREMIO/PREMIO-Plus 2G

Operating time [s]=	Travel [mm]
	Operating speed [mm/s]

- I. Fig. 440: PTFE-V-ring unit (DN15-150) / EPDM-sealing
 II. Fig. 440: PTFE- / pure graphite-packing
 III. Fig. 441: Bellows seal

¹⁾ max. differential pressure drop

²⁾ Based on a frequency of 50Hz the control speed and power consumption of the synchronous motors PREMIO 2,2kN are 20% higher at frequency of 60 Hz.

Control valve in straightway form with electric actuator AUMA

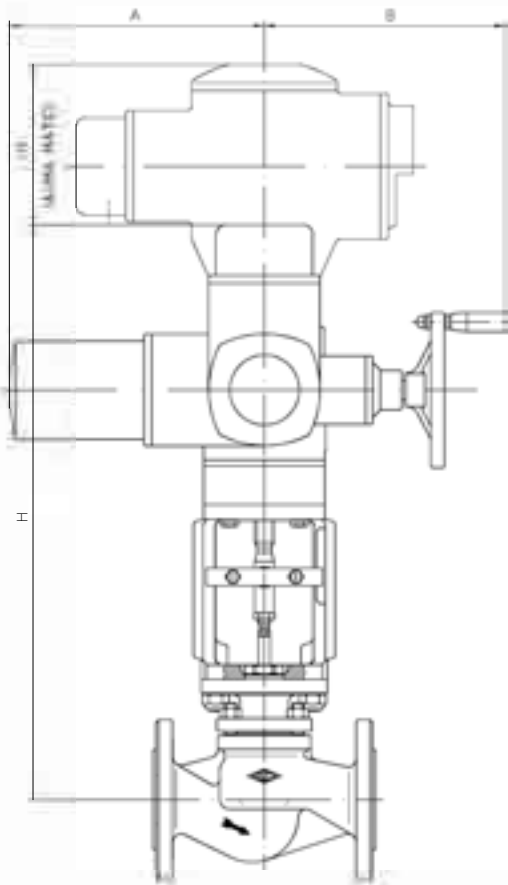


Fig. 440

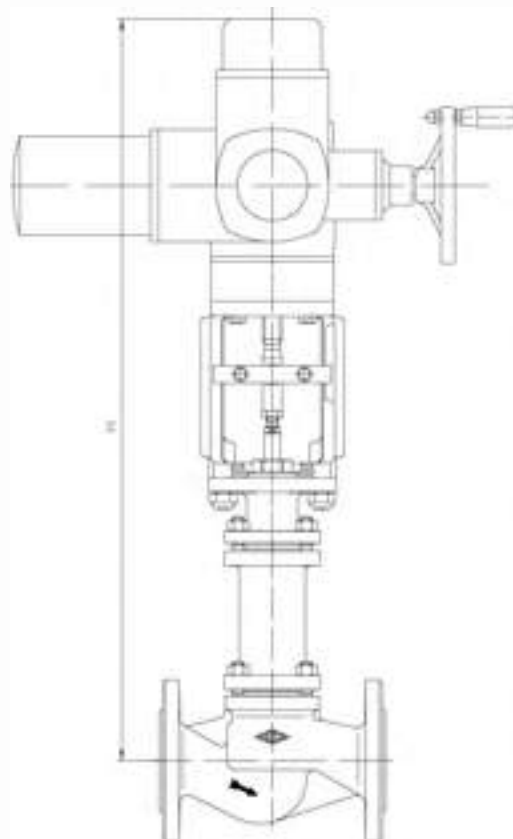


Fig. 441

Actuator data		SAR 07.2	SAR 07.6	SAR 10.2
A	(mm)	265		283
B	(mm)	249		254
H1 (AUMA MATIC)	(mm)	130		
Supply voltage: 400V 50Hz 3~ (Other voltages on request)				
Technical data for actuator refer to price list.				

Heights and weights

DN				40	50	65	80	100	125	150	200	250
Fig. 440	SAR 07.2	H	(mm)	611	617	630	645	664	703	763	—	—
		PN16	(kg)	36	39	44	50	60	77	100	—	—
		PN40	(kg)	37	40	47	53	66	83	105	—	—
	SAR 07.6	H	(mm)	—	617	630	645	664	703	763	844	904
		PN16	(kg)	—	40	46	51	61	79	102	178	292
		PN40	(kg)	—	42	49	55	68	85	106	210	324
	SAR 10.2	H	(mm)	—	—	642	657	676	715	775	856	916
		PN16	(kg)	—	—	48	54	64	81	104	180	295
		PN40	(kg)	—	—	51	57	70	87	109	212	327
Fig. 441	SAR 07.2	H	(mm)	780	782	866	878	894	1058	1089	—	—
		PN16	(kg)	41	44	47	58	73	93	114	—	—
		PN40	(kg)	50	53	60	70	86	104	120	—	—
	SAR 07.6	H	(mm)	—	782	866	878	894	1058	1089	1289	1301
		PN16	(kg)	—	45	48	59	75	95	116	201	315
		PN40	(kg)	—	54	61	71	88	105	122	236	351
	SAR 10.2	H	(mm)	—	—	—	—	—	1070	1101	1349	1361
		PN16	(kg)	—	—	—	—	—	97	118	203	318
		PN40	(kg)	—	—	—	—	—	108	124	239	353

For version with AUMA SAR Ex other heights.

Other dimensions refer to pages 20-21.

max. permissible closing pressures on flow-to-open P2 = 0.
 Observe pressure-temperature-limits, refer to page 2.

Fig. 440

DN				40	50	65	80	100	125	150	200	250	
Parabolic plug	Kvs-value		(m³/h)	25 16	40 25	63 40	100 63	160 100	250 160	400 250	–	–	
	ma x. diff. pressure ¹⁾		(bar)	30	20	8	4	1,5	1	1	–	–	
V-port plug	Kvs-value		(m³/h)	–	–	63	100	160	250	400	630	1000	
	ma x. diff. pressure ¹⁾		(bar)	–	–	30	25	25	10	10	5	5	
Seat-Ø			(mm)	41	51	66	81	101	126	151	201	251	
Travel			(mm)	20		30			50		65		
SAR 07.2 Output drive Form A TR 20 x 4 - LH	Closing pressure	shut off	I./II.	(bar)	40	40	40	29,7	19	12,1	8,3		
		controlling ²⁾	I./II.	(bar)	40	36,5	21,4	14	8,8	5,5	3,7		
	Torque			(Nm)	15	20	30	30	30	30	30		
	Operating time (50 Hz)			(s)	54		56		94				
	Output drive			(rpm)	5,6		8		8				
SAR 07.6 Output drive Form A TR 26 x 5 - LH	Closing pressure	shut off	I./II.	(bar)		40	40	40	26,9	17,2	11,9	6,5	4,1
		controlling ²⁾	I./II.	(bar)		40	30,5	20	12,8	8	5,5	2,9	1,8
	Torque			(Nm)		30	40	60	60	60	60	60	60
	Operating time (50 Hz)			(s)		43	64		55		71		
	Output drive			(rpm)		5,6	5,6		11		11		
SAR 10.2 Output drive Form A TR 26 x 5 - LH	Closing pressure	shut off	I./II.	(bar)			40	40	31,6	29,3	20,3	13,7	8,7
		controlling ²⁾	I./II.	(bar)			40	40	26,9	17,2	11,9	6,5	4,1
	Torque			(Nm)			60	60	70	100	100	120	120
	Operating time (50 Hz)			(s)			64		55		71		
	Output drive			(rpm)			5,6		11		11		

Fig. 441

DN				40	50	65	80	100	125	150	200	250	
Parabolic plug	Kvs-value		(m³/h)	25 16	40 25	63 40	100 63	160 100	250 160	400 250	--	--	
	ma x. diff. pressure ¹⁾		(bar)	30	20	8	4	1,5	1	1	--	--	
V-port plug	Kvs-value		(m³/h)	--	--	63	100	160	250	400	630	1000	
	ma x. diff. pressure ¹⁾		(bar)	--	--	30	25	25	10	10	5	5	
Seat-Ø			(mm)	41	51	66	81	101	126	151	201	251	
Travel			(mm)	20		30			50		65		
SAR 07.2 Output drive Form A TR 20 x 4 - LH	Closing pressure	shut off	III.	(bar)	40	40	40	29,5	18,9	11,9	8,2		
		controlling ²⁾	III.	(bar)	40	35,7	21,1	13,8	8,7	5,3	3,6		
	Torque			(Nm)	15	20	30	30	30	30	30		
	Operating time (50 Hz)			(s)	54		56		94				
	Output drive			(rpm)	5,6		8		8				
SAR 07.6 Output drive Form A TR 26 x 5 - LH	Closing pressure	shut off	III.	(bar)		40	40	30,8	19,7	17	11,7	6,5	4,1
		controlling ²⁾	III.	(bar)		40	30,2	19,8	12,6	7,9	5,4	2,9	1,8
	Torque			(Nm)		30	40	45	45	60	60	60	60
	Operating time (50 Hz)			(s)		43	64		55		71		
	Output drive			(rpm)		5,6	5,6		11		11		
SAR 10.2 Output drive Form A TR 26 x 5 - LH	Closing pressure	shut off	III.	(bar)					26,1	18,1	10,1	6,4	
		controlling ²⁾	III.	(bar)					17	11,7	6,5	4,1	
	Torque			(Nm)					90	90	90	90	
	Operating time (50 Hz)			(s)					55	71			
	Output drive			(rpm)					11	11			

I. Fig. 440: PTFE-V-ring unit (DN15-150) / EPDM-sealing

II. Fig. 440: PTFE- / pure graphite-packing

III. Fig. 441: Bellows seal

¹⁾ max. differential pressure drop

²⁾ Restrictions through max. permissible torque of the actuator at controlling operation.

Control valve in straightway form with electric actuator FR 1.2 with fail-safe function

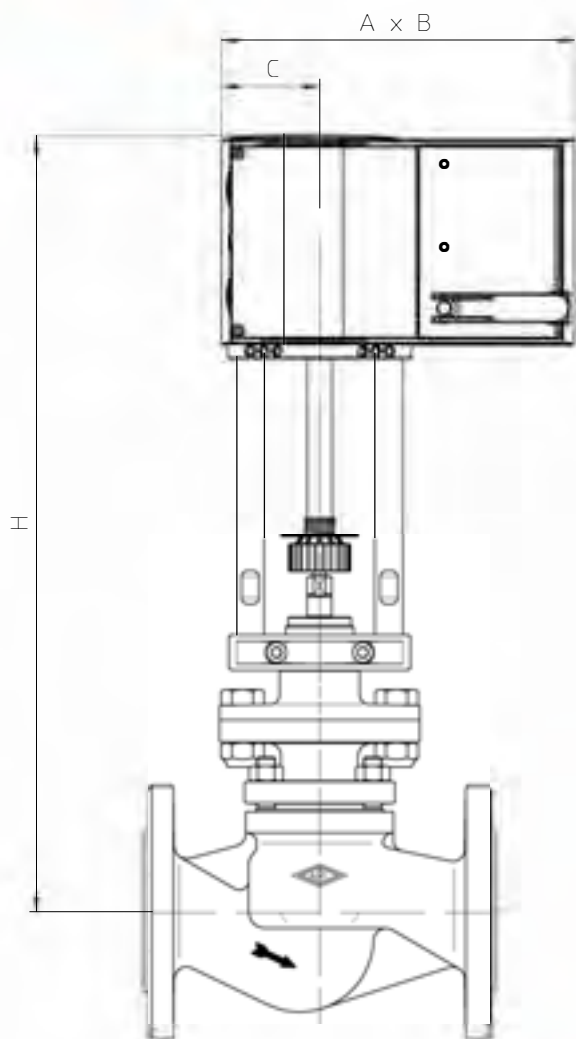


Fig. 440

Actuator data		FR 1.2
A	(mm)	230
B	(mm)	120
C	(mm)	64
Supply voltage: 24V 50/60Hz 1~, 24VDC, 230V 50/60Hz 1~		
Technical data for actuator refer to data sheet FR1.2.		

Heights and weights

DN				15	20	25	32	40	50	65	80	100	
Fig. 440	FR 1.2	H		(mm)	502	502	510	510	517	523	536	551	570
		Parabolic plug	PN16	(kg)	10	10	11	13	15	18	23	28	39
			PN40	(kg)	10	11	12	14	16	19	26	32	45
		Parabolic pressure balanced plug	PN16	(kg)	—	—	—	—	16	20	26	32	44
			PN40	(kg)	—	—	—	—	17	21	29	36	50

Other dimensions refer to pages 20-21.

max. permissible closing pressures on flow-to-open P2 = 0.
Observe pressure-temperature-limits, refer to page 2.

Fig. 440 Parabolic plug

DN			15	20	25	32	40	50	65	80	100
Parabolic plug	Kvs-value	(m³/h)	4 2,5	6,3 4 / 2,5	10 6,3	16 10	25 16	40 25	63 40	100 63	160 100
	max. diff. pressure ¹⁾	(bar)	40	40	40	40	30	20	8	4	1,5
Seat-ø			(mm)	21	21	27	31	41	51	66	81
Travel			(mm)	20					30		
FR 1.2 2 kN	Closing pressure	I.	(bar)	40	40	27,5	20,6	11,3	7	3,8	2,3
	Operating time (factory setting)	(s)	40					60			
	Operating time on electrical power failure	(s)	28					35			

Fig. 440 Parabolic pressure balanced plug

DN			15	20	25	32	40	50	65	80	100
Parabolic plug	Kvs-value	(m³/h)					25 16	40 25	63 40	100 63	160 100
	max. diff. pressure ¹⁾	(bar)					30	20	8	4	1,5
Seat-ø			(mm)				41	51	66	81	101
Travel			(mm)				20		30		
FR 1.2 2 kN	Closing pressure	I.	(bar)				40	40	40	40	25
	Operating time (factory setting)	(s)					40		60		
	Operating time on electrical power failure	(s)					28		35		

I. Fig. 440: PTFE-V-ring unit (Medium temperature restricted to 200°C)

¹⁾ max. differential pressure drop

Control valve in straightway form with electric actuator FR 2.1 / FR 2.2

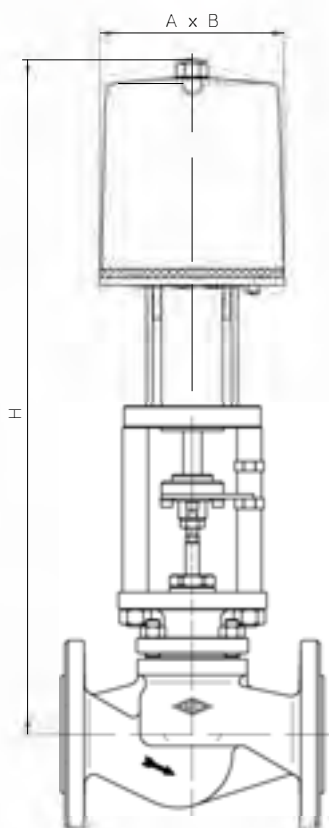


Fig. 440

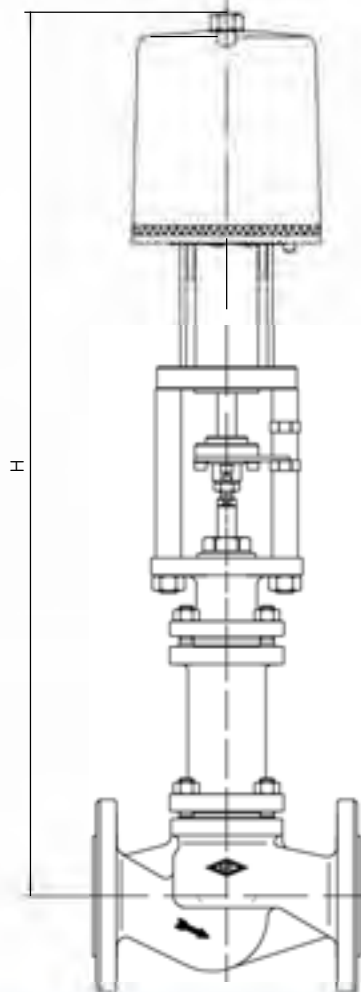


Fig. 441

Actuator data		FR 2.1 / 2.2
A	(mm)	162
B	(mm)	162
Supply voltage: 230V 50Hz Other voltages: 24V 50/60Hz; 230V 60Hz Technical data for actuator refer to data sheet FR2.1/2.2		

Control valves Type 440/441 - FR 2.1-2.2,
actuator type approved acc. to DIN EN 14597

Heights and weights

DN				15	20	25	32	40	50	65	80	100
Fig. 440	FR 2.1 FR 2.2	H	(mm)	579	579	587	587	594	600	613	628	647
			(mm)	616	616	624	624	631	637	650	665	684
	FR 2.1 FR 2.2	Parabolic plug	PN16 (kg)	12	13	14	16	17	20	25	31	41
			PN40 (kg)	13	14	15	16	19	22	29	35	47
		Parabolic pressure balanced plug	PN16 (kg)	—	—	—	—	18	22	28	35	46
			PN40 (kg)	—	—	—	—	20	24	32	39	52
Fig. 441	FR 2.1 FR 2.2	H	(mm)	764	764	772	772	763	765	849	861	877
			(mm)	801	801	809	809	800	802	886	898	914
	FR 2.1 FR 2.2	Parabolic plug	PN16 (kg)	17	17	18	20	23	25	28	39	55
			PN40 (kg)	19	20	23	26	32	34	41	51	68
		Parabolic pressure balanced plug	PN16 (kg)	—	—	—	—	24	27	31	43	60
			PN40 (kg)	—	—	—	—	33	36	44	55	73

Other dimensions refer to pages 20-21.

Fig. 440 / 441 Parabolic plug

DN			15	20	25	32	40	50	65	80	100
Parabolic plug	Kvs-value	(m³/h)	4 2,5	6,3 4 / 2,5	10 6,3	16 10	25 16	40 25	63 40	100 63	160 100
	max. diff. pressure ¹⁾	(bar)	40	40	40	40	30	20	8	4	1,5
Seat-ø			(mm)	21	21	27	31	41	51	66	81
Travel			(mm)	20						30	
FR 2.1 1 kN	Closing pressure	I.	(bar)	18	18	10,3	7,4	3,6	2		
		II.	(bar)	16	16	9	6,5	3,2	1,7		
		III.	(bar)	9	9	7,4	5,2	1,9	0,9		
	Operating time (50 Hz)		(s)	69							
	Operating speed		(mm/s)	0,29							
	Operating time on electrical power failure		(s)	5,5							
FR 2.2 2,2 kN	Closing pressure	I.	(bar)	40	40	30,8	23,1	12,8	8	4,3	2,7
		II.	(bar)	40	40	28,8	21,6	11,9	7,4	3,9	2,3
		III.	(bar)	30,7	30,7	27,1	20,4	10,6	6,5	3,6	2,2
	Operating time (50 Hz)		(s)	69						103	
	Operating speed		(mm/s)	0,29							
	Operating time on electrical power failure		(s)	5,5						8,5	

Fig. 440 / 441 Parabolic pressure balanced plug

DN			15	20	25	32	40	50	65	80	100	
Parabolic plug	Kvs-value	(m³/h)			10 6,3	16 10	25 16	40 25	63 40	100 63	160 100	
	max. diff. pressure ¹⁾	(bar)			40	40	30	20	8	4	1,5	
Seat-ø		(mm)			27	31	41	51	66	81	101	
Travel		(mm)	20						30			
FR 2.1 1 kN	Closing pressure	I.	(bar)			20	20	20	16	16	16	12
		II.	(bar)					20	16	16		
		III.	(bar)					16	15	2		
	Operating time (50 Hz)		(s)	69						103		
	Operating speed		(mm/s)	0,29								
	Operating time on electrical power failure		(s)	5,5						8,5		
FR 2.2 2,2 kN	Closing pressure	I.	(bar)					40	40	40	40	28
		II.	(bar)					40	40	40	40	28
		III.	(bar)					40	40	40	40	40
	Operating time (50 Hz)		(s)	69						103		
	Operating speed		(mm/s)	0,29								
	Operating time on electrical power failure		(s)	5,5						8,5		

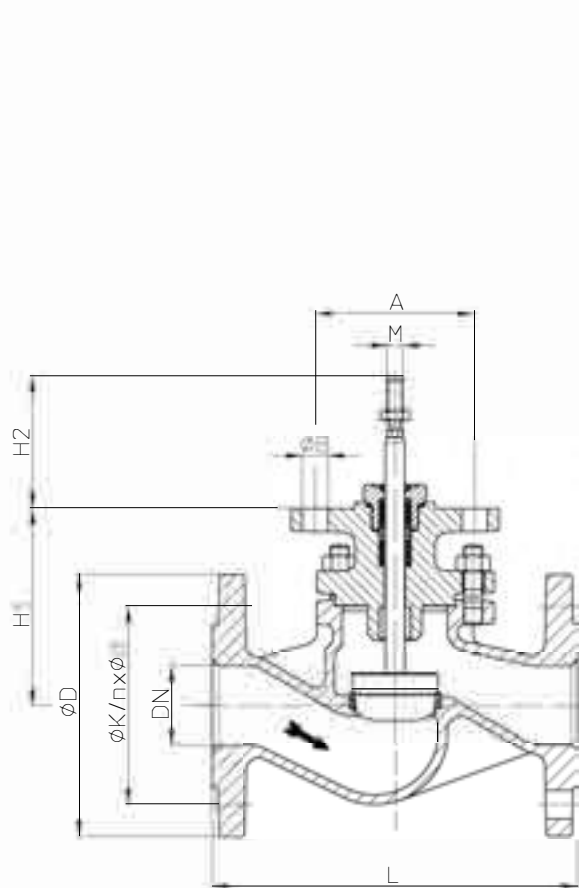
Control valves Type 440/441 - FR 2.1-2.2,
actuator tape approved acc. to DIN EN 14597

- I. Fig. 440: PTFE-V-ring unit / EPDM-sealing
 II. Fig. 440: PTFE- / pure graphite-packing
 III. Fig. 441: Bellows seal

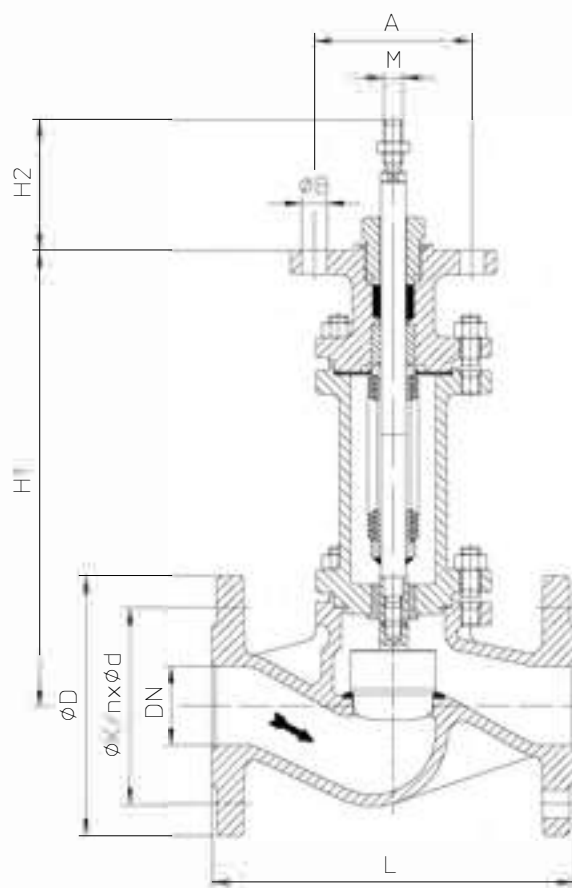
¹⁾ max. differential pressure drop



Control valve in straightway form

**Fig. 440****DN15-150**

(e.g. DP32-34, PREMIO 2-25kN, AUMA SAR 07.2-10.2)

**Fig. 441****DN15-150**

(e.g. DP32-34, PREMIO 2-25kN, AUMA SAR 07.2-10.2)

DN	15	20	25	32	40	50	65	80	100	125	150
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Dimensions											
M	Fig. 440	(mm)	M10				M14 x 1,5			M16 x 1,5	
	Fig. 441	(mm)	M12							M16	
H1	Fig. 440	(mm)	103	111	118	124	137	152	171	210	270
	Fig. 441	(mm)	288	296	287	289	373	385	401	565	596
H2	Fig. 440 / Fig. 441	(mm)	83								
A	Fig. 440 / Fig. 441	(mm)	100								
n x ØB	Fig. 440 / Fig. 441	(mm)	2 x 16								

Face-to-face dimension FTF series 1 according to DIN EN 558											
L	(mm)	130	150	160	180	200	230	290	310	350	480

Flanges acc. to DIN EN 1092-1/-2			Flange holes / -thickness tolerances acc. to DIN 2533/2544/2545										
ØD	PN16	(mm)	95	105	115	140	150	165	185	200	220	250	285
	PN25	(mm)									235	270	300
	PN40	(mm)											
ØK	PN16	(mm)	65	75	85	100	110	125	145	160	180	210	240
	PN25	(mm)									190	220	250
	PN40	(mm)											
n x Ød	PN16	(mm)	4 x 14	4 x 14	4 x 18	4 x 18	4 x 18	4 x 18	8 x 18	8 x 18	8 x 18		8 x 22
	PN25	(mm)									8 x 22	8 x 26	8 x 26
	PN40	(mm)											

Weights													
Fig. 440	PN16 (JL1040)	(kg)	3,6	4,3	5,2	6,8	8,7	11,6	16,7	22,4	32,5	49,7	72,9
	PN40 (1.0619+N)	(kg)	4,3	5,2	6,1	7,5	10	13	20	26	38,7	55,9	77,2
Fig. 441	PN16 (JL1040)	(kg)	8	8	9	11,5	14	16,5	19,5	30,5	46	65,8	87,2
	PN40 (1.0619+N)	(kg)	10	11,5	14	17	23	25,5	32,5	42,5	59	76,3	92,7

max. permissible thrust													
Fig. 440	(kN)		12,7				29,6				40,6		
Fig. 441	(kN)		18,2								37		



Control valve in straightway form

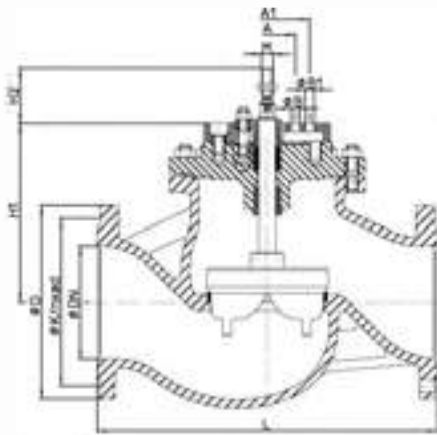


Fig. 440

DN200-250

(e.g. DP34-34Tri, PREMIO 12-25kN)

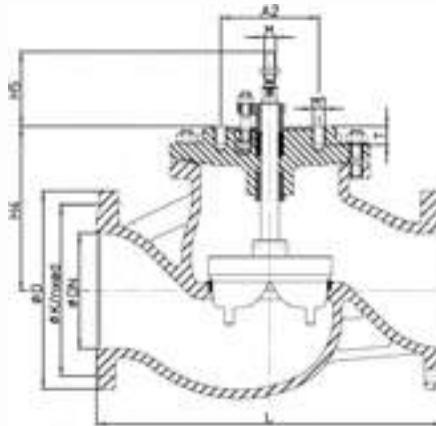


Fig. 440

DN200-250

(e.g. AUMA SAR 07.2-10.2)

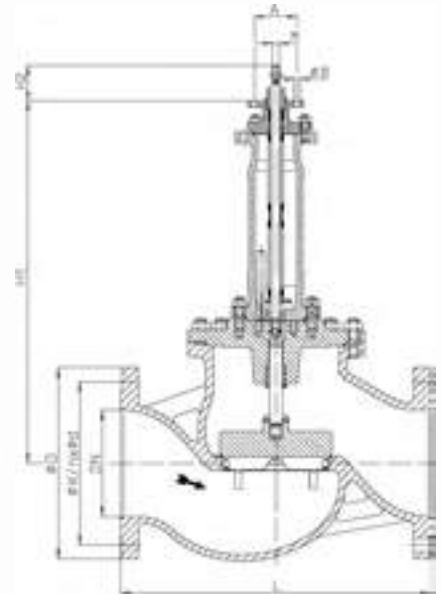


Fig. 441 M16

DN200-250

(e.g. PREMIO 12-25kN, AUMA SAR 07.2-10.2)

DN		200	250
Dimensions			
M	Fig. 440	(mm)	M20
	Fig. 441	(mm)	M16 M20 M16 M20
H1	Fig. 440	(mm)	312
	Fig. 441	(mm)	792 723 856 782
H2	Fig. 440	(mm)	98
	Fig. 441	(mm)	83 130 83 130
H4	Fig. 440	(mm)	280
H5	Fig. 440	(mm)	130
A	Fig. 440	(mm)	100
	Fig. 441	(mm)	100 - 100 -
n x ØB	Fig. 440	(mm)	2 x 16
	Fig. 441	(mm)	2 x 16 - 2 x 16 -
A1	Fig. 440	(mm)	150
	Fig. 441	(mm)	- 150 - 150
n x ØB1	Fig. 440	(mm)	4 x 16
	Fig. 441	(mm)	- 4 x 16 - 4 x 16
A2	Fig. 440	(mm)	170
n x M1	Fig. 440	(mm)	8 x M20
T	Fig. 440	(mm)	32

Face-to-face dimension FTF series 1 according to DIN EN 558			
L	(mm)	600	730

Flanges acc. to DIN EN 1092-1/-2			
ØD	PN16	(mm)	340
	PN25	(mm)	360
	PN40	(mm)	375
ØK	PN16	(mm)	295
	PN25	(mm)	310
	PN40	(mm)	320
n x Ød	PN16	(mm)	12x22
	PN25	(mm)	12x26
	PN40	(mm)	12x30

Weights			
Fig. 440	PN16 (JL1040)	(kg)	145
	PN40 (1.0619+N)	(kg)	176,8
Fig. 441	PN16 (JL1040)	(kg)	158,1 167,2
	PN40 (1.0619+N)	(kg)	203,6 202

max. permissible thrust			
Fig. 440	(kN)		59,1
Fig. 441	(kN)		34

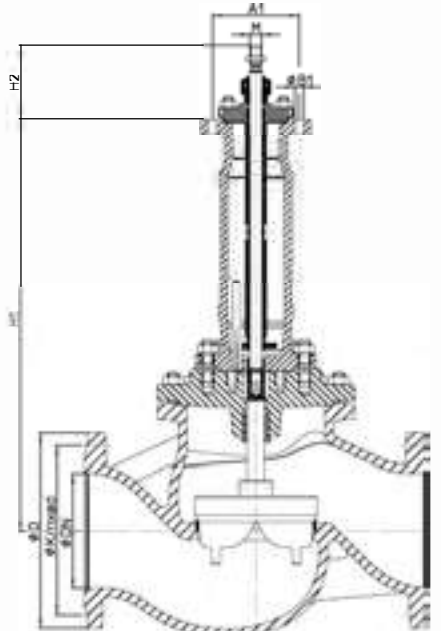
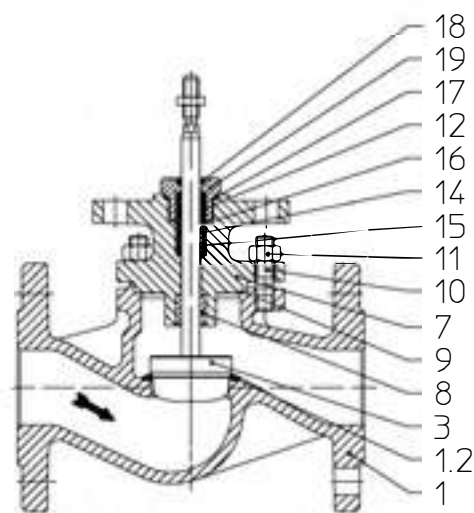
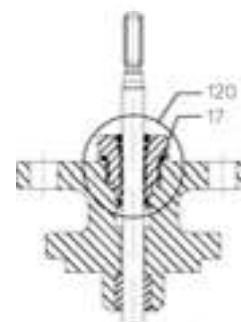
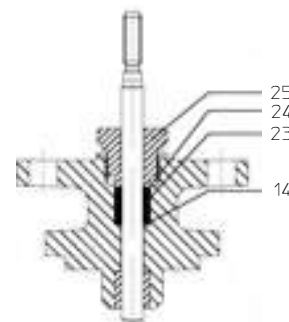


Fig. 441 M20

DN200-250

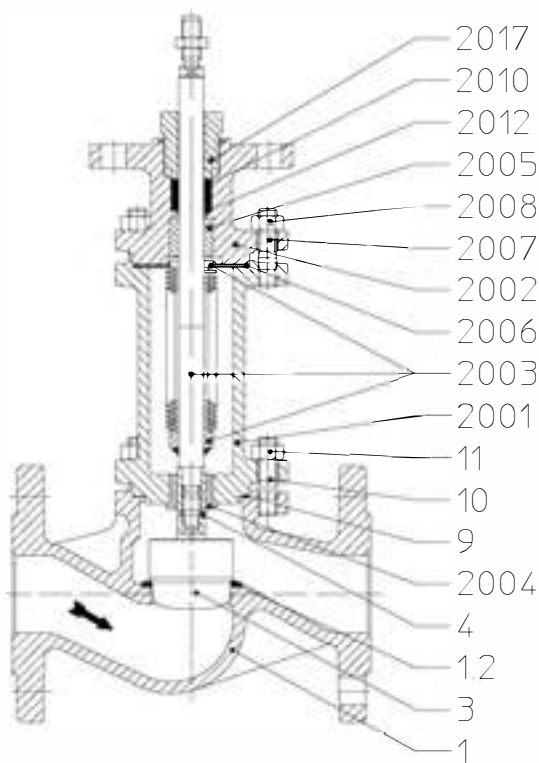
(e.g. DP34-34Tri)


I. PTFE-V-ring unit

I. EPDM-sealing

II. PTFE- / pure graphite-packing

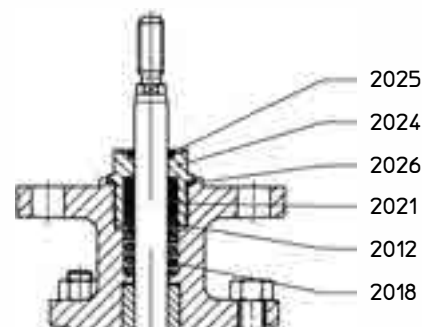
Pos.	Sp.p.	Description	Fig. 12.440	Fig. 22.440 / Fig. 23.440	Fig. 34.440 / Fig. 35.440	Fig. 54.440 / 55.440
1		Body	EN-GJL-250 , EN-JL1040	EN-GJS-400-18U-LT, EN-JS1049	GP240GH+N, 1.0619+N	GX5CrNiMo19-11-2, 1.4408
1.2		Seat ring	X20Cr13+QT, 1.4021+QT		X20Cr13+QT, 1.4021+QT >DN50: G19 9 Nb Si, 1.4551	—
3	x	Plug	X20Cr13+QT, 1.4021+QT			X6CrNiMoTi17-12-2, 1.4571
7		Mounting bonnet	EN-GJS-400-18U-LT, EN-JS1049		GP240GH+N, 1.0619+N	GX5CrNiMo19-11-2, 1.4408
8		Guide bushing	X20Cr13+QT, 1.4021+QT (hardened)			X6CrNiMoTi17-12-2, 1.4571
9	x	Gasket	Pure graphite (CrNi laminated with graphite)			
10		Stud	25CrMo4, 1.7218			A4 - 70
11		Hexagon nuts	C35E, 1.1181			A4
12	Set. refer to Pos. 10	V-ring unit	PTFE			
14		Washer	X5CrNi18-10, 1.4301			
15		Compression spring	X10CrNi18-8, 1.4310			
16		Bush	PTFE (strengthened)			
17		Gasket	Cu / Soft iron			
18		Scraper	PTFE (strengthened)			
19		Screw joint	X8CrNiS18-9, 1.4305			
23/24	x	Packing ring	PTFE or Pure graphite			
25	x	Screw joint	X8CrNiS18-9, 1.4305			

Stem sealings Fig. 440

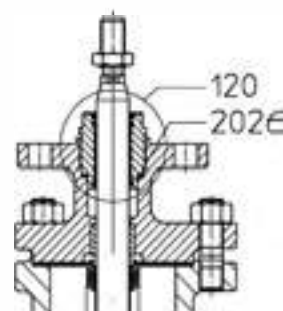
23	x	Packing ring	PTFE
23/24	x	Packing ring	Pure graphite
100	x	V-ring unit set	Set of: Pos. 12, 14, 15, 16, 17, 18, 19
120	x	EPDM-sealing	EPDM / X8CrNiS18-9, 1.4305 (when spare part, also necessary: Pos. 17)
L Spare parts			



III. PTFE-packing / Pure graphite-packing



III. Stainless steel-bellow with V-ring unit



III. Stainless steel bellows seal with EPDM-sealing

Pos.	Sp.p.	Description	Fig. 12.441	Fig. 22.441 / Fig. 23.441	Fig. 34.441 / Fig. 35.441	Fig. 55.441
1		Body	EN-GJL-250 , EN-JL1040	EN-GJS-400-18U-LT, EN-JS1049	GP240GH+N, 1.0619+N	GX5CrNiMo19-11-2, 1.4408
1.2		Seat ring	X20Cr13+QT, 1.4021+QT		X20Cr13+QT, 1.4021+QT >DN50: G19 9 Nb Si, 1.4551	–
3	x	Plug	X20Cr13+QT, 1.4021+QT			X6CrNiMoTi17-12-2, 1.4571
4	x	Clamping sleeve	X10CrNi18-8, 1.4310			A4 - 70
9	x	Gasket	Pure graphite (CrNi laminated with graphite)			
10		Stud	25CrMo4, 1.7218			A4 - 70
11		Hexagon nuts	C35E, 1.1181			A4
2001		Bellows housing	EN-GJS-400-18U-LT, EN-JS1049		GP240GH+N, 1.0619+N	GX5CrNiMo19-11-2, 1.4408
2002		Mounting bonnet	EN-GJS-400-18U-LT, EN-JS1049		GP240GH+N, 1.0619+N	GX5CrNiMo19-11-2, 1.4408
2003	x	Stem- / Bellows unit	X20Cr13+QT, 1.4021+QT / X6CrNiTi18-10, 1.4541			X6CrNiMoTi17-12-2, 1.4571
2004		Guide bushing	X20Cr13+QT, 1.4021+QT (hardened)			X6CrNiMoTi17-12-2, 1.4571
2005		Guide bushing	X20Cr13+QT, 1.4021+QT (hardened)			X6CrNiMoTi17-12-2, 1.4571
2006	x	Gasket	Pure graphite (CrNi laminated with graphite)			
2007		Stud	25CrMo4, 1.7218			A4 - 70
2008		Hexagon nuts	C35E, 1.1181			A4
2010	x	Packing ring	Pure graphite			
2017		Screw joint	X8CrNiS18-9, 1.4305			
2012	Set: refer to Pos. 100	Washer	X5CrNi18-10, 1.4301			
2018		Compression spring	X10CrNi18-8, 1.4310			
2021		V-ring unit	PTFE			
2024		Screw joint	X8CrNiS18-9, 1.4305			
2025		Scraper	PTFE			
2026		Gasket	X6CrNiMoTi17-12-2, 1.4571			

Stem sealings Fig. 441

2010	x	Packing ring	Pure graphite
2010	x	Packing ring	PTFE
100	x	V-ring unit set	Set of: Pos. 2012 - 2226
120	x	EPDM-sealing	EPDM / X8CrNiS18-9, 1.4305 (when spare part, also necessary: Pos. 2031)
L Spare parts			

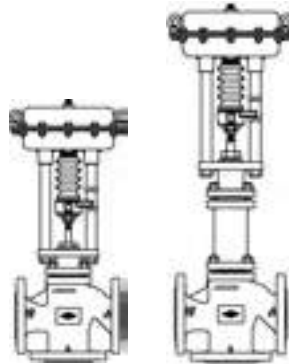
With pneumatic and electric actuators

ARI-STEVI® 450 / 451

Pneumatic actuator

ARI-DP 32-34T

- Reversible pneumatic actuator
- Actuator with rolling diaphragm
- Air supply pressure max. 6 bar
- Stem protection by bellow
- Maintenance-free O-ring sealing
- Assembly of additional devices acc. to DIN IEC 60534-6



Page 4



Fig. 450

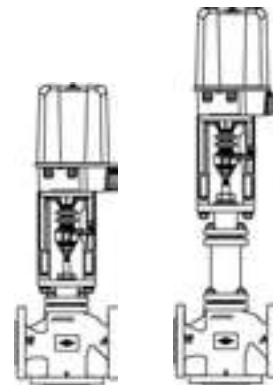
ARI-STEVI® 450 / 451

Electric actuator

ARI-PREMIO 2,2-25 kN

ARI-PREMIO-Plus 2G 2,2-25 kN

- Enclosure IP 65
- 2 torque switches
- Handwheel
- Additional devices available, e.g. potentiometer



Page 10

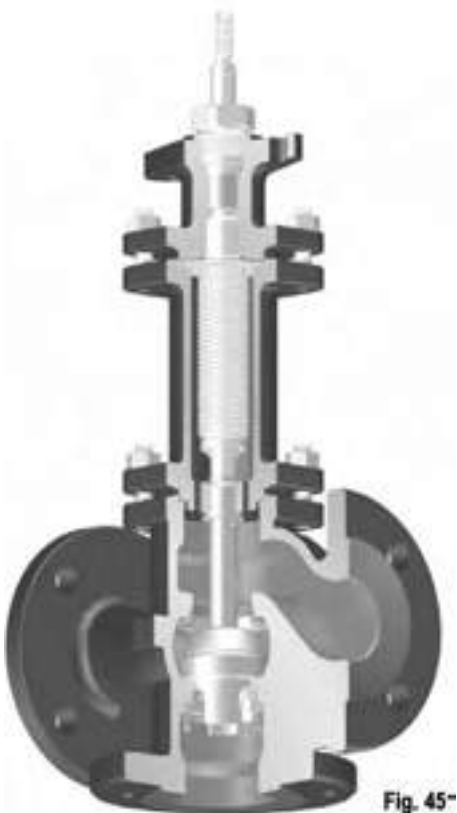


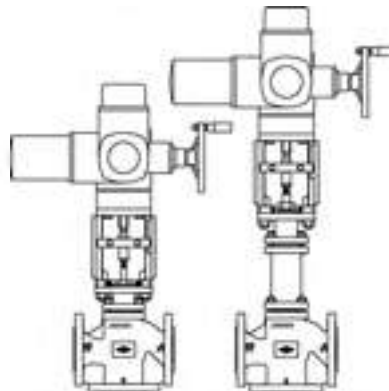
Fig. 451

ARI-STEVI® 450 / 451

Electric actuator

AUMA SAR 07.2 - 14.2

- Enclosure IP 67
- 2 torque switches
- 2 travel switches
- Handwheel
- Overheating protection for motor as standard
- Additional devices available, e.g. potentiometer
- Explosion proof version available



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Figure	Nominal pressure	Material	Nominal diameter	Information / restriction of technical rules need to be observed!
12.450 / 12.451	PN16	EN-JL1040	DN15-100	ARI-Valves of EN-JL1040 are not allowed to be operated in systems acc. to TRD 110. A production permission acc. to TRB 801 No. 45 is available. (EN-JL1040 acc. to TRB 801 No. 45 is not allowed.) 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 and Resistance list).
22.450 / 22.451	PN16	EN-JS1049	DN15-150	
23.450 / 23.451	PN25	EN-JS1049	DN15-150	
34.450 / 34.451	PN25	1.0619+N	DN15-150	
35.450 / 35.451	PN40	1.0619+N	DN15-150	
55.450 / 55.451	PN40	1.4408	DN15-150	
Other materials and versions on request.				

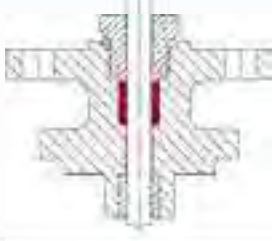
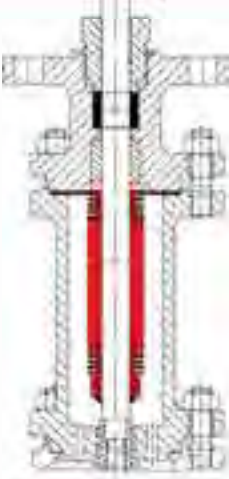
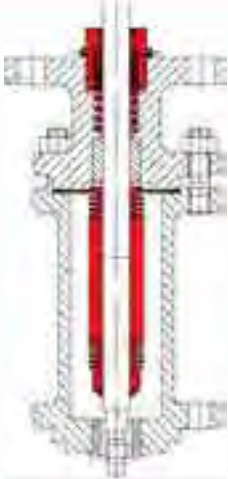
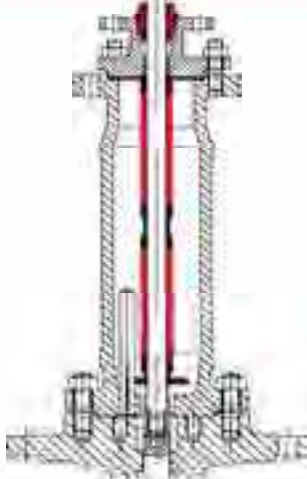
Stem sealing			
Fig. 450	standard	optional	
	DN15- 150	DN15- 150	DN15- 150
	 I. PTFE-V-ring unit -10°C to 220°C	 I. EPDM-sealing -10°C to 150°C (allowed for water and steam up to 180°C)	 II. PTFE-packing -10°C to 250°C II. Pure graphite-packing -10°C to 450°C

Fig. 451	standard	optional	
	DN15- 150	DN15- 100	DN125-150
	 III. Stainless steel-bellow with pure graphite-packing -60°C to 450°C	 III. Stainless steel-bellow with V-ring unit -60°C to 220°C	 III. Stainless steel bellows seal with EPDM-sealing -60°C to 150°C (allowed for water and steam up to 180°C)

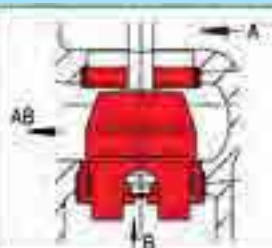
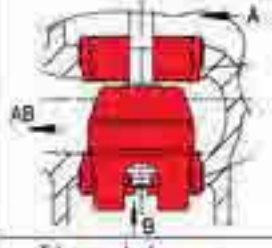
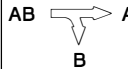
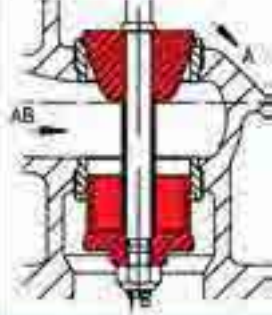
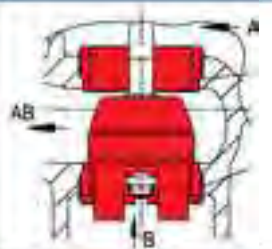
Pressure-temperature-ratings	Intermediate values for max. permissible operational pressures can be determined by linear interpolation of the given temperature / pressure chart.									
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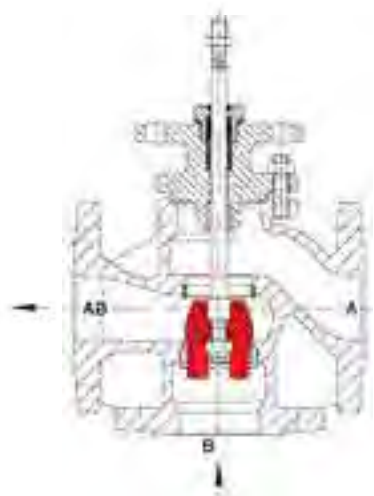
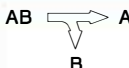
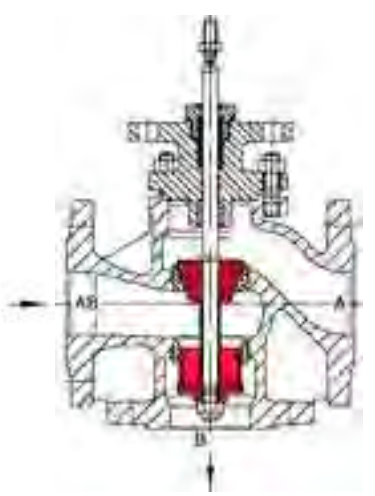
acc. to DIN EN 1092-2			-60°C to <-10°C ¹⁾	-10°C to 120°C	150°C	200°C	250°C	300°C	350°C	400°C	450°C
EN-JL1040	PN16	(bar)	–	16	14,4	12,8	11,2	9,6	–	–	–
EN-JS1049	PN16	(bar)	on request	16	15,5	14,7	13,9	12,8	11,2	–	–
EN-JS1049	PN25	(bar)	on request	25	24,3	23	21,8	20	17,5	–	–

acc. to manufacturers standard			-60°C to <-10°C ¹⁾	-10°C to 120°C	150°C	200°C	250°C	300°C	350°C	400°C	450°C
1.0619+N	PN25	(bar)	18,7	25	23,9	22	20	17,2	16	14,8	8,2
1.0619+N	PN40	(bar)	30	40	38,1	35	32	28	25,7	23,8	13,1

acc. to DIN EN 1092-1			-60°C to <-10°C ¹⁾	-10°C to 100°C	150°C	200°C	250°C	300°C	350°C	400°C	450°C
1.4408	PN40	(bar)	40	40	36,3	33,7	31,8	29,7	28,5	27,4	–

¹⁾ Valve with extended bonnet, studs and nuts made of A4-70 (at temperatures below -10°C)

Plug design standard			Guiding	Rangeability
 DN15-100: Mixing plug with one rolled seat ring and one screwed seat ring • Parabolic plug, metal seat; - V-port plug, metal seat	- Leakage class IV acc. to DIN EN 60534-4 - Flow characteristic: linear (lin) / linear (lin)		Spindle / Seat ring	30 : 1
 DN125-150 and stainless steel: Mixing plug with two screwed seat rings • Parabolic plug, metal seat; - V-port plug, metal seat	- Leakage class IV acc. to DIN EN 60534-4 - Flow characteristic: linear (lin) / linear (lin)		Spindle / Seat ring	30 : 1
 DN40-150: Diverting plug with two screwed seat rings • Parabolic plug, metal seat; - V-port plug, metal seat	- Leakage class IV acc. to DIN EN 60534-4 - Flow characteristic: linear (lin) / linear (lin)		Spindle / Seat ring	30 : 1
Plug design optional			Guiding	Rangeability
 DN15-100: Mixing plug with two screwed seat rings • Parabolic plug, metal seat; - V-port plug, metal seat	- Leakage class IV acc. to DIN EN 60534-4 - Flow characteristic: linear (lin) / linear (lin) - further reductions possible		Spindle / Seat ring	30 : 1

Operation		
  Design with mixing plug DN 15-150	  Design with diverting plug DN 40-150 (Attention: reduced Kvs-values)	ARI-Control valves are suitable for use with pneumatic or electric actuators. According to the application two different variations are possible (see drawings on the left) Design with mixing plug as standard. Select when the valve is used for mixing service (2 inlets, 1 outlet). DN 15 - 32 with mixing plug can also be used for diverting service (1 inlet, 2 outlets). In exceptions the design with mixing plug can also be used in diverting service for DN ≥40. Only small closing pressures are possible. Design with diverting plug will be used exclusively for diverting service.

Control valve in 3-way-form with pneumatic actuator DP (3-way mixing valve / 3-way diverting valve)

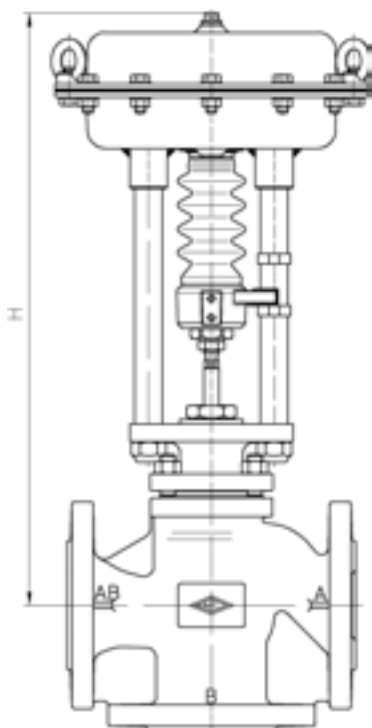


Fig. 450

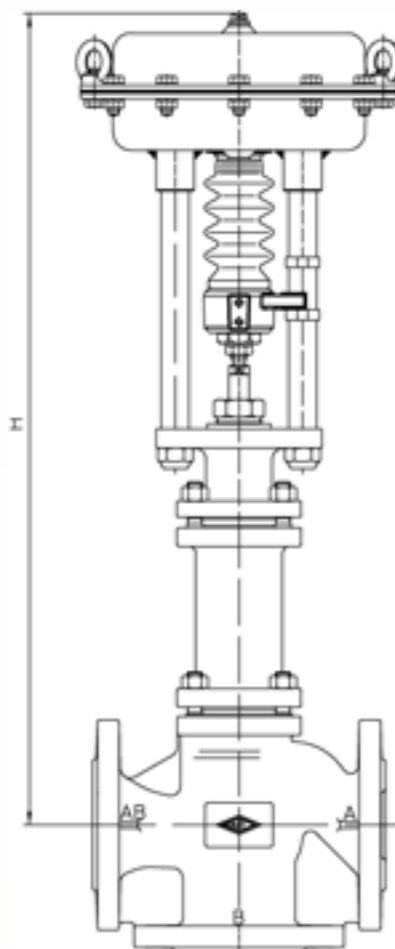
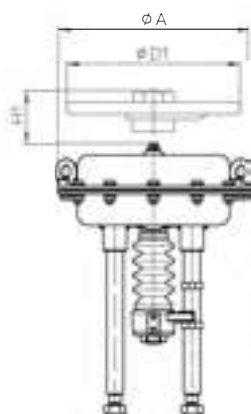
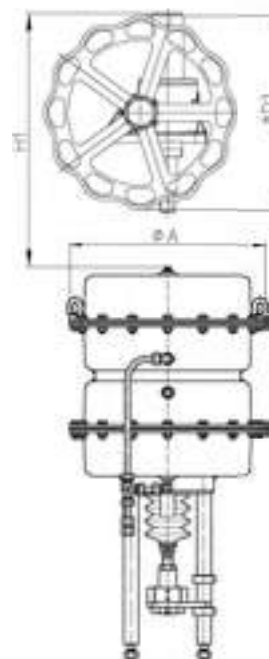


Fig. 451

Heights and weights

DN				15	20	25	32	40	50	65	80	100	125	150
Fig. 450	DP32	H	(mm)	450	450	454	480	486	484	520	536	555	602	--
		PN16	(kg)	14	15	16	19	22	26	33	39	56	76	--
		PN40	(kg)	15	16	17	20	23	27	35	42	60	104	--
	DP33	H	(mm)	505	505	509	535	541	539	575	591	610	657	719
		PN16	(kg)	20	21	22	25	28	32	39	45	62	82	110
		PN40	(kg)	21	22	23	26	29	33	41	48	66	110	153
	DP34	H	(mm)	--	--	--	--	--	--	710	726	745	772	834
		PN16	(kg)	--	--	--	--	--	--	69	75	92	112	140
		PN40	(kg)	--	--	--	--	--	--	71	78	96	140	183
	DP34T	H	(mm)	--	--	--	--	--	--	--	--	--	1062	1095
		PN16	(kg)	--	--	--	--	--	--	--	--	--	198	222
		PN40	(kg)	--	--	--	--	--	--	--	--	--	207	239
Fig. 451	DP32	H	(mm)	635	635	639	665	655	649	755	768	784	--	--
		PN16	(kg)	17	18	19	22	27	30	39	49	66	--	--
		PN40	(kg)	18	19	20	23	28	32	42	52	72	--	--
	DP33	H	(mm)	690	690	694	720	710	704	810	823	839	1012	1045
		PN16	(kg)	23	24	25	28	33	36	45	55	72	92	120
		PN40	(kg)	24	25	26	29	34	38	48	58	78	120	163
	DP34	H	(mm)	--	--	--	--	--	--	945	958	974	1127	1160
		PN16	(kg)	--	--	--	--	--	--	75	85	102	122	150
		PN40	(kg)	--	--	--	--	--	--	78	88	108	150	193
	DP34T	H	(mm)	--	--	--	--	--	--	--	--	--	1509	1542
		PN16	(kg)	--	--	--	--	--	--	--	--	--	223	249
		PN40	(kg)	--	--	--	--	--	--	--	--	--	234	267

Further dimensions refer to pages 16 - 17.


DP32 / DP33 / DP34

DP34T

Actuator data		DP32	DP33	DP34	DP34T	
Ø A		(mm)	250	300	405	
Effective diaphragm area		(cm²)	250	400	800	1600
Top mounted handwheel	Ø D1	(mm)	225	300	400	
	H1	(mm)	270	284	442	635
	Weight	(kg)	5		17	41
Air supply pressure max. to actuator: 6 bar						
Further technical data of the actuator: refer to data sheet ARI-DP.						

max. permissible closing pressures on flow-to-open P2 = 0.

Observe pressure-temperature-limits, refer to page 2.

DN				15	20	25	32	40	50	65	80	100	125	150		
ABA B Mixing function	Kvs-value		standard	(m³/h)	4	6,3	10	16	25	40	63	100	160	250	320	
			reduced	(m³/h)	2,5	4	6,3	10	16	25	40	63	100	160	250	
	max. diff. pressure ¹⁾			(bar)	40				30			25		15		
	Seat-Ø A/B			(mm)	21/20	21/25	27/27	31/32	41/40	51/50	66/60	81/75	101/95	120/120	140/140	
	Travel			(mm)	20						30				50	
DP32 250 cm² Spring closes A → AB on air failure  (stem retracting by spring) or Spring closes B → AB on air failure  (stem extending by spring)	Spring range (bar)	0,2-1,0	1,2	I.	(bar)	5,5	3,3	2,6	1,4							
				II.	(bar)	2,3	1									
				III.	(bar)											
		0,4-1,2	1,6	I.	(bar)	18,6	12,6	10,7	7,2	3,9	2,2					
				II.	(bar)	15,4	10,3	8,7	5,8	3	1,6					
				III.	(bar)	8,6	8	7,1	4,6	1,7						
		0,8-2,4	3,2	I.	(bar)	40	31,4	26,8	18,8	11	6,8	3,7	2,2	1,2		
				II.	(bar)	40	29,1	24,8	17,4	10,2	6,3	3,2	1,9	1		
				III.	(bar)	26,4	25,7	23,2	16,2	8,9	5,4	2,9	1,7			
	1,5-2,9	4,4	I.	(bar)		40	40	39,1	23,5	15						
			II.	(bar)		40	40	37,7	22,7	14,4						
			III.	(bar)	40	40	40	36,5	21,4	13,6						
		2,0-3,8	5,8	I.	(bar)				40	32,5	20,8					
				II.	(bar)				40	31,6	20,2					
				III.	(bar)				40	30,3	19,4					

DN				15	20	25	32	40	50	65	80	100	125	150		
				mixing plug for diverting												
AB A B Diverting function	Kvs-value	standard	(m³/h)	4	6,3	10	16	14	25	45	60	95	170	200		
		reduced	(m³/h)	2,5	4	6,3	10									
	max. diff. pressure ¹⁾		(bar)	40				30			25		15			
	Seat-Ø A/B		(mm)	21/20	21/25	27/27	31/32	40/40	50/50	60/60	75/75	90/90	105/105	125/125		
	Travel		(mm)	20						30						
DP32 250 cm² Spring closes AB -> A on air failure  (stem extending by spring) or Spring closes AB -> B on air failure  (stem retracting by spring)	Spring range (bar)	0,2-1,0	1,2	I.	(bar)	2,7	1,6	1,3								
				II.	(bar)	1,1										
				III.	(bar)											
		0,4-1,2	1,6	I.	(bar)	9,3	6,3	5,3	3,6	4,1	2,3	1,2				
				II.	(bar)	7,7	5,2	4,3	2,9	3,2	1,7					
				III.	(bar)	4,3	4	3,5	2,3	1,9						
		0,8-2,4	3,2	I.	(bar)	22,5	15,7	13,4	9,4	11,6	7,1	4,5	2,7	1,7	1,1	
				II.	(bar)	20,8	14,5	12,4	8,7	10,6	6,5	4	2,3	1,4		
				III.	(bar)	13,2	12,9	11,6	8,1	9,3	5,6	3,7	2,1	1,3		
		1,5-2,9	4,4	I.	(bar)	40	32,1	27,5	19,6	24,5	15,4					
				II.	(bar)	40	30,9	26,5	18,8	23,6	14,8					
				III.	(bar)	28,7	28,4	25,7	18,3	22,3	14					
	2,0-3,8	5,8	I.	(bar)		40	37,6	26,8	33,8	21,4						
			II.	(bar)		40	36,6	26,1	32,9	20,8						
			III.	(bar)	39,8	39,5	35,8	25,5	31,6	19,9						

I. Fig. 450: PTFE-V-ring unit / EPDM-sealing

II. Fig. 450: PTFE- / pure graphite-packing

III. Fig. 451: Bellows seal

¹⁾ max. differential pressure drop

²⁾ Air supply pressure max. to actuator: 6 bar Restriction: a) 5 bar b) 4,5 bar c) 4 bar d) 3,5 bar e) 3 bar

max. permissible closing pressures on flow-to-open P2 = 0.
Observe pressure-temperature-limits, refer to page 2.

DN				15	20	25	32	40	50	65	80	100	125	150		
ABA Mixing function	Kvs-value	standard	(m³/h)	4	6,3	10	16	25	40	63	100	160	250	320		
		reduced	(m³/h)	2,5	4	6,3	10	16	25	40	63	100	160	250		
	max. diff. pressure ¹⁾		(bar)	40				30			25		15			
	Seat-Ø A/B		(mm)	21/20	21/25	27/27	31/32	41/40	51/50	66/60	81/75	101/95	120/120	140/140		
Travel		(mm)	20						30			50				
DP33 400 cm² Spring closes A → AB on air failure  (stem retracting by spring) or Spring closes B → AB on air failure  (stem extending by spring)	Spring range (bar)	Air supply pressure min. (bar) ²⁾	1,2	I.	(bar)	13,3 c ³⁾	8,8 c ³⁾	7,4 c ³⁾	4,9 c ³⁾	2,4 c ³⁾	1,2 c ³⁾					
				II.	(bar)	10,1 c ³⁾	6,5 c ³⁾	5,4 c ³⁾	3,4 c ³⁾	1,6 c ³⁾						
				III.	(bar)	5 a ³⁾	4,3 a ³⁾	3,8 a ³⁾	2,2 a ³⁾							
			1,6	I.	(bar)	34,2 c ³⁾	23,7 c ³⁾	20,2 c ³⁾	14,1 c ³⁾	8,1 c ³⁾	4,9 c ³⁾	2,5 ³⁾	1,4 ³⁾			
				II.	(bar)	31 c ³⁾	21,4 c ³⁾	18,3 c ³⁾	12,7 c ³⁾	7,3 c ³⁾	4,4 c ³⁾	2,1 ³⁾	1,1 ³⁾			
				III.	(bar)	19,1 a ³⁾	18,5 a ³⁾	16,6 a ³⁾	11,5 a ³⁾	5,9 a ³⁾	3,5 a ³⁾	1,8 a ³⁾				
			3,2	I.	(bar)	40 a ³⁾	40 a ³⁾	40 a ³⁾	32,5 a ³⁾	19,5 a ³⁾	12,3 a ³⁾	7 ³⁾	4,4 ³⁾	2,6 ³⁾		
				II.	(bar)	40 a ³⁾	40 a ³⁾	40 a ³⁾	31,1 a ³⁾	18,6 a ³⁾	11,8 a ³⁾	6,5 ³⁾	4,1 ³⁾	2,4 ³⁾		
				III.	(bar)	40 ³⁾	40 ³⁾	40 ³⁾	29,9 ³⁾	17,3 ³⁾	10,9 ³⁾	6,2 ³⁾	3,9 ³⁾	2,3 ³⁾		
			4,5	I.	(bar)							14,8	9,6	6		
				II.	(bar)							14,3	9,3	5,8		
				III.	(bar)							14	9,1	5,7		
			4,4	I.	(bar)				40 a)	40 a)	29 a)					
				II.	(bar)				40 a)	40 a)	28,4 a)					
				III.	(bar)				40	40	27,6					
			6,0 (6,0)	I.	(bar)						(40)	20,3	13,3	8,4		
				II.	(bar)						(39,5)	19,9	12,9	8,2		
				III.	(bar)						(38,7)	19,6	12,8	8,1		

DN					15	20	25	32	40	50	65	80	100	125	150		
					mixing plug for diverting												
AB  A B Diverting function	Kvs-value	standard	(m³/h)	4	6,3	10	16	14	25	45	60	95	170	200			
		reduced	(m³/h)	2,5	4	6,3	10										
	max. diff. pressure ¹⁾			(bar)	40				30		25		15				
	Seat-Ø A/B			(mm)	21/20	21/25	27/27	31/32	40/40	50/50	60/60	75/75	90/90	105/105	125/125		
	Travel			(mm)	20					30							
DP33 400 cm² Spring closes AB → A on air failure  (stem extending by spring) or Spring closes AB → B on air failure  (stem retracting by spring)	Spring range (bar)	Air supply pressure min. (bar) ²⁾	1,2	I.	(bar)	6,6 c ⁴⁾	4,4 c ⁴⁾	3,7 c ⁴⁾	2,4 c ⁴⁾	2,6 c ⁴⁾	1,3 c ⁴⁾						
				II.	(bar)	5 c ⁴⁾	3,3 c ⁴⁾	2,7 c ⁴⁾	1,7 c ⁴⁾	1,7 c ⁴⁾							
				III.	(bar)	2,5 a ⁴⁾	2,2 a ⁴⁾	1,9 a ⁴⁾	1,1 a ⁴⁾								
			0,4-1,2	1,6	I.	(bar)	17,1 c ⁴⁾	11,9 c ⁴⁾	10,1 c ⁴⁾	7 c ⁴⁾	8,5 c ⁴⁾	5,1 c ⁴⁾	3,2 ⁴⁾	1,8 ⁴⁾	1,1 ⁴⁾		
					II.	(bar)	15,5 c ⁴⁾	10,7 c ⁴⁾	9,1 c ⁴⁾	6,3 c ⁴⁾	7,6 c ⁴⁾	4,5 c ⁴⁾	2,6 ⁴⁾	1,4 ⁴⁾			
					III.	(bar)	9,6 a ⁴⁾	9,2 a ⁴⁾	8,3 a ⁴⁾	5,7 a ⁴⁾	6,3 a ⁴⁾	3,6 a ⁴⁾	2,3 a ⁴⁾	1,2 a ⁴⁾			
			0,8-2,4	3,2	I.	(bar)	38 a ⁴⁾	26,8 a ⁴⁾	23 a ⁴⁾	16,3 a ⁴⁾	20,3 a ⁴⁾	12,7 a ⁴⁾	8,5 ⁴⁾	5,2 ⁴⁾	3,5 ⁴⁾	2,4 ⁴⁾	1,6 ⁴⁾
					II.	(bar)	36,4 a ⁴⁾	25,6 a ⁴⁾	22 a ⁴⁾	15,6 a ⁴⁾	19,4 a ⁴⁾	12,1 a ⁴⁾	8 ⁴⁾	4,9 ⁴⁾	3,2 ⁴⁾	2,2 ⁴⁾	1,4 ⁴⁾
					III.	(bar)	23,7 ⁴⁾	23,4 ⁴⁾	21,2 ⁴⁾	15 ⁴⁾	18,1 ⁴⁾	11,3 ⁴⁾	7,6 ⁴⁾	4,7 ⁴⁾	3,1 ⁴⁾	1,9 ⁴⁾	1,2 ⁴⁾
			1,5-3,0	4,5	I.	(bar)							17,9	11,2	7,7	5,4	3,7
					II.	(bar)							17,3	10,9	7,4	5,2	3,6
					III.	(bar)							17	10,7	7,3	5	3,4
			1,7-2,7	4,4	I.	(bar)	40 a)	40 a)	40 a)	37 a)	40 a)	29,8 a)					
					II.	(bar)	40 a)	40 a)	40 a)	36,3 a)	40 a)	29,3 a)					
					III.	(bar)	40	40	40	35,7	40	28,4					
			2,0-4,0 (2,3-3,7)	6,0 (6,0)	I.	(bar)				(40)	(40)	(40)	24,5	15,5	10,7	7,6	5,3
					II.	(bar)				(40)	(40)	(40)	24	15,2	10,4	7,4	5,1
					III.	(bar)				(40)	(40)	(39,8)	23,6	15	10,3	7,2	5

I. Fig. 450: PTFE-V-ring unit / EPDM-sealing

II. Fig. 450: PTFE- / pure graphite-packing

III. Fig. 451: Bellows seal

¹⁾ max. differential pressure drop

²⁾ Air supply pressure max. to actuator: 6 bar Restriction: a) 5 bar b) 4,5 bar c) 4 bar d) 3,5 bar e) 3 bar

³⁾ At mixing function an spring closes direction A→AB, the max. permissible air supply pressure is 3,5 bar.

⁴⁾ At diverting function an spring closes direction B→AB, the max. permissible air supply pressure is 3,5 bar.

max. permissible closing pressures on flow-to-open P2 = 0.
Observe pressure-temperature-limits, refer to page 2.

DN				65	80	100	125	150
 Mixing function	Kvs-value	standard	(m³/h)	63	100	160	250	320
		reduced	(m³/h)	40	63	100	160	250
	max. diff. pressure ¹⁾			(bar)	30	25	15	
	Seat-Ø A/B			(mm)	66/60	81/75	101/95	120/120 140/140
	Travel			(mm)	30		50	
DP34 800 cm² Spring closes A → AB on air failure  (stem retracting by spring) or Spring closes B → AB on air failure  (stem extending by spring)	Spring range (bar)	Air supply pressure min. (bar)	1,2	I. (bar)	2,5 b)	1,5 b)		
				II. (bar)	2,1 b)	1,2 b)		
				III. (bar)	1,8 e)	1 e)		
			1,6	I. (bar)	7 b)	4,4 b)	2,7 b)	1,8 1,2
				II. (bar)	6,6 b)	4,1 b)	2,5 b)	1,6 1,1
				III. (bar)	6,3 d)	3,9 d)	2,3 d)	1,4 a)
			3,2	I. (bar)	16	10,4	6,5	4,5 3,2
				II. (bar)	15,5	10,1	6,3	4,3 3,1
				III. (bar)	15,2 b)	9,9 b)	6,2 b)	4,1 3
			4,5	I. (bar)				9,3 6,7
				II. (bar)				9,1 6,6
				III. (bar)				8,9 6,5
			4,9	III. (bar)	40	27,7 a)	17,7 a)	
				I. (bar)	40	29,7	19	
			5,1	II. (bar)	40	29,4	18,8	
				I. (bar)				12,7 9,2
			6,0	II. (bar)				12,5 9,1
				III. (bar)				12,3 9
			6,0	I. (bar)		34,2	21,9	
				II. (bar)		33,9	21,7	
				III. (bar)				

DN				65	80	100	125	150
 Diverting function	Kvs-value	standard	(m³/h)	45	60	95	170	200
		reduced	(m³/h)					
	max. diff. pressure ¹⁾			(bar)	30	25	15	
	Seat-Ø A/B			(mm)	60/60	75/75	90/90	105/105 125/125
	Travel			(mm)	30			
DP34 800 cm² Spring closes AB → A on air failure  (stem extending by spring) or Spring closes AB → B on air failure  (stem retracting by spring)	Spring range (bar)	Air supply pressure min. (bar)	1,2	I. (bar)	3,2 b)	1,8 b)	1,1 b)	
				II. (bar)	2,7 b)	1,5 b)		
				III. (bar)	2,3 e)	1,2 e)		
			1,6	I. (bar)	8,6 b)	5,3 b)	3,5 b)	2,4 1,6
				II. (bar)	8 b)	4,9 b)	3,2 b)	2,2 1,4
				III. (bar)	7,7 d)	4,7 d)	3,1 d)	2 a) 1,3 a)
			3,2	I. (bar)	19,3	12,2	8,3	5,9 4,1
				II. (bar)	18,8	11,8	8,1	5,7 3,9
				III. (bar)	18,4 b)	11,6 b)	7,9 b)	5,5 3,8
			5,1	I. (bar)	40	34,7	24	17,4 12,2
				II. (bar)	40	34,3	23,8	17,2 12
				III. (bar)	40 a)*	32,4 a)*	22,4 a)*	16,9 11,9
			4,9*	I. (bar)		39,9	27,6	20 14,1
				II. (bar)		39,5	27,4	19,8 13,9
				III. (bar)				19,6 13,8

I. Fig. 450: PTFE-V-ring unit / EPDM-sealing

II. Fig. 450: PTFE- / pure graphite-packing

III. Fig. 451: Bellows seal

¹⁾ max. differential pressure drop

²⁾ Air supply pressure max. to actuator: 6 bar Restriction: a) 5 bar b) 4,5 bar c) 4 bar d) 3,5 bar e) 3 bar

max. permissible closing pressures on flow-to-open P2 = 0.
Observe pressure-temperature-limits, refer to page 2.

DN					125		150	
ABA B Mixing function	Kvs-value		standard		(m³/h)	250	320	
			reduced		(m³/h)	160	250	
	max. diff. pressure ¹⁾				(bar)	15		
	Seat-Ø A/B				(mm)	120/120	140/140	
	Travel				(mm)	50		
DP34T 1600 cm² Spring closes A → AB on air failure  (stem retracting by spring) or Spring closes B → AB on air failure  (stem extending by spring)	Spring range (bar)	Air supply pressure min. (bar) ²⁾	0,2-1,0	1,2	I. (bar)	1,7	1,2	
					II. (bar)	1,4	–	
					III. (bar)	1,3 a)	–	
			0,4-1,2	1,6	I. (bar)	4,5	3,2	
					II. (bar)	4,1	2,9	
					III. (bar)	4 a)	2,9 a)	
			0,8-2,4	3,2	I. (bar)	9,9	7,2	
					II. (bar)	9,6	7	
					III. (bar)	9,5	6,9	
			1,5-3,0	4,5	I. (bar)	19,5	14,3	
					II. (bar)	19,1	14	
					III. (bar)	19	13,9	
			2,0-4,0	6,0	I. (bar)	26,3	19,3	
					II. (bar)	26	19	
					III. (bar)	25,9	18,9	

DN					125	150	
AB  A B Diverting function	Kvs-value		standard	(m³/h)	170	200	
			reduced	(m³/h)			
	max. diff. pressure ¹⁾			(bar)	15		
	Seat-Ø A/B			(mm)	105/105	125/125	
	Travel			(mm)	30		
DP34T 1600 cm² Spring closes AB → A on air failure  (stem extending by spring) or Spring closes AB → B on air failure  (stem retracting by spring)	Spring range (bar)	Air supply pressure min. (bar) ²⁾	0,2-1,0	1,2	I. (bar)	2,4	1,6
					II. (bar)	1,9	1,2
					III. (bar)	1,8 a)	1,1 a)
			0,4-1,2	1,6	I. (bar)	5,9	4,1
					II. (bar)	5,5	3,7
					III. (bar)	5,3 a)	3,6 a)
			0,8-2,4	3,2	I. (bar)	12,9	9,1
					II. (bar)	12,5	8,7
					III. (bar)	12,4	8,6
			2,1-3,0	5,1	I. (bar)	35,9	25,3
					II. (bar)	35,4	25
					III. (bar)	35,3	24,9
			2,4-3,6	6,0	I. (bar)	40	29
					II. (bar)	40	28,7
					III. (bar)	40	28,6

I. Fig. 450: EPDM-sealing

II. Fig. 450: PTFE- / pure graphite-packing

III. Fig. 451: Bellows seal

¹⁾ max. differential pressure drop

²⁾ Air supply pressure max. to actuator: 6 bar Restriction: a) 5 bar b) 4,5 bar c) 4 bar d) 3,5 bar e) 3 bar

Control valve in 3-way-form with electric actuator ARI-PREMIO (3-way mixing valve / 3-way diverting valve)

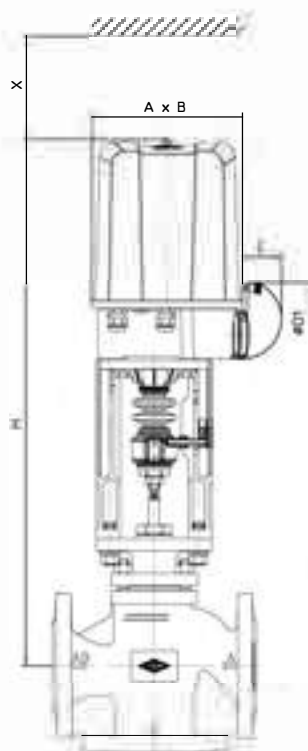


Fig. 450

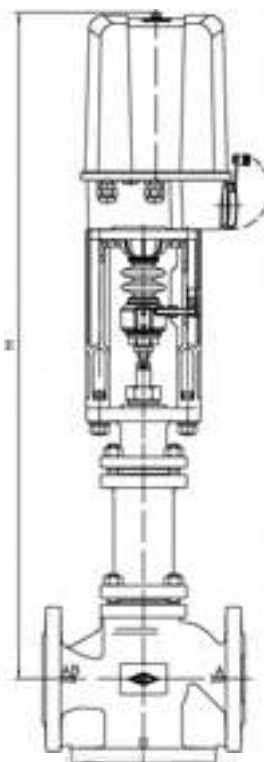


Fig. 451

Actuator data		2,2 - 5 kN	12 - 25 kN
A	(mm)	171	210
B	(mm)	156	184
C	(mm)	50	90
Ø D1	(mm)	90	130
X	(mm)	150	200

Further technical data of the actuator: refer to data sheet ARI-PREMIO/PREMIO-Plus 2G

Heights and weights

DN				15	20	25	32	40	50	65	80	100	125	150
Fig. 450	2,2 kN	H	(mm)	559	559	563	589	595	593	629	645	664	731	—
		PN16	(kg)	11	12	13	15	18	22	29	35	52	73	—
		PN40	(kg)	11	12	13	16	20	24	31	38	56	100	—
	5 kN	H	(mm)	559	559	563	589	595	593	629	645	664	731	793
		PN16	(kg)	12	13	14	16	20	23	30	37	53	74	101
		PN40	(kg)	12	13	14	17	21	25	32	39	57	101	144
	12 kN 15 kN	H	(mm)	—	—	737	763	769	767	803	819	838	885	947
		PN16	(kg)	—	—	18	20	24	27	34	41	57	78	105
		PN40	(kg)	—	—	18	21	25	29	36	43	61	105	148
	25 kN	H	(mm)	—	—	—	—	—	—	—	—	—	885	947
		PN16	(kg)	—	—	—	—	—	—	—	—	—	79	106
		PN40	(kg)	—	—	—	—	—	—	—	—	—	106	149
Fig. 451	2,2 kN	H	(mm)	744	744	748	774	764	758	864	877	893	—	—
		PN16	(kg)	14	15	16	18	23	26	35	45	63	—	—
		PN40	(kg)	14	15,3	16,6	19,2	24,5	28	37,9	48,7	68	—	—
	5 kN	H	(mm)	744	744	748	774	764	758	864	877	893	1086	1119
		PN16	(kg)	15	16	17	19	24	27	36	46	64	84	111
		PN40	(kg)	15	16	18	20	25,6	29	39	50	69	112	155
	12 kN 15 kN	H	(mm)	—	—	922	948	938	932	1038	1051	1067	1240	1273
		PN16	(kg)	—	—	21	23	28	31	40	50	68	88	115
		PN40	(kg)	—	—	22	24	30	33	43	54	73	116	159
	25 kN	H	(mm)	—	—	—	—	—	—	—	—	—	1240	1273
		PN16	(kg)	—	—	—	—	—	—	—	—	—	89	116
		PN40	(kg)	—	—	—	—	—	—	—	—	—	117	160

Further dimensions refer to pages 16 - 17.

max. permissible closing pressures on flow-to-open P2 = 0.
Observe pressure-temperature-limits, refer to page 2.

DN				15	20	25	32	40	50	65	80	100	125	150
 Mixing function	Kvs-value	standard	(m³/h)	4	6,3	10	16	25	40	63	100	160	250	320
		reduced	(m³/h)	2,5	4	6,3	10	16	25	40	63	100	160	250
	max. diff. pressure ¹⁾		(bar)	40				30				25		15
	Seat-Ø A/B		(mm)	21/20	21/25	27/27	31/32	41/40	51/50	66/60	81/75	101/95	120/120	140/140
	Travel		(mm)	20				30				50		
2,2 kN	Closing pressure	I.	(bar)	40	35,9	30,8	21,7	12,8	8	4,3	2,7	1,5		
		II.	(bar)	40	33,7	28,8	20,2	11,9	7,4	3,9	2,3	1,3		
		III.	(bar)	30,7	30,1	27,1	19,1	10,6	6,5	3,6	2,2	1,2		
	Operating time		(s)	53				79						
	Operating speed ²⁾		(mm/s)	0,38										
5 kN	Closing pressure	I.	(bar)		40	40	40	33,2	21,3	12,3	8	4,9	3,4	2,4
		II.	(bar)		40	40	40	32,3	20,7	11,9	7,6	4,7	3,2	2,3
		III.	(bar)	40	40	40	40	31	19,8	11,6	7,5	4,6	3	2,1
	Operating time		(s)	53				79				132		
	Operating speed		(mm/s)	0,38										
12 kN	Closing pressure	I.	(bar)					40	40	32,3	21,2	13,5	9,5	6,9
		II.	(bar)					40	40	31,8	20,9	13,3	9,3	6,8
		III.	(bar)					40	40	31,6	20,7	13,2	9,1	6,6
	Operating time		(s)	53				79				132		
	Operating speed		(mm/s)	0,38										
15 kN	Closing pressure	I.	(bar)							40	26,9	17,2	12,1	8,8
		II.	(bar)							40	26,6	17	11,9	8,7
		III.	(bar)							40	26,4	16,9	11,7	8,5
	Operating time		(s)	53				79				132		
	Operating speed		(mm/s)	0,38										
25 kN	Closing pressure	I.	(bar)										20,8	15,2
		II.	(bar)										20,6	15,1
		III.	(bar)										20,4	14,9
	Operating time		(s)	53				79				132		
	Operating speed		(mm/s)	0,38										

DN				15	20	25	32	40	50	65	80	100	125	150
 Diverting function	Kvs-value	standard	(m³/h)	4	6,3	10	16	14	25	45	60	95	170	200
		reduced	(m³/h)	2,5	4	6,3	10							
	max. diff. pressure ¹⁾		(bar)	40				30				25		15
	Seat-Ø A/B		(mm)	21/20	21/25	27/27	31/32	40/40	50/50	60/60	75/75	90/90	105/105	125/125
	Travel		(mm)	20				30				30		
2,2 kN	Closing pressure	I.	(bar)	25,7	18	15,4	10,8	13,4	8,2	5,4	3,2	2	1,3	
		II.	(bar)	24,1	16,8	14,4	10,1	12,5	7,6	4,8	2,8	1,8	1,1	
		III.	(bar)	15,4	15	13,6	9,5	11,1	6,8	4,5	2,6	1,6		
	Operating time		(s)	53				79						
	Operating speed ²⁾		(mm/s)	0,38										
5 kN	Closing pressure	I.	(bar)	40	40	38,5	27,4	34,6	21,9	15	9,4	6,4	4,5	3,1
		II.	(bar)	40	40	37,5	26,7	33,7	21,3	14,4	9	6,1	4,3	2,9
		III.	(bar)	40	40	36,6	26,1	32,3	20,4	14,1	8,8	6	4	2,7
	Operating time		(s)	53				79						
	Operating speed		(mm/s)	0,38										
12 kN	Closing pressure	I.	(bar)			40	40	40	40	38,9	24,8	17,1	12,3	8,6
		II.	(bar)			40	40	40	40	38,4	24,4	16,9	12,1	8,5
		III.	(bar)			40	40	40	40	38	24,2	16,7	11,9	8,3
	Operating time		(s)	53				79						
	Operating speed		(mm/s)	0,38										
15 kN	Closing pressure	I.	(bar)							40	31,4	21,7	15,7	11
		II.	(bar)							40	31,1	21,5	15,5	10,9
		III.	(bar)							40	30,8	21,3	15,3	10,7
	Operating time		(s)	53				79						
	Operating speed		(mm/s)	0,38										
25 kN	Closing pressure	I.	(bar)										26,9	19,0
		II.	(bar)										26,7	18,8
		III.	(bar)										13,4	18,7
	Operating time		(s)	53				79						
	Operating speed		(mm/s)	0,38										

Further operating speeds: refer to data sheet ARI-PREMIO/PREMIO-Plus 2G

I. Fig. 450: PTFE-V-ring unit / EPDM-sealing

II. Fig. 450: PTFE- / pure graphite-packing

III. Fig. 451: Bellows seal

¹⁾ max. differential pressure drop

²⁾ Based on a frequency of 50Hz the control speed and power consumption of the synchronous motors PREMIO 2,2kN are 20% higher at frequency of 60 Hz.

Operating time [s]=	Travel [mm]
	Operating speed [mm/s]

Control valve in straightway form with electric actuator AUMA (3-way mixing valve / 3-way diverting valve)

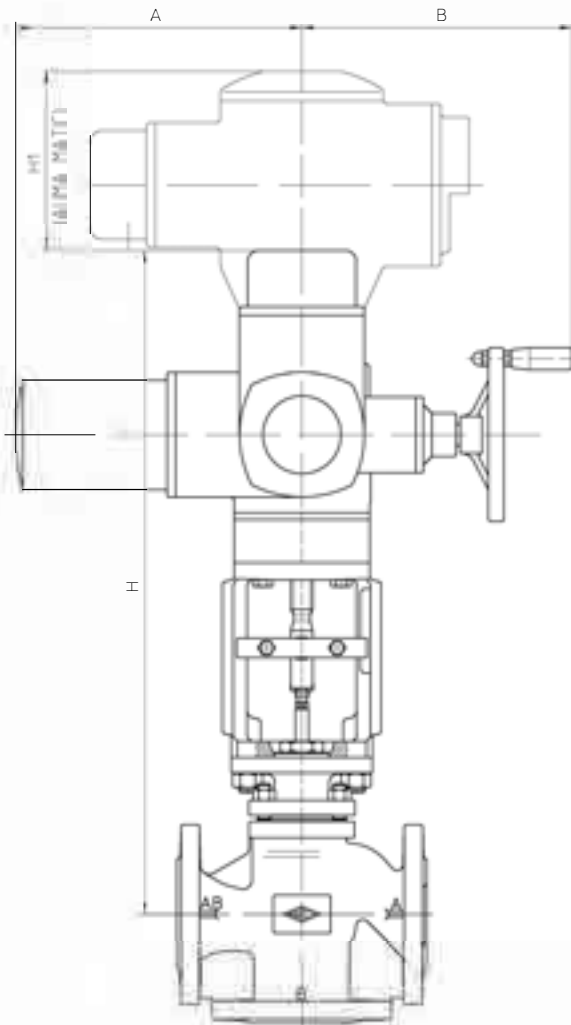


Fig. 450

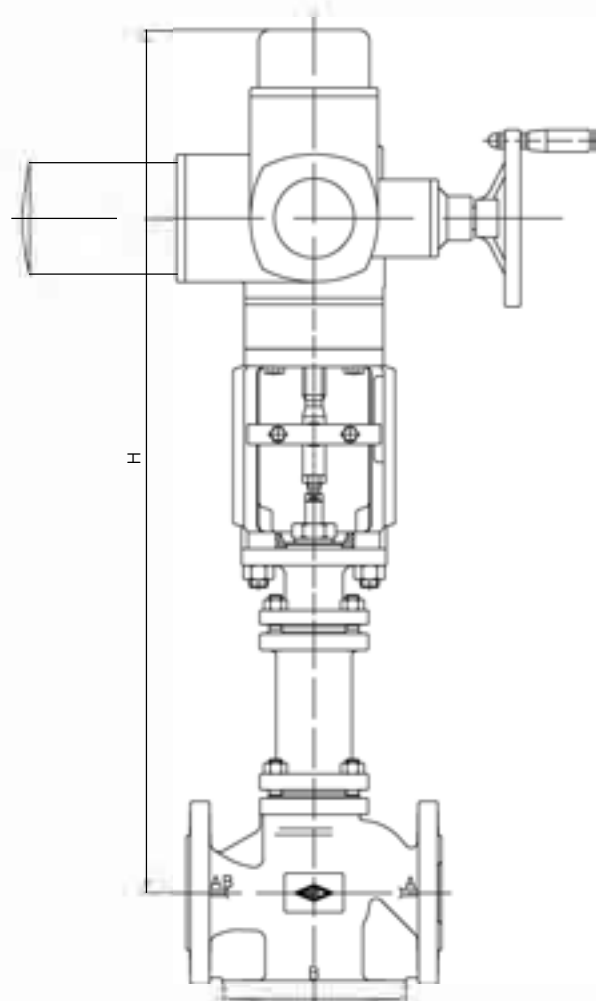


Fig. 451

Actuator data		SAR 07.2	SAR 07.6	SAR 10.2	SAR 14.2
A	(mm)	265		283	389
B	(mm)	249		254	336
H1 (AUMA MATIC)	(mm)	130			182
Supply voltage: 400V 50Hz 3~ (Other voltages on request)					
Technical data for actuator refer to price list.					

Heights and weights

DN				25	32	40	50	65	80	100	125	150
Fig. 450	SAR 07.2 SAR 07.6	H	(mm)	633	659	665	663	699	715	734	781	843
		PN16	(kg)	34	37	40	46	52	59	75	96	124
		PN40	(kg)	35	38	42	47	54	61	79	124	166
	SAR 10.2	H	(mm)	—	—	—	—	701	717	736	783	845
		PN16	(kg)	—	—	—	—	55	61	78	99	126
		PN40	(kg)	—	—	—	—	57	64	82	126	169
	SAR 14.2	H	(mm)	—	—	—	—	—	—	—	880	913
		PN16	(kg)	—	—	—	—	—	—	—	148	172
		PN40	(kg)	—	—	—	—	—	—	—	157	189
Fig. 451	SAR 07.2 SAR 07.6	H	(mm)	818	844	834	828	934	947	963	1136	1169
		PN16	(kg)	38	40	45	50	59	69	86	106	134
		PN40	(kg)	39	41	46	51	61	72	91	134	177
	SAR 10.2	H	(mm)	—	—	—	—	—	—	—	1138	1171
		PN16	(kg)	—	—	—	—	—	—	—	109	136
		PN40	(kg)	—	—	—	—	—	—	—	137	179
	SAR 14.2	H	(mm)	—	—	—	—	—	—	—	1439	1472
		PN16	(kg)	—	—	—	—	—	—	—	173	199
		PN40	(kg)	—	—	—	—	—	—	—	184	217

For version with AUMA SAR Ex other heights.

Further dimensions refer to pages 16 - 17.

max. permissible closing pressures on flow-to-open P2 = 0.
Observe pressure-temperature-limits, refer to page 2.

Fig. 450	DN			25	32	40	50	65	80	100	125	150	
ABA Mixing function	Kvs-value	standard	(m³/h)	10	16	25	40	63	100	160	250	320	
		reduced	(m³/h)	6,3	10	16	25	40	63	100	160	250	
	max. diff. pressure ¹⁾			(bar)	40		30		25		15		
	Seat-Ø A/B			(mm)	27/27	31/32	41/40	51/50	66/60	81/75	101/95	120/120	140/140
	Travel			(mm)	20			30			50		
SAR 07.2 Output drive Form A TR 20 x 4 - LH	Closing pressure	I./II.	shut off	(bar)	40	40	40	40	40	29,7	19	13,4	9,7
			controlling ²⁾	(bar)	40	40	40	36,5	21,4	14	8,8	6,1	4,4
	Torque			(Nm)	15	15	15	20	30	30	30	30	30
	Operating time (50 Hz)			(s)	54			56			94		
	Output drive			(rpm)	5,6			8			8		
SAR 07.6 Output drive Form A TR 26 x 5 - LH	Closing pressure	I./II.	shut off	(bar)			40	40	40	26,9	18,9	13,8	
			controlling ²⁾	(bar)			40	30,5	20	12,8	8,9	6,5	
	Torque			(Nm)			30	40	60	60	60	60	
	Operating time (50 Hz)			(s)			43	64			55		
	Output drive			(rpm)			5,6	5,6			11		
SAR 10.2 Output drive Form A TR 26 x 5 - LH	Closing pressure	I./II.	shut off	(bar)				40	40	31,6	32,3	23,7	
			controlling ²⁾	(bar)				40	40	26,9	18,9	13,8	
	Torque			(Nm)				60	60	70	100	100	
	Operating time (50 Hz)			(s)				64			55		
	Output drive			(rpm)				5,6			11		
SAR 14.2 Output drive Form A TR 30 x 6 - LH	Closing pressure	II.	shut off	(bar)							40	40	
			controlling ²⁾	(bar)							31,3	22,9	
	Torque			(Nm)							175	225	
	Operating time (50 Hz)			(s)							63		
	Output drive			(rpm)							8		

Fig. 451	DN			25	32	40	50	65	80	100	125	150	
ABA B Mixing function	Kvs-value	standard	(m³/h)	10	16	25	40	63	100	160	250	320	
		reduced	(m³/h)	6,3	10	16	25	40	63	100	160	250	
	max. diff. pressure ¹⁾			(bar)	40		30		25		15		
	Seat-Ø A/B			(mm)	27/27	31/32	41/40	51/50	66/60	81/75	101/95	120/120	140/140
	Travel			(mm)	20				30			50	
SAR 07.2 Output drive Form A TR 20 x 4 - LH	Closing pressure	III.	shut off	(bar)	40	40	40	40	40	29,5	18,9	13,2	9,6
			controlling ²⁾	(bar)	40	40	40	35,7	21,1	13,8	8,7	5,9	4,3
	Torque			(Nm)	15	15	15	20	30	30	30	30	30
	Operating time (50 Hz)			(s)	54				56			94	
	Output drive			(rpm)	5,6				8			8	
SAR 07.6 Output drive Form A TR 26 x 5 - LH	Closing pressure	III.	shut off	(bar)			40	40	30,8	19,7	18,8	13,7	
			controlling ²⁾	(bar)			40	30,2	19,8	12,6	8,7	6,3	
	Torque			(Nm)			30	40	45	45	60	60	
	Operating time (50 Hz)			(s)			43	64			55		
	Output drive			(rpm)			5,6	5,6			11		
SAR 10.2 Output drive Form A TR 26 x 5 - LH	Closing pressure	III.	shut off	(bar)							28,8	21,1	
			controlling ²⁾	(bar)							18,8	13,7	
	Torque			(Nm)							90	90	
	Operating time (50 Hz)			(s)							55		
	Output drive			(rpm)							11		
SAR 14.2 Output drive Form A TR 30 x 6 - LH	Closing pressure	III.	shut off	(bar)							40	38,9	
			controlling ²⁾	(bar)							31,2	22,9	
	Torque			(Nm)							175	200	
	Operating time (50 Hz)			(s)							63		
	Output drive			(rpm)							8		

I. Fig. 450: PTFE-V-ring unit / EPDM-sealing;

II. Fig. 450: PTFE- / pure graphite-packing;

III. Fig. 451: Bellows seal

¹⁾ max. differential pressure drop

²⁾ Restrictions through max. permissible torque of the actuator at controlling operation.



max. permissible closing pressures on flow-to-open P2 = 0.
Observe pressure-temperature-limits, refer to page 2.

Fig. 450	DN			25	32	40	50	65	80	100	125	150	
				mixing plug for diverting									
AB  A B Diverting function	Kvs-value	standard	(m³/h)	10	16	14	25	45	60	95	170	200	
		reduced	(m³/h)	6,3	10								
	max. diff. pressure ¹⁾			(bar)	40		30		25		15		
	Seat-Ø A/B			(mm)	27/27	31/32	40/40	50/50	60/60	75/75	90/90	105/105	125/125
	Travel			(mm)	20				30				
SAR 07.2 Output drive Form A TR 20 x 4 - LH	Closing pressure	I./II.	shut off	(bar)	40	40	40	40	40	34,7	24	17,4	12,2
			controlling ²⁾	(bar)	40	40	40	37,6	25,8	16,4	11,2	8	5,6
	Torque			(Nm)	15	15	15	20	25	30	30	30	
	Operating time			(s)	54				56				
	Output drive			(rpm)	5,6				8				
SAR 07.6 Output drive Form A TR 26 x 5 - LH	Closing pressure	I./II.	shut off	(bar)				40	40	40	33,9	24,6	17,3
			controlling ²⁾	(bar)				40	36,8	23,4	16,2	11,6	8,1
	Torque			(Nm)				30	35	50	60	60	60
	Operating time			(s)				43			64		
	Output drive			(rpm)				5,6			5,6		
SAR 10.2 Output drive Form A TR 26 x 5 - LH	Closing pressure	I./II.	shut off	(bar)					40	40	39,8	40	29,5
			controlling ²⁾	(bar)					40	40	33,9	24,6	17,3
	Torque			(Nm)					60	60	70	100	100
	Operating time			(s)							64		
	Output drive			(min ⁻²)							5,6		
SAR 14.2 Output drive Form A TR 30 x 6 - LH	Closing pressure	II.	shut off	(bar)								40	40
			controlling ²⁾	(bar)								40	28,6
	Torque			(Nm)								120	175
	Operating time			(s)									38
	Output drive			(rpm)									8

Fig. 451	DN			25		32		40	50	65	80	100	125	150
				mixing plug for diverting										
AB  A B Diverting function	Kvs-value			(m³/h)	10	16	14	25	45	60	95	170	200	
					6,3	10								
	max. diff. pressure ¹⁾			(bar)	40		30			25		15		
	Seat-Ø A/B			(mm)	27/27	31/32	40/40	50/50	60/60	75/75	90/90	105/105	125/125	
	Travel			(mm)	20				30					
SAR 07.2 Output drive Form A TR 20 x 4 - LH	Closing pressure	III.	shut off	(bar)	40	40	40	40	40	34,5	23,9	17,1	12	
			controlling ²⁾	(bar)	40	40	40	36,7	25,5	16,1	11,1	7,8	5,4	
	Torque			(Nm)	15	15	15	20	25	30	30	30	30	
	Operating time			(s)	54				56					
	Output drive			(min ⁻²)	5,6				8					
SAR 07.6 Output drive Form A TR 26 x 5 - LH	Closing pressure	III.	shut off	(bar)				40	40	35,9	24,9	24,3	17,1	
			controlling ²⁾	(bar)				40	36,4	23,2	16	11,4	7,9	
	Torque			(Nm)				30	35	45	45	60	60	
	Operating time			(s)				43			64			
	Output drive			(min ⁻²)				5,6			5,6			
SAR 10.2 Output drive Form A TR 26 x 5 - LH	Closing pressure	III.	shut off	(bar)								37,3	26,3	
			controlling ²⁾	(bar)								24,3	17,1	
	Torque			(Nm)								90	90	
	Operating time			(s)								64		
	Output drive			(min ⁻²)								5,6		
SAR 14.2 Output drive Form A TR 30 x 6 - LH	Closing pressure	III.	shut off	(bar)								40	35,9	
			controlling ²⁾	(bar)								40	28,5	
	Torque			(Nm)								120	150	
	Operating time			(s)								38		
	Output drive			(min ⁻²)								8		

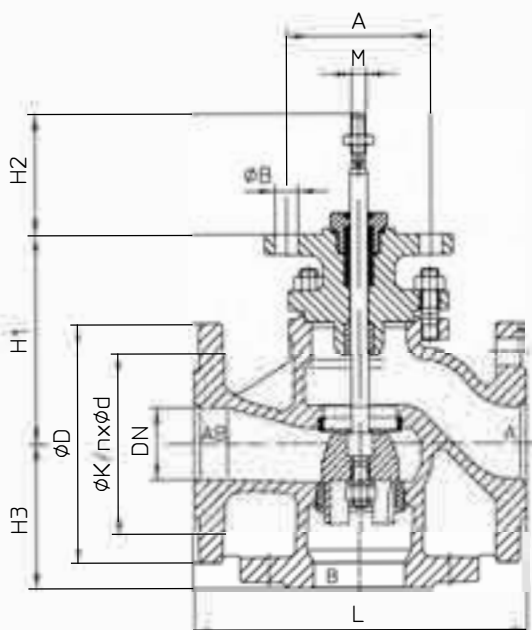
I. Fig. 450: PTFE-V-ring unit / EPDM-sealing;

II. Fig. 450: PTFE- / pure graphite-packing;

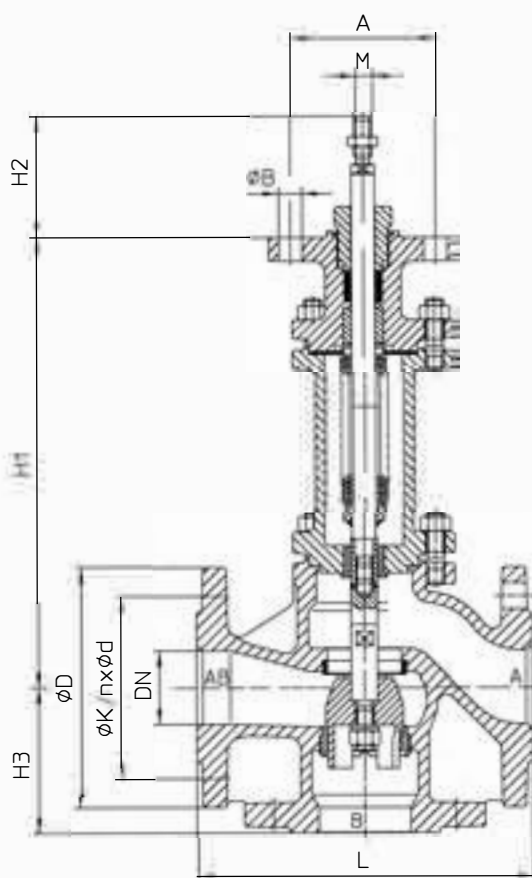
III. Fig. 451: Bellows seal

¹⁾ max. differential pressure drop²⁾ Restrictions through max. permissible torque of the actuator at controlling operation.

Control valve in 3-way-form


Fig. 450
DN15-150

(e.g.: DP32-34; PREMIO 2,2-25kN; AUMA 07.2-10.2)


Fig. 451
DN15-150

(e.g.: DP32-34; PREMIO 2,2-25kN; AUMA 07.2-10.2)

DN			15	20	25	32	40	50	65	80	100	125	150
Dimensions													
M	Fig. 450	(mm)	M10						M14x1,5			M16x1,5	
	Fig. 451	(mm)	M12									M16	
H1	Fig. 450	(mm)	111	111	115	141	147	145	181	197	216	263	325
	Fig. 451	(mm)	296	296	300	326	316	310	416	429	445	618	651
H2	Fig. 450 / Fig. 451	(mm)	83										
H3	Fig. 450 / Fig. 451	(mm)	65	70	75	80	90	100	120	130	150	200	210
A	Fig. 450 / Fig. 451	(mm)	100										
n x ØB	Fig. 450 / Fig. 451	(mm)	2 x 16										
Face-to-face dimension FTF series 1 according to DIN EN 558													
L	(mm)		130	150	160	180	200	230	290	310	350	400	480
Flanges acc. to DIN EN 1092-1/-2			Flange holes / -thickness tolerances acc. to DIN 2533/2544/2545										
ØD	PN16	(mm)	95	105	115	140	150	165	185	200	220	250	285
	PN25 / 40	(mm)									235	270	300
ØK	PN16	(mm)	65	75	85	100	110	125	145	160	180	210	240
	PN25 / 40	(mm)									190	220	250
n x Ød	PN16	(mm)	4 x 14			4 x 18			8 x 18			8 x 22	
	PN25 / 40	(mm)	4 x 14			4 x 18			8 x 18		8 x 22	8 x 26	
Weights													
Fig. 450	PN16 (JL 1040)	(kg)	5,1	6,1	7,1	9,7	13	16,8	23,5	30	46,5	67,4	94,8
	PN40 (1.0619+N)	(kg)	5,6	6,7	7,7	10,6	14,2	18,3	25,6	32,6	50,6	94,9	137,6
Fig. 451	PN16 (JL 1040)	(kg)	8,1	9,1	10,3	12,7	17,5	20,7	29,8	39,7	57,4	77,4	104,8
	PN40 (1.0619+N)	(kg)	8,8	9,9	11,2	13,8	19,1	22,6	32,5	43,3	62,6	105,4	148,1
max. permissible thrust													
Fig. 450	(kN)		12,7						29,5			40,6	
Fig. 451	(kN)		18,2									37	



Control valve in 3-way-form

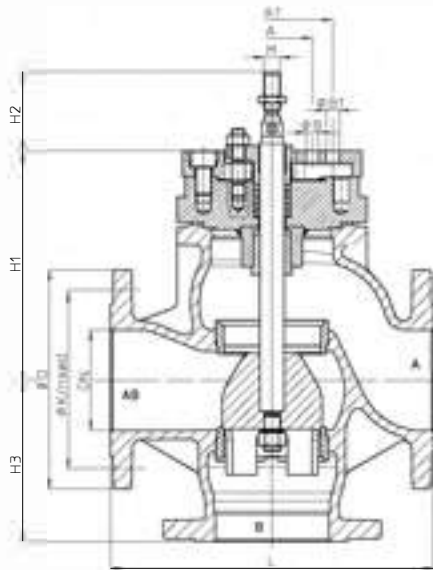


Fig. 450
DN125-150
(e.g.: DP34T-34Tri)

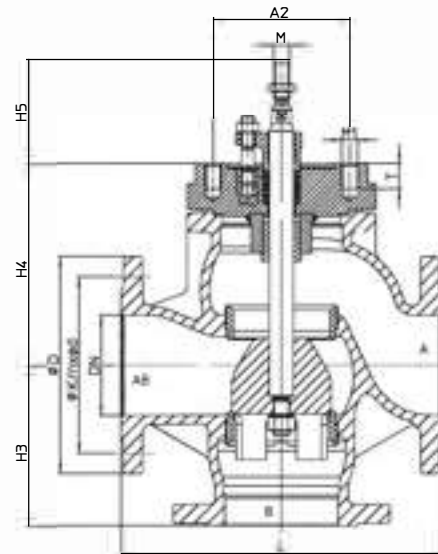


Fig. 450
DN125-150
(e.g.: DP35; AUMA 14.2-14.6)

DN			125	150
Dimensions				
M	Fig. 450 / 451	(mm)	M27	
H1	Fig. 450	(mm)	283	316
	Fig. 451	(mm)	690	723
H2	Fig. 450	(mm)	98	
	Fig. 451	(mm)	185	
H3	Fig. 450/451	(mm)	200	210
H4	Fig. 450	(mm)	658	961
H5	Fig. 450	(mm)	130	
A	Fig. 450	(mm)	100	
n x ØB	Fig. 450	(mm)	2 x 16	
A1	Fig. 450 / 451	(mm)	150	
n x ØB1	Fig. 450 / 451	(mm)	4 x 16	
A2	Fig. 450	(mm)	170	
M1	Fig. 450	(mm)	M20	
T	Fig. 450	(mm)	32	
Face-to-face dimension FTF series 1 according to DIN EN 558				
L		(mm)	400	480
Flanges acc. to DIN EN 1092-1/-2				
ØD	PN16	(mm)	250	285
	PN25 / 40	(mm)	270	300
ØK	PN16	(mm)	210	240
	PN25 / 40	(mm)	220	250
n x Ød	PN16	(mm)	8 x 18	8 x 22
	PN25 / 40	(mm)	8 x 26	8 x 26
Weights				
Fig. 450	PN16 (JL 1040)	(kg)	82	106
	PN40 (1.0619+N)	(kg)	91	123
Fig. 451	PN16 (JL 1040)	(kg)	107	133
	PN40 (1.0619+N)	(kg)	118	151
max. permissible thrust				
Fig. 450		(kN)	112	
Fig. 451		(kN)	70	

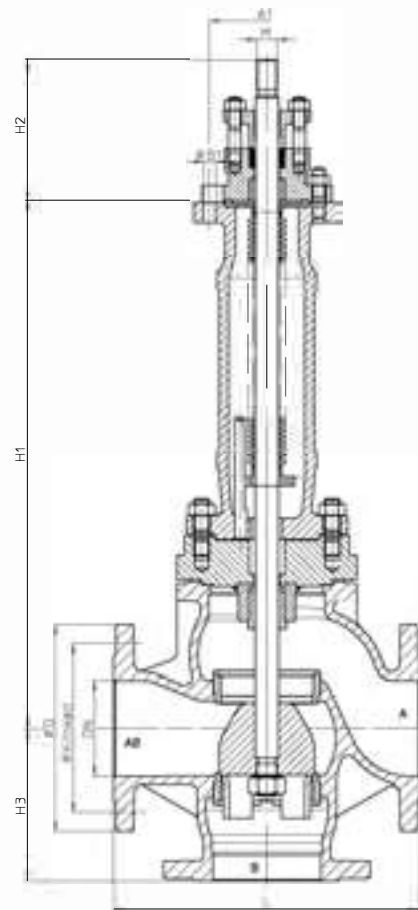
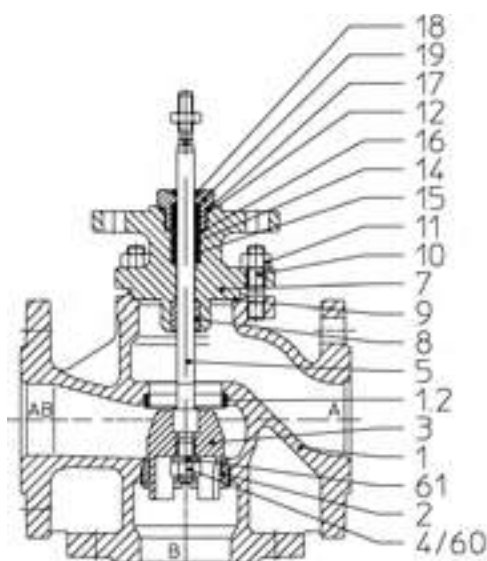
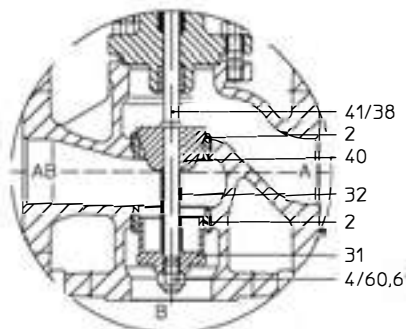


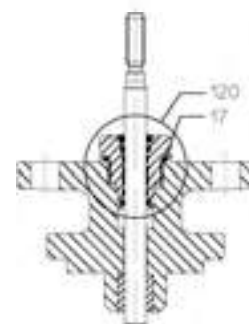
Fig. 451
DN125-150
(e.g.: DP34T-35; AUMA 14.2)



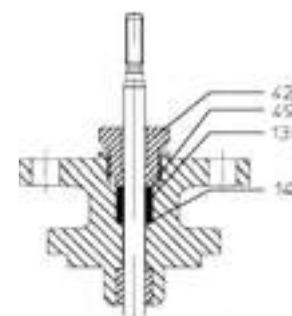
I. PTFE-V-ring unit



Diverting plug DN40 upwards



I. EPDM-sealing

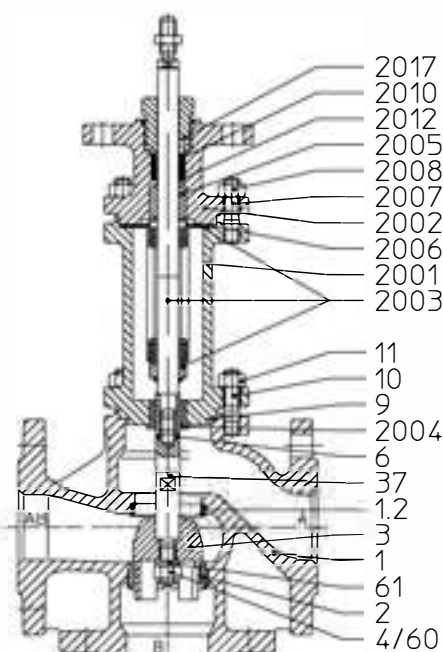


II. PTFE- / pure graphite-packing

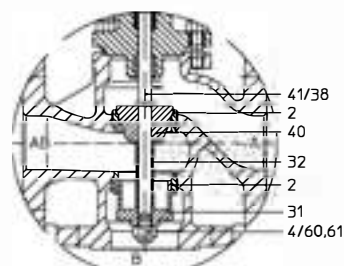
Pos.	Sp.p.	Description	Fig. 12.450	Fig. 22.450 / Fig. 23.450	Fig. 34.450 / Fig. 35.450	Fig. 55.450
1		Body	EN-GJL-250, EN-JL1040	EN-GJS-400-18U-LT, EN-JS1049	GP240GH+N, 1.0619+N	GX5CrNiMo19-11-2, 1.4408
1.2		Seat ring	X20Cr13+QT, 1.4021+QT			--
2	x	Seat ring	X20Cr13+QT, 1.4021+QT			X6CrNiMoTi17-12-2, 1.4571
3	x	Plug	X20Cr13+QT, 1.4021+QT			X6CrNiMoTi17-12-2, 1.4571
4	x	Hexagon nut	8-A2B		--	
5	x	Spindle	X20Cr13+QT, 1.4021+QT			X6CrNiMoTi17-12-2, 1.4571
7		Mounting bonnet	EN-GJS-400-18U-LT, EN-JS1049		GP240GH+N, 1.0619+N	GX5CrNiMo19-11-2, 1.4408
8		Guide bushing	X20Cr13+QT, 1.4021+QT (hardened)			X6CrNiMoTi17-12-2, 1.4571
9	x	Gasket	Pure graphite (CrNi laminated with graphite)			
10		Stud	25CrMo4, 1.7218			A4 - 70
11		Hexagon nuts	C35E, 1.1181			A4
12	Set: refer to Pos. 100	V-ring unit	PTFE			
14		Washer	X5CrNi18-10, 1.4301			
15		Compression spring	X10CrNi18-8, 1.4310			
16		Bush	PTFE (strengthened)			
17		Gasket	Cu / Soft iron			X6CrNiMoTi17-12-2, 1.4571
18		Scraper	PTFE (strengthened)			
13/49	x	Packing ring	PTFE or Pure graphite			
19	x	Screw joint	X8CrNiS18-9, 1.4305			
31	x	Plug	X20Cr13+QT, 1.4021+QT			X6CrNiMoTi17-12-2, 1.4571
32	x	Distance bush	X5CrNi18-10, 1.4301			
38	x	Stem adapter	X20Cr13+QT, 1.4021+QT			X6CrNiMoTi17-12-2, 1.4571
40	x	Plug	X20Cr13+QT, 1.4021+QT			X6CrNiMoTi17-12-2, 1.4571
41	x	Spindle	X20Cr13+QT, 1.4021+QT			X6CrNiMoTi17-12-2, 1.4571
42	x	Screw joint	X8CrNiS18-9, 1.4305			
60	x	Hexagon nut	--		A4	
61		Lock washer pair	--		A4	

Stem sealings Fig. 450

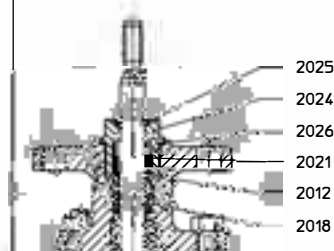
100	x	V-ring unit (set)	Set of: Pos. 12, 14, 15, 16, 17, 18
120	x	EPDM-sealing, cpl.	EPDM / X20Cr13+QT, 1.4021+QT / X8CrNiS18-9, 1.4305
13/49	x	Packing ring	PTFE
13/49	x	Packing ring	Pure graphite
L Spare parts			



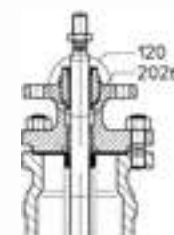
III. PTFE-packing / Pure graphite-packing



Diverting plug DN40 upwards



III. Stainless steel-bellows with V-ring unit



III. Stainless steel bellows seal with EPDM-sealing

Pos.	Sp.p.	Description	Fig. 12.451	Fig. 22.451 / Fig. 23.451	Fig. 34.451 / Fig. 35.451	Fig. 55.451
1		Body	EN-GJL-250, EN-JL1040	EN-GJS-400-18U-LT, EN-JS1049	GP240GH+N, 1.0619+N	GX5CrNiMo19-11-2, 1.4408
1.2		Seat ring	X20Cr13+QT, 1.4021+QT			—
2	x	Seat ring	X20Cr13+QT, 1.4021+QT			X6CrNiMoTi17-12-2, 1.4571
3	x	Plug	X20Cr13+QT, 1.4021+QT			X6CrNiMoTi17-12-2, 1.4571
4	x	Hexagon nut	8-A2B		—	
6	x	Clamping sleeve	X10CrNi18-8, 1.4310			A2
9	x	Gasket	Pure graphite (CrNi laminated with graphite)			
10		Stud	25CrMo4, 1.7218			A4 - 70
11		Hexagon nuts	C35E, 1.1181			A4
2001		Bellows housing	EN-GJS-400-18U-LT, EN-JS1049		GP240GH+N, 1.0619+N	GX5CrNiMo19-11-2, 1.4408
2002		Mounting bonnet	EN-GJS-400-18U-LT, EN-JS1049		GP240GH+N, 1.0619+N	GX5CrNiMo19-11-2, 1.4408
2003	x	Stem- / Bellows unit	X20Cr13+QT, 1.4021+QT / X6CrNiTi18-10, 1.4541			X6CrNiMoTi17-12-2, 1.4571
2004		Guide bushing	X20Cr13+QT, 1.4021+QT (hardened)			X6CrNiMoTi17-12-2, 1.4571
2005		Guide bushing	X20Cr13+QT, 1.4021+QT (hardened)			X6CrNiMoTi17-12-2, 1.4571
2006	x	Gasket	Pure graphite (CrNi laminated with graphite)			
2007		Stud	25CrMo4, 1.7218			A4 - 70
2008		Hexagon nuts	C35E, 1.1181			A4
2010	x	Packing ring	Pure graphite			
2012	x	Washer	X5CrNi18-10, 1.4301			
2017	x	Screw joint	X8CrNiS18-9, 1.4305			
2012	Set refer to Pos. 100	Washer	X5CrNi18-10, 1.4301			
2018		Compression spring	X10CrNi18-8, 1.4310			
2021		V-ring unit	PTFE			
2024		Screw joint	X8CrNiS18-9, 1.4305			
2025		Scraper	PTFE			
2026		Gasket	X6CrNiMoTi17-12-2, 1.4571			
31	x	Plug	X20Cr13+QT, 1.4021+QT			X6CrNiMoTi17-12-2, 1.4571
32	x	Distance bush	X5CrNi18-10, 1.4301			
37	x	Stem adapter	X20Cr13+QT, 1.4021+QT			X6CrNiMoTi17-12-2, 1.4571
38	x	Stem adapter	X20Cr13+QT, 1.4021+QT			X6CrNiMoTi17-12-2, 1.4571
40	x	Plug	X20Cr13+QT, 1.4021+QT			X6CrNiMoTi17-12-2, 1.4571
41	x	Spindle	X20Cr13+QT, 1.4021+QT			X6CrNiMoTi17-12-2, 1.4571
60	x	Hexagon nut	—		A4	
61		Lock washer pair	—		A4	

Stem sealings Fig. 451

2010	x	Packing ring	Pure graphite
100	x	V-ring unit (set)	Set of: Pos. 2012 - 2026
120	x	EPDM-sealing, cpl.	EPDM / X20Cr13+QT, 1.4021+QT / X8CrNiS18-9, 1.4305
L Spare parts			

ANSI-Safety Relief Valve acc. to API526
Full Nozzle (ANSI 150 - 2500)

ARI-REYCO R Series

ANSI-Safety Relief Valve

- ASME Code Section VIII-Division 1.
- UV-stamp NB-stamp
- API 526

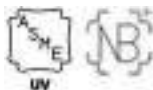
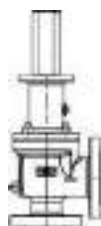


Fig. 971



973



974

Page 2



Fig. 971



Fig. 973



Fig. 974

Features:

- Direct loaded with spring
- Wear resistant seat/disc
- Precision disc alignment and guide
- Possible with soft seal disc
- Possible with stainless steel bellow

ARI-REYCO R Series - Safety Relief Valve (Full Nozzle) acc. to API 526

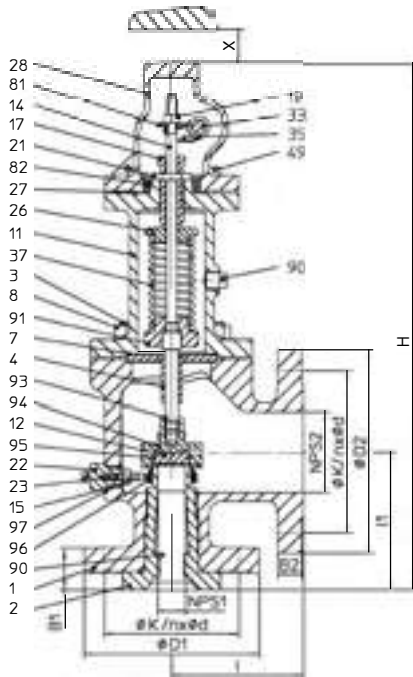
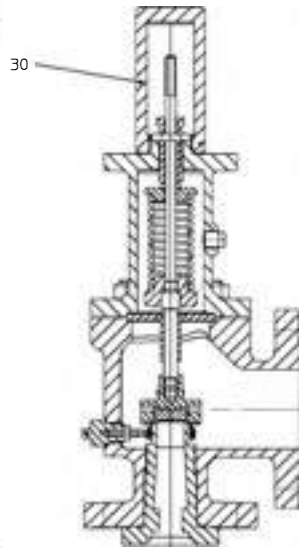
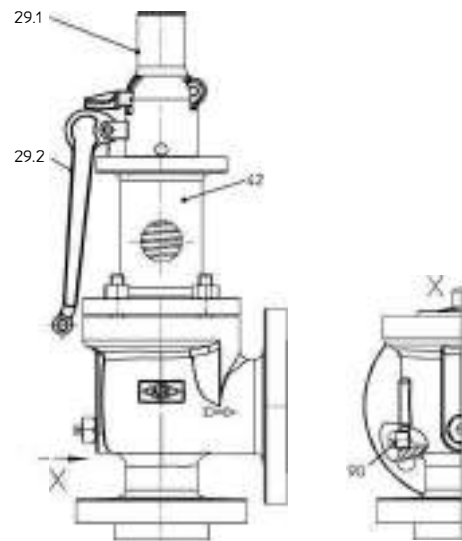
Fig.971
closed lifting deviceFig.973
gastight capFig.974
open lifting device

Figure	Nominal pressure	Material	Valve size	Spring	Temperature range	Flanges
32.971 / 973 / 974	ANSI150/150	SA216WCC	1" x 2" - 8" x 10"	• Chrome vanadium • SA313Gr.316 • Inconel	-20°F to +650°F -20°F to +800°F -20°F to +800°F	ASME B16.5
35.971 / 973 / 974	ANSI300/150	SA216WCC	1" x 2" - 8" x 10"			
37.971 / 973 / 974	ANSI600/150	SA216WCC	1" x 2" - 6" x 10"			
38.971 / 973 / 974	ANSI900/(150)300	SA216WCC	1,5" x 2" - 4" x 6"			
39.971 / 973 / 974	ANSI1500/(150)300	SA216WCC	1,5" x 2" - 4" x 6"			
3c.971 / 973 / 974	ANSI2500/300	SA216WCC	1,5" x 3" - 2" x 3"			
35.971 / 973 / 974	ANSI300/150	SA217WC6	1" x 2" - 8" x 10"	• Inconel	-20°F to +1000°F	ASME B16.5
37.971 / 973 / 974	ANSI600/150	SA217WC6	1" x 2" - 6" x 10"			
38.971 / 973 / 974	ANSI900/(150)300	SA217WC6	1,5" x 2" - 4" x 6"			
39.971 / 973 / 974	ANSI1500/(150)300	SA217WC6	1,5" x 2" - 4" x 6"			
3c.971 / 973 / 974	ANSI2500/300	SA217WC6	1,5" x 3" - 2" x 3"			
52.971 / 973	ANSI150/150	SA351CF8M	1" x 2" - 8" x 10"	• SA313Gr.316 • Inconel	-400°F to +800°F -75°F to +1000°F	ASME B16.5
55.971 / 973	ANSI300/150	SA351CF8M	1" x 2" - 8" x 10"			
57.971 / 973	ANSI600/150	SA351CF8M	1" x 2" - 6" x 10"			
58.971 / 973	ANSI900/(150)300	SA351CF8M	1,5" x 2" - 4" x 6"			
59.971 / 973	ANSI1500/300	SA351CF8M	1,5" x 2" - 3" x 6"			
5c.971 / 973	ANSI2500/300	SA351CF8M	1,5" x 3" - 2" x 3"			

Marking



UV-stamp

NB-stamp



Construction / Application

Safety valve, spring loaded, direct loaded, neutral gases, vapours and liquids

Requirement

ASME Code Section VIII-Division 1.

Sizing

Calculation acc. to ASME

Details required

Medium gasform:	Mass flow (lb/h), SCFM, molar mass (kg/kmol), isotope exponent, temperature (°F), set gauge pressure (psig), back pressure (psig)
	Mass flow (kg/h), molar mass (kg/kmol), isotope exponent, temperature (°C), set gauge pressure (bar), back pressure (bar)
Medium liquid:	Volume flow (gal/min), density, viscosity, temperature (°F), set gauge pressure (psi gauge), back pressure (psig)
	Volume flow (kg/h), density (kg/m³), viscosity, temperature (°C), set gauge pressure (bar), back pressure (bar)

Order data:

ARI-REYCO R Series - Safety Relief Valve, Figure ..., Orifice, Valve size ...x..., Class ..., Material ..., Set gauge pressure ...psig



Parts					
Pos.	Sp.p.	Description	Fig. 32.971/973/974 - 3c.971/973/974		Fig. 52.971/973 - 5c.971/973
1		Body	SA216WCC	SA217WC6	SA351CF8M
2	x	Nozzle	SA479Gr.316L (>2": SA351CF8M)		
3		Stud	SA193-B7		SA193-B8
4		Guide	SA351CF8M		
7	x	Gasket (body/bonnet)	Soft iron		Stainless steel
8		Stud nut	SA194-2H		SA194-8
11		Bonnet, closed	SA216WCC	SA217WC6	SA351CF8M
12	x	Disc	SA479Gr.316L		
14		Stem, top	SA479Gr.316L		
15	x	Gasket	Soft iron		Stainless steel
17		Compression screw	SA479Gr.316L		
19		Spindle cap	SA58Gr.303 SS		
21		Compression nut	SA479Gr.316L		
22		Locking screw (ring pin assembly)	SA479Gr.316L		
26		Top spring step	AISI1015		SA479Gr.316L
27	x	Gasket (cap)	Soft iron		Stainless steel
28		Cap, closed (Fig. 971)	SA216WCC		SA351CF8M
29.1		Cap, open (Fig. 974)	Gray iron		
29.2		Lever, open (Fig. 974)	Gray iron		
30		Cap, gastight (Fig. 973)	SA216WCC		SA351CF8M
35		Lift fork	SA216WCC		SA351CF8M
36		Lifting lever	Gray iron		
37		Spring	SA231/401, Chrome vanadium (up to 650°F)		SA313Gr.316 (up to 800°F)
			SA313Gr.316 (up to 800°F)	—	—
			Inconel X750 (up to 800°F)	Inconel X750 (up to 1000°F)	Inconel X750 (up to 1000°F)
42		Bonnet, open	SA216WCC	SA217WC6	SA351CF8M
49		Bolt	SA193-B7		
71	x	Gasket (gag screw)	Soft iron		Stainless steel
72		Gag screw	SA479Gr.316L		
74		Retaining plate	SA479Gr.316L		
75	x	O-ring	Viton		
77		Retaining screw	SA479Gr.304L		
90		Pipe plug	SA193-B7		SA193-B8
91		Bottom spring step	AISI1015		SA479Gr.316L
93		Point	SA479Gr.316L		
94		Disc holder	SA479Gr.316L (> Orifice K: SA351CF8M)		
95		Snap ring	SA313Gr.302		
96		Adjusting screw	SA351CF8M		
	L Spare parts				

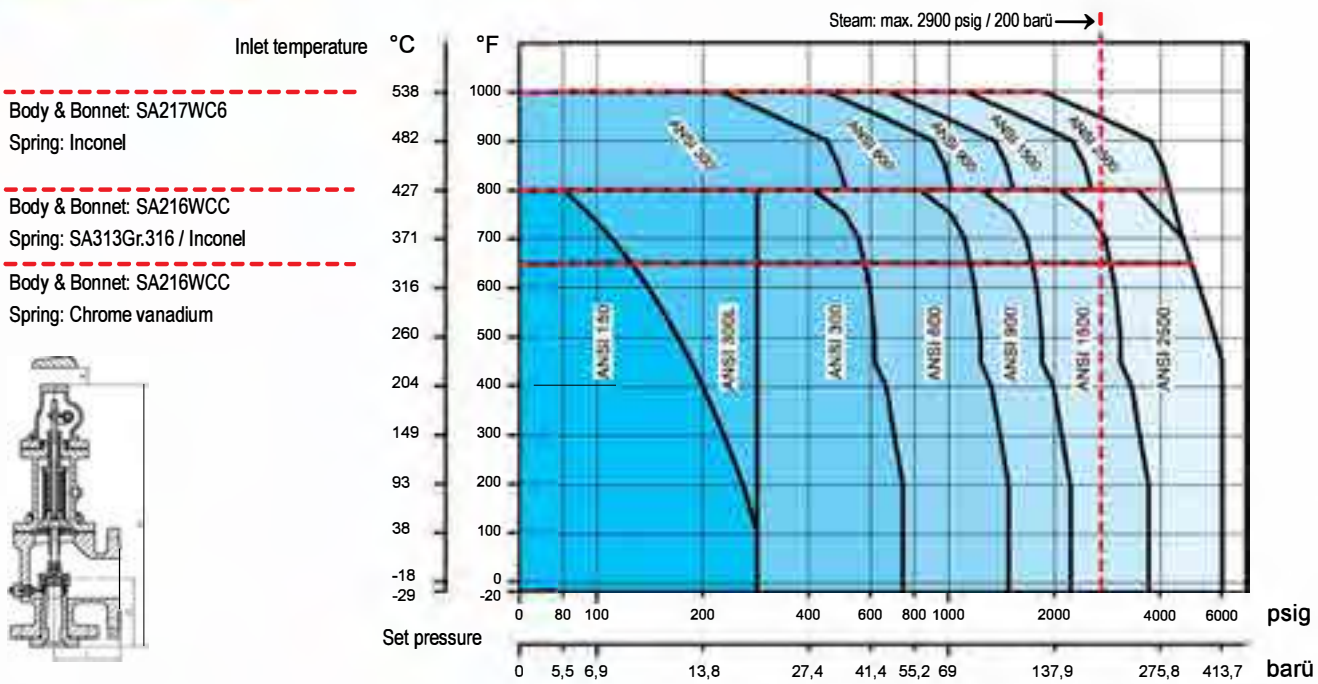
Certified coefficient of discharge K	UV/NB-stamp									
Valve size	1"x2"	1 1/2"x2" 1 1/2"x2 1/2"	1 1/2"x3"	2"x3"	3"x4"	3"x6"	4"x6"	6"x8"	6"x10"	8"x10"
Steam / Gas	0,860									
Liquid	0,724									

Information / restriction of technical rules need to be observed!

A production allowance acc. to TRB 801 No. 45 exists

The engineer, designing a system or a plant, is responsible for the selection of the correct valve.

Resistance and fitness must be verified and contact the manufacturer for information (see product overview and resistance table).

Specifications - Orifice D (effective area acc. to API: 0,110 in²)

Valve size	Material		Flangeconnection ANSI std. (RF or RTJ)		max. pressure rating limit							Dimensions				Weight	
					Inlet flange					Outlet flange	Bellows seal	I	I1	Max. H	Min. X		
	Body & Bonnet	Spring	Inlet Class	Outlet Class	100°F psig	450°F psig	650°F psig	800°F psig	1000°F psig	100°F psig	100°F psig	inch	inch	inch	inch		lbs
1 D 2	SA216WCC	Chr. vanad.	150	150	285	185	125			285	230	4 1/2	4 1/8	20	6	40	
1 D 2	SA216WCC	SA313Gr.316	150	150			185	125	80		285	230	4 1/2	4 1/8	20	6	40
1 D 2	SA216WCC	Inconel	150	150			185	125	80		285	230	4 1/2	4 1/8	20	6	40
1 D 2	SA216WCC	Chr. vanad.	300L	150	285	285	285			285	230	4 1/2	4 1/8	20	6	43	
1 D 2	SA216WCC	SA313Gr.316	300L	150			285	285	285		285	230	4 1/2	4 1/8	20	6	43
1 D 2	SA216WCC	Inconel	300L	150			285	285	285		285	230	4 1/2	4 1/8	20	6	43
1 D 2	SA216WCC	Chr. vanad.	300	150	740	615	590			285	230	4 1/2	4 1/8	20	6	45	
1 D 2	SA216WCC	SA313Gr.316	300	150			615	590	410		285	230	4 1/2	4 1/8	20	6	45
1 D 2	SA216WCC	Inconel	300	150			615	590	410		285	230	4 1/2	4 1/8	20	6	45
1 D 2	SA217WC6	Inconel	300	150				510	215	285	230	4 1/2	4 1/8	20	6	45	
1 D 2	SA216WCC	Chr. vanad.	600	150	1480	1235	1175			285	230	4 1/2	4 1/8	20	6	45	
1 D 2	SA216WCC	SA313Gr.316	600	150			1235	1175	825		285	230	4 1/2	4 1/8	20	6	45
1 D 2	SA216WCC	Inconel	600	150			1235	1175	825		285	230	4 1/2	4 1/8	20	6	45
1 D 2	SA217WC6	Inconel	600	150					1015	430	285	230	4 1/2	4 1/8	20	6	45
1.5 D 2	SA216WCC	Chr. vanad.	900	300	2220	1845	1765			600	500	5 1/2	4 1/8	20	8	58	
1.5 D 2	SA216WCC	SA313Gr.316	900	300			1845	1765	1235		600	500	5 1/2	4 1/8	20	8	58
1.5 D 2	SA216WCC	Inconel	900	300			1845	1765	1235		600	500	5 1/2	4 1/8	20	8	58
1.5 D 2	SA217WC6	Inconel	900	300					1525	650	600	500	5 1/2	4 1/8	20	8	58
1.5 D 2	SA216WCC	Chr. vanad.	1500	300	3705	3080	2940			600	500	5 1/2	4 1/8	20	8	58	
1.5 D 2	SA216WCC	SA313Gr.316	1500	300			3080	2940	2060		600	500	5 1/2	4 1/8	20	8	58
1.5 D 2	SA216WCC	Inconel	1500	300			3080	2940	2060		600	500	5 1/2	4 1/8	20	8	58
1.5 D 2	SA217WC6	Inconel	1500	300					2540	1080	600	500	5 1/2	4 1/8	20	8	58
1.5 D 3	SA216WCC	Chr. vanad.	2500	300	6000	6000	4905			740	500	7	5 1/2	22 1/2	10	80	
1.5 D 3	SA216WCC	SA313Gr.316	2500	300			6000	4905	3430		740	500	7	5 1/2	22 1/2	10	80
1.5 D 3	SA216WCC	Inconel	2500	300			6000	4905	3430		740	500	7	5 1/2	22 1/2	10	80
1.5 D 3	SA217WC6	Inconel	2500	300					4230	1800	740	500	7	5 1/2	22 1/2	10	80

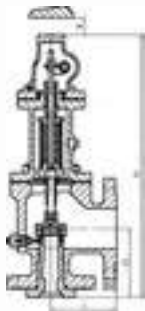
Center to face dimensions acc. to API 526.

Standard-flange dimensions refer to page 44.

Note

- Valves set under 15 psig are not ASME code stamped.
- Valve dimensions H for bellows valves add 0,75 inch. Maximum I and I1 dimensions +/- 1/16 inch
- API526 eliminated 2 1/2 inch flange sizes, however ARI will supply 2 1/2 inch flange sizes at no additional cost
- Outlet pressure limit for temperatures above 100°F shall not exceed the rating in ANSI/ASME B16.34



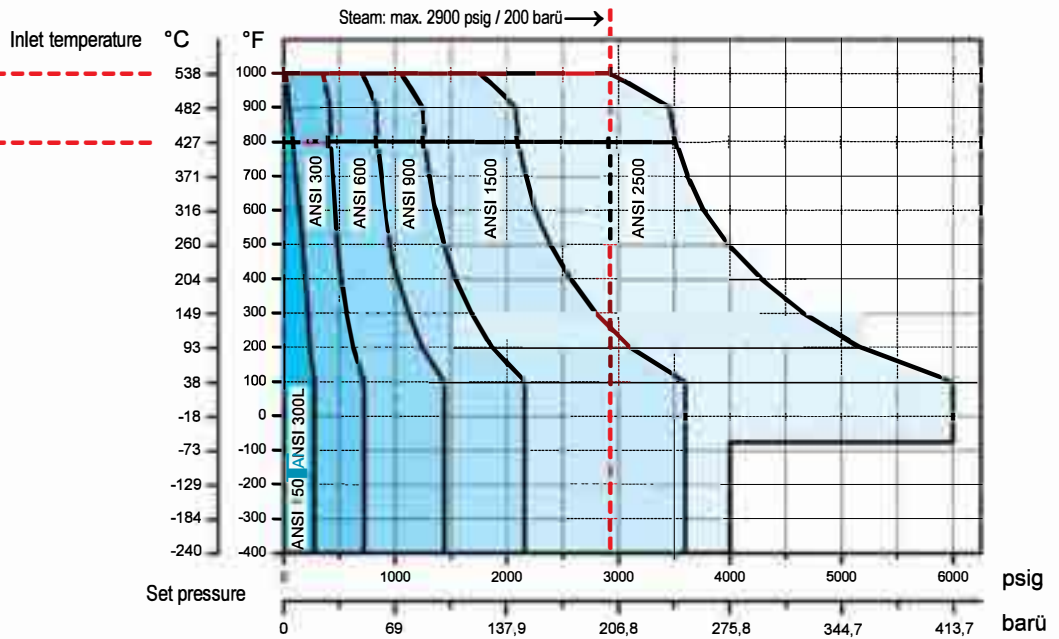


Body & Bonnet: A351CF8M

Spring: Inconel

Body & Bonnet: A351CF8M

Spring: SA313Gr.316

Specifications - Orifice D (effective area acc. to API: 0,110 in²)

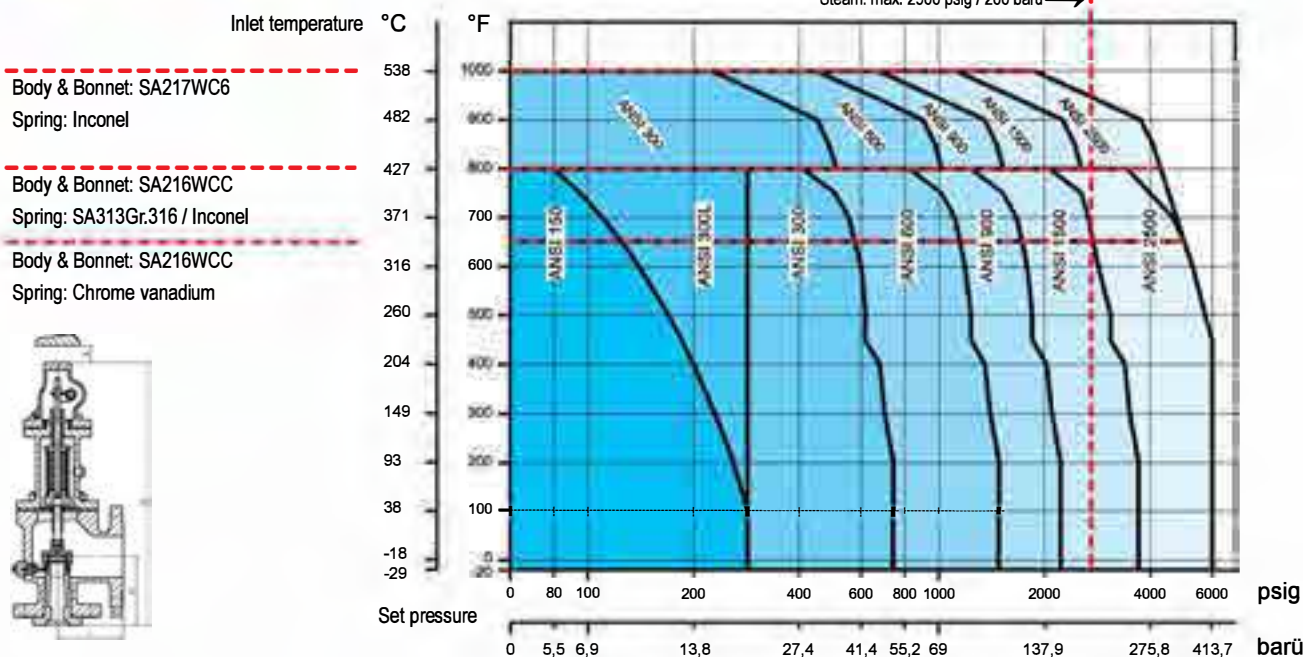
Valve size	Material		Flangeconnection ANSI std. (RF or RTJ)		max. pressure rating limit								Dimensions					Weight
					Inlet flange						Outlet flange	Bellows seal	I	I1	Max. H	Min. X		
	Body & Bonnet	Spring	Inlet	Outlet	-400°F bis -76°F	-75°F bis -21°F	-20°F bis 100°F	450 °F	550 °F	800 °F	1000 °F	100 °F	100 °F	inch	inch	inch	inch	
1 D 2	SA351CF8M	SA313Gr.316	150	150	275	275	275	180	155			275	230	4 1/2	4 1/8	20	6	40
1 D 2	SA351CF8M	Inconel	150	150					155	80	20	275	230	4 1/2	4 1/8	20	6	40
1 D 2	SA351CF8M	SA313Gr.316	300L	150	275	275	275	275	275			275	230	4 1/2	4 1/8	20	6	43
1 D 2	SA351CF8M	Inconel	300L	150					275	275	275	275	230	4 1/2	4 1/8	20	6	43
1 D 2	SA351CF8M	SA313Gr.316	300	150	720	720	720	495	465			275	230	4 1/2	4 1/8	20	6	45
1 D 2	SA351CF8M	Inconel	300	150					465	420	350	275	230	4 1/2	4 1/8	20	6	45
1 D 2	SA351CF8M	SA313Gr.316	600	150	1440	1440	1440	975	928			275	230	4 1/2	4 1/8	20	6	45
1 D 2	SA351CF8M	Inconel	600	150					928	845	700	275	230	4 1/2	4 1/8	20	6	45
1.5 D 2	SA351CF8M	SA313Gr.316	900	300	2160	2160	2160	1485	1395			600	500	5 1/2	4 1/8	20	8	58
1.5 D 2	SA351CF8M	Inconel	900	300					1395	1265	1050	600	500	5 1/2	4 1/8	20	8	58
1.5 D 2	SA351CF8M	SA313Gr.316	1500	300	3600	3600	3600	2480	2323			600	500	5 1/2	4 1/8	20	8	58
1.5 D 2	SA351CF8M	Inconel	1500	300					2323	2110	1750	600	500	5 1/2	4 1/8	20	8	58
1.5 D 3	SA351CF8M	SA313Gr.316	2500	300	4000	6000	6000	4130	3870			720	500	7	5 1/2	22 1/2	10	80
1.5 D 3	SA351CF8M	Inconel	2500	300					3870	3520	2915	720	500	7	5 1/2	22 1/2	10	80
Center to face dimensions acc. to API 526.													Standard-flange dimensions refer to page 44.					

Center to face dimensions acc. to API 526.

Standard-flange dimensions refer to page 44.

Note

- Valves set under 15 psig are not ASME code stamped.
- Valve dimensions H for bellows valves add 3/4-inch. Maximum I and I1 dimensions +/- 1/16-inch
- API526 eliminated 2 1/2-inch flange sizes, however ARI will supply 2 1/2-inch flange sizes at no additional cost.
- Outlet pressure limit for temperatures above 100°F shall not exceed the rating in ANSI/ASME B16.34

Specifications - Orifice E (effective area acc. to API: 0,196 in²)

Valve size	Material		Flangeconnection ANSI std. (RF or RTJ)		max. pressure rating limit							Dimensions				Weight	
					Inlet flange					Outlet flange	Bellows seal	I	I1	Max. H	Min. X		
	Body & Bonnet	Spring	Inlet Class	Outlet Class	100°F	450°F	650°F	800°F	1000°F	100°F	100°F	inch	inch	inch	inch		lbs
1 E 2	SA216WCC	Chr. vanad.	150	150	285	185	125				285	230	4 1/2	4 1/8	20	6	40
1 E 2	SA216WCC	SA313Gr.316	150	150			185	125	80		285	230	4 1/2	4 1/8	20	6	40
1 E 2	SA216WCC	Inconel	150	150			185	125	80		285	230	4 1/2	4 1/8	20	6	40
1 E 2	SA216WCC	Chr. vanad.	300L	150	285	285					285	230	4 1/2	4 1/8	20	6	43
1 E 2	SA216WCC	SA313Gr.316	300L	150			285	285	285		285	230	4 1/2	4 1/8	20	6	43
1 E 2	SA216WCC	Inconel	300L	150			285	285	285		285	230	4 1/2	4 1/8	20	6	43
1 E 2	SA216WCC	Chr. vanad.	300	150	740	615	590				285	230	4 1/2	4 1/8	20	6	45
1 E 2	SA216WCC	SA313Gr.316	300	150			615	590	410		285	230	4 1/2	4 1/8	20	6	45
1 E 2	SA216WCC	Inconel	300	150			615	590	410		285	230	4 1/2	4 1/8	20	6	45
1 E 2	SA217WC6	Inconel	300	150				510	215		285	230	4 1/2	4 1/8	20	6	45
1 E 2	SA216WCC	Chr. vanad.	600	150	1480	1235	1175				285	230	4 1/2	4 1/8	20	6	45
1 E 2	SA216WCC	SA313Gr.316	600	150			1235	1175	825		285	230	4 1/2	4 1/8	20	6	45
1 E 2	SA216WCC	Inconel	600	150			1235	1175	825		285	230	4 1/2	4 1/8	20	6	45
1 E 2	SA217WC6	Inconel	600	150				1015	430		285	230	4 1/2	4 1/8	20	6	45
1.5 E 2	SA216WCC	Chr. vanad.	900	300	2220	1845	1765				600	500	5 1/2	4 1/8	20	8	58
1.5 E 2	SA216WCC	SA313Gr.316	900	300			1845	1765	1235		600	500	5 1/2	4 1/8	20	8	58
1.5 E 2	SA216WCC	Inconel	900	300			1845	1765	1235		600	500	5 1/2	4 1/8	20	8	58
1.5 E 2	SA217WC6	Inconel	900	300				1525	650		600	500	5 1/2	4 1/8	20	8	58
1.5 E 2	SA216WCC	Chr. vanad.	1500	300	3705	3080	2940				600	500	5 1/2	4 1/8	20	8	58
1.5 E 2	SA216WCC	SA313Gr.316	1500	300			3080	2940	2060		600	500	5 1/2	4 1/8	20	8	58
1.5 E 2	SA216WCC	Inconel	1500	300			3080	2940	2060		600	500	5 1/2	4 1/8	20	8	58
1.5 E 2	SA217WC6	Inconel	1500	300				2540	1080		600	500	5 1/2	4 1/8	20	8	58
1.5 E 3	SA216WCC	Chr. vanad.	2500	300	6000	6000	4905				740	500	7	5 1/2	22 1/2	10	80
1.5 E 3	SA216WCC	SA313Gr.316	2500	300			6000	4905	3430		740	500	7	5 1/2	22 1/2	10	80
1.5 E 3	SA216WCC	Inconel	2500	300			6000	4905	3430		740	500	7	5 1/2	22 1/2	10	80
1.5 E 3	SA217WC6	Inconel	2500	300				4230	1800		740	500	7	5 1/2	22 1/2	10	80

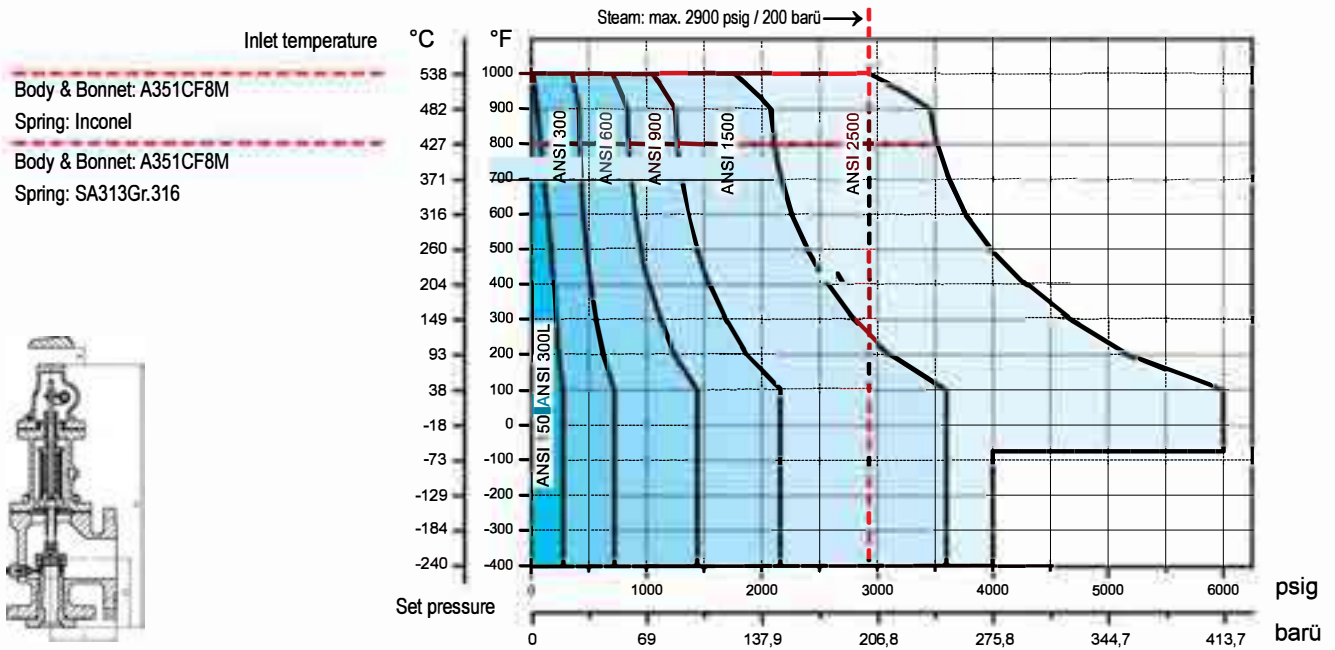
Center to face dimensions acc. to API 526.

Standard-flange dimensions refer to page 44.

Note

- Valves set under 15 psig are not ASME code stamped.
- Valve dimensions H for bellows valves add 3/4-inch. Maximum I and I1 dimensions +/- 1/16-inch
- API526 eliminated 2 1/2-inch flange sizes, however ARI will supply 2 1/2-inch flange sizes at no additional cost.
- Outlet pressure limit for temperatures above 100°F shall not exceed the rating in ANSI/ASME B16.34





Specifications - Orifice E (effective area acc. to API: 0,196 in²)

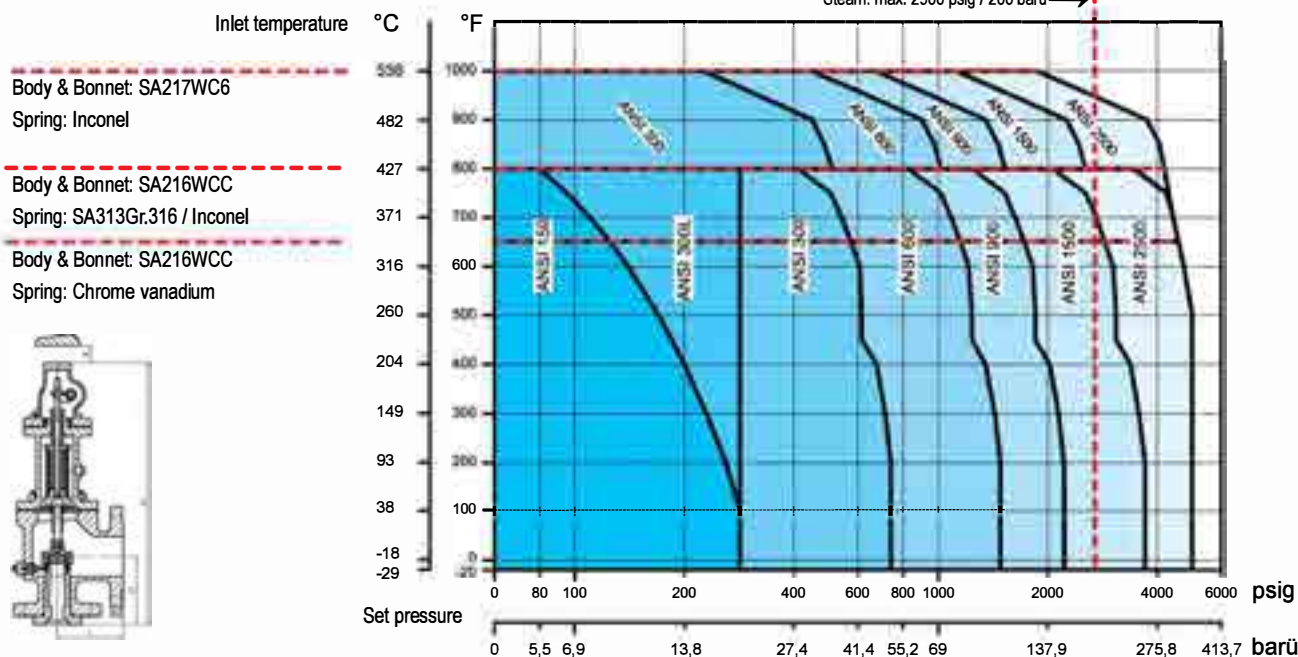
Valve size	Material		Flangeconnection ANSI std. (RF or RTJ)		max. pressure rating limit										Dimensions					Weight
					Inlet flange								Outlet flange	Bellows seal	I	I1	Max. H	Min. X		
	Body & Bonnet	Spring	Inlet	Outlet	-400°F bis -76°F	-75°F bis -21°F	-20°F bis 100°F	450 °F	550 °F	800 °F	1000 °F	100 °F	100 °F	inch	inch	inch	inch	lbs		
inch			Class	Class	psig	psig	psig	psig	psig	psig	psig	psig	psig	inch	inch	inch	inch	lbs		
1 E 2	SA351CF8M	SA313Gr.316	150	150	275	275	275	180	155			275	230	4 1/2	4 1/8	20	6	40		
1 E 2	SA351CF8M	Inconel	150	150					155	80	20	275	230	4 1/2	4 1/8	20	6	40		
1 E 2	SA351CF8M	SA313Gr.316	300L	150	275	275	275	275	275			275	230	4 1/2	4 1/8	20	6	43		
1 E 2	SA351CF8M	Inconel	300L	150					275	275	275	275	230	4 1/2	4 1/8	20	6	43		
1 E 2	SA351CF8M	SA313Gr.316	300	150	720	720	720	495	465			275	230	4 1/2	4 1/8	20	6	45		
1 E 2	SA351CF8M	Inconel	300	150					465	420	350	275	230	4 1/2	4 1/8	20	6	45		
1 E 2	SA351CF8M	SA313Gr.316	600	150	1440	1440	1440	975	928			275	230	4 1/2	4 1/8	20	6	45		
1 E 2	SA351CF8M	Inconel	600	150					928	845	700	275	230	4 1/2	4 1/8	20	6	45		
1.5 E 2	SA351CF8M	SA313Gr.316	900	300	2160	2160	2160	1485	1395			600	500	5 1/2	4 1/8	20	8	58		
1.5 E 2	SA351CF8M	Inconel	900	300					1395	1265	1050	600	500	5 1/2	4 1/8	20	8	58		
1.5 E 2	SA351CF8M	SA313Gr.316	1500	300	3600	3600	3600	2480	2323			600	500	5 1/2	4 1/8	20	8	58		
1.5 E 2	SA351CF8M	Inconel	1500	300					2323	2110	1750	600	500	5 1/2	4 1/8	20	8	58		
1.5 E 3	SA351CF8M	SA313Gr.316	2500	300	4000	6000	6000	4130	3870			720	500	7	5 1/2	22 1/2	10	80		
1.5 E 3	SA351CF8M	Inconel	2500	300					3870	3520	2915	720	500	7	5 1/2	22 1/2	10	80		
Center to face dimensions acc. to API 526													Standard-flange dimensions refer to page 44.							

Center to face dimensions acc. to API 526

Standard-flange dimensions refer to page 44.

Note

- Valves set under 15 psig are not ASME code stamped.
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- API526 eliminated 2 1/2-inch flange sizes, however ARI will supply 2 1/2-inch flange sizes at no additional cost.
- Outlet pressure limit for temperatures above 100°F shall not exceed the rating in ANSI/ASME B16.34

Specifications - Orifice F (effective area acc. to API: 0,307 in²)

Valve size	Material		Flangeconnection ANSI std. (RF or RTJ)		max. pressure rating limit							Dimensions				Weight
					Inlet flange					Outlet flange	Bellows seal	I	I1	Max. H	Min. X	
	Body & Bonnet	Spring	Inlet Class	Outlet Class	100°F psig	450°F psig	650°F psig	800°F psig	1000°F psig	100°F psig	100°F psig	inch	inch	inch	inch	
1.5 F 2	SA216WCC	Chr. vanad.	150	150	285	185	125			285	230	4 3/4	4 7/8	20 3/4	6	43
1.5 F 2	SA216WCC	SA313Gr.316	150	150		185	125	80		285	230	4 3/4	4 7/8	20 3/4	6	43
1.5 F 2	SA216WCC	Inconel	150	150		185	125	80		285	230	4 3/4	4 7/8	20 3/4	6	43
1.5 F 2	SA216WCC	Chr. vanad.	300L	150	285	285	285			285	230	4 3/4	4 7/8	20 3/4	6	47
1.5 F 2	SA216WCC	SA313Gr.316	300L	150		285	285	285		285	230	4 3/4	4 7/8	20 3/4	6	47
1.5 F 2	SA216WCC	Inconel	300L	150		285	285	285		285	230	4 3/4	4 7/8	20 3/4	6	47
1.5 F 2	SA216WCC	Chr. vanad.	300	150	740	615	590			285	230	6	4 7/8	20 3/4	6	50
1.5 F 2	SA216WCC	SA313Gr.316	300	150		615	590	410		285	230	6	4 7/8	20 3/4	6	50
1.5 F 2	SA216WCC	Inconel	300	150		615	590	410		285	230	6	4 7/8	20 3/4	6	50
1.5 F 2	SA217WC6	Inconel	300	150				510	215	285	230	6	4 7/8	20 3/4	6	50
1.5 F 2	SA216WCC	Chr. vanad.	600	150	1480	1235	1175			285	230	6	4 7/8	20 3/4	6	50
1.5 F 2	SA216WCC	SA313Gr.316	600	150		1235	1175	825		285	230	6	4 7/8	20 3/4	6	50
1.5 F 2	SA216WCC	Inconel	600	150		1235	1175	825		285	230	6	4 7/8	20 3/4	6	50
1.5 F 2	SA217WC6	Inconel	600	150				1015	430	285	230	6	4 7/8	20 3/4	6	50
1.5 F 3	SA216WCC	Chr. vanad.	900	300	2220	1845	1765			740	500	6 1/2	4 7/8	20 3/8	8	63
1.5 F 3	SA216WCC	SA313Gr.316	900	300		1845	1765	1235		740	500	6 1/2	4 7/8	20 3/8	8	63
1.5 F 3	SA216WCC	Inconel	900	300		1845	1765	1235		740	500	6 1/2	4 7/8	20 3/8	8	63
1.5 F 3	SA217WC6	Inconel	900	300				1525	650	740	500	6 1/2	4 7/8	20 3/8	8	63
1.5 F 3	SA216WCC	Chr. vanad.	1500	300	3705	3080	2940			740	500	6 1/2	4 7/8	21 3/4	8	68
1.5 F 3	SA216WCC	SA313Gr.316	1500	300		3080	2940	2060		740	500	6 1/2	4 7/8	21 3/4	8	68
1.5 F 3	SA216WCC	Inconel	1500	300		3080	2940	2060		740	500	6 1/2	4 7/8	21 3/4	8	68
1.5 F 3	SA217WC6	Inconel	1500	300				2540	1080	740	500	6 1/2	4 7/8	20 3/8	8	63
1.5 F 3	SA216WCC	Chr. vanad.	2500	300	5000	5000	4905			740	500	7	5 1/2	22 1/2	10	80
1.5 F 3	SA216WCC	SA313Gr.316	2500	300		5000	4905	3430		740	500	7	5 1/2	22 1/2	10	80
1.5 F 3	SA216WCC	Inconel	2500	300		5000	4905	3430		740	500	7	5 1/2	22 1/2	10	80
1.5 F 3	SA217WC6	Inconel	2500	300				4230	1800	740	500	7	5 1/2	22 1/2	10	80

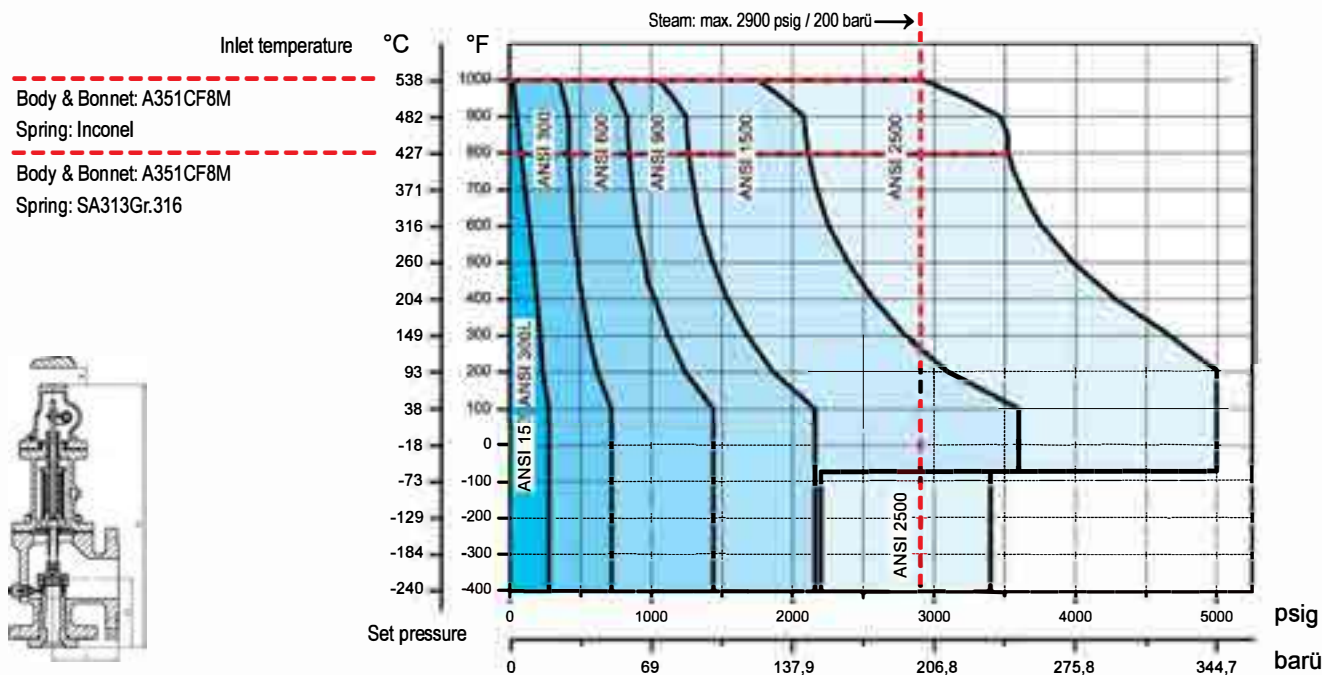
Center to face dimensions acc. to API 526 .

Standard-flange dimensions refer to page 44.

Note

- Valves set under 15 psig are not ASME code stamped.
- Maximum I and I1 dimensions +/- 1/16-inch
- API526 eliminated 2 1/2-inch flange sizes, however ARI will supply 2 1/2-inch flange sizes at no additional cost.
- Outlet pressure limit for temperatures above 100°F shall not exceed the rating in ANSI/ASME B16.34





Specifications - Orifice F (effective area acc. to API: 0,307 in²)

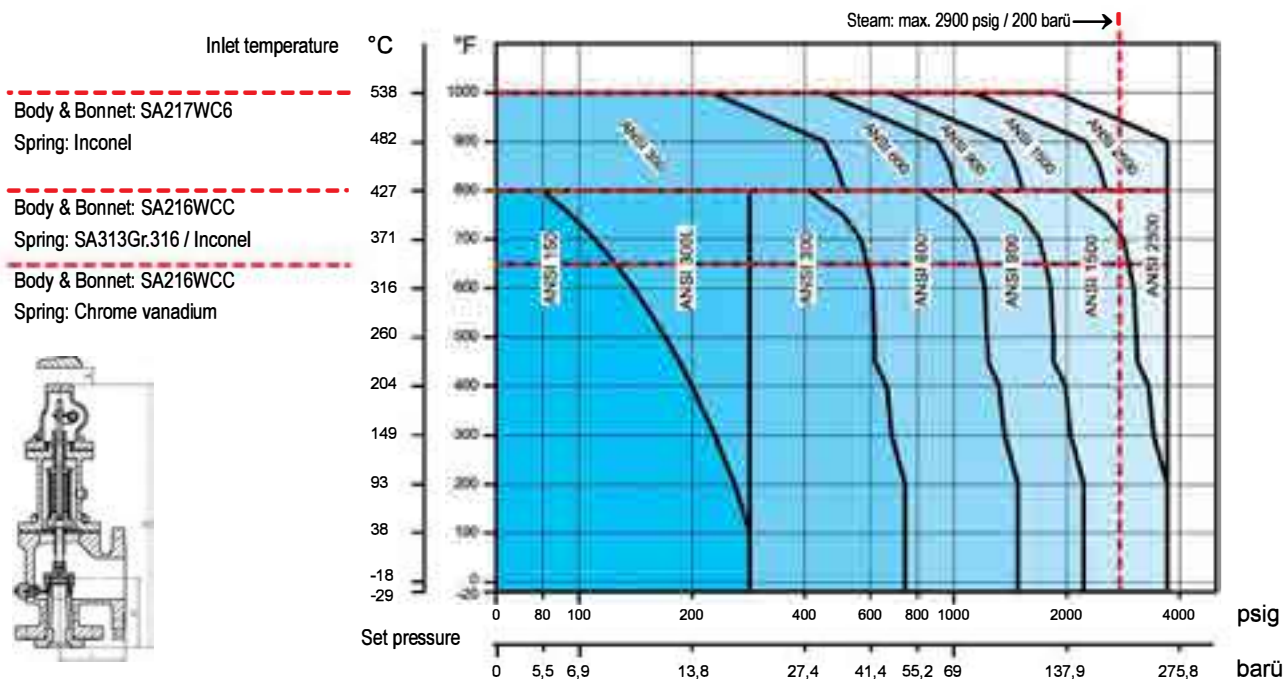
Valve size	Material		Flangeconnection ANSI std. (RF or RTJ)		max. pressure rating limit										Dimensions				Weight
					Inlet flange								Outlet flange	Bellows seal	I	I1	Max. H	Min. X	
	Body & Bonnet	Spring	Inlet	Outlet	-400°F bis -76°F	-75°F bis -21°F	-20°F bis 100°F	450 °F	550 °F	800 °F	1000 °F	100 °F	100 °F						
	inch			Class	Class	psig	psig	psig	psig	psig	psig	psig	psig	psig	inch	inch	inch	inch	
1.5 F 2	SA351CF8M	SA313Gr.316	150	150	275	275	275	180	155			275	230	4 3/4	4 7/8	20 3/4	6	43	
1.5 F 2	SA351CF8M	Inconel	150	150					155	80	20	275	230	4 3/4	4 7/8	20 3/4	6	43	
1.5 F 2	SA351CF8M	SA313Gr.316	300L	150	275	275	275	275	275			275	230	4 3/4	4 7/8	20 3/4	6	47	
1.5 F 2	SA351CF8M	Inconel	300L	150					275	275	275	275	230	4 3/4	4 7/8	20 3/4	6	47	
1.5 F 2	SA351CF8M	SA313Gr.316	300	150	720	720	720	495	465			275	230	6	4 7/8	20 3/4	6	50	
1.5 F 2	SA351CF8M	Inconel	300	150					465	420	350	275	230	6	4 7/8	20 3/4	6	50	
1.5 F 2	SA351CF8M	SA313Gr.316	600	150	1440	1440	1440	975	928			275	230	6	4 7/8	20 3/4	6	50	
1.5 F 2	SA351CF8M	Inconel	600	150					928	845	700	275	230	6	4 7/8	20 3/4	6	50	
1.5 F 3	SA351CF8M	SA313Gr.316	900	300	2160	2160	2160	1485	1395			720	500	6 1/2	4 7/8	20 3/8	8	63	
1.5 F 3	SA351CF8M	Inconel	900	300					1395	1265	1050	720	500	6 1/2	4 7/8	20 3/8	8	63	
1.5 F 3	SA351CF8M	SA313Gr.316	1500	300	2200	3600	3600	2480	2323			720	500	6 1/2	4 7/8	21 3/4	8	68	
1.5 F 3	SA351CF8M	Inconel	1500	300					2323	2110	1750	720	500	6 1/2	4 7/8	21 3/4	8	68	
1.5 F 3	SA351CF8M	SA313Gr.316	2500	300	3400	5000	5000	4130	3870			720	500	7	5 1/2	22 1/2	10	80	
1.5 F 3	SA351CF8M	Inconel	2500	300					3870	3520	2915	720	500	7	5 1/2	22 1/2	10	80	
Center to face dimensions acc. to API 526 .														Standard-flange dimensions refer to page 44.					

Center to face dimensions acc. to API 526 .

Standard-flange dimensions refer to page 44.

Note

- Valves set under 15 psig are not ASME code stamped.
- Maximum I and I1 dimensions +/- 1/16-inch
- API526 eliminated 2 1/2-inch flange sizes, however ARI will supply 2 1/2-inch flange sizes at no additional cost.
- Outlet pressure limit for temperatures above 100°F shall not exceed the rating in ANSI/ASME B16.34

Specifications - Orifice G (effective area acc. to API: 0,503 in²)

Valve size	Material		Flangeconnection ANSI std. (RF or RTJ)		max. pressure rating limit							Dimensions				Weight
					Inlet flange					Outlet flange	Bellows seal	I	I1	Max. H	Min. X	
	Body & Bonnet	Spring	Inlet Class	Outlet Class	100°F psig	450°F psig	650°F psig	800°F psig	1000°F psig	100°F psig	100°F psig	inch	inch	inch	inch	
1.5 G 3	SA216WCC	Chr. vanad.	150	150	285	185	125			285	230	4 3/4	4 7/8	20 3/4	10	46
1.5 G 3	SA216WCC	SA313Gr.316	150	150		185	125	80		285	230	4 3/4	4 7/8	20 3/4	10	46
1.5 G 3	SA216WCC	Inconel	150	150		185	125	80		285	230	4 3/4	4 7/8	20 3/4	10	46
1.5 G 3	SA216WCC	Chr. vanad.	300L	150	285	285	285			285	230	4 3/4	4 7/8	20 3/4	10	50
1.5 G 3	SA216WCC	SA313Gr.316	300L	150		285	285	285		285	230	4 3/4	4 7/8	20 3/4	10	50
1.5 G 3	SA216WCC	Inconel	300L	150		285	285	285		285	230	4 3/4	4 7/8	20 3/4	10	50
1.5 G 3	SA216WCC	Chr. vanad.	300	150	740	615	605			285	230	6	4 7/8	20 3/4	10	55
1.5 G 3	SA216WCC	SA313Gr.316	300	150		615	605	410		285	230	6	4 7/8	20 3/4	10	55
1.5 G 3	SA216WCC	Inconel	300	150		615	605	410		285	230	6	4 7/8	20 3/4	10	55
1.5 G 3	SA217WC6	Inconel	300	150				510	215	285	230	6	4 7/8	20 3/4	10	55
1.5 G 3	SA216WCC	Chr. vanad.	600	150	1480	1235	1175			285	230	6	4 7/8	20 3/4	10	55
1.5 G 3	SA216WCC	SA313Gr.316	600	150		1235	1175	825		285	230	6	4 7/8	20 3/4	10	55
1.5 G 3	SA216WCC	Inconel	600	150		1235	1175	825		285	230	6	4 7/8	20 3/4	10	55
1.5 G 3	SA217WC6	Inconel	600	150				1015	430	285	230	6	4 7/8	20 3/4	10	55
1.5 G 3	SA216WCC	Chr. vanad.	900	300	2220	1845	1765			600	470	6 1/2	4 7/8	21 3/4	10	67
1.5 G 3	SA216WCC	SA313Gr.316	900	300		1845	1765	1235		600	470	6 1/2	4 7/8	21 3/4	10	67
1.5 G 3	SA216WCC	Inconel	900	300		1845	1765	1235		600	470	6 1/2	4 7/8	21 3/4	10	67
1.5 G 3	SA217WC6	Inconel	900	300				1525	650	600	500	6 1/2	4 7/8	21 3/4	10	67
2 G 3	SA216WCC	Chr. vanad.	1500	300	3705	3080	2940			600	470	6 3/4	6 1/8	25 1/5	12	140
2 G 3	SA216WCC	SA313Gr.316	1500	300		3080	2940	2060		600	470	6 3/4	6 1/8	25 1/5	12	140
2 G 3	SA216WCC	Inconel	1500	300		3080	2940	2060		600	470	6 3/4	6 1/8	25 1/5	12	140
2 G 3	SA217WC6	Inconel	1500	300				2540	1080	600	500	6 3/4	6 1/8	25 1/5	12	140
2 G 3	SA216WCC	Chr. vanad.	2500	300	3705	3705	3705			740	470	6 3/4	6 1/8	25 1/5	12	155
2 G 3	SA216WCC	SA313Gr.316	2500	300		3705	3705	3430		740	470	6 3/4	6 1/8	25 1/5	12	155
2 G 3	SA216WCC	Inconel	2500	300		3705	3705	3430		740	470	6 3/4	6 1/8	25 1/5	12	155
2 G 3	SA217WC6	Inconel	2500	300				3750	1800	740	500	6 3/4	6 1/8	25 1/5	12	155

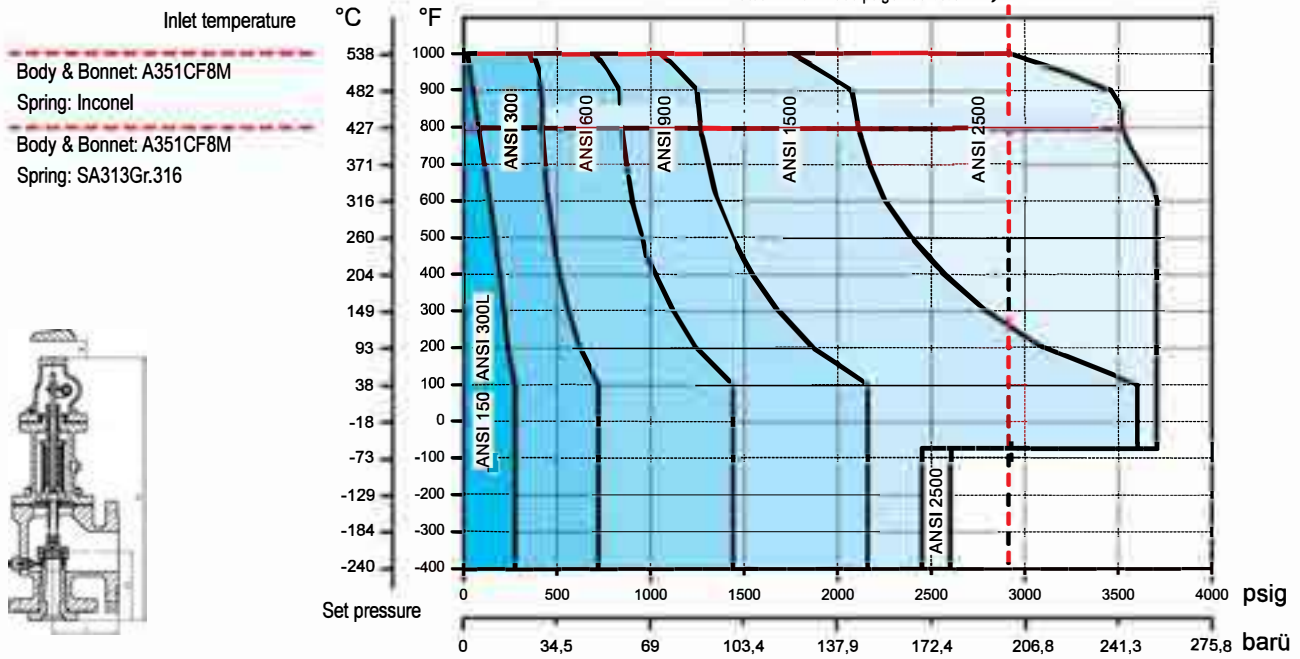
Center to face dimensions acc. to API 526.

Standard-flange dimensions refer to page 44.

Note

1. Valves set under 15 psig are not ASME code stamped.
2. Maximum I and I1 dimensions +/- 1/16-inch
3. API526 eliminated 2 1/2-inch flange sizes, however ARI will supply 2 1/2-inch flange sizes at no additional cost.
4. Outlet pressure limit for temperatures above 100°F shall not exceed the rating in ANSI/ASME B16.34





Specifications - Orifice G (effective area acc. to API: 0,503 in²)

Valve size	Material		Flangeconnection ANSI std. (RF or RTJ)		max. pressure rating limit										Dimensions				Weight
					Inlet flange								Outlet flange	Bellows seal	I	I1	Max. H	Min. X	
	Body & Bonnet	Spring	Inlet	Outlet	-400°F bis -76°F	-75°F bis -21°F	-20°F bis 100°F	450 °F	550 °F	800 °F	1000 °F	100 °F	100 °F	inch	inch	inch	inch	lbs	
inch			Class	Class	psig	psig	psig	psig	psig	psig	psig	psig	psig	inch	inch	inch	inch	lbs	
1.5 G 3	SA351CF8M	SA313Gr.316	150	150	275	275	275	180	155			275	230	4 3/4	4 7/8	20 3/4	10	46	
1.5 G 3	SA351CF8M	Inconel	150	150					155	80	20	275	230	4 3/4	4 7/8	20 3/4	10	46	
1.5 G 3	SA351CF8M	SA313Gr.316	300L	150	275	275	275	275	275			275	230	4 3/4	4 7/8	20 3/4	10	50	
1.5 G 3	SA351CF8M	Inconel	300L	150					275	275	275	275	230	4 3/4	4 7/8	20 3/4	10	50	
1.5 G 3	SA351CF8M	SA313Gr.316	300	150	720	720	720	495	465			275	230	6	4 7/8	20 3/4	10	55	
1.5 G 3	SA351CF8M	Inconel	300	150					465	420	350	275	230	6	4 7/8	20 3/4	10	55	
1.5 G 3	SA351CF8M	SA313Gr.316	600	150	1440	1440	1440	975	928			275	230	6	4 7/8	20 3/4	10	55	
1.5 G 3	SA351CF8M	Inconel	600	150					928	845	700	275	230	6	4 7/8	20 3/4	10	55	
1.5 G 3	SA351CF8M	SA313Gr.316	900	300	2160	2160	2160	1485	1395			720	500	6 1/2	4 7/8	21 3/4	10	67	
1.5 G 3	SA351CF8M	Inconel	900	300					1395	1265	1050	720	500	6 1/2	4 7/8	21 3/4	10	67	
2 G 3	SA351CF8M	SA313Gr.316	1500	300	2450	3600	3600	2480	2323			720	500	6 3/4	6 1/8	25 1/5	12	140	
2 G 3	SA351CF8M	Inconel	1500	300					2323	2110	1750	720	500	6 3/4	6 1/8	25 1/5	12	140	
2 G 3	SA351CF8M	SA313Gr.316	2500	300	2600	3705	3705	3705	3705			720	500	6 3/4	6 1/8	25 1/5	12	155	
2 G 3	SA351CF8M	Inconel	2500	300					3705	3520	2915	720	500	6 3/4	6 1/8	25 1/5	12	155	
Center to face dimensions acc. to API 526.														Standard-flange dimensions refer to page 44.					

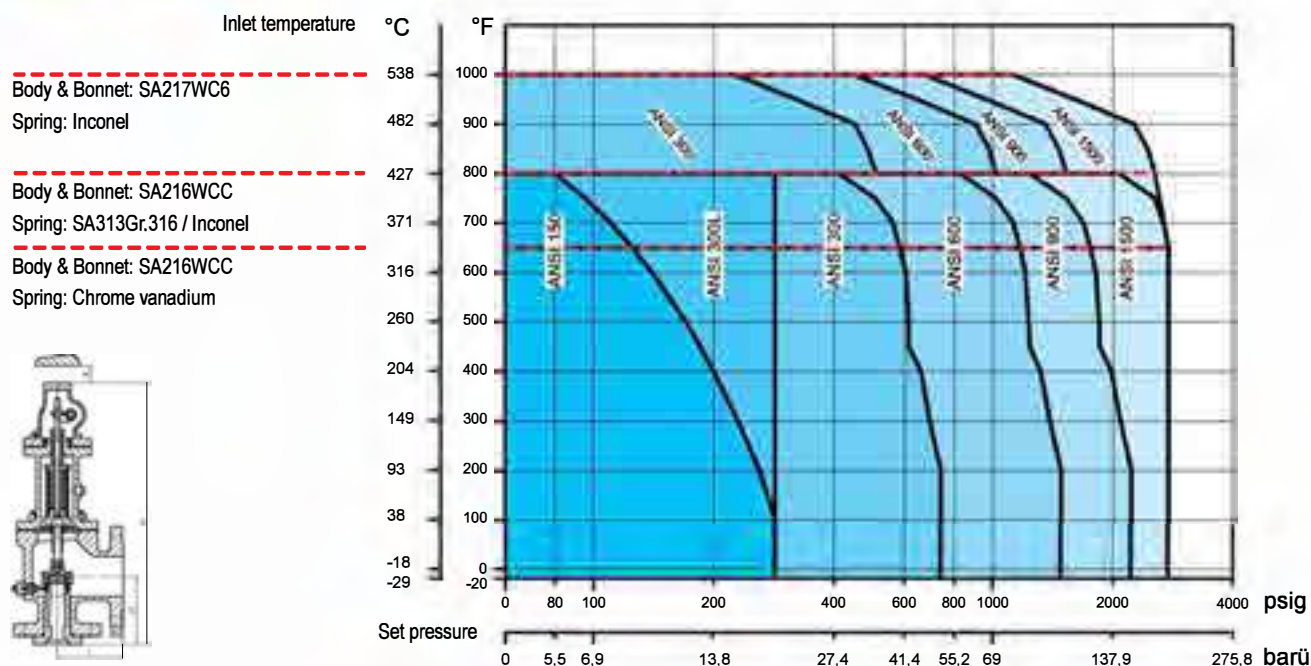
Center to face dimensions acc. to API 526.

Standard-flange dimensions refer to page 44.

Note

1. Valves set under 15 psig are not AS ME code stamped.
2. Maximum I and I1 dimensions +/- 1/16-inch
3. API526 eliminated 2 1/2-inch flange sizes, however ARI will supply 2 1/2-inch flange sizes at no additional cost.
4. Outlet pressure limit for temperatures above 100°F shall not exceed the rating in ANSI/ASME B16.34



Specifications - Orifice H (effective area acc. to API: 0,785 in²)

Valve size	Material		Flangeconnection ANSI std. (RF or RTJ)		max. pressure rating limit							Dimensions				Weight
					Inlet flange					Outlet flange	Bellows seal	I	I1	Max. H	Min. X	
	Body & Bonnet	Spring	Inlet Class	Outlet Class	100°F psig	450°F psig	650°F psig	800°F psig	1000°F psig	100°F psig	100°F psig	inch	inch	inch	inch	
1.5 H 3	SA216WCC	Chr. vanad.	150	150	285	185	125			285	230	4 7/8	5 1/8	21	10	50
1.5 H 3	SA216WCC	SA313Gr.316	150	150		185	125	80		285	230	4 7/8	5 1/8	21	10	50
1.5 H 3	SA216WCC	Inconel	150	150		185	125	80		285	230	4 7/8	5 1/8	21	10	50
1.5 H 3	SA216WCC	Chr. vanad.	300L	150	285	285	285			285	230	4 7/8	5 1/8	21	10	54
1.5 H 3	SA216WCC	SA313Gr.316	300L	150		285	285	285		285	230	4 7/8	5 1/8	21	10	54
1.5 H 3	SA216WCC	Inconel	300L	150		285	285	285		285	230	4 7/8	5 1/8	21	10	54
2 H 3	SA216WCC	Chr. vanad.	300	150	740	615	590			285	230	4 7/8	5 1/8	21	12	58
2 H 3	SA216WCC	SA313Gr.316	300	150		615	590	410		285	230	4 7/8	5 1/8	21	12	58
2 H 3	SA216WCC	Inconel	300	150		615	590	410		285	230	4 7/8	5 1/8	21	12	58
2 H 3	SA217WC6	Inconel	300	150				510	215	285	230	4 7/8	5 1/8	21	12	58
2 H 3	SA216WCC	Chr. vanad.	600	150	1480	1235	1175			285	230	6 3/8	6 1/16	25 1/2	12	120
2 H 3	SA216WCC	SA313Gr.316	600	150		1235	1175	825		285	230	6 3/8	6 1/16	25 1/2	12	120
2 H 3	SA216WCC	Inconel	600	150		1235	1175	825		285	230	6 3/8	6 1/16	25 1/2	12	120
2 H 3	SA217WC6	Inconel	600	150				1015	430	285	230	4 7/8	5 1/8	21	12	60
2 H 3	SA216WCC	Chr. vanad.	900	150	2220	1845	1765			285	230	6 3/8	6 1/16	25 1/2	12	135
2 H 3	SA216WCC	SA313Gr.316	900	150		1845	1765	1235		285	230	6 3/8	6 1/16	25 1/2	12	135
2 H 3	SA216WCC	Inconel	900	150		1845	1765	1235		285	230	6 3/8	6 1/16	25 1/2	12	135
2 H 3	SA217WC6	Inconel	900	150				1525	650	285	230	6 3/8	6 1/16	25 1/2	12	135
2 H 3	SA216WCC	Chr. vanad.	1500	300	2750	2750	2745			740	415	6 3/8	6 1/16	25 1/2	12	140
2 H 3	SA216WCC	SA313Gr.316	1500	300		2750	2745	2060		740	415	6 3/8	6 1/16	25 1/2	12	140
2 H 3	SA216WCC	Inconel	1500	300		2750	2745	2060		740	415	6 3/8	6 1/16	25 1/2	12	140
2 H 3	SA217WC6	Inconel	1500	300				2540	1080	740	415	6 3/8	6 1/16	25 1/2	12	140

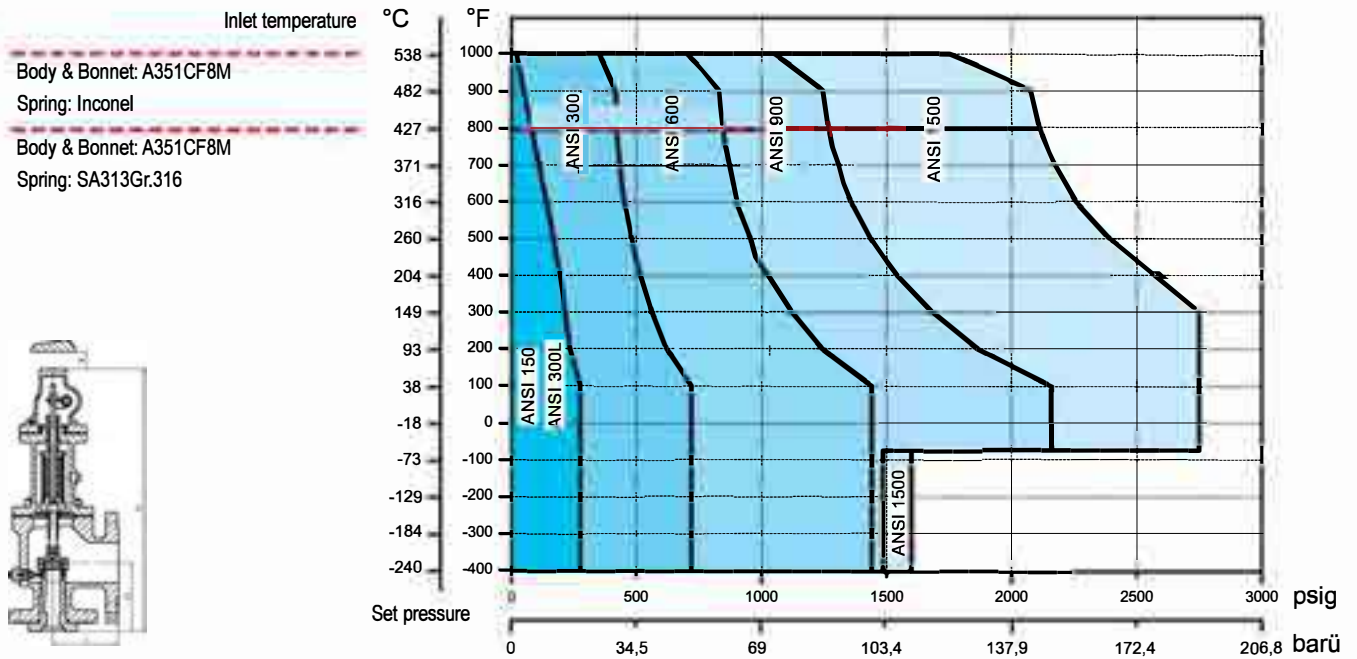
Center to face dimensions acc. to API 526.

Standard-flange dimensions refer to page 44.

Note

1. Valves set under 15 psig are not ASME code stamped.
2. Maximum I and I1 dimensions +/- 1/16-inch
3. Outlet pressure limit for temperatures above 100°F shall not exceed the rating in ANSI/ASME B16.34





Specifications - Orifice H (effective area acc. to API: 0,785 in²)

Valve size	Material		Flangeconnection ANSI std. (RF or RTJ)		max. pressure rating limit										Dimensions				Weight
					Inlet flange								Outlet flange	Bellows seal	I	I1	Max. H	Min. X	
	Body & Bonnet	Spring	Inlet	Outlet	-400°F bis -76°F	-75°F bis -21°F	-20°F bis 100°F	450 °F	550 °F	800 °F	1000 °F	100 °F	100 °F	inch	inch	inch	inch	lbs	
inch			Class	Class	psig	psig	psig	psig	psig	psig	psig	psig	psig	inch	inch	inch	inch	lbs	
1.5 H 3	SA351CF8M	SA313Gr.316	150	150	275	275	275	180	155			275	230	4 7/8	5 1/8	21	10	50	
1.5 H 3	SA351CF8M	Inconel	150	150					155	80	20	275	230	4 7/8	5 1/8	21	10	50	
1.5 H 3	SA351CF8M	SA313Gr.316	300L	150	275	275	275	275	275			275	230	4 7/8	5 1/8	21	10	54	
1.5 H 3	SA351CF8M	Inconel	300L	150					275	275	275	275	230	4 7/8	5 1/8	21	10	54	
2 H 3	SA351CF8M	SA313Gr.316	300	150	720	720	720	495	465			275	230	4 7/8	5 1/8	21	12	58	
2 H 3	SA351CF8M	Inconel	300	150					465	420	350	275	230	4 7/8	5 1/8	21	12	58	
2 H 3	SA351CF8M	SA313Gr.316	600	150	1440	1440	1440	975	928			275	230	6 3/8	6 1/16	25 1/2	12	120	
2 H 3	SA351CF8M	Inconel	600	150					928	845	700	275	230	6 3/8	6 1/16	25 1/2	12	120	
2 H 3	SA351CF8M	SA313Gr.316	900	150	1485	2160	2160	1485	1395			275	230	6 3/8	6 1/16	25 1/2	12	135	
2 H 3	SA351CF8M	Inconel	900	150					1395	1265	1050	275	230	6 3/8	6 1/16	25 1/2	12	135	
2 H 3	SA351CF8M	SA313Gr.316	1500	300	1600	2750	2750	2480	2323			600	415	6 3/8	6 1/16	25 1/2	12	140	
2 H 3	SA351CF8M	Inconel	1500	300					2323	2110	1750	600	415	6 3/8	6 1/16	25 1/2	12	140	
Center to face dimensions acc. to API 526.													Standard-flange dimensions refer to page 44.						

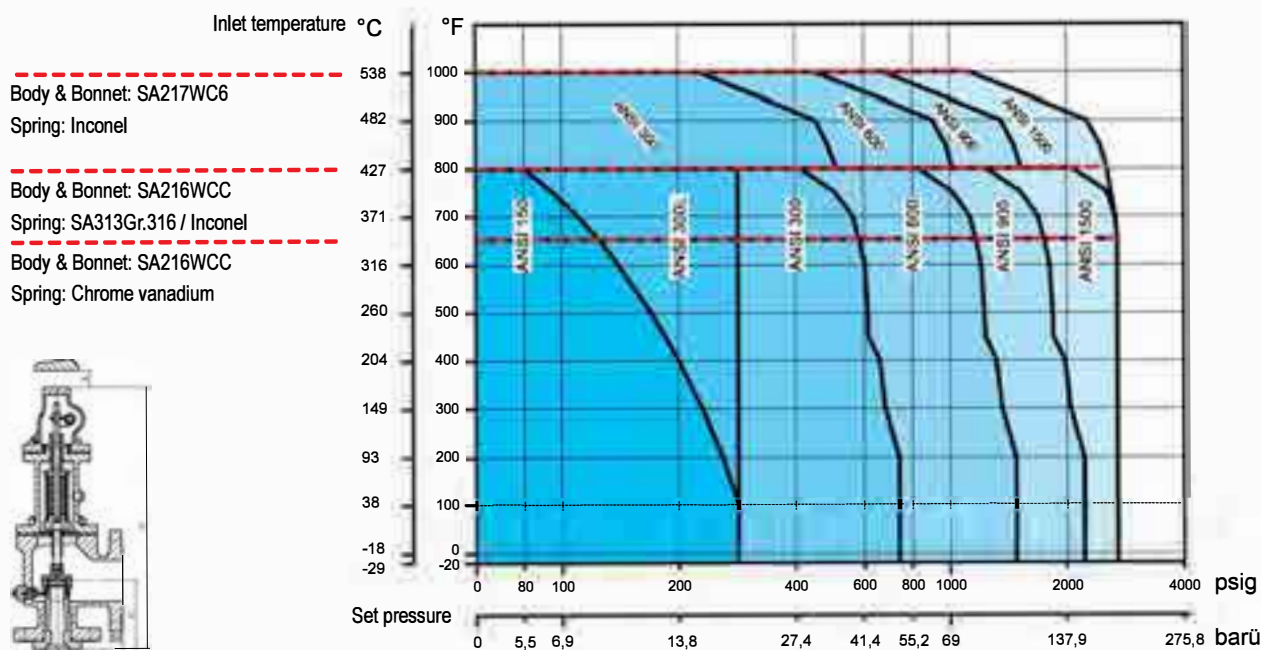
Center to face dimensions acc. to API 526.

Standard-flange dimensions refer to page 44.

Note

- Valves set under 15 psig are not ASME code stamped.
- Maximum I and I1 dimensions +/- 1/16-inch
- Outlet pressure limit for temperatures above 100°F shall not exceed the rating in ANSI/ASME B16.34



Specifications - Orifice J (effective area acc. to API: 1,287 in²)

Valve size	Material		Flangeconnection ANSI std. (RF or RTJ)		max. pressure rating limit							Dimensions				Weight
					Inlet flange					Outlet flange	Bellows seal	I	I1	Max. H	Min. X	
	Body & Bonnet	Spring	Inlet Class	Outlet Class	100°F psig	450°F psig	650°F psig	800°F psig	1000°F psig	100°F psig	100°F psig	inch	inch	inch	inch	
inch																
2 J 3	SA216WCC	Chr. vanad.	150	150	285	185	125			285	230	4 7/8	5 3/8	21 3/4	12	58
2 J 3	SA216WCC	SA313Gr.316	150	150		185	125	80		285	230	4 7/8	5 3/8	21 3/4	12	58
2 J 3	SA216WCC	Inconel	150	150		185	125	80		285	230	4 7/8	5 3/8	21 3/4	12	58
2 J 3	SA216WCC	Chr. vanad.	300L	150	285	285	285			285	230	4 7/8	5 3/8	21 3/4	12	62
2 J 3	SA216WCC	SA313Gr.316	300L	150		285	285	285		285	230	4 7/8	5 3/8	21 3/4	12	62
2 J 3	SA216WCC	Inconel	300L	150		285	285	285		285	230	4 7/8	5 3/8	21 3/4	12	62
3 J 4	SA216WCC	Chr. vanad.	300	150	740	615	590			285	230	7 1/8	7 1/4	22 3/4	14	76
3 J 4	SA216WCC	SA313Gr.316	300	150		615	590	410		285	230	7 1/8	7 1/4	22 3/4	14	76
3 J 4	SA216WCC	Inconel	300	150		615	590	410		285	230	7 1/8	7 1/4	22 3/4	14	76
3 J 4	SA217WC6	Inconel	300	150				510	215	285	230	7 1/8	7 1/4	22 3/4	14	76
3 J 4	SA216WCC	Chr. vanad.	600	150	1480	1235	1175			285	230	7 1/8	7 1/4	30 1/2	14	205
3 J 4	SA216WCC	SA313Gr.316	600	150		1235	1175	825		285	230	7 1/8	7 1/4	30 1/2	14	205
3 J 4	SA216WCC	Inconel	600	150		1235	1175	825		285	230	7 1/8	7 1/4	30 1/2	14	205
3 J 4	SA217WC6	Inconel	600	150				1015	430	285	230	7 1/8	7 1/4	30 1/2	14	205
3 J 4	SA216WCC	Chr. vanad.	900	150	2220	1845	1765			285	230	7 1/8	7 1/4	30 1/2	14	205
3 J 4	SA216WCC	SA313Gr.316	900	150		1845	1765	1235		285	230	7 1/8	7 1/4	30 1/2	14	205
3 J 4	SA216WCC	Inconel	900	150		1845	1765	1235		285	230	7 1/8	7 1/4	30 1/2	14	205
3 J 4	SA217WC6	Inconel	900	150				1525	650	285	230	7 1/8	7 1/4	30 1/2	14	205
3 J 4	SA216WCC	Chr. vanad.	1500	300	2700	2700				600	230	7 1/8	7 1/4	30 1/2	14	235
3 J 4	SA216WCC	SA313Gr.316	1500	300		2700	2700	2060		600	230	7 1/8	7 1/4	30 1/2	14	235
3 J 4	SA216WCC	Inconel	1500	300		2700	2700	2060		600	230	7 1/8	7 1/4	30 1/2	14	235
3 J 4	SA217WC6	Inconel	1500	300				2540	1080	600	230	7 1/8	7 1/4	30 1/2	14	235
Center to face dimensions acc. to API 526.																
Standard-flange dimensions refer to page 44.																

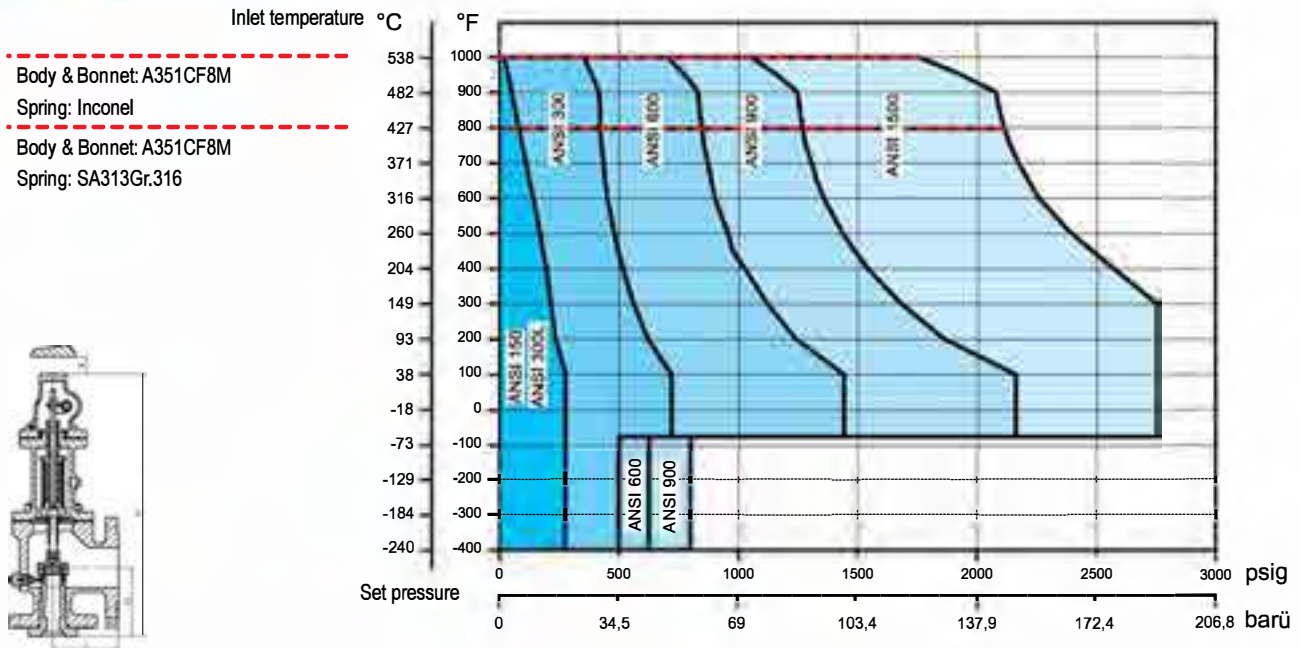
Center to face dimensions acc. to API 526.

Standard-flange dimensions refer to page 44.

Note

- Valves set under 15 psig are not ASME code stamped.
- Maximum I and I1 dimensions +/- 1/16-inch
- API526 eliminated 2 1/2-inch flange sizes, however ARI will supply 2 1/2-inch flange sizes at no additional cost.
- Outlet pressure limit for temperatures above 100°F shall not exceed the rating in ANSI/ASME B16.34



Specifications - Orifice J (effective area acc. to API: 1,287 in²)

Valve size	Material		Flangeconnection ANSI std. (RF or RTJ)		max. pressure rating limit										Dimensions				Weight
					Inlet flange								Outlet flange	Bellows seal	I	I1	Max. H	Min. X	
	Body & Bonnet	Spring	Inlet Class	Outlet Class	-400°F bis -76°F	-75°F bis -21°F	-20°F bis 100°F	450 °F	550 °F	800 °F	1000 °F	100 °F	100 °F		inch	inch	inch	inch	
2 J 3	SA351CF8M	SA313Gr.316	150	150	275	275	275	180	155			275	230		4 7/8	5 3/8	21 3/4	12	58
2 J 3	SA351CF8M	Inconel	150	150					155	80	20	275	230		4 7/8	5 3/8	21 3/4	12	58
2 J 3	SA351CF8M	SA313Gr.316	300L	150	275	275	275	275	275			275	230		4 7/8	5 3/8	21 3/4	12	62
2 J 3	SA351CF8M	Inconel	300L	150					275	275	275	275	230		4 7/8	5 3/8	21 3/4	12	62
3 J 4	SA351CF8M	SA313Gr.316	300	150	500	720	720	495	465			275	230		7 1/8	7 1/4	22 3/4	14	76
3 J 4	SA351CF8M	Inconel	300	150					465	420	350	275	230		7 1/8	7 1/4	22 3/4	14	76
3 J 4	SA351CF8M	SA313Gr.316	600	150	625	1440	1440	975	928			275	230		7 1/8	7 1/4	30 1/2	14	205
3 J 4	SA351CF8M	Inconel	600	150					928	845	700	275	230		7 1/8	7 1/4	30 1/2	14	205
3 J 4	SA351CF8M	SA313Gr.316	900	150	800	2160	2160	1485	1395			275	230		7 1/8	7 1/4	30 1/2	14	205
3 J 4	SA351CF8M	Inconel	900	150					1395	1265	1050	275	230		7 1/8	7 1/4	30 1/2	14	205
3 J 4	SA351CF8M	SA313Gr.316	1500	300	800	2750	2750	2480	2323			600	230		7 1/8	7 1/4	30 1/2	14	235
3 J 4	SA351CF8M	Inconel	1500	300					2323	2110	1750	600	230		7 1/8	7 1/4	30 1/2	14	235

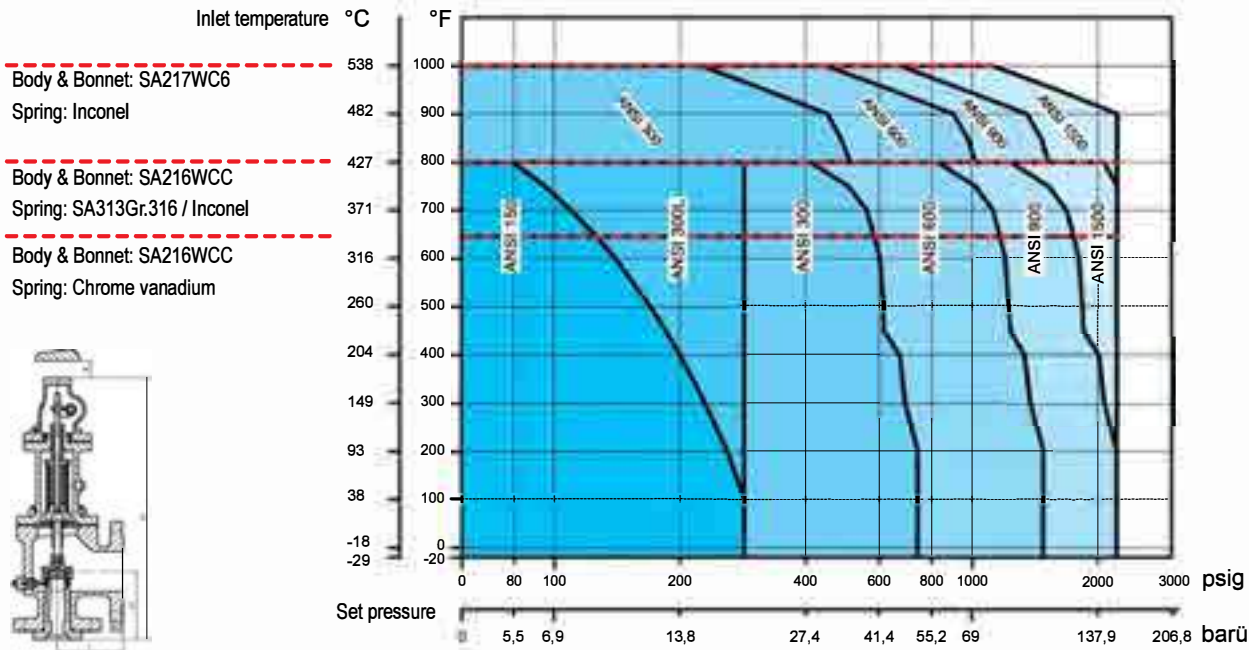
Center to face dimensions acc. to API 526.

Standard-flange dimensions refer to page 44.

Note

- Valves set under 15 psig are not ASME code stamped.
- Maximum I and I1 dimensions +/- 1/16-inch
- API526 eliminated 2 1/2-inch flange sizes, however ARI will supply 2 1/2-inch flange sizes at no additional cost.
- Outlet pressure limit for temperatures above 100°F shall not exceed the rating in ANSI/ASME B16.34



Specifications - Orifice K (effective area acc. to API: 1,838 in²)

Valve size	Material		Flangeconnection ANSI std. (RF or RTJ)		max. pressure rating limit							Dimensions				Weight
					Inlet flange					Outlet flange	Bellows seal	I	I1	Max. H	Min. X	
	Body & Bonnet	Spring	Inlet Class	Outlet Class	100°F psig	450°F psig	650°F psig	800°F psig	1000°F psig	100°F psig	100°F psig	inch	inch	inch	inch	
3 K 4	SA216WCC	Chr. vanad.	150	150	285	185	125			285	150	6 3/8	6 1/8	26 1/2	14	120
3 K 4	SA216WCC	SA313Gr.316	150	150		185	125	80		285	150	6 3/8	6 1/8	26 1/2	14	120
3 K 4	SA216WCC	Inconel	150	150		185	125	80		285	150	6 3/8	6 1/8	26 1/2	14	120
3 K 4	SA216WCC	Chr. vanad.	300L	150	285	285	285			285	150	6 3/8	6 1/8	26 1/2	14	130
3 K 4	SA216WCC	SA313Gr.316	300L	150		285	285	285		285	150	6 3/8	6 1/8	26 1/2	14	130
3 K 4	SA216WCC	Inconel	300L	150		285	285	285		285	150	6 3/8	6 1/8	26 1/2	14	130
3 K 4	SA216WCC	Chr. vanad.	300	150	740	615	590			285	150	6 3/8	6 1/8	26 1/2	14	135
3 K 4	SA216WCC	SA313Gr.316	300	150		615	590	410		285	150	6 3/8	6 1/8	26 1/2	14	135
3 K 4	SA216WCC	Inconel	300	150		615	590	410		285	150	6 3/8	6 1/8	26 1/2	14	135
3 K 4	SA217WC6	Inconel	300	150				510	215	285	150	6 3/8	6 1/8	26 1/2	14	135
3 K 4	SA216WCC	Chr. vanad.	600	150	1480	1235	1175			285	200	7 1/8	7 1/4	30 1/2	14	185
3 K 4	SA216WCC	SA313Gr.316	600	150		1235	1175	825		285	200	7 1/8	7 1/4	30 1/2	14	185
3 K 4	SA216WCC	Inconel	600	150		1235	1175	825		285	200	7 1/8	7 1/4	30 1/2	14	185
3 K 4	SA217WC6	Inconel	600	150				1015	430	285	200	7 1/8	7 1/4	26 1/2	14	135
3 K 6	SA216WCC	Chr. vanad.	900	150	2220	1845	1765			285	200	8 1/2	7 13/16	34 1/4	20	215
3 K 6	SA216WCC	SA313Gr.316	900	150		1845	1765	1235		285	200	8 1/2	7 13/16	34 1/4	20	215
3 K 6	SA216WCC	Inconel	900	150		1845	1765	1235		285	200	8 1/2	7 13/16	34 1/4	20	215
3 K 6	SA217WC6	Inconel	900	150				1525	650	285	230	8 1/2	7 13/16	30 1/2	20	185
3 K 6	SA216WCC	Chr. vanad.	1500	300	2220	2220	2220			600	200	8 1/2	7 3/4	34 1/4	20	255
3 K 6	SA216WCC	SA313Gr.316	1500	300		2220	2220	2060		600	200	8 1/2	7 3/4	34 1/4	20	255
3 K 6	SA216WCC	Inconel	1500	300		2220	2220	2060		600	200	8 1/2	7 3/4	34 1/4	20	255
3 K 6	SA217WC6	Inconel	1500	300				2220	1080	600	230	8 1/2	7 3/4	34 1/4	20	255
Center to face dimensions acc. to API 526.												Standard-flange dimensions refer to page 44.				

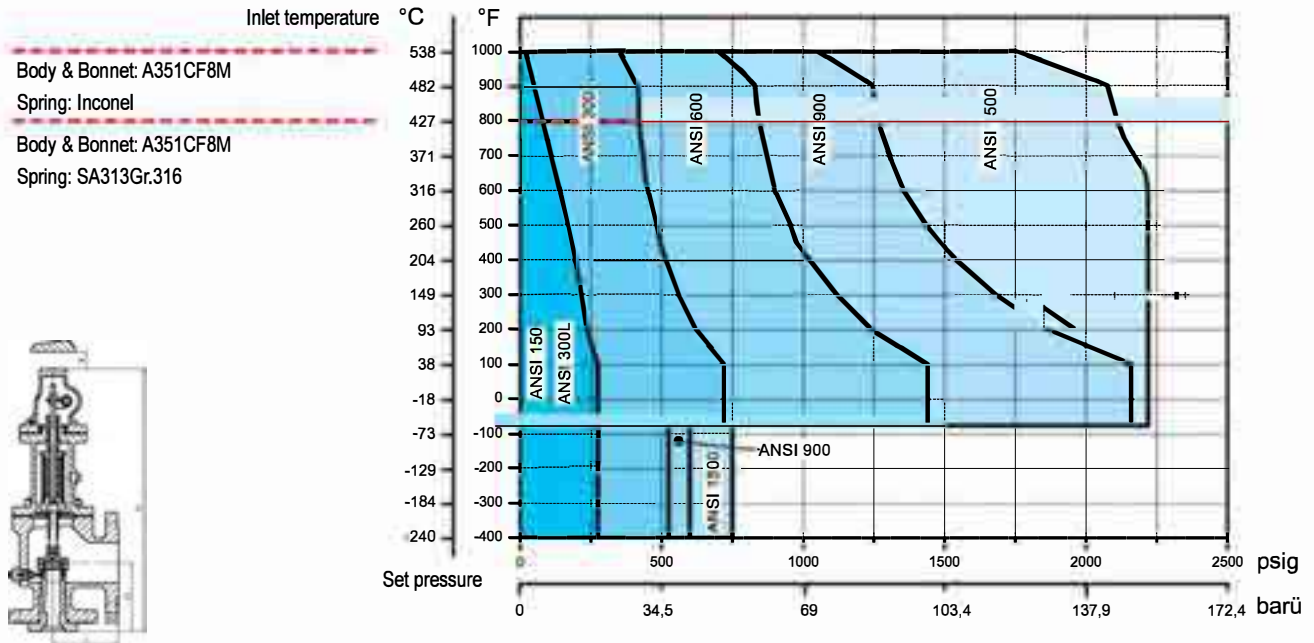
Center to face dimensions acc. to API 526.

Standard-flange dimensions refer to page 44.

Note

1. Valves set under 15 psig are not ASME code stamped.
2. Maximum I and I1 dimensions +/- 1/16-inch
3. API526 eliminated 2 1/2-inch flange sizes, however ARI will supply 2 1/2-inch flange sizes at no additional cost.
4. Outlet pressure limit for temperatures above 100°F shall not exceed the rating in ANSI/ASME B16.34





Specifications - Orifice K (effective area acc. to API: 1,838 in²)

Valve size	Material		Flangeconnection ANSI std. (RF or RTJ)		max. pressure rating limit										Dimensions				Weight
					Inlet flange								Outlet flange	Bellows seal	I	I1	Max. H	Min. X	
	Body & Bonnet	Spring	Inlet	Outlet	-400°F bis -76°F	-75°F bis -21°F	-20°F bis 100°F	450 °F	550 °F	800 °F	1000 °F	100 °F							
	inch			Class	Class	psig	psig	psig	psig	psig	psig	psig	psig	psig	inch	inch	inch	inch	
3 K 4	SA351CF8M	SA313Gr.316	150	150	275	275	275	180	155			275	230	6 3/8	6 1/8	26 1/2	14	120	
3 K 4	SA351CF8M	Inconel	150	150					155	80	20	275	230	6 3/8	6 1/8	26 1/2	14	120	
3 K 4	SA351CF8M	SA313Gr.316	300L	150	275	275	275	275	275			275	230	6 3/8	6 1/8	26 1/2	14	130	
3 K 4	SA351CF8M	Inconel	300L	150					275	275	275	275	230	6 3/8	6 1/8	26 1/2	14	130	
3 K 4	SA351CF8M	SA313Gr.316	300	150	525	720	720	495	465			275	230	6 3/8	6 1/8	26 1/2	14	135	
3 K 4	SA351CF8M	Inconel	300	150					465	420	350	275	230	6 3/8	6 1/8	26 1/2	14	135	
3 K 4	SA351CF8M	SA313Gr.316	600	150	600	1440	1440	975	928			275	230	7 1/8	7 1/4	30 1/2	14	185	
3 K 4	SA351CF8M	Inconel	600	150					928	845	700	275	230	7 1/8	7 1/4	30 1/2	14	185	
3 K 6	SA351CF8M	SA313Gr.316	900	150	600	2160	2160	1485	1395			275	230	8 1/2	7 13/16	34 1/4	20	215	
3 K 6	SA351CF8M	Inconel	900	150					1395	1265	1050	275	230	8 1/2	7 13/16	34 1/4	20	215	
3 K 6	SA351CF8M	SA313Gr.316	1500	300	750	2220	2220	2220	2220			600	230	8 1/2	7 3/4	34 1/4	20	255	
3 K 6	SA351CF8M	Inconel	1500	300					2220	2110	1750	600	230	8 1/2	7 3/4	34 1/4	20	255	

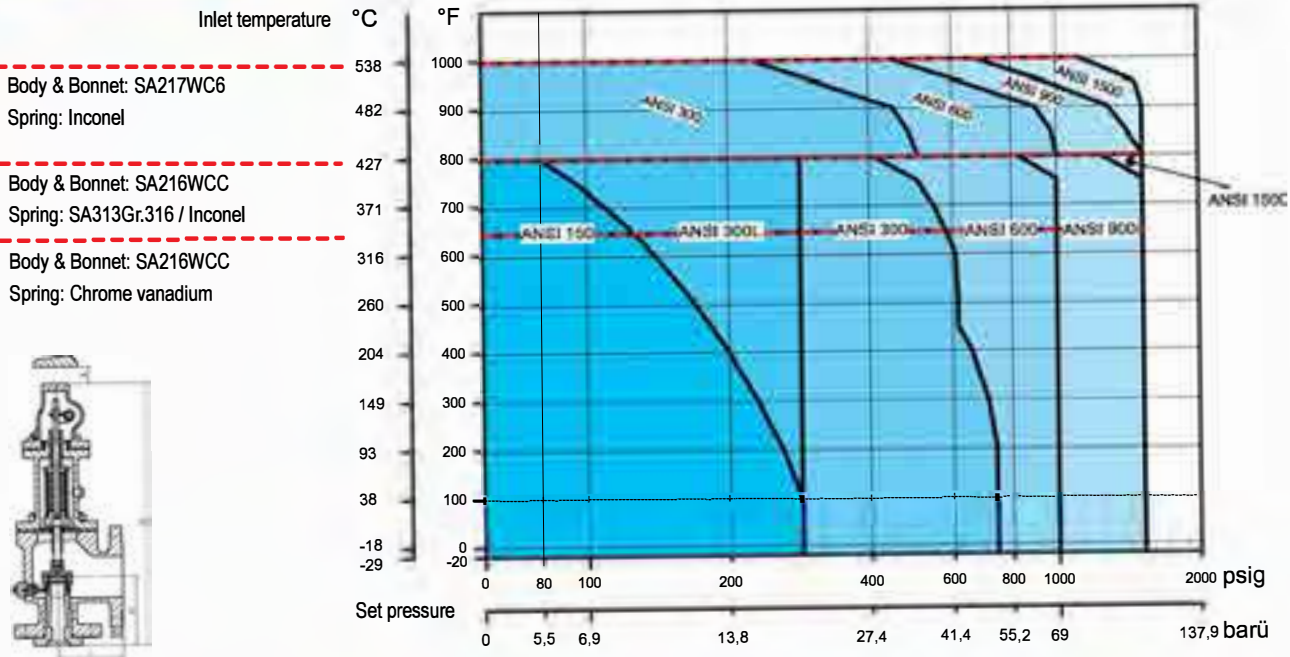
Center to face dimensions acc. to API 526.

Standard-flange dimensions refer to page 44.

Note

1. Valves set under 15 psig are not ASME code stamped.
2. Maximum I and I1 dimensions +/- 1/16-inch
3. API526 eliminated 2 1/2-inch flange sizes, however ARI will supply 2 1/2-inch flange sizes at no additional cost.
4. Outlet pressure limit for temperatures above 100°F shall not exceed the rating in ANSI/ASME B16.34



Specifications - Orifice L (effective area acc. to API: 2,853 in²)

Valve size	Material		Flangeconnection ANSI std. (RF or RTJ)		max. pressure rating limit							Dimensions				Weight
					Inlet flange					Outlet flange	Bellows seal	I	I1	Max. H	Min. X	
	Body & Bonnet	Spring	Inlet Class	Outlet Class	100°F psig	450°F psig	650°F psig	800°F psig	1000°F psig	100°F psig	100°F psig	inch	inch	inch	inch	
3 L 4	SA216WCC	Chr. vanad.	150	150	285	185	125			285	100	6 1/2	6 1/8	26 1/2	14	130
3 L 4	SA216WCC	SA313Gr.316	150	150		185	125	80		285	100	6 1/2	6 1/8	26 1/2	14	130
3 L 4	SA216WCC	Inconel	150	150		185	125	80		285	100	6 1/2	6 1/8	26 1/2	14	130
3 L 4	SA216WCC	Chr. vanad.	300L	150	285	285	285			285	100	6 1/2	6 1/8	26 1/2	14	140
3 L 4	SA216WCC	SA313Gr.316	300L	150			285	285		285	100	6 1/2	6 1/8	26 1/2	14	140
3 L 4	SA216WCC	Inconel	300L	150		285	285	285		285	100	6 1/2	6 1/8	26 1/2	14	140
4 L 6	SA216WCC	Chr. vanad.	300	150	740	615	590			285	170	7 1/8	7 1/16	30 1/4	20	200
4 L 6	SA216WCC	SA313Gr.316	300	150		615	590	410		285	170	7 1/8	7 1/16	30 1/4	20	200
4 L 6	SA216WCC	Inconel	300	150		615	590	410		285	170	7 1/8	7 1/16	30 1/4	20	200
4 L 6	SA217WC6	Inconel	300	150				510	215	285	170	7 1/8	7 1/16	30 1/4	20	200
4 L 6	SA216WCC	Chr. vanad.	600	150	1000	1000	1000			285	170	8	7 1/16	30 1/4	20	220
4 L 6	SA216WCC	SA313Gr.316	600	150		1000	1000	825		285	170	8	7 1/16	30 1/4	20	220
4 L 6	SA216WCC	Inconel	600	150		1000	1000	825		285	170	8	7 1/16	30 1/4	20	220
4 L 6	SA217WC6	Inconel	600	150				1000	430	285	170	8	7 1/16	30 1/4	20	220
4 L 6	SA216WCC	Chr. vanad.	900	150	1500	1500	1500			285	170	8 3/4	7 3/4	34 1/4	20	250
4 L 6	SA216WCC	SA313Gr.316	900	150		1500	1500	1235		285	170	8 3/4	7 3/4	34 1/4	20	250
4 L 6	SA216WCC	Inconel	900	150		1500	1500	1235		285	170	8 3/4	7 3/4	34 1/4	20	250
4 L 6	SA217WC6	Inconel	900	150				1500	650	285	170	8 3/4	7 3/4	34 1/4	20	250
4 L 6	SA216WCC	Inconel	1500	150		1500	1500	1500		285	170	8 3/4	7 3/4	34 1/4	20	270
4 L 6	SA216WCC	SA313Gr.316	1500	150		1500	1500	1500		285	170	8 3/4	7 3/4	34 1/4	20	270
4 L 6	SA217WC6	Inconel	1500	150				1500	1080	600	170	8 3/4	7 3/4	34 1/4	20	270

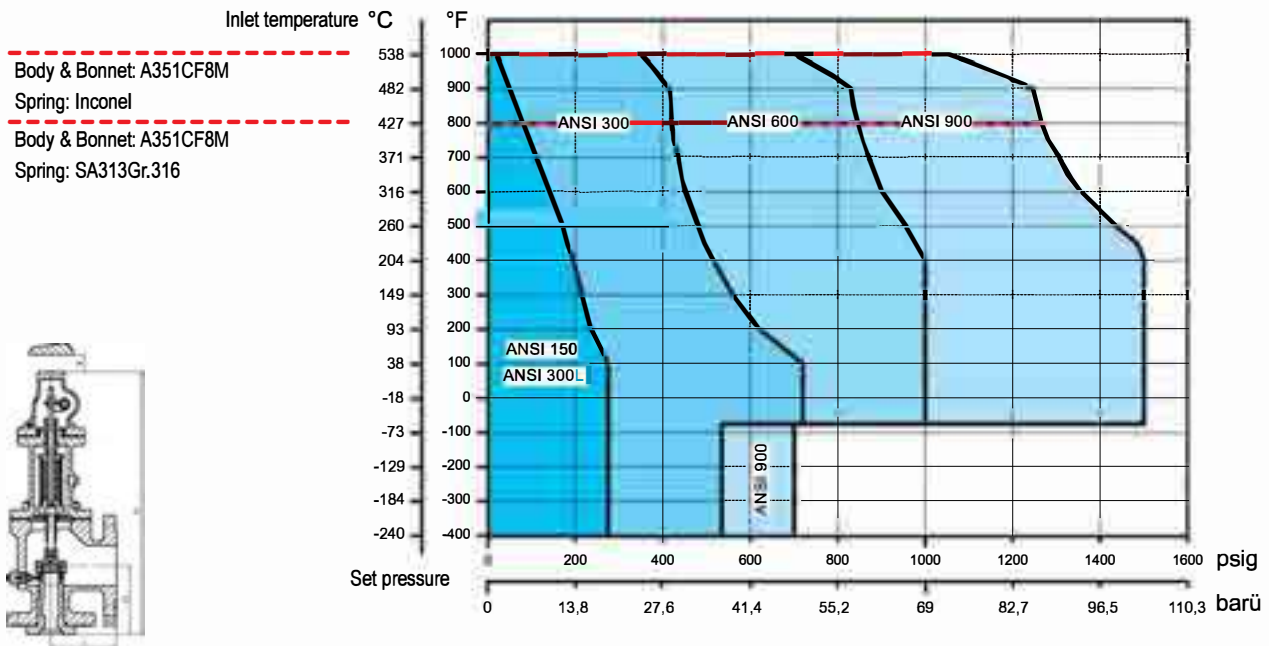
Center to face dimensions acc. to API 526.

Standard-flange dimensions refer to page 44.

Note

1. Valves set under 15 psig are not ASME code stamped.
2. Maximum I and I1 dimensions +/- 1/16-inch
3. Outlet pressure limit for temperatures above 100°F shall not exceed the rating in ANSI/ASME B16.34





Specifications - Orifice L (effective area acc. to API: 2,853 in²)

Valve size	Material		Flangeconnection ANSI std. (RF or RTJ)		max. pressure rating limit										Dimensions					Weight
					Inlet flange								Outlet flange	Bellows seal	I	I1	Max. H	Min. X		
	Body & Bonnet	Spring	Inlet	Outlet	-400°F bis -76°F	-75°F bis -21°F	-20°F bis 100°F	450 °F	550 °F	800 °F	1000 °F	100 °F	100 °F	inch	inch	inch	inch	lbs		
inch			Class	Class	psig	psig	psig	psig	psig	psig	psig	psig	psig	inch	inch	inch	inch	lbs		
3 L 4	SA351CF8M	SA313Gr.316	150	150	275	275	275	180	155			275	100	6 1/2	6 1/8	26 1/2	14	130		
3 L 4	SA351CF8M	Inconel	150	150					155	80	20	275	100	6 1/2	6 1/8	26 1/2	14	130		
3 L 4	SA351CF8M	SA313Gr.316	300L	150	275	275	275	275	275			275	100	6 1/2	6 1/8	26 1/2	14	140		
3 L 4	SA351CF8M	Inconel	300L	150					275	275	275	275	100	6 1/2	6 1/8	26 1/2	14	140		
4 L 6	SA351CF8M	SA313Gr.316	300	150	535	720	720	495	465			275	170	7 1/8	7 1/16	30 1/4	20	200		
4 L 6	SA351CF8M	Inconel	300	150					465	420	350	275	170	7 1/8	7 1/16	30 1/4	20	200		
4 L 6	SA351CF8M	SA313Gr.316	600	150	535	1000	1000	975	928			275	170	8	7 1/16	30 1/4	20	220		
4 L 6	SA351CF8M	Inconel	600	150					928	835	700	275	170	8	7 1/16	30 1/4	20	220		
4 L 6	SA351CF8M	SA313Gr.316	900	150	700	1500	1500	1485	1395			275	170	8 3/4	7 3/4	34 1/4	20	250		
4 L 6	SA351CF8M	Inconel	900	150					1395	1265	1050	275	170	8 3/4	7 3/4	34 1/4	20	250		
Center to face dimensions acc. to API 526.														Standard-flange dimensions refer to page 44.						

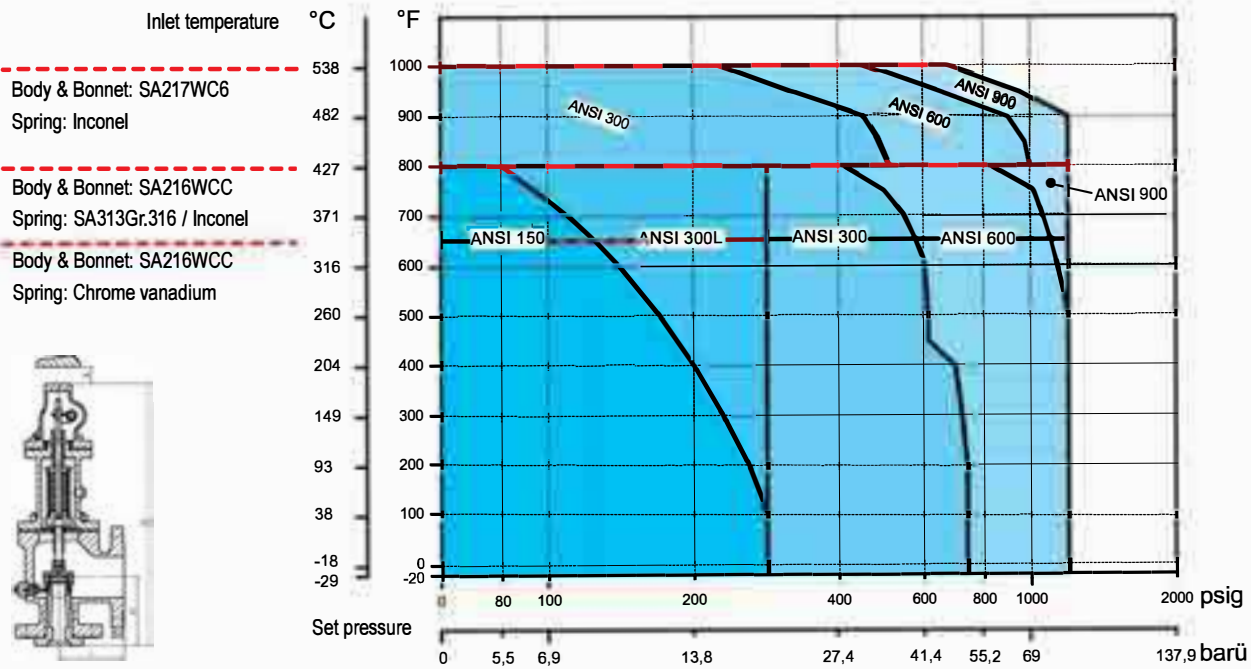
Center to face dimensions acc. to API 526.

Standard-flange dimensions refer to page 44.

Note

- Valves set under 15 psig are not ASME code stamped.
- Maximum I and I1 dimensions +/- 1/16-inch
- Outlet pressure limit for temperatures above 100°F shall not exceed the rating in ANSI/ASME B16.34



Specifications - Orifice M (effective area acc. to API: 3,60 in²)

Valve size	Material		Flangeconnection ANSI std. (RF or RTJ)		max. pressure rating limit							Dimensions				Weight
					Inlet flange					Outlet flange	Bellows seal	I	I1	Max. H	Min. X	
	Body & Bonnet	Spring	Inlet Class	Outlet Class	100°F psig	450°F psig	650°F psig	800°F psig	1000°F psig	100°F psig	100°F psig	inch	inch	inch	inch	
4 M 6	SA216WCC	Chr. vanad.	150	150	285	185	125			285	80	7 1/4	7	30 1/4	20	190
4 M 6	SA216WCC	SA313Gr.316	150	150		185	125	80		285	80	7 1/4	7	30 1/4	20	190
4 M 6	SA216WCC	Inconel	150	150		185	125	80		285	80	7 1/4	7	30 1/4	20	190
4 M 6	SA216WCC	Chr. vanad.	300L	150	285	285	285			285	80	7 1/4	7	30 1/4	20	200
4 M 6	SA216WCC	SA313Gr.316	300L	150		285	285	285		285	80	7 1/4	7	30 1/4	20	200
4 M 6	SA216WCC	Inconel	300L	150		285	285	285		285	80	7 1/4	7	30 1/4	20	200
4 M 6	SA216WCC	Chr. vanad.	300	150	740	615	590			285	160	7 1/4	7	30 1/4	20	205
4 M 6	SA216WCC	SA313Gr.316	300	150		615	590	410		285	160	7 1/4	7	30 1/4	20	205
4 M 6	SA216WCC	Inconel	300	150		615	590	410		285	160	7 1/4	7	30 1/4	20	205
4 M 6	SA217WC6	Inconel	300	150				510	215	285	160	7 1/4	7	30 1/4	20	205
4 M 6	SA216WCC	Chr. vanad.	600	150	1100	1100	1100			285	160	8	7	33 3/4	20	230
4 M 6	SA216WCC	SA313Gr.316	600	150		1100	1100	825		285	160	8	7	33 3/4	20	230
4 M 6	SA216WCC	Inconel	600	150		1100	1100	825		285	160	8	7	33 3/4	20	230
4 M 6	SA217WC6	Inconel	600	150				1000	430	285	160	8	7	33 3/4	20	230
4 M 6	SA216WCC	Inconel	900	150		1100	1100			285	160	8 3/4	7 3/4	34 1/4	20	260
4 M 6	SA216WCC	SA313Gr.316	900	150		1100	1100	1100	650	285	160	8 3/4	7 3/4	34 1/4	20	260
4 M 6	SA217WC6	Inconel	900	150				1100	650	285	160	8 3/4	7 3/4	34 1/4	20	260
Center to face dimensions acc. to API 526.												Standard-flange dimensions refer to page 44.				

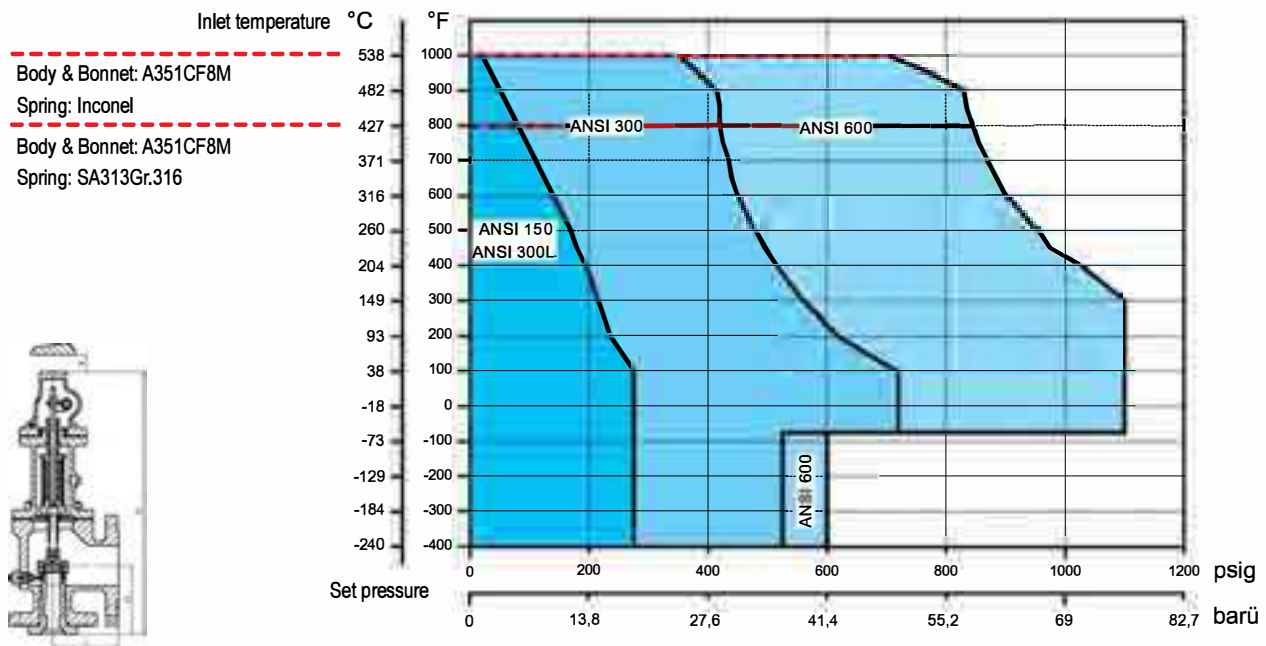
Center to face dimensions acc. to API 526.

Standard-flange dimensions refer to page 44.

Note

- Valves set under 15 psig are not ASME code stamped.
- Maximum I and I1 dimensions +/- 1/16-inch
- Outlet pressure limit for temperatures above 100°F shall not exceed the rating in ANSI/ASME B16.34





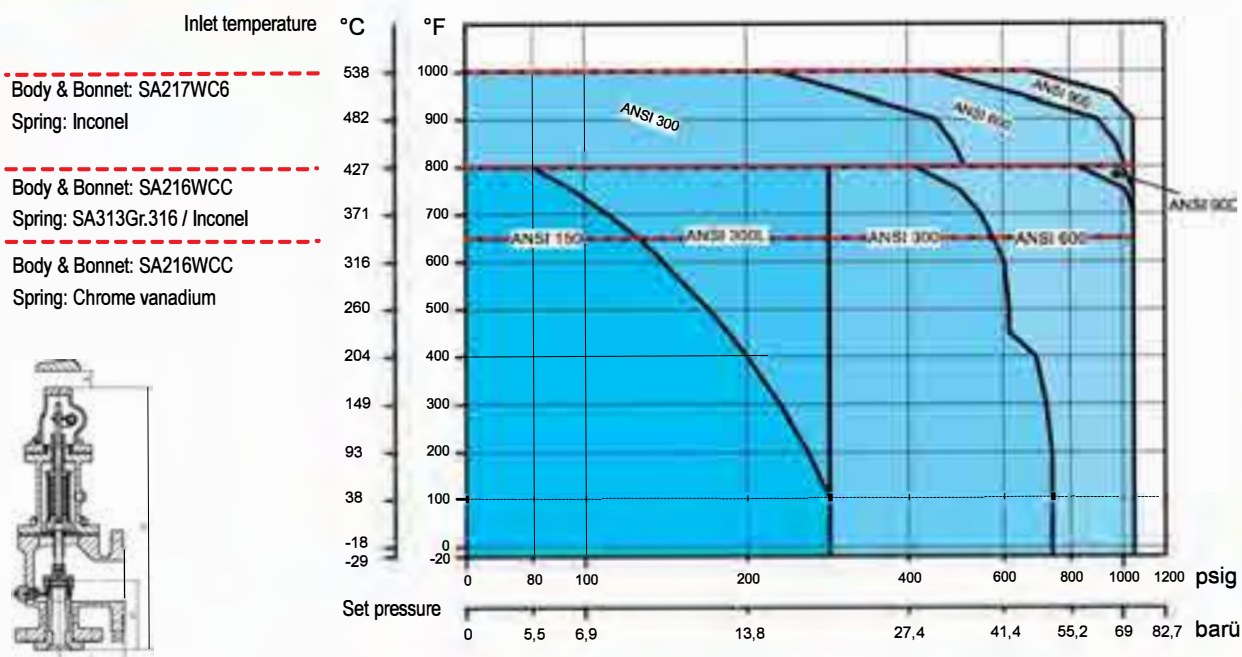
Specifications - Orifice M (effective area acc. to API: 3,60 in²)

Valve size	Material		Flangeconnection ANSI std. (RF or RTJ)		max. pressure rating limit								Dimensions					Weight
					Inlet flange				Outlet flange	Bellows seal	I	I1	Max. H	Min. X				
	Body & Bonnet	Spring	Inlet	Outlet	-400°F bis -76°F	-75°F bis -21°F	-20°F bis 100°F	450 °F	550 °F	800 °F	1000 °F	100 °F	100 °F	I	I1	Max. H	Min. X	
inch			Class	Class	psig	psig	psig	psig	psig	psig	psig	psig	psig	inch	inch	inch	inch	lbs
4 M 6	SA351CF8M	SA313Gr.316	150	150	275	275	275	180	155			275	80	7 1/4	7	30 1/4	20	190
4 M 6	SA351CF8M	Inconel	150	150					155	80	20	275	80	7 1/4	7	30 1/4	20	190
4 M 6	SA351CF8M	SA313Gr.316	300L	150	275	275	275	275	275			275	160	7 1/4	7	30 1/4	20	200
4 M 6	SA351CF8M	Inconel	300L	150					275	275	275	275	160	7 1/4	7	30 1/4	20	200
4 M 6	SA351CF8M	SA313Gr.316	300	150	525	720	720	495	465			275	160	7 1/4	7	30 1/4	20	205
4 M 6	SA351CF8M	Inconel	300	150					465	420	350	275	160	7 1/4	7	30 1/4	20	205
4 M 6	SA351CF8M	SA313Gr.316	600	150	600	1100	1100	975	928			275	160	8	7	33 3/4	20	230
4 M 6	SA351CF8M	Inconel	600	150					928	845	700	275	160	8	7	33 3/4	20	230
Center to face dimensions acc. to API 526.													Standard-flange dimensions refer to page 44.					

Note

1. Valves set under 15 psig are not ASME code stamped.
2. Maximum I and I1 dimensions +/- 1/16-inch
3. Outlet pressure limit for temperatures above 100°F shall not exceed the rating in ANSI/ASMEB16.34



Specifications - Orifice N (effective area acc. to API: 4,34 in²)

Specifications - Orifice N (Effective area acc. to API 4, 5 & 11)																
Valve size	Material		Flangeconnection ANSI std. (RF or RTJ)	max. pressure rating limit								Dimensions				Weight
				Inlet flange						Outlet flange	Bellows seal	I	I1	Max. H	Min. X	
	Body & Bonnet	Spring	Inlet Class	Outlet Class	100°F psig	450°F psig	650°F psig	800°F psig	1000°F psig	100°F psig	100°F psig	inch	inch	inch	inch	
4 N 6	SA216WCC	Chr. vanad.	150	150	285	185	125			285	80	8 1/4	7 3/4	31 1/2	20	200
4 N 6	SA216WCC	SA313Gr.316	150	150		185	125	80		285	80	8 1/4	7 3/4	31 1/2	20	200
4 N 6	SA216WCC	Inconel	150	150		185	125	80		285	80	8 1/4	7 3/4	31 1/2	20	200
4 N 6	SA216WCC	Chr. vanad.	300L	150	285	285	285			285	160	8 1/4	7 3/4	31 1/2	20	200
4 N 6	SA216WCC	SA313Gr.316	300L	150		285	285	285		285	160	8 1/4	7 3/4	31 1/2	20	200
4 N 6	SA216WCC	Inconel	300L	150		285	285	285		285	160	8 1/4	7 3/4	31 1/2	20	200
4 N 6	SA216WCC	Chr. vanad.	300	150	740	615	590			285	160	8 1/4	7 3/4	35	20	230
4 N 6	SA216WCC	SA313Gr.316	300	150		615	590	410		285	160	8 1/4	7 3/4	35	20	230
4 N 6	SA216WCC	Inconel	300	150		615	590	410		285	160	8 1/4	7 3/4	35	20	230
4 N 6	SA217WC6	Inconel	300	150				510	215	285	160	8 1/4	7 3/4	31 1/2	20	215
4 N 6	SA216WCC	Chr. vanad.	600	150	1000	1000	1000			285	160	8 3/4	7 3/4	35	20	250
4 N 6	SA216WCC	SA313Gr.316	600	150		1000	1000	825		285	160	8 3/4	7 3/4	35	20	250
4 N 6	SA216WCC	Inconel	600	150		1000	1000	825		285	160	8 3/4	7 3/4	35	20	250
4 N 6	SA217WC6	Inconel	600	150				1000	430	285	160	8 3/4	7 3/4	35	20	250
4 N 6	SA216WCC	Inconel	900	150		1000	1000	1000		285	160	8 3/4	7 3/4	35	20	270
4 N 6	SA217WC6	SA313Gr.316	900	150		1000	1000	1000		285	160	8 3/4	7 3/4	35	20	270
4 N 6	SA217WC6	Inconel	900	150				1000	650	285	160	8 3/4	7 3/4	35	20	270
Center to face dimensions acc. to API 526.												Standard-flange dimensions refer to page 44.				

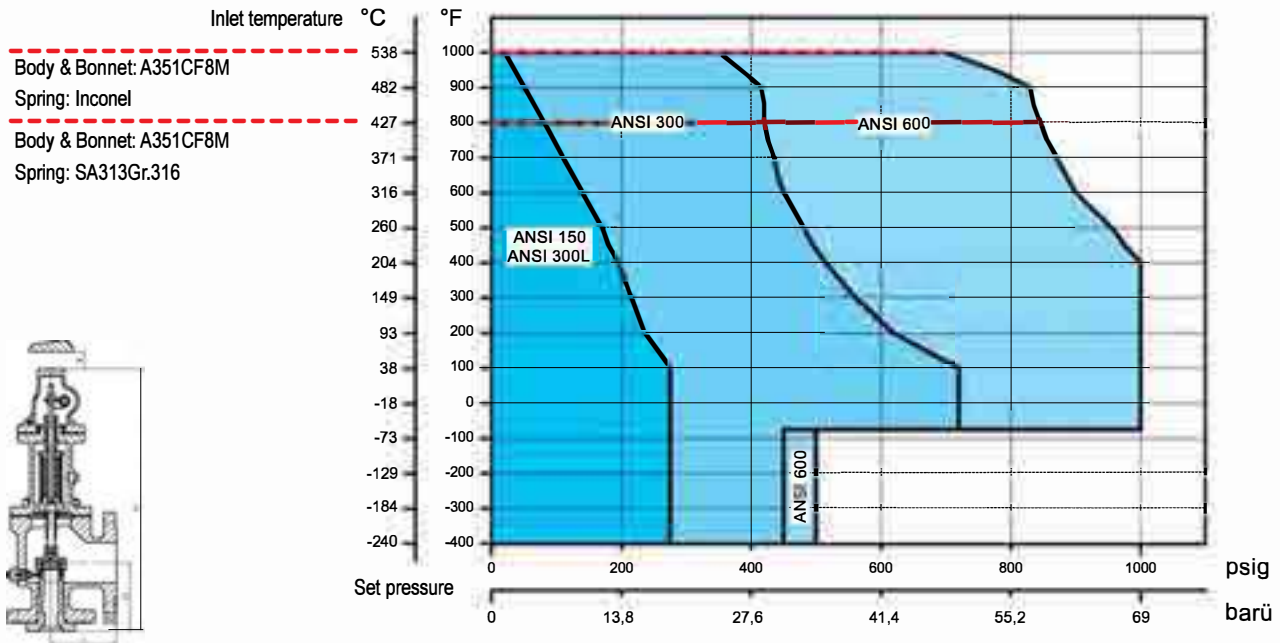
Center to face dimensions acc. to API 526.

Standard-flange dimensions refer to page 44.

Note

- Valves set under 15 psig are not ASME code stamped.
- Maximum I and I1 dimensions +/- 1/16-inch
- Outlet pressure limit for temperatures above 100°F shall not exceed the rating in ANSI/ASME B16.34





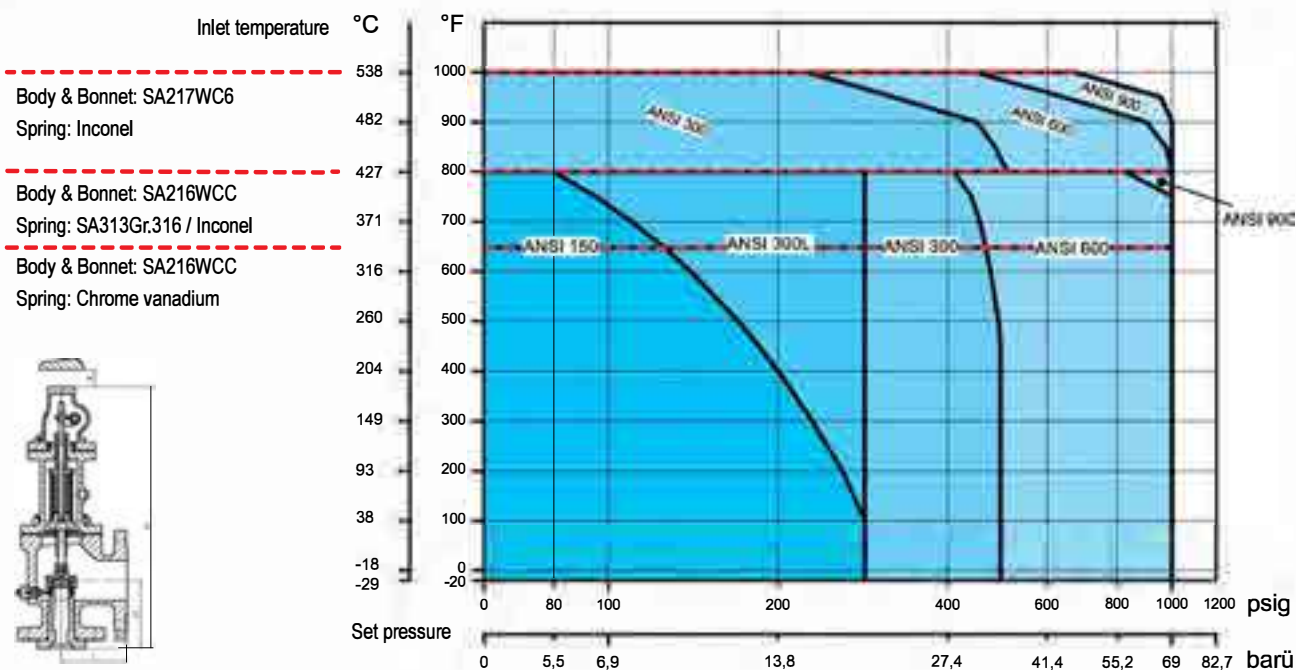
Specifications - Orifice N (effective area acc. to API: 4,34 in²)

Valve size	Material		Flangeconnection ANSI std. (RF or RTJ)		max. pressure rating limit								Dimensions				Weight	
					Inlet flange						Outlet flange	Bellows seal	I	I1	Max. H	Min. X		
	Body & Bonnet	Spring	Inlet	Outlet	-400°F bis -76°F	-75°F bis -21°F	-20°F bis 100°F	450 °F	550 °F	800 °F	1000 °F	100 °F	100 °F	I	I1	Max. H		Min. X
inch			Class	Class	psig	psig	psig	psig	psig	psig	psig	psig	psig	inch	inch	inch	inch	lbs
4 N 6	SA351CF8M	SA313Gr.316	150	150	275	275	275	180	155			275	80	8 1/4	7 3/4	31 1/2	20	200
4 N 6	SA351CF8M	Inconel	150	150					155	80	20	275	80	8 1/4	7 3/4	31 1/2	20	200
4 N 6	SA351CF8M	SA313Gr.316	300L	150	275	275	275	275	275			275	160	8 1/4	7 3/4	31 1/2	20	200
4 N 6	SA351CF8M	Inconel	300L	150					275	275	275	275	160	8 1/4	7 3/4	31 1/2	20	200
4 N 6	SA351CF8M	SA313Gr.316	300	150	450	720	720	495	465			275	160	8 1/4	7 3/4	35	20	230
4 N 6	SA351CF8M	Inconel	300	150					465	420	350	275	160	8 1/4	7 3/4	35	20	230
4 N 6	SA351CF8M	SA313Gr.316	600	150	500	1000	1000	975	928			275	160	8 3/4	7 3/4	35	20	250
4 N 6	SA351CF8M	Inconel	600	150					928	845	700	275	160	8 3/4	7 3/4	35	20	250
Center to face dimensions acc. to API 526.													Standard-flange dimensions refer to page 44.					

Note

- Valves set under 15 psig are not ASME code stamped.
- Maximum I and I1 dimensions +/- 1/16-inch
- Outlet pressure limit for temperatures above 100°F shall not exceed the rating in ANSI/ASME B16.34



Specifications - Orifice P (effective area acc. to API: 6,38 in²)

Valve size	Material		Flangeconnection ANSI std. (RF or RTJ)		max. pressure rating limit							Dimensions				Weight
					Inlet flange					Outlet flange	Bellows seal	I	I1	Max. H	Min. X	
	Body & Bonnet	Spring	Inlet Class	Outlet Class	100°F psig	450°F psig	650°F psig	800°F psig	1000°F psig	100°F psig	100°F psig	inch	inch	inch	inch	
4 P 6	SA216WCC	Chr. vanad.	150	150	285	185	125			285	80	9	7 1/8	30 7/8	20	210
4 P 6	SA216WCC	SA313Gr.316	150	150		185	125	80		285	80	9	7 1/8	30 7/8	20	210
4 P 6	SA216WCC	Inconel	150	150		185	125	80		285	80	9	7 1/8	30 7/8	20	210
4 P 6	SA216WCC	Chr. vanad.	300L	150	285	285	285			285	80	9	7 1/8	30 7/8	20	220
4 P 6	SA216WCC	SA313Gr.316	300L	150		285	285	285		285	80	9	7 1/8	30 7/8	20	220
4 P 6	SA216WCC	Inconel	300L	150		285	285	285		285	80	9	7 1/8	30 7/8	20	220
4 P 6	SA216WCC	Chr. vanad.	300	150	525	525	525			285	150	10	8 7/8	42 1/2	20	330
4 P 6	SA216WCC	SA313Gr.316	300	150		525	525	410		285	150	10	8 7/8	42 1/2	20	330
4 P 6	SA216WCC	Inconel	300	150		525	525	410		285	150	10	8 7/8	42 1/2	20	330
4 P 6	SA217WC6	Inconel	300	150				510	215	285	160	10	8 7/8	42 1/2	20	330
4 P 6	SA216WCC	Chr. vanad.	600	150	1000	1000	1000			285	150	10	8 7/8	42 1/2	20	360
4 P 6	SA216WCC	SA313Gr.316	600	150		1000	1000	825		285	150	10	8 7/8	42 1/2	20	360
4 P 6	SA216WCC	Inconel	600	150		1000	1000	825		285	150	10	8 7/8	42 1/2	20	360
4 P 6	SA217WC6	Inconel	600	150				1000	430	285	160	10	8 7/8	42 1/2	20	360
4 P 6	SA216WCC	SA313Gr.316	900	150		1000	1000	1000		285	150	10	8 7/8	42 1/2	20	380
4 P 6	SA216WCC	Inconel	900	150		1000	1000	1000		285	150	10	8 7/8	42 1/2	20	380
4 P 6	SA217WC6	Inconel	900	150				1000	650	285	160	10	8 7/8	42 1/2	20	380

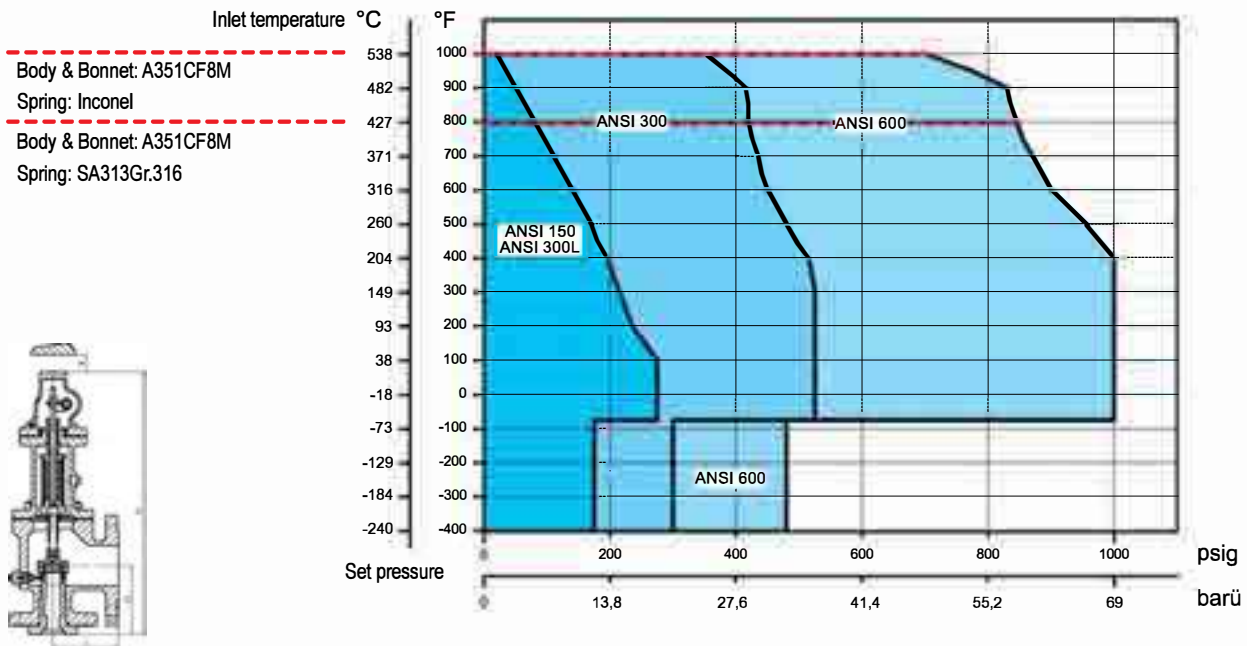
Center to face dimensions acc. to API 526.

Standard-flange dimensions refer to page 44.

Note

1. Valves set under 15 psig are not ASME code stamped.
2. Maximum I and I1 dimensions +/- 1/16-inch
3. Outlet pressure limit for temperatures above 100°F shall not exceed the rating in ANSI/ASME B16.34





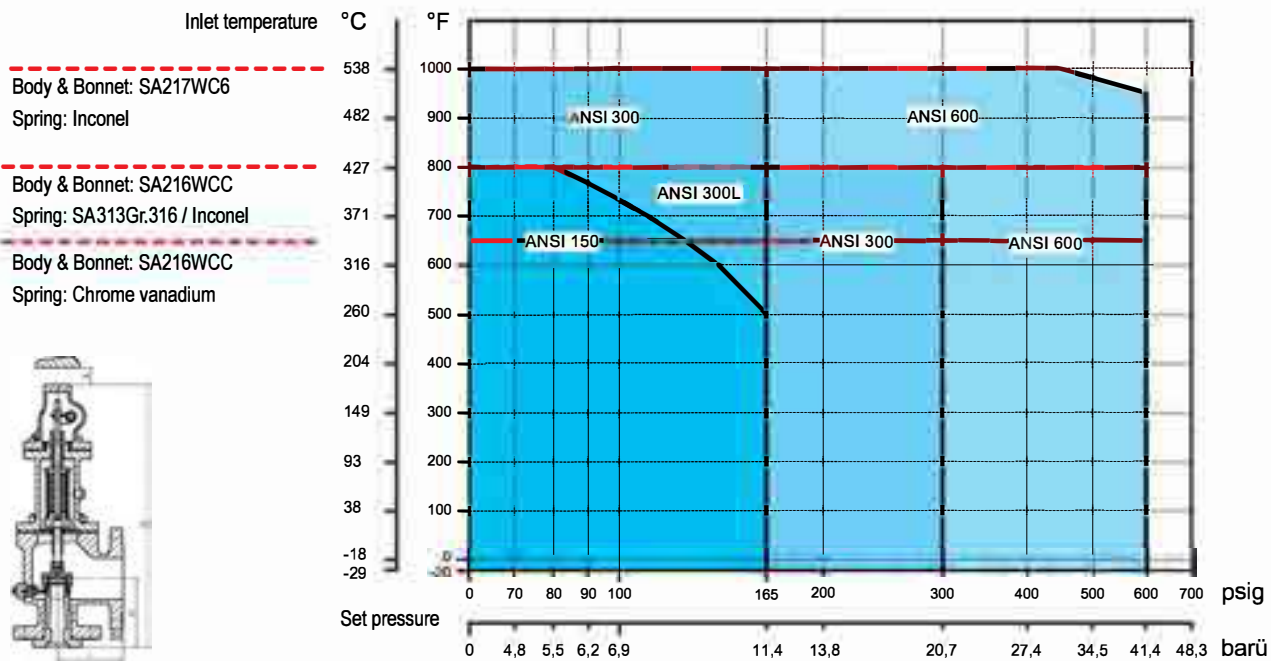
Specifications - Orifice P (effective area acc. to API: 6,38 in²)

Valve size	Material		Flangeconnection ANSI std. (RF or RTJ)		max. pressure rating limit								Dimensions					
					Inlet flange								Outlet flange	Bellows seal	I	I1	Max. H	Min. X
	Body & Bonnet	Spring	Inlet	Outlet	-400°F bis -76°F	-75°F bis -21°F	-20°F bis 100°F	450 °F	550 °F	800 °F	1000 °F	100 °F	100 °F					
inch			Class	Class	psig	psig	psig	psig	psig	psig	psig	psig	psig	inch	inch	inch	inch	lbs
4 P 6	SA351CF8M	SA313Gr.316	150	150	175	275	275	180	155			275	80	9	7 1/8	30 7/8	20	210
4 P 6	SA351CF8M	Inconel	150	150					155	80	20	275	80	9	7 1/8	30 7/8	20	210
4 P 6	SA351CF8M	SA313Gr.316	300L	150	175	275	275	275	275			275	160	9	7 1/8	30 7/8	20	220
4 P 6	SA351CF8M	Inconel	300L	150					275	275	275	275	160	9	7 1/8	30 7/8	20	220
4 P 6	SA351CF8M	SA313Gr.316	300	150	300	525	525	495	465			275	160	10	8 7/8	42 1/2	20	330
4 P 6	SA351CF8M	Inconel	300	150					465	420	350	275	160	10	8 7/8	42 1/2	20	330
4 P 6	SA351CF8M	SA313Gr.316	600	150	480	1000	1000	975	928			275	160	10	8 7/8	42 1/2	20	360
4 P 6	SA351CF8M	Inconel	600	150					928	845	700	275	160	10	8 7/8	42 1/2	20	360
Center to face dimensions acc. to API 526.													Standard-flange dimensions refer to page 44.					

Note

- Valves set under 15 psig are not ASME code stamped.
- Maximum I and I1 dimensions +/- 1/16-inch
- Outlet pressure limit for temperatures above 100°F shall not exceed the rating in ANSI/ASME B16.34



Specifications - Orifice Q (effective area acc. to API: 11,05 in²)

Valve size	Material		Flangeconnection ANSI std. (RF or RTJ)		max. pressure rating limit							Dimensions				Weight
					Inlet flange					Outlet flange	Bellows seal	I	I1	Max. H	Min. X	
	Body & Bonnet	Spring	Inlet Class	Outlet Class	100°F psig	450°F psig	650°F psig	800°F psig	1000°F psig	100°F psig	100°F psig	inch	inch	inch	inch	
6 Q 8	SA216WCC	Chr. vanad.	150	150	165	165	125			115	70	9 1/2	9 7/16	45 1/2	20	480
6 Q 8	SA216WCC	SA313Gr.316	150	150		165	125	80		115	70	9 1/2	9 7/16	45 1/2	20	480
6 Q 8	SA216WCC	Inconel	150	150		165	125	80		115	70	9 1/2	9 7/16	45 1/2	20	480
6 Q 8	SA216WCC	Chr. vanad.	300L	150	165	165	165			115	70	9 1/2	9 7/16	45 1/2	20	500
6 Q 8	SA216WCC	SA313Gr.316	300L	150		165	165	165		115	70	9 1/2	9 7/16	45 1/2	20	500
6 Q 8	SA216WCC	Inconel	300L	150		165	165	165		115	70	9 1/2	9 7/16	45 1/2	20	500
6 Q 8	SA216WCC	Chr. vanad.	300	150	300	300	300			115	115	9 1/2	9 7/16	45 1/2	20	520
6 Q 8	SA216WCC	SA313Gr.316	300	150		300	300	300		115	115	9 1/2	9 7/16	45 1/2	20	520
6 Q 8	SA216WCC	Inconel	300	150		300	300	300		115	115	9 1/2	9 7/16	45 1/2	20	520
6 Q 8	SA217WC6	Inconel	300	150		300		165	165	115	115	9 1/2	9 7/16	45 1/2	20	520
6 Q 8	SA216WCC	Chr. vanad.	600	150	600	600	600			115	115	9 1/2	9 7/16	49 1/2	20	630
6 Q 8	SA216WCC	SA313Gr.316	600	150		600	600	600		115	115	9 1/2	9 7/16	49 1/2	20	630
6 Q 8	SA216WCC	Inconel	600	150		600	600	600		115	115	9 1/2	9 7/16	49 1/2	20	630
6 Q 8	SA217WC6	Inconel	600	150				600	430	115	115	9 1/2	9 7/16	49 1/2	20	630

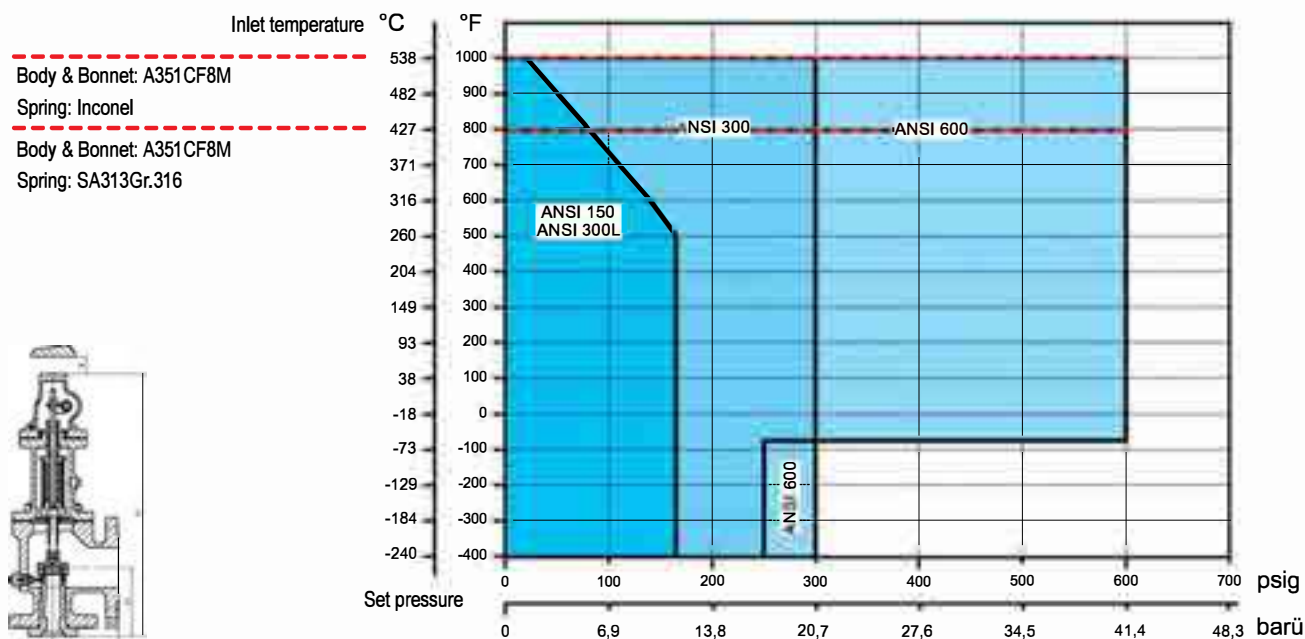
Center to face dimensions acc. to API 526.

Standard-flange dimensions refer to page 44.

Note

1. Valves set under 15 psig are not ASME code stamped.
2. Maximum I and I1 dimensions +/- 1/8-inch
3. Outlet pressure limit for temperatures above 100°F shall not exceed the rating in ANSI/ASME B16.34





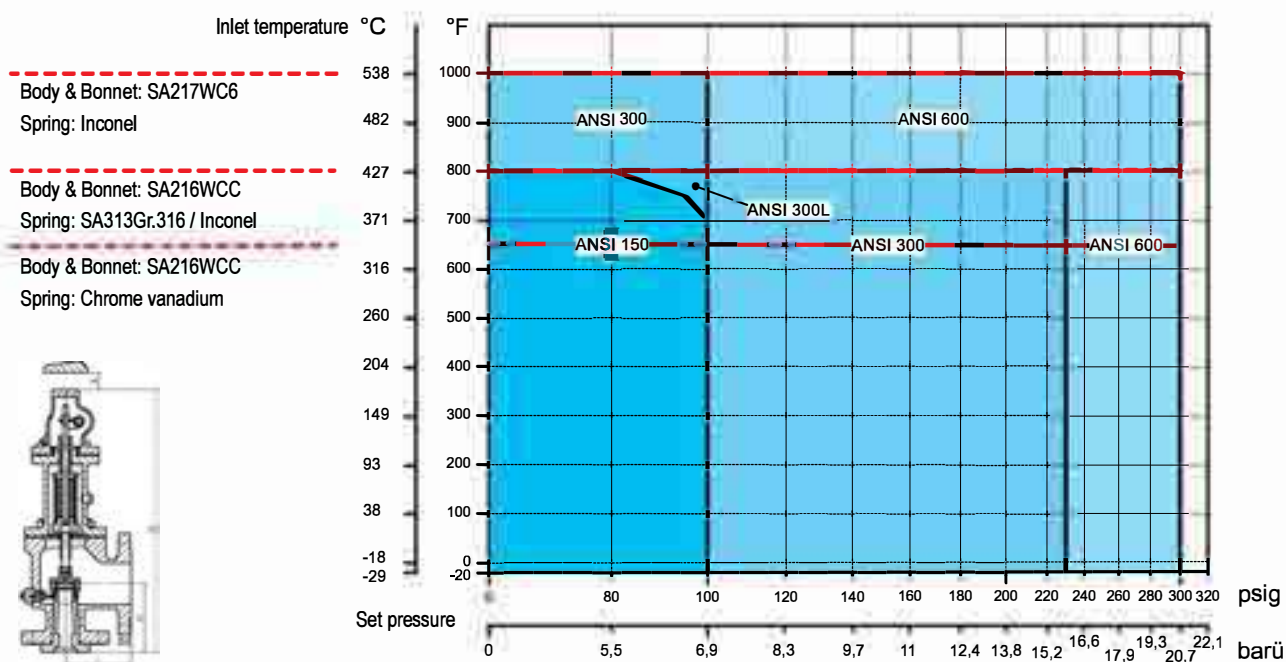
Specifications - Orifice Q (effective area acc. to API: 11,05 in²)

Valve size	Material		Flangeconnection ANSI std. (RF or RTJ)		max. pressure rating limit								Dimensions					Weight
					Inlet flange				Outlet flange	Bellows seal	I	I1	Max. H	Min. X				
	Body & Bonnet	Spring	Inlet	Outlet	-400°F bis -76°F	-75°F bis -21°F	-20°F bis 100°F	450 °F	550 °F	800 °F	1000 °F	100 °F	100 °F	inch	inch	inch	inch	
inch			Class	Class	psig	psig	psig	psig	psig	psig	psig	psig	psig	inch	inch	inch	inch	lbs
6 Q 8	SA351CF8M	SA313Gr.316	150	150	165	165	165	165	153			115	70	9 1/2	9 7/16	45 1/2	20	480
6 Q 8	SA351CF8M	Inconel	150	150					153	80	20	115	70	9 1/2	9 7/16	45 1/2	20	480
6 Q 8	SA351CF8M	SA313Gr.316	300L	150	165	165	165	165	165			115	115	9 1/2	9 7/16	45 1/2	20	500
6 Q 8	SA351CF8M	Inconel	300L	150					165	165	165	115	115	9 1/2	9 7/16	45 1/2	20	500
6 Q 8	SA351CF8M	SA313Gr.316	300	150	250	300	300	300	300			115	115	9 1/2	9 7/16	45 1/2	20	520
6 Q 8	SA351CF8M	Inconel	300	150					300	300	300	115	115	9 1/2	9 7/16	45 1/2	20	520
6 Q 8	SA351CF8M	SA313Gr.316	600	150	300	600	600	600	600			115	115	9 1/2	9 7/16	49 1/2	20	630
6 Q 8	SA351CF8M	Inconel	600	150					600	600	600	115	115	9 1/2	9 7/16	49 1/2	20	630
Center to face dimensions acc. to API 526.													Standard-flange dimensions refer to page 44					

Note

- Valves set under 15 psig are not ASME code stamped.
- Maximum I and I1 dimensions +/- 1/8-inch
- Outlet pressure limit for temperatures above 100°F shall not exceed the rating in ANSI/ASME B16.34



Specifications - Orifice R (effective area acc. to API: 16,00 in²)

Valve size	Material		Flangeconnection ANSI std. (RF or RTJ)		max. pressure rating limit							Dimensions				Weight
					Inlet flange					Outlet flange	Bellows seal	I	I1	Max. H	Min. X	
	Body & Bonnet	Spring	Inlet Class	Outlet Class	100°F psig	450°F psig	650°F psig	800°F psig	1000°F psig	100°F psig	100°F psig	inch	inch	inch	inch	
6 R 8	SA216WCC	Chr. vanad.	150	150	100	100	100			60	60	9 1/2	9 7/16	45 1/2	20	500
6 R 8	SA216WCC	SA313Gr.316	150	150		100	100	80		60	60	9 1/2	9 7/16	45 1/2	20	500
6 R 8	SA216WCC	Inconel	150	150		100	100	80		60	60	9 1/2	9 7/16	45 1/2	20	500
6 R 8	SA216WCC	Chr. vanad.	300L	150	100	100	100			60	60	9 1/2	9 7/16	45 1/2	20	520
6 R 8	SA216WCC	SA313Gr.316	300L	150		100	100	100		60	60	9 1/2	9 7/16	45 1/2	20	520
6 R 8	SA216WCC	Inconel	300L	150		100	100	100		60	60	9 1/2	9 7/16	45 1/2	20	520
6 R 10	SA216WCC	Chr. vanad.	300	150	230	230	230			100	100	10 1/2	9 7/16	45 1/2	20	620
6 R 10	SA216WCC	SA313Gr.316	300	150		230	230	230		100	100	10 1/2	9 7/16	45 1/2	20	620
6 R 10	SA216WCC	Inconel	300	150		230	230	230		100	100	10 1/2	9 7/16	45 1/2	20	620
6 R 10	SA217WC6	Inconel	300	150				100	100	100	100	9 1/2	9 7/16	45 1/2	20	520
6 R 10	SA216WCC	Chr. vanad.	600	150	300	300	300			100	100	10 1/2	9 7/16	49 1/2	20	660
6 R 10	SA216WCC	SA313Gr.316	600	150		300	300	300		100	100	10 1/2	9 7/16	49 1/2	20	660
6 R 10	SA216WCC	Inconel	600	150		300	300	300		100	100	10 1/2	9 7/16	49 1/2	20	660
6 R 10	SA217WC6	Inconel	600	150				300	300	100	100	10 1/2	9 7/16	49 1/2	20	660

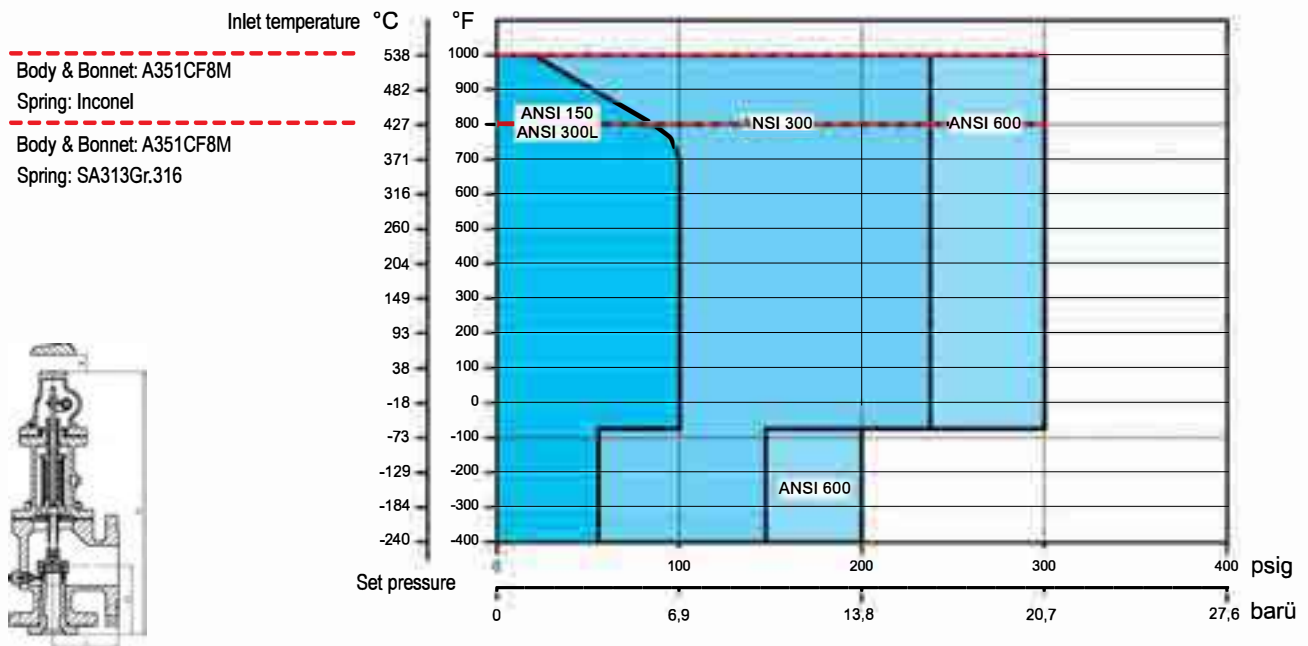
Center to face dimensions acc. to API 526.

Standard-flange dimensions refer to page 44.

Note

1. Valves set under 15 psig are not ASME code stamped.
2. Maximum I and I1 dimensions +/- 1/8-inch
3. Outlet pressure limit for temperatures above 100°F shall not exceed the rating in ANSI/ASME B16.34



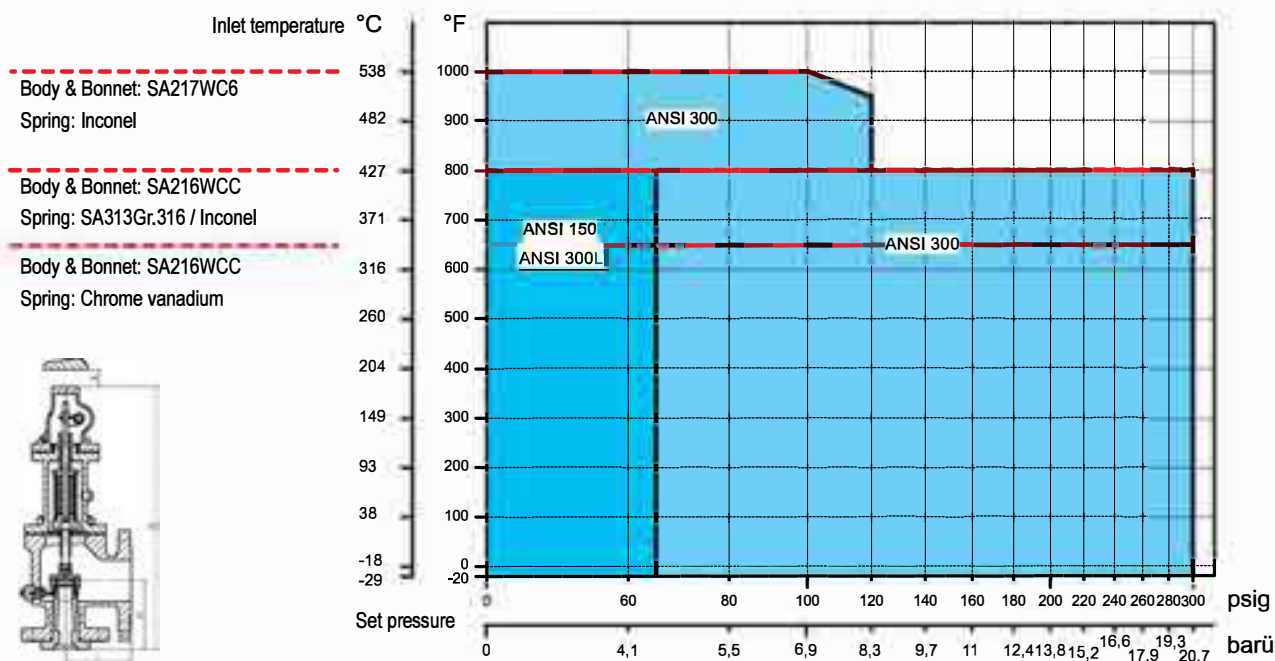
Specifications - Orifice R (effective area acc. to API: 16,00 in²)

Valve size	Material		Flangeconnection ANSI std. (RF or RTJ)		max. pressure rating limit									Dimensions					Weight
					Inlet flange						Outlet flange	Bellows seal	I	I1	Max. H	Min. X			
	Body & Bonnet	Spring	Inlet	Outlet	-400°F bis -76°F	-75°F bis -21°F	-20°F bis 100°F	450 °F	550 °F	800 °F	1000 °F	100 °F	100 °F	inch	inch	inch	inch		
inch			Class	Class	psig	psig	psig	psig	psig	psig	psig	psig	psig	inch	inch	inch	inch	lbs	
6 R 8	SA351CF8M	SA313Gr.316	150	150	55	100	100	100	100			60	60	9 1/2	9 7/16	45 1/2	20	500	
6 R 8	SA351CF8M	Inconel	150	150					100	80	20	60	60	9 1/2	9 7/16	45 1/2	20	500	
6 R 8	SA351CF8M	SA313Gr.316	300L	150	55	100	100	100	100			60	100	9 1/2	9 7/16	45 1/2	20	520	
6 R 8	SA351CF8M	Inconel	300L	150					100	100	100	60	100	9 1/2	9 7/16	45 1/2	20	520	
6 R 10	SA351CF8M	SA313Gr.316	300	150	150	230	230	230	230			100	100	10 1/2	9 7/16	45 1/2	20	620	
6 R 10	SA351CF8M	Inconel	300	150					230	230	230	100	100	10 1/2	9 7/16	45 1/2	20	620	
6 R 10	SA351CF8M	SA313Gr.316	600	150	200	300	300	300	300			100	100	10 1/2	9 7/16	49 1/2	20	660	
6 R 10	SA351CF8M	Inconel	600	150					300	300	300	100	100	10 1/2	9 7/16	49 1/2	20	660	
Center to face dimensions acc. to API 526.														Standard-flange dimensions refer to page 44.					

Note

- Valves set under 15 psig are not ASME code stamped.
- Maximum I and I1 dimensions +/- 1/8-inch
- Outlet pressure limit for temperatures above 100°F shall not exceed the rating in ANSI/ASME B16.34



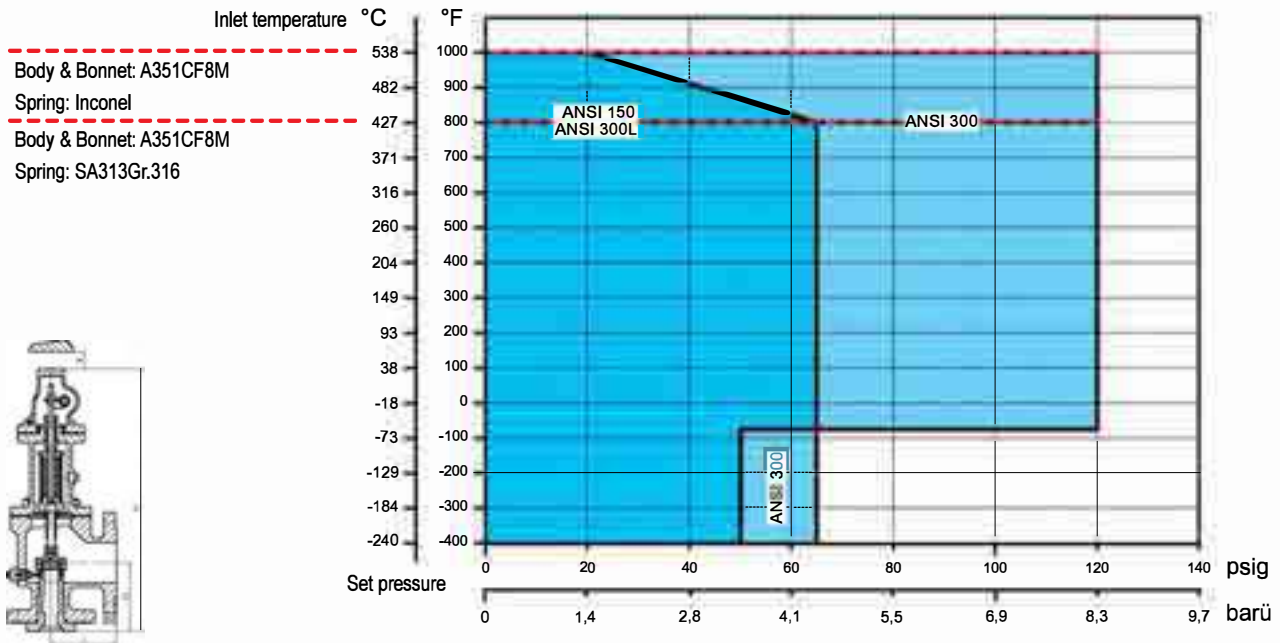
Specifications - Orifice T (effective area acc. to API: 26,00 in²)

Valve size	Material		Flangeconnection ANSI std. (RF or RTJ)	max. pressure rating limit								Dimensions				Weight
				Inlet flange					Outlet flange	Bellows seal	I	I1	Max. H	Min. X		
	Body & Bonnet	Spring	Inlet Class	Outlet Class	100°F psig	450°F psig	650°F psig	800°F psig	1000°F psig	100°F psig	100°F psig	inch	inch	inch	inch	
8 T 10	SA216WCC	Chr. vanad.	150	150	65	65	65			30	30	11	10 7/8	47 3/4	30	670
8 T 10	SA216WCC	SA313Gr.316	150	150		65	65	65		30	30	11	10 7/8	47 3/4	30	670
8 T 10	SA216WCC	Inconel	150	150		65	65	65		30	30	11	10 7/8	47 3/4	30	670
8 T 10	SA216WCC	Chr. vanad.	300L	150	65	65	65			30	30	11	10 7/8	47 3/4	30	700
8 T 10	SA216WCC	SA313Gr.316	300L	150		65	65	65		30	30	11	10 7/8	47 3/4	30	700
8 T 10	SA216WCC	Inconel	300L	150		65	65	65		30	30	11	10 7/8	47 3/4	30	700
8 T 10	SA216WCC	Chr. vanad.	300	150	300	300	300			60	60	11	10 7/8	54 3/4	30	830
8 T 10	SA216WCC	SA313Gr.316	300	150		300	300	300		60	60	11	10 7/8	54 3/4	30	830
8 T 10	SA216WCC	Inconel	300	150		300	300	300		60	60	11	10 7/8	54 3/4	30	830
8 T 10	SA217WC6	Inconel	300	150				120	100	60	60	11	10 7/8	51 1/2	30	790
Center to face dimensions acc. to API 526.												Standard-flange dimensions refer to page 44				

Note

1. Valves set under 15 psig are not ASME code stamped.
2. Maximum I and I1 dimensions +/- 1/8-inch
3. Outlet pressure limit for temperatures above 100°F shall not exceed the rating in ANSI/ASME B16.34





Specifications - Orifice T (effective area acc. to API: 26,00 in²)

Valve size	Material		Flangeconnection ANSI std. (RF or RTJ)		max. pressure rating limit										Dimensions				Weight
					Inlet flange								Outlet flange	Bellows seal	I	I1	Max. H	Min. X	
	Body & Bonnet	Spring	Inlet Class	Outlet Class	-400°F bis -76°F	-75°F bis -21°F	-20°F bis 100°F	450 °F	550 °F	800 °F	1000 °F	100 °F	100 °F	100 °F	inch	inch	inch	inch	
8 T 10	SA351CF8M	SA313Gr.316	150	150	50	65	65	65	65			30	30	30	11	10 7/8	47 3/4	30	670
8 T 10	SA351CF8M	Inconel	150	150					65	65	20	30	30	30	11	10 7/8	47 3/4	30	670
8 T 10	SA351CF8M	SA313Gr.316	300L	150	50	65	65	65	65			30	60	60	11	10 7/8	47 3/4	30	700
8 T 10	SA351CF8M	Inconel	300L	150					65	65	65	30	60	60	11	10 7/8	47 3/4	30	700
8 T 10	SA351CF8M	SA313Gr.316	300	150	65	120	120	120	120			60	60	60	11	10 7/8	51 1/2	30	790
8 T 10	SA351CF8M	Inconel	300	150					120	120	120	60	60	60	11	10 7/8	51 1/2	30	790

Center to face dimensions acc. to API 526.

Standard-flange dimensions refer to page 44.

Note

- Valves set under 15 psig are not ASME code stamped.
- Maximum I and I1 dimensions +/- 1/8-inch
- Outlet pressure limit for temperatures above 100°F shall not exceed the rating in ANSI/ASME B16.34



ARI-REYCO R Series 971 / 973 / 974

Capacity Charts „Air & Gas in SCFM“ ¹⁾ (incl. 10% overpressure): Orifice D - L

Coeff. of discharge: 0,860		Orifice							
		D	E	F	G	H	J	K	L
Design area [A ₀]		0,122 in²	0,217 in²	0,34 in²	0,558 in²	0,869 in²	1,427 in²	2,036 in²	3,16 in²
Design diameter [d ₀]		0,394 in	0,526 in	0,658 in	0,843 in	1,052 in	1,348 in	1,61 in	2,006 in
Set pressure [psig]									
< 30 psig with + 3 psig overpressure	No Code Stamp or NB on Nameplates Below 15 psig								
	15	63	112	175	288	448	736	1050	1629
	20	73	129	202	332	516	848	1210	1878
	30	92	163	256	420	653	1073	1531	2376
40		113	201	315	516	804	1321	1884	2924
50		134	238	374	613	955	1568	2237	3472
60		155	276	433	710	1106	1815	2590	4020
70		176	314	492	807	1256	2063	2943	4568
80		198	351	550	903	1407	2310	3296	5116
90		219	389	609	1000	1558	2558	3649	5664
100		240	427	668	1097	1708	2805	4002	6212
110		261	464	727	1194	1859	3053	4356	6760
120		282	502	786	1290	2010	3300	4709	7308
130		303	539	845	1387	2160	3548	5062	7856
140		324	577	904	1484	2311	3795	5415	8404
150		346	615	963	1581	2462	4043	5768	8952
160		367	652	1022	1678	2612	4290	6121	9500
170		388	690	1081	1774	2763	4537	6474	10048
180		409	728	1140	1871	2914	4785	6827	10596
190		430	765	1199	1968	3065	5032	7180	11144
200		451	803	1258	2065	3215	5280	7533	11692
210		473	841	1317	2161	3366	5527	7886	12240
220		494	878	1376	2258	3517	5775	8239	12788
230		515	916	1435	2355	3667	6022	8592	13336
240		536	953	1494	2452	3818	6270	8945	13884
250		557	991	1553	2548	3969	6517	9298	14432
260		578	1029	1612	2645	4119	6765	9652	14980
270		599	1066	1671	2742	4270	7012	10005	15528
280		621	1104	1730	2839	4421	7260	10358	16076
290		642	1142	1789	2935	4572	7507	10711	16624
300		663	1179	1848	3032	4722	7754	11064	17172
320		705	1254	1966	3226	5024	8249	11770	18268
340		748	1330	2083	3419	5325	8744	12476	19364
360		790	1405	2201	3613	5626	9239	13182	20460
380		832	1480	2319	3806	5928	9734	13888	21556

¹⁾ at 60°F and 14,7 psia



ARI-REYCO R Series 971 / 973 / 974

Capacity Charts „Air & Gas in SCFM“ ¹⁾ (incl. 10% overpressure): Orifice D - L

Coeff. of discharge: 0,860	Orifice							
	D	E	F	G	H	J	K	L
Design area [A ₀]	0,122 in²	0,217 in²	0,34 in²	0,558 in²	0,869 in²	1,427 in²	2,036 in²	3,16 in²
Design diameter [d ₀]	0,394 in	0,526 in	0,658 in	0,843 in	1,052 in	1,348 in	1,61 in	2,006 in
Set pressure [psig]								
400	875	1555	2437	4000	6229	10229	14594	22651
420	917	1631	2555	4193	6531	10724	15301	23747
440	959	1706	2673	4387	6832	11219	16007	24843
460	1001	1781	2791	4580	7133	11714	16713	25939
480	1044	1857	2909	4774	7435	12209	17419	27035
500	1086	1932	3027	4967	7736	12704	18125	28131
520	1128	2007	3145	5161	8037	13199	18831	29227
540	1171	2082	3263	5355	8339	13693	19537	30323
560	1213	2158	3381	5548	8640	14188	20243	31419
580	1255	2233	3498	5742	8942	14683	20950	32515
600	1298	2308	3616	5935	9243	15178	21656	33611
650	1403	2496	3911	6419	9997	16415	23421	36351
700	1509	2684	4206	6903	10750	17653	25186	39091
750	1615	2873	4501	7387	11503	18890	26952	41831
800	1721	3061	4796	7870	12257	20127	28717	44571
850	1827	3249	5090	8354	13010	21365	30482	47311
900	1932	3437	5385	8838	13764	22602	32248	50050
950	2038	3625	5680	9322	14517	23839	34013	52790
1000	2144	3813	5975	9806	15271	25076	35778	55530
1200	2567	4566	7154	11741	18285	30026	42840	66490
1400	2990	5319	8333	13676	21299	34975	49901	77449
1600	3413	6071	9512	15611	24312	39924	56962	
1800	3836	6824	10692	17547	27326	44873	64024	
2000	4260	7576	11871	19482	30340	49822	71085	
2200	4683	8329	13050	21417	33354	54771	78146	
2400	5106	9082	14229	23353	36368	59721		
2600	5529	9834	15408	25288	39382	64670		
2800	5952	10587	16588	27223				
3000	6375	11339	17767	29158				
3200	6798	12092	18946	31094				
3400	7221	12845	20125	33029				
3600	7644	13597	21304	34964				
3800	8068	14350	22484					
4000	8491	15102	23663					
5000	10606	18865	29559					
6000	12722	22628						

¹⁾ at 60°F and 14,7 psia





ARI-REYCO R Series 971 / 973 / 974

Capacity Charts „Air & Gas in SCFM“ ¹⁾ (incl. 10% overpressure): Orifice M - T

Coeff. of discharge: 0,860		Orifice					
		M	N	P	Q	R	T
Design area [A ₀]		3,987 in²	4,807 in²	7,07 in²	12,24 in²	17,72 in²	29,75 in²
Design diameter [d ₀]		2,253 in	2,474 in	3,0 in	3,948 in	4,75 in	6,155 in
Set pressure [psig]							
< 30 psig with + 3 psig overpressure	No Code Stamp or NB on Nameplates Below 15 psig						
	15	2055	2478	3645	6310	9135	15336
	20	2370	2857	4202	7275	10531	17681
	30	2998	3615	5316	9204	13325	22371
40		3690	4448	6542	11327	16398	27530
50		4381	5282	7768	13449	19471	32689
60		5072	6116	8995	15572	22544	37848
70		5764	6949	10221	17694	25616	43007
80		6455	7783	11447	19817	28689	48166
90		7146	8616	12673	21939	31762	53325
100		7838	9450	13899	24062	34835	58484
110		8529	10283	15125	26185	37908	63643
120		9221	11117	16351	28307	40981	68802
130		9912	11951	17577	30430	44053	73961
140		10603	12784	18803	32552	47126	79120
150		11295	13618	20029	34675	50199	84279
160		11986	14451	21255	36797	53272	89438
170		12678	15285	22481	38920	56345	94597
180		13369	16119	23707	41042	59418	99756
190		14060	16952	24933	43165	62491	104915
200		14752	17786	26159	45288	65563	110074
210		15443	18619	27385	47410	68636	115233
220		16135	19453	28611	49533	71709	120392
230		16826	20286	29837	51655	74782	125551
240		17517	21120	31063	53778	77855	130710
250		18209	21954	32289	55900	80928	135869
260		18900	22787	33515	58023	84000	141028
270		19591	23621	34741	60145	87073	146187
280		20283	24454	35967	62268	90146	151346
290		20974	25288	37193	64391	93219	156505
300		21666	26122	38419	66513	96292	161664
320		23048	27789	40871	70758		
340		24431	29456	43323	75003		
360		25814	31123	45775	79248		
380		27197	32790	48227	83494		

¹⁾ at 60°F and 14,7 psia





ARI-REYCO R Series 971 / 973 / 974

Capacity Charts „Air & Gas in SCFM“ ¹⁾ (incl. 10% overpressure): Orifice M - T

Coeff. of discharge: 0,860	Orifice					
	M	N	P	Q	R	T
Design area [A ₀]	3,987 in ²	4,807 in ²	7,07 in ²	12,24 in ²	17,72 in ²	29,75 in ²
Design diameter [d ₀]	2,253 in	2,474 in	3,0 in	3,948 in	4,75 in	6,155 in
Set pressure [psig]						
400	28580	34457	50679	87739		
420	29962	36125	53131	91984		
440	31345	37792	55583	96229		
460	32728	39459	58035	100474		
480	34111	41126	60487	104719		
500	35493	42793	62939	108964		
520	36876	44461	65391	113209		
540	38259	46128	67843	117454		
560	39642	47795	70295	121700		
580	41025	49462	72747	125945		
600	42407	51129	75199	130190		
620	43790	52796	77651			
640	45173	54464	80104			
660	46556	56131	82556			
680	47939	57798	85008			
700	49321	59465	87460			
720	50704	61132	89912			
740	52087	62799	92364			
760	53470	64467	94816			
780	54852	66134	97268			
800	56235	67801	99720			
820	57618	69468	102172			
840	59001	71135	104624			
860	60384	72803	107076			
880	61766	74470	109528			
900	63149	76137	111980			
920	64532	77804	114432			
940	65915	79471	116884			
960	67297	81138	119336			
980	68680	82806	121788			
1000	70063	84473	124240			
1050	73520					
1100	76977					

¹⁾ at 60°F and 14,7 psia

ARI-REYCO R Series 971 / 973 / 974

Capacity Charts „Steam in Lb/Hr“ (incl. 10% overpressure): Orifice D - L

Coeff. of discharge: 0,860		Orifice							
		D	E	F	G	H	J	K	L
Design area [A ₀]		0,122 in²	0,217 in²	0,34 in²	0,558 in²	0,869 in²	1,427 in²	2,036 in²	3,16 in²
Design diameter [d ₀]		0,394 in	0,526 in	0,658 in	0,843 in	1,052 in	1,348 in	1,61 in	2,006 in
Set pressure [psig]									
< 30 psig with + 3 psig overpressure	No Code Stamp or NB on Nameplates Below 15 psig								
	15	177	314	492	808	1259	2067	2949	4577
	20	204	362	568	932	1451	2383	3400	5276
	30	258	458	718	1179	1836	3015	4301	6676
40		317	564	884	1451	2259	3710	5293	8215
50		377	670	1050	1723	2683	4405	6285	9755
60		436	776	1215	1994	3106	5100	7277	11294
70		495	881	1381	2266	3529	5796	8269	12834
80		555	987	1547	2538	3953	6491	9261	14374
90		614	1093	1712	2810	4376	7186	10253	15913
100		674	1198	1878	3082	4799	7881	11245	17453
110		733	1304	2043	3354	5223	8576	12237	18992
120		793	1410	2209	3626	5646	9272	13229	20532
130		852	1516	2375	3897	6070	9967	14221	22071
140		912	1621	2540	4169	6493	10662	15212	23611
150		971	1727	2706	4441	6916	11357	16204	25150
160		1030	1833	2872	4713	7340	12053	17196	26690
170		1090	1939	3037	4985	7763	12748	18188	28229
180		1149	2044	3203	5257	8186	13443	19180	29769
190		1209	2150	3369	5528	8610	14138	20172	31308
200		1268	2256	3534	5800	9033	14833	21164	32848
210		1328	2361	3700	6072	9457	15529	22156	34387
220		1387	2467	3866	6344	9880	16224	23148	35927
230		1446	2573	4031	6616	10303	16919	24140	37466
240		1506	2679	4197	6888	10727	17614	25132	39006
250		1565	2784	4362	7160	11150	18310	26124	40545
260		1625	2890	4528	7431	11573	19005	27115	42085
270		1684	2996	4694	7703	11997	19700	28107	43624
280		1744	3101	4859	7975	12420	20395	29099	45164
290		1803	3207	5025	8247	12843	21090	30091	46703
300		1863	3313	5191	8519	13267	21786	31083	48243
320		1981	3524	5522	9063	14114	23176	33067	51322
340		2100	3736	5853	9606	14960	24567	35051	54401
360		2219	3947	6185	10150	15807	25957	37035	57480
380		2338	4159	6516	10694	16654	27347	39018	60559





ARI-REYCO R Series 971 / 973 / 974

Capacity Charts „Steam in Lb/Hr“ (incl. 10% overpressure): Orifice D - L

Coeff. of discharge: 0,860	Orifice							
	D	E	F	G	H	J	K	L
Design area [A ₀]	0,122 in²	0,217 in²	0,34 in²	0,558 in²	0,869 in²	1,427 in²	2,036 in²	3,16 in²
Design diameter [d ₀]	0,394 in	0,526 in	0,658 in	0,843 in	1,052 in	1,348 in	1,61 in	2,006 in
Set pressure [psig]								
400	2457	4370	6847	11237	17500	28738	41002	63638
420	2576	4582	7178	11781	18347	30128	42986	66717
440	2695	4793	7510	12325	19194	31519	44970	69796
460	2814	5004	7841	12868	20041	32909	46954	72875
480	2932	5216	8172	13412	20887	34300	48938	75954
500	3051	5427	8504	13956	21734	35690	50922	79033
520	3170	5639	8835	14500	22581	37081	52905	82112
540	3289	5850	9166	15043	23428	38471	54889	85191
560	3408	6062	9497	15587	24274	39861	56873	88271
580	3527	6273	9829	16131	25121	41252	58857	91350
600	3646	6484	10160	16674	25968	42642	60841	94429
650	3943	7013	10988	18034	28085	46118	65800	102126
700	4240	7542	11816	19393	30202	49594	70760	109824
750	4537	8070	12645	20752	32318	53071	75719	117521
800	4834	8599	13473	22111	34435	56547	80679	125219
850	5132	9128	14301	23471	36552	60023	85639	132917
900	5429	9656	15129	24830	38669	63499	90598	140614
950	5726	10185	15958	26189	40786	66975	95558	148312
1000	6023	10713	16786	27548	42903	70451	100517	156009
1100	6618	11771	18442	30267	47136	77403	110437	171405
1200	7212	12828	20099	32986	51370	84355	120356	186800
1300	7806	13885	21755	35704	55604	91308	130275	202195
1400	8389	14921	23379	38369	59753	98122	139998	217285
1500	9038	16076	25188	41338	64378	105716	150833	234102
1600	9699	17252	27031	44363	69088	113451	161868	
1700	10374	18452	28911	47448	73893	121341	173126	
1800	11064	19679	30833	50603	78806	129408	184636	
1900	11770	20936	32803	53835	83840	137674	196430	
2000	12496	22227	34826	57156	89011	146167	208546	
2150	13628	24240	37980	62331	97071	159403	227431	
2300	14821	26363	41305	67789	105572	173361		
2450	16092	28623	44848	73603	114625	188228		
2600	17463	31061	48668	79872	124389	204261		
2750	18964	33732	52852	86739	135083			
2900	20642	36715	57526	94411				

ARI-REYCO R Series 971 / 973 / 974

Capacity Charts „Steam in Lb/Hr“ (incl. 10% overpressure): Orifice M - T

Coeff. of discharge: 0,860		Orifice					
		M	N	P	Q	R	T
Design area [A ₀]		3,987 in²	4,807 in²	7,07 in²	12,24 in²	17,72 in²	29,75 in²
Design diameter [d ₀]		2,253 in	2,474 in	3,0 in	3,948 in	4,75 in	6,155 in
Set pressure [psig]							
< 30 psig with + 3 psig overpressure	No Code Stamp or NB on Nameplates Below 15 psig						
	15	5774	6962	10239	17727	25664	43086
	20	6657	8026	11805	20438	29588	49675
	30	8423	10155	14936	25859	37436	62851
40		10365	12497	18381	31822	46069	77345
50		12308	14839	21825	37785	54702	91839
60		14250	17181	25270	43748	63335	106333
70		16193	19523	28714	49711	71968	120826
80		18135	21865	32158	55675	80601	135320
90		20078	24207	35603	61638	89234	149814
100		22020	26549	39047	67601	97867	164308
110		23962	28891	42492	73564	106500	178802
120		25905	31233	45936	79527	115133	193296
130		27847	33575	49381	85491	123766	207790
140		29790	35917	52825	91454	132399	222284
150		31732	38258	56270	97417	141032	236778
160		33675	40600	59714	103380	149665	251272
170		35617	42942	63158	109344	158298	265765
180		37559	45284	66603	115307	166931	280259
190		39502	47626	70047	121270	175564	294753
200		41444	49968	73492	127233	184197	309247
210		43387	52310	76936	133196	192830	323741
220		45329	54652	80381	139160	201463	338235
230		47272	56994	83825	145123	210096	352729
240		49214	59336	87269	151086	218729	367223
250		51156	61678	90714	157049	227362	381717
260		53099	64020	94158	163012	235995	396211
270		55041	66362	97603	168976	244628	410704
280		56984	68703	101047	174939	253261	425198
290		58926	71045	104492	180902	261894	439692
300		60869	73387	107936	186865	270527	454186
320		64753	78071	114825	198792		
340		68638	82755	121714	210718		
360		72523	87439	128603	222644		
380		76408	92123	135491	234571		





ARI-REYCO R Series 971 / 973 / 974

Capacity Charts „Steam in Lb/Hr“ (incl. 10% overpressure): Orifice M - T

Coeff. of discharge: 0,860	Orifice					
	M	N	P	Q	R	T
Design area [A ₀]	3,987 in ²	4,807 in ²	7,07 in ²	12,24 in ²	17,72 in ²	29,75 in ²
Design diameter [d ₀]	2,253 in	2,474 in	3,0 in	3,948 in	4,75 in	6,155 in
Set pressure [psig]						
500	99717	120226	176825	306129		
520	103602	124910	183714	318056		
540	107487	129593	190602	329982		
560	111372	134277	197491	341909		
580	115257	138961	204380	353835		
600	119141	143645	211269	365761		
620	123026	148329	218158			
640	126911	153013	225047			
660	130796	157697	231936			
680	134681	162380	238824			
700	138566	167064	245713			
720	142450	171748	252602			
740	146335	176432	259491			
760	150220	181116	266380			
780	154105	185800	273269			
800	157990	190483	280158			
820	161875	195167	287047			
840	165760	199851	293935			
860	169644	204535	300824			
880	173529	209219	307713			
900	177414	213903	314602			
920	181299	218587	321491			
940	185184	223270	328380			
960	189069	227954	335269			
980	192954	232638	342157			
1000	196838	237322	349046			
1050	206551					
1100	216263					



ARI-REYCO R Series 971 / 973 / 974

Capacity Charts „Water & Liquid in Gal/Min“ (incl. 10% overpressure): Orifice D - L

Coeff. of discharge: 0,724		Orifice							
		D	E	F	G	H	J	K	L
Design area [A ₀]		0,122 in²	0,217 in²	0,34 in²	0,558 in²	0,869 in²	1,427 in²	2,036 in²	3,16 in²
Design diameter [d ₀]		0,394 in	0,526 in	0,658 in	0,843 in	1,052 in	1,348 in	1,61 in	2,006 in
Set pressure [psig]									
< 30 psig with + 3 psig overpressure	No Code Stamp or NB on Nameplates Below 15 psig								
	15	14	25	40	65	101	167	238	369
	20	16	29	45	74	115	188	269	417
	30	19	34	54	88	137	226	322	499
40		22	40	62	102	159	260	372	577
50		25	44	69	114	177	291	415	645
60		27	48	76	125	194	319	455	706
70		29	52	82	135	210	344	492	763
80		31	56	88	144	224	368	525	816
90		33	59	93	153	238	391	557	865
100		35	63	98	161	251	412	587	912
110		37	66	103	169	263	432	616	956
120		39	69	107	176	275	451	644	999
130		40	71	112	184	286	469	670	1040
140		42	74	116	191	297	487	695	1079
150		43	77	120	197	307	504	719	1117
160		45	79	124	204	317	521	743	1153
170		46	82	128	210	327	537	766	1189
180		47	84	132	216	336	552	788	1223
190		49	86	135	222	346	568	810	1257
200		50	89	139	228	355	582	831	1289
210		51	91	142	233	363	597	851	1321
220		52	93	146	239	372	611	871	1352
230		53	95	149	244	380	624	891	1383
240		55	97	152	249	388	638	910	1413
250		56	99	155	255	396	651	929	1442
260		57	101	158	260	404	664	947	1470
270		58	103	161	265	412	677	965	1498
280		59	105	164	269	420	689	983	1526
290		60	107	167	274	427	701	1000	1553
300		61	108	170	279	434	713	1018	1579
320		63	112	175	288	449	737	1051	1631
340		65	115	181	297	462	759	1083	1681
360		67	119	186	305	476	781	1115	1730
380		69	122	191	314	489	803	1145	1777



Coeff. of discharge: 0,724	Orifice							
	D	E	F	G	H	J	K	L
Design area [A ₀]	0,122 in²	0,217 in²	0,34 in²	0,558 in²	0,869 in²	1,427 in²	2,036 in²	3,16 in²
Design diameter [d ₀]	0,394 in	0,526 in	0,658 in	0,843 in	1,052 in	1,348 in	1,61 in	2,006 in
Set pressure [psig]								
400	70	125	196	322	501	823	1175	1824
420	72	128	201	330	514	844	1204	1869
440	74	131	206	338	526	864	1232	1913
460	75	134	210	345	538	883	1260	1956
480	77	137	215	353	549	902	1287	1998
500	79	140	219	360	561	921	1314	2039
520	80	143	224	367	572	939	1340	2079
540	82	145	228	374	583	957	1365	2119
560	83	148	232	381	593	974	1390	2158
580	85	151	236	388	604	992	1415	2196
600	86	153	240	394	614	1009	1439	2233
650	90	160	250	410	639	1050	1498	2325
700	93	166	259	426	663	1089	1553	2411
750	96	171	269	441	687	1128	1609	2497
800	100	177	277	455	709	1165	1662	2579
850	103	183	286	469	731	1200	1713	2658
900	106	188	294	483	752	1235	1762	2735
950	108	193	302	496	773	1269	1811	2810
1000	111	198	310	509	793	1302	1858	2883
1200	122	217	340	558	869	1426	2035	3159
1400	132	234	367	602	938	1541	2198	3412
1600	141	250	392	644	1003	1647	2350	
1800	149	266	416	683	1064	1747	2492	
2000	157	280	439	720	1121	1841	2627	
2200	165	294	460	755	1176	1931	2755	
2400	172	307	481	789	1228	2017		
2600	179	319	500	821	1279	2100		
2800	186	331	519	852				
3000	193	343	537	882				
3200	199	354	555	911				
3400	205	365	572	939				
3600	211	376	589	966				
3800	217	386	605					
4000	223	396	620					
5000	249	443	694					
6000	273	485						

ARI-REYCO R Series 971 / 973 / 974

Capacity Charts „Water & Liquid in Gal/Min“ (incl. 10% overpressure): Orifice M - T

Coeff. of discharge: 0,724		Orifice					
		M	N	P	Q	R	T
Design area [A ₀]		3,987 in²	4,807 in²	7,07 in²	12,24 in²	17,72 in²	29,75 in²
Design diameter [d ₀]		2,253 in	2,474 in	3,0 in	3,948 in	4,75 in	6,155 in
Set pressure [psig]							
< 30 psig with + 3 psig overpressure	No Code Stamp or NB on Nameplates Below 15 psig						
	15	465	561	825	1429	2068	3472
	20	526	634	933	1615	2338	3925
	30	630	760	1117	1934	2800	4702
40		728	877	1290	2234	3234	5429
50		813	981	1442	2497	3615	6070
60		891	1074	1580	2736	3960	6649
70		962	1160	1707	2955	4278	7182
80		1029	1241	1825	3159	4573	7678
90		1091	1316	1935	3350	4851	8144
100		1150	1387	2040	3532	5113	8584
110		1207	1455	2140	3704	5362	9003
120		1260	1519	2235	3869	5601	9403
130		1312	1581	2326	4027	5830	9787
140		1361	1641	2414	4179	6050	10157
150		1409	1699	2498	4325	6262	10513
160		1455	1754	2580	4467	6467	10858
170		1500	1808	2660	4605	6666	11192
180		1543	1861	2737	4738	6860	11517
190		1586	1912	2812	4868	7048	11832
200		1627	1962	2885	4995	7231	12140
210		1667	2010	2956	5118	7409	12439
220		1706	2057	3026	5238	7584	12732
230		1745	2104	3094	5356	7754	13018
240		1782	2149	3160	5471	7921	13298
250		1819	2193	3225	5584	8084	13573
260		1855	2236	3289	5695	8244	13841
270		1890	2279	3352	5803	8401	14105
280		1925	2321	3414	5910	8556	14364
290		1959	2362	3474	6014	8707	14618
300		1993	2402	3533	6117	8856	14868
320		2058	2481	3649	6318		
340		2121	2558	3762	6512		
360		2183	2632	3871	6701		
380		2243	2704	3977	6885		





ARI-REYCO R Series 971 / 973 / 974

Capacity Charts „Water & Liquid in Gal/Min“ (incl. 10% overpressure): Orifice M - T

Coeff. of discharge: 0,724	Orifice					
	M	N	P	Q	R	T
Design area [A ₀]	3,987 in ²	4,807 in ²	7,07 in ²	12,24 in ²	17,72 in ²	29,75 in ²
Design diameter [d ₀]	2,253 in	2,474 in	3,0 in	3,948 in	4,75 in	6,155 in
Set pressure [psig]						
400	2301	2774	4080	7063		
420	2358	2843	4181	7238		
440	2413	2909	4279	7408		
460	2467	2975	4375	7575		
480	2520	3039	4469	7738		
500	2572	3101	4562	7897		
520	2623	3163	4652	8054		
540	2673	3223	4740	8207		
560	2722	3282	4827	8358		
580	2771	3340	4913	8506		
600	2818	3397	4997	8651		
620	2864	3454	5079			
640	2910	3509	5161			
660	2955	3563	5241			
680	3000	3617	5320			
700	3044	3670	5397			
720	3087	3722	5474			
740	3129	3773	5549			
760	3171	3824	5624			
780	3213	3874	5697			
800	3254	3923	5770			
820	3294	3972	5842			
840	3334	4020	5912			
860	3374	4068	5982			
880	3413	4115	6052			
900	3451	4161	6120			
920	3489	4207	6188			
940	3527	4252	6254			
960	3564	4297	6321			
980	3601	4342	6386			
1000	3638	4386	6451			
1050	3728					
1100	3815					



ARI-REYCO R Series 971 / 973 / 974

Standard-flange dimensions / Safety Valve approvals

Nominal diameter			1" x 2"	1,5" x 2"	1,5" x 3"	2" x 3"	3" x 4"	3" x 6"	4" x 6"	6" x 8"	6" x 10"	8" x 10"				
Standard-flange dimensions																
ØD1	ANSI150	(inch)	4,25	5	5	6	7,5	7,5	9	11	11	13,5				
	ANSI300	(inch)	4,88	6,12	6,12	6,5	8,25	8,25	10	12,5	12,5	15				
	ANSI600	(inch)	4,88	6,12	6,12	6,5	8,25	8,25	10,75	14	14	16,5				
	ANSI900	(inch)	5,88	7	7	8,5	9,5	9,5	11,5	15	15	18,5				
	ANSI1500	(inch)	5,88	7	7	8,5	10,5	10,5	12,25	15,5	15,5	19				
	ANSI2500	(inch)	6,25	8	8	9,25	12	12	14	19	19	21,75				
ØD2	ANSI150	(inch)	6	6	7,5	7,5	9	11	11	13,5	16	16				
	ANSI300	(inch)	6,5	6,5	8,25	8,25	10	12,5	12,5	15	17,5	17,5				
b1			depending on the Orifice (table see below)													
b2	ANSI150	(inch)	0,75	0,75	0,88	0,88	0,88	0,94	0,94	1,06	1,12	1,12				
	ANSI300	(inch)	0,88	0,88	1,12	1,12	1,25	1,44	1,44	1,62	1,88	1,88				
Orifice			D	E	F	G	H	J	K	L	M	N	P	Q	R	T
b1	ANSI150 x ANSI150	(inch)	1,2	1,2	1,3	1,3	1,3	1,3	1,4	1,4	1,6	1,6	1,6	1,8	1,8	1,9
	ANSI300L x ANSI150	(inch)	0,8	0,8	1,5	1,5	1,5	1,6	1,8	1,8	1,9	1,9	1,9	2,3	2,3	2,4
	ANSI300 x ANSI150	(inch)	0,8	0,8	1,5	1,6	1,6	1,9	1,8	2,0	1,9	1,9	1,9	2,3	2,3	2,4
	ANSI600 x ANSI150	(inch)	0,8	0,8	1,5	1,6	1,7	1,9	1,9	2,3	2,3	2,2	2,2	2,7	2,7	2,4
	ANSI900 x ANSI300	(inch)	1,9	1,9	1,9	1,9	–	–	–	–	–	–	–	–	–	–
	ANSI900 x ANSI150	(inch)	–	–	–	–	2,2	2,2	2,2	2,4	2,4	2,4	2,4	–	–	–
	ANSI1500 x ANSI300	(inch)	1,9	1,9	1,9	2,3	2,6	2,6	2,6	2,8	–	–	–	–	–	–
	ANSI2500 x ANSI300	(inch)	–	–	–	2,8	–	–	–	–	–	–	–	–	–	–

Flanges acc. to ASME / ANSI B16.5

Nominal diameter			1"	1 1/2"	2"	3"	4"	6"	8"	10"
Standard-Flangeholes										
ØK	ANSI150	(inch)	3,12	3,88	4,75	6	7,5	9,5	11,75	14,25
n x Ød		(inch)	4 x 0,62	4 x 0,62	4 x 0,75	4 x 0,75	8 x 0,75	8 x 0,88	8 x 0,88	12 x 1
ØK	ANSI300	(inch)	3,5	4,5	5	6,62	7,88	10,62	13	15,25
n x Ød		(inch)	4 x 0,75	4 x 0,88	8 x 0,75	8 x 0,88	8 x 0,88	12 x 0,88	12 x 1	16 x 1,13
ØK	ANSI600	(inch)	3,5	4,5	5	6,62	8,5	11,5	13,75	17
n x Ød		(inch)	4 x 0,75	4 x 0,88	8 x 0,75	8 x 0,88	8 x 1	12 x 1,13	12 x 1,25	16 x 1,38
ØK	ANSI900	(inch)	4	4,88	6,5	7,5	9,25	12,5	15,5	18,5
n x Ød		(inch)	4 x 1	4 x 1,13	8 x 1	8 x 1	8 x 1,25	12 x 1,25	12 x 1,5	16 x 1,5
ØK	ANSI1500	(inch)	4	4,88	6,5	8	9,5	12,5	15,5	19
n x Ød		(inch)	4 x 1	4 x 1,13	8 x 1	8 x 1,25	8 x 1,38	12 x 1,5	12 x 1,75	12 x 2
ØK	ANSI2500	(inch)	4,25	5,75	6,75	9	10,75	14,5	17,25	21,25
n x Ød		(inch)	4 x 1	4 x 1,25	8 x 1,13	8 x 1,38	8 x 1,63	8 x 2,13	12 x 2,13	12 x 2,63

	ARI-REYCO R Series	
	Fig. 971-974	
ASME Code Section VIII-Division 1 (UV-stamp, NB-stamp) USA)	X	
Canada Registration - CRN (only version with UV-stamp)	X	
Pressure equipment directive PED 2014/68/EU Module B+D, H1	X	
Seat tightness API 527	X	

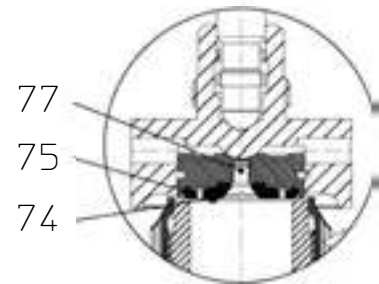


Soft sealing disc: WEDI

Aflas	-20 °F to +500 °F
BUNA-N	-65 °F to +275 °F
Chemraz	-20 °F to +450 °F
EPR	-65 °F to +325 °F
Fluoraz	-20 °F to +500 °F
Kalrez®	-20 °F to +550 °F
Silicone	-150 °F to +450 °F
Viton®	-65 °F to +400 °F

Parts

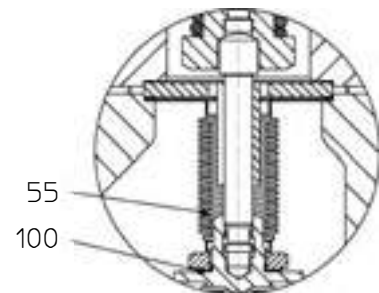
Pos.	Description	
74	Retaining plate	SA479Gr.316L
75	O-ring	refer to material list above
77	Retaining screw	SA479Gr.304



Soft sealing disc WEDI

Parts

Pos.	Description	
55	Bellows	Stainless steel / Inconel assembly
100	Gasket	Klingersil C-4400

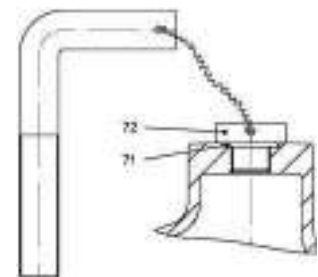


Bellow design (Stainless steel)

Attention: not applicable below 15 psig!

Parts

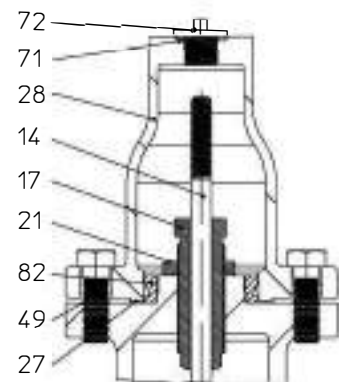
Pos.	Description	
71	Gasket (gag screw)	Stainless steel
72	Gag screw	SA479Gr.316L



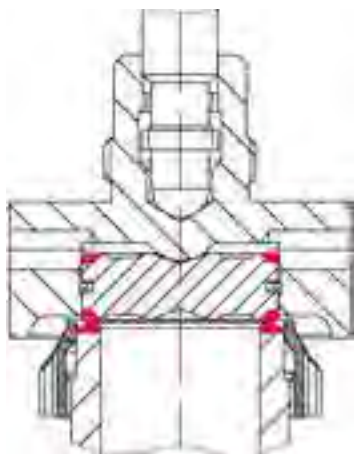
Design for test gag (Stainless steel)

Parts

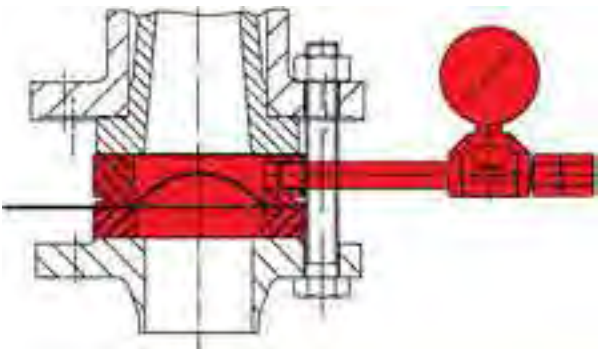
Pos.	Description	
14	Stem	SA479Gr.316L
17	Compression screw	SA479Gr.316L
21	Lock nut	SA479Gr.316L
27	Gasket (cap)	Stainless steel
28	Cap	SA216WCC
49	Bolt	SA193-B7
71	Gasket (gag screw)	Stainless steel
72	Gag screw	SA479Gr.316L
82	Adapter	SA108Gr.1018



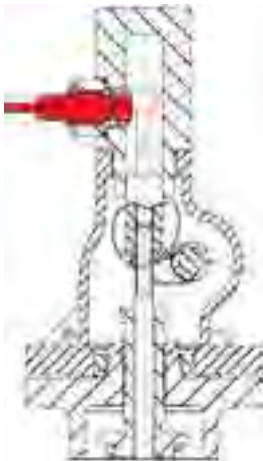
Bolted cap



Seat SA479Gr.316Ti / Stellit No. 21
Disc SA479Gr.316Ti / Stellit No. 6



Rupture disc



Proximity switch



Pressure reducing valve

DN		15	20	25	32	40	50	65	80	100
Kvs values	(m³/h)	3,2	5	8	12,5	20	32	50	80	125
Downstream pressure ranges	(bar-ü)	0,2 - 0,6	0,5 - 1,2	0,8 - 2,5	2 - 5	4,5 - 10	8 - 16			
Actuator DMA	(cm²)	400	250	160	80					
max. permissible pressure	(bar)	1,6	2,5	6	10					

Design with control valves: refer to data sheet STEVI440/441 and STEVI470/471.

Designs

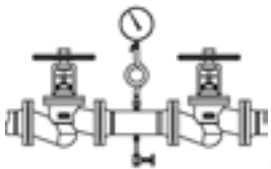
Code	Design	Type						
		PRS-S	PRS-S Plus	PRS-S complete	PRS-W	PRS-W complete	PRS-A	PRS-A complete
B	Bypass pipe	O	O	X	O	X	O	X
C	Condensate drain P2 side	O	O	X				
D	Steam drier insert	O		X				
E	Stop valve and safety valve with soft seal ¹⁾				O	X	O	X
F	Inlet pipe bend	X	O	O	O	O	O	O
G	Water pocket (simple steam trap)	O	X					
H	Wall bracket	O	O	O	O	O	O	O
J	Floor bracket	O	O	O	O	O	O	O
K	Double isolation ²⁾	O	O	O	O	O	O	O
T	Duplex (double design)	O	O		O		O	

X = standard design / O = special design

¹⁾

E	Soft seal PRS-W: Stop valves PTFE plug Safety valve EPDM plug PREDU actuator EPDM rolling diaphragm	Soft seal PRS-A: Stop valves PTFE plug Safety valve EPDM plug PREDU actuator EPDM rolling diaphragm
---	---	---

²⁾ z.B.

K	Special design for inlet and outlet: Double isolation bleed valve (P1- and P2-side)	
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Information on pressure protection

Possible fluctuations in the input-side steam output and an additional bypass operation make it advantageous to spread the overpressure protection. For this purpose a safety valve for normal operations is provided directly downstream from the pressure reducer with another safety valve directly downstream from the last stop valve (for bypass operations).

In principle, the max. possible mass flow must be included to determine the safety valve. Normal operations are to be regarded as ideal operations and do not govern size of the safety valve.

The following operating conditions are to be avoided:

- Maximum mass flow of the total system applied, because, e.g., all the other consumers close.
- The pressure in the inlet area increases until it reaches the set pressure on the safety valve installed in the inlet area. The greater pressure difference this cases (upstream pressure to downstream pressure) leads to different operating conditions and possibly to a greater mass flow.
- Simultaneous opening of the bypass and main pipes.

Please take this into account for your enquiry or order and let us know which operating conditions can occur!

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

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

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

ARI-ZETRIX®

with worm gear

- Self-locking
- With variable adjustment

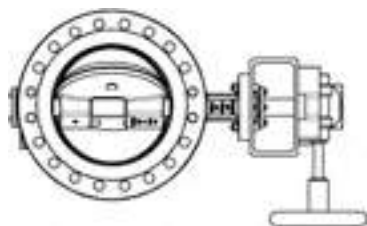


Fig. 016 -
ARI-ZETRIX® double flange

Page 8

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

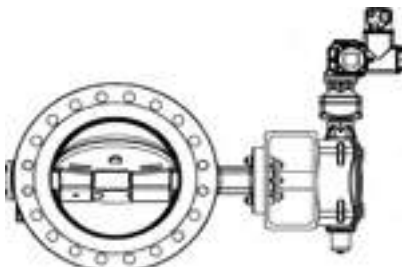


Fig. 018 -
ARI-ZETRIX® threaded flanged

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ARI-ZETRIX®

with pneumatic actuator

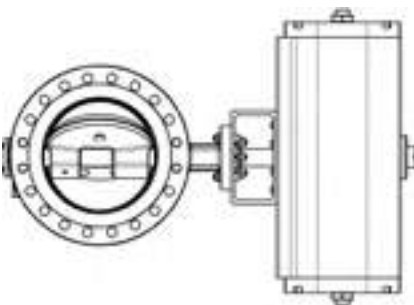
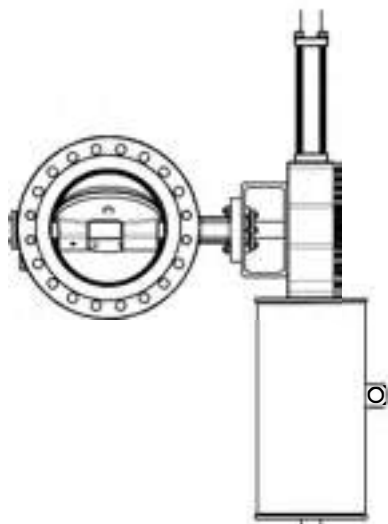


Fig. 019 -
ARI-ZETRIX® butt weld ends

on request

ARI-ZETRIX®

with hydraulic actuator



on request

Features:

- Double flange and threaded flange 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)
- Firesafe acc. to ISO 10479 / API 607
- ATEX
- SIL
- Packing acc. to EN ISO 15848-1/ TA-Luft (optional)

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

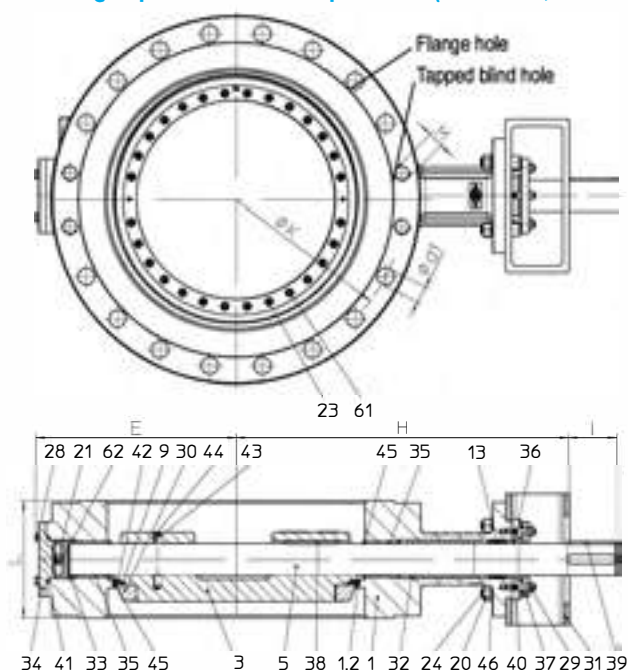


Figure	Nominal pressure	Material	Nominal diameter	Disc	Stem
30.016	PN6	1.0619+N	DN 80-1200	1.0619+N	1.4021+QT
31.016	PN10	1.0619+N	DN 80-1200	1.0619+N	1.4021+QT
32.016	PN16	1.0619+N	DN 80-1200	1.0619+N	1.4021+QT
34.016	PN25	1.0619+N	DN 80-1200	1.0619+N	1.4021+QT
35.016	PN40	1.0619+N	DN 80-1200	1.0619+N	1.4021+QT
50.016	PN6	1.4408	DN 80-1200	1.4408	1.4542
51.016	PN10	1.4408	DN 80-1200	1.4408	1.4542
52.016	PN16	1.4408	DN 80-1200	1.4408	1.4542
54.016	PN25	1.4408	DN 80-1200	1.4408	1.4542
55.016	PN40	1.4408	DN 80-1200	1.4408	1.4542

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

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 11)

Parts					
Pos.	Sp.p.	Description	Fig. 30. / 31. / 32. / 34. / 35.016		Fig. 50. / 51. / 52. / 54. / 55.016
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 on request)
9	x	Lamellar seal ring	Graphite / X2CrNiMoN22-5-3, 1.4462		
13	x	Packing unit	Graphite		
20		Hexagon nut	8 - A2B		
21		Cheese head screw	A4-70		
23		Cheese head screw	A4-70		
24		Cheese head screw	8.8-A2B		
28		Hexagon screw	A2-70		
29		Hexagon nut	A2		
30		Retaining ring	P265 GH, 1.0425 (nickel plated)		X5CrNi18-10, 1.4301
31		Console	S355J2H, 1.0576 (galvanized)		
32		Distance bush	X5CrNi18-10, 1.4301		
33		Axial bearing	X20Cr13+QT, 1.4021+QT (hardened)		X5CrNi18-10, 1.4301 (hardened)
34		Bottom flange	P250 GH, 1.0460		X5CrNi18-10, 1.4301
35		Bushing	X20Cr13+QT, 1.4021+QT (hardened)		X5CrNi18-10, 1.4301 (hardened)
36		Bushing	X5CrNi18-10, 1.4301		
37		Packing box flange	X5CrNi18-10, 1.4301		
38 / 39		Parallel key	A4		
40		Stud	A4-70		
41	x	Spiral wounded gasket	Graphite / X6CrNiTi18-10, 1.4541		
42	x	Spiral wounded gasket	Graphite / Hastelloy C276, 2.4819		
43		Parallel pin	A4-70		
44		Retaining ring	X39CrMo17-1+QT, 1.4122+QT		
45		Bearing protector	Graphite webbing		
46		Spring ring	FST-A2B		
61 / 62		Lock washer pair	A4		
	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	700	800	900	1000	1200	
Face-to-face dimension series 13 acc. to DIN EN 558 / ISO 5752 / 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																				
PN6 / PN10	H	(mm)	292	288	344	344	371	498	552	588	662	661	712	763	839	940	1043	1051	1190	
	E	(mm)	127	150	184	185	204	239	267	305	337	380	392	460	539	616	666	728	867	
	I	(mm)	45	45	55	55	55	55	65	65	80	80	110	110	110	120	120	120	162	
PN16	H	(mm)	292	288	344	344	371	498	552	588	662	661	712	763	838	941	1043	1064	1244	
	E	(mm)	127	150	184	185	204	239	267	305	337	380	392	460	538	618	671	732	875	
	I	(mm)	45	45	55	55	55	55	65	65	80	80	110	110	120	120	120	165	200	
PN25	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	875	
	I	(mm)	45	45	55	55	55	55	65	65	80	80	110	110	120	165	165	165	200	
PN40	H	(mm)	292	288	344	344	400	575	601	636	661	681	762	819	868	997	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	

DN			80	100	125	150	200	250	300	350	400	450	500	600	700	800	900	1000	1200	
Standard-flange dimensions / Hexagon screw (Quantity, Thread, Length) per side																				
PN6	Flange hole	ØK	(mm)	150	170	200	225	280	335	395	445	495	550	600	705	810	920	1020	1120	1340
		n x Ød1	(mm)	—	—	4x18	4x18	4x18	8x18	8x22	8x22	12x22	16x22	16x22	16x26	20x26	20x30	20x30	24x30	28x33
		Number of threads (M)	(n)	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	Screw	Thread ^{1) 2)}	(mm)	M16	M16	M16	M16	M16	M16	M20	M20	M20	M20	M20	M24	M24	M27	M27	M27	M30
		Number ¹⁾	(n)	—	—	4	4	4	8	8	12	12	16	16	16	20	20	20	20	20
		Length ¹⁾	(mm)	—	—	90	90	90	100	100	100	100	110	110	120	*	*	*	*	*
		Number ²⁾	(n)	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Length ²⁾	(mm)	40	40	40	50	50	50	50	50	50	60	60	70	*	*	*	*	*		
PN10	Flange hole	ØK	(mm)	160	180	210	240	295	350	400	460	515	565	620	725	840	950	1050	1160	1380
		n x Ød1	(mm)	4x18	4x18	4x18	4x22	4x22	8x22	8x22	12x22	12x26	16x26	16x26	16x30	20x30	20x33	24x33	24x36	28x39
		Number of threads (M)	(n)	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	Screw	Thread ^{1) 2)}	(mm)	M16	M16	M16	M20	M20	M20	M20	M20	M24	M24	M24	M27	M27	M30	M30	M33	M36
		Number ¹⁾	(n)	4	4	4	4	4	8	8	12	12	16	16	16	20	20	24	24	28
		Length ¹⁾	(mm)	80	80	90	90	90	100	100	100	100	110	110	120	*	*	*	*	*
		Number ²⁾	(n)	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Length ²⁾	(mm)	40	40	40	50	50	50	50	50	50	60	60	70	*	*	*	*	*		
PN16	Flange hole	ØK	(mm)	160	180	210	240	295	355	410	470	525	585	650	770	840	950	1050	1170	1390
		n x Ød1	(mm)	4x18	4x18	4x18	4x22	8x22	8x26	8x26	12x26	12x30	16x30	16x33	16x36	20x36	20x39	24x39	24x42	28x48
		Number of threads (M)	(n)	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	Screw	Thread ^{1) 2)}	(mm)	M16	M16	M16	M20	M20	M24	M24	M24	M27	M27	M30	M33	M33	M36	M36	M39	M45
		Number ¹⁾	(n)	4	4	4	4	8	8	8	12	12	16	16	16	20	20	24	24	28
		Length ¹⁾	(mm)	80	80	90	90	90	100	100	110	110	120	130	150	*	*	*	*	*
		Number ²⁾	(n)	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Length ²⁾	(mm)	40	40	40	50	50	60	60	60	60	70	80	90	*	*	*	*	*		
PN25	Flange hole	ØK	(mm)	160	190	220	250	310	370	430	490	550	600	660	770	875	990	1090	1210	1420
		n x Ød1	(mm)	4x18	4x22	4x26	4x26	8x26	8x30	12x30	12x33	12x36	16x36	16x36	16x39	20x42	20x48	24x48	24x56	28x56
		Number of threads (M)	(n)	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	Screw	Thread ^{1) 2)}	(mm)	M16	M20	M24	M24	M24	M27	M27	M30	M33	M33	M33	M36	M39	M45	M45	M52	M52
		Number ¹⁾	(n)	4	4	4	4	8	8	12	12	12	16	16	16	20	20	24	24	28
		Length ¹⁾	(mm)	90	95	95	95	100	110	110	120	130	130	140	180	*	*	*	*	*
		Number ²⁾	(n)	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Length ²⁾	(mm)	50	50	60	60	60	60	60	70	80	80	90	100	*	*	*	*	*		
PN40	Flange hole	ØK	(mm)	160	190	220	250	320	385	450	510	585	610	670	795	900	1030	1140	1250	1460
		n x Ød1	(mm)	4x18	4x22	4x26	4x26	8x30	8x33	12x33	12x36	12x39	16x39	16x42	16x48	20x48	20x56	24x56	24x56	28x62
		Number of threads (M)	(n)	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	Screw	Thread ^{1) 2)}	(mm)	M16	M20	M24	M24	M27	M30	M30	M33	M36	M36	M39	M45	M45	M52	M52	M52	M56
		Number ¹⁾	(n)	4	4	4	4	8	8	12	12	12	16	16	16	20	20	24	24	28
		Length ¹⁾	(mm)	90	95	95	95	105	120	130	140	150	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	50	60	60	70	70	80	80	90	100	100	120	*	*	*	*	*		

¹⁾ Hexagon screws / studs for flange holes

²⁾ Hexagon screws for tapped blind hole

^{*)} to be determined by the customer

¹⁾ Hexagon screws / studs for flange holes²⁾ Hexagon screws for tapped blind hole³⁾ to be determined by the customer

DN	80	100	125	150	200	250	300	350	400	450	500	600	700	800	900	1000	1200
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Weights for double flanged process valve (series 13)																				
1.0619+N	PN6/10	Fig. 30./31.016	(kg)	33	44	65	65	80	98	131	175	236	281	454	530	718	949	1169	1692	2430
	PN16	Fig. 32.016	(kg)	33	44	65	65	80	98	131	175	236	281	454	530	779	1039	1250	1889	2958
	PN25	Fig. 34.016	(kg)	33	44	65	65	80	98	131	175	236	281	454	530	875	1192	1517	2110	3277
	PN40	Fig. 35.016	(kg)	33	44	65	65	90	105	182	260	345	365	523	832	1181	1668	2033	2853	4241
1.4408	PN6/10	Fig. 50./51.016	(kg)	35	46	68	68	84	103	136	180	242	309	460	537	725	958	1181	1709	2454
	PN16	Fig. 52.016	(kg)	35	46	68	68	84	103	136	180	242	309	460	537	786	1049	1262	1907	2987
	PN25	Fig. 54.016	(kg)	35	46	68	68	84	103	136	180	242	309	460	537	883	1204	1532	2131	3309
	PN40	Fig. 55.016	(kg)	35	46	68	68	96	110	187	265	352	402	529	841	1192	1684	2053	2881	4283

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	120 °C	150 °C	200 °C	250 °C	300 °C	350 °C	400°C
1.0619+N	6	(bar)	auf Anfrage	6	5,38	5,2	5	4,5	4,1	3,8	3,5
1.0619+N	10	(bar)	auf Anfrage	10	9,2	8,8	8,3	7,6	6,9	6,4	5,9
1.0619+N	16	(bar)	12	16	15,3	14	13	11	10,2	9,5	
1.0619+N	25	(bar)	18,7	25	23,9	22	20	17,2	16	14,8	
1.0619+N	40	(bar)	30	40	38,1	35	32	28	25,7	23,8	

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	6	(bar)	auf Anfrage	6	5,4	5	4,7	4,4	4,2	4,1
1.4408	10	(bar)	auf Anfrage	10	9	8,4	7,9	7,4	7,1	6,8
1.4408	16	(bar)	16	16	14,5	13,4	12,7	11,8	11,4	10,9
1.4408	25	(bar)	25	25	22,7	21	19,8	18,5	17,8	17,1
1.4408	40	(bar)	40	40	36,3	33,7	31,8	29,7	28,5	27,4

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

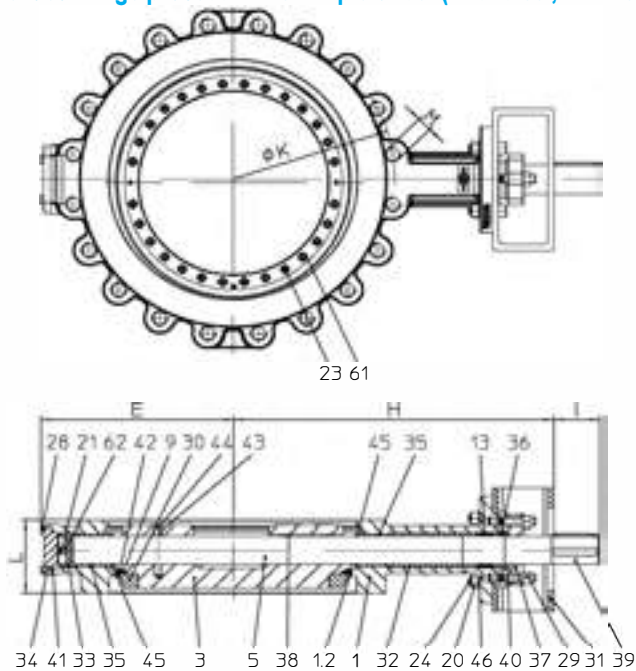


Figure	Nominal pressure	Material	Nominal diameter	Disc	Stem
30.018	PN 6	on request			
31.018	PN10	1.0619+N	DN 80-600	1.0619+N	1.4021+QT
32.018	PN16	1.0619+N	DN 80-600	1.0619+N	1.4021+QT
34.018	PN25	1.0619+N	DN 80-600	1.0619+N	1.4021+QT
35.018	PN40	1.0619+N	DN 80-600	1.0619+N	1.4021+QT

50.018	PN 6	on request			
51.018	PN10	1.4408	DN 80-600	1.4408	1.4542
52.018	PN16	1.4408	DN 80-600	1.4408	1.4542
54.018	PN25	1.4408	DN 80-600	1.4408	1.4542
55.018	PN40	1.4408	DN 80-600	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
- Electric actuator
- Pneumatic actuator
- Hydraulic actuator

Test:

Sealing leakage test: • DIN EN 12266-1 Leakage rate A

Options on request (refer to page 11)

Parts					
Pos.	Sp.p.	Description	Fig. 31. / 32. / 34. / 35.018	Fig. 51. / 52. / 54. / 55.018	
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 on request)	
9	x	Lamellar seal ring	Graphite / X2CrNiMoN22-5-3, 1.4462		
13	x	Packing unit	Graphite		
20		Hexagon nut	8 - A2B		
21		Cheese head screw	A4-70		
23		Cheese head screw	A4-70		
24		Cheese head screw	8.8-A2B		
28		Hexagon screw	A2-70		
29		Hexagon nut	A2		
30		Retaining ring	P265 GH, 1.0425 (nickel plated)	X5CrNi18-10, 1.4301	
31		Console	S355J2H, 1.0576 (galvanized)		
32		Distance bush	X5CrNi18-10, 1.4301		
33		Axial bearing	X20Cr13+QT, 1.4021+QT (hardened)	X5CrNi18-10, 1.4301 (hardened)	
34		Bottom flange	P250 GH, 1.0460	X5CrNi18-10, 1.4301	
35		Bushing	X20Cr13+QT, 1.4021+QT (hardened)	X5CrNi18-10, 1.4301 (hardened)	
36		Bushing	X5CrNi18-10, 1.4301		
37		Packing box flange	X5CrNi18-10, 1.4301		
38 / 39		Parallel key	A4		
40		Stud	A4-70		
41	x	Spiral wounded gasket (≥ DN 250)	Graphite / X6CrNiTi18-10, 1.4541		
42	x	Spiral wounded gasket	Graphite / Hastelloy C276, 2.4819		
43		Parallel pin	A4-70		
44		Retaining ring	X39CrMo17-1+QT, 1.4122+QT		
45		Bearing Protector	Graphite webbing		
46		Spring ring	FST-A2B		
61 / 62		Lock washer pair	A4		
	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	--	76	89	114	114	127	140	152	152	178
---	------	----	----	----	----	----	-----	-----	-----	-----	-----	-----	-----

Dimensions

PN10 / PN16 / PN25	H	(mm)	292	288	--	344	371	498	552	588	662	661	712	763
	E	(mm)	131	154	--	188	211	240	268	306	338	380	393	460
	I	(mm)	45	45	--	55	55	55	65	65	80	80	110	110
PN40	H	(mm)	292	288	--	344	400	575	601	636	661	681	762	819
	E	(mm)	131	154	--	188	226	252	285	317	361	406	417	496
	I	(mm)	45	45	--	55	65	80	80	110	110	110	130	130

Standard-flange dimensions / Threads (Dimensions, Quantity, Screw depth) per side

PN10	Flange hole	ØK	(mm)	160	180	--	240	295	350	400	460	515	565	620	725
		Number of threads	(n)	8	8	--	8	8	12	12	16	16	20	20	20
	Thread	Thread ^{1) 2)}	(mm)	M16	M16	--	M20	M20	M20	M20	M20	M24	M24	M24	M27
		Number ¹⁾	(n)	8	8	--	8	8	12	8	12	16	16	16	16
		Number ²⁾	(n)	--	--	--	--	--	--	4	4	--	4	4	4
		Screw depth ²⁾	(mm)	--	--	--	--	--	--	24	30	--	30	30	30
PN16	Flange hole	ØK	(mm)	160	180	--	240	295	355	410	470	525	585	650	770
		Number of threads	(n)	8	8	--	8	12	12	12	16	16	20	20	20
	Thread	Thread ^{1) 2)}	(mm)	M16	M16	--	M20	M20	M24	M24	M24	M27	M27	M30	M33
		Number ¹⁾	(n)	8	8	--	8	12	12	12	12	16	16	16	16
		Number ²⁾	(n)	--	--	--	--	--	--	4	--	4	4	4	4
		Screw depth ²⁾	(mm)	--	--	--	--	--	--	30	--	30	30	30	30
PN25	Flange hole	ØK	(mm)	160	190	--	250	310	370	430	490	550	600	660	770
		Number of threads	(n)	8	8	--	8	12	12	16	16	16	20	20	20
	Thread	Thread ^{1) 2)}	(mm)	M16	M20	--	M24	M24	M27	M27	M30	M33	M33	M33	M36
		Number ¹⁾	(n)	8	8	--	8	8	12	12	12	16	16	16	16
		Number ²⁾	(n)	--	--	--	--	4	--	4	4	--	4	4	4
		Screw depth ²⁾	(mm)	--	--	--	--	18	--	24	30	--	33	30	30
PN40	Flange hole	ØK	(mm)	160	190	--	250	320	385	450	510	585	610	670	795
		Number of threads	(n)	8	8	--	8	12	12	16	16	16	20	20	20
	Thread	Thread ^{1) 2)}	(mm)	M16	M20	--	M24	M27	M30	M30	M33	M36	M36	M39	M45
		Number ¹⁾	(n)	8	8	--	8	8	12	12	12	12	16	16	16
		Number ²⁾	(n)	--	--	--	--	4	--	4	4	4	4	4	4
		Screw depth ²⁾	(mm)	--	--	--	--	18	--	21	28	33	33	30	35

¹⁾ Tapped through hole²⁾ Tapped blind hole

Weights for threaded flanged process valve

1.0619+N	PN10/16/25	Fig. 31./32./34.018	(kg)	24	29	--	45	64	74	121	152	192	221	416	446
	PN40	Fig. 35.018	(kg)	24	29	--	45	64	82	148	246	317	355	494	778
1.4408	PN10/16/25	Fig. 51./52./54.018	(kg)	26	31	--	47	68	78	128	158	198	244	422	458
	PN40	Fig. 55.018	(kg)	26	31	--	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.

acc. to manuf. standard	PN		-60°C bis <-10°C	-10°C bis 50 °C	120 °C	150 °C	200 °C	250 °C	300 °C	350 °C	400 °C
1.0619+N	6	(bar)	on request	6	5,38	5,2	5	4,5	4,1	3,8	3,5
1.0619+N	10	(bar)	on request	10	9,2	8,8	8,3	7,6	6,9	6,4	5,9
1.0619+N	16	(bar)	12	16		15,3	14	13	11	10,2	9,5
1.0619+N	25	(bar)	18,7	25		23,9	22	20	17,2	16	14,8
1.0619+N	40	(bar)	30	40		38,1	35	32	28	25,7	23,8

acc. to DIN EN 1092-1	PN		-60°C bis <-10°C	-10°C bis 100°C	150°C	200°C	250°C	300°C	350°C	400°C
1.4408	6	(bar)	on request	6	5,4	5	4,7	4,4	4,2	4,1
1.4408	10	(bar)	on request	10	9	8,4	7,9	7,4	7,1	6,8
1.4408	16	(bar)	16	16	14,5	13,4	12,7	11,8	11,4	10,9
1.4408	25	(bar)	25	25	22,7	21	19,8	18,5	17,8	17,1
1.4408	40	(bar)	40	40	36,3	33,7	31,8	29,7	28,5	27,4



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

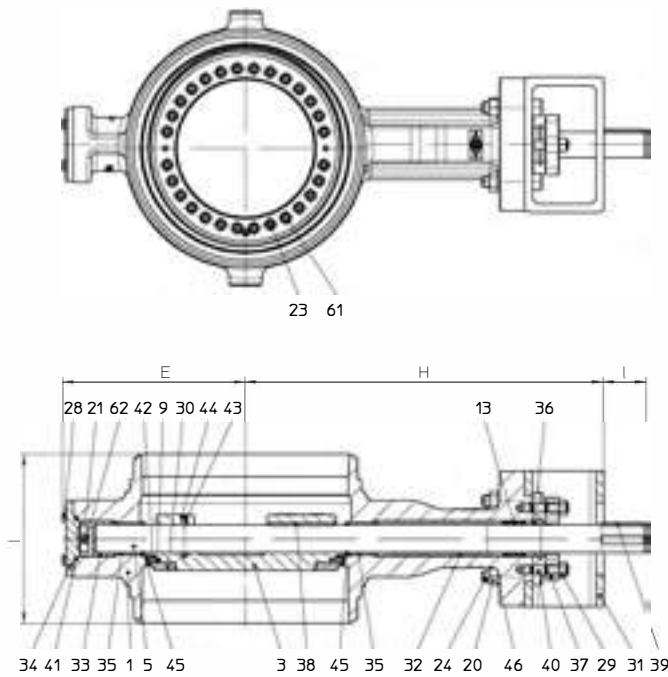


Figure	Nominal pressure	Material	Nominal diameter	Disc	Stem
34.019	PN 6 - PN25	1.0619+N	DN 80-600	1.0619+N	1.4021+QT
35.019	PN40	1.0619+N	DN 80-600	1.0619+N	1.4021+QT

Face-to-face dimension series 14 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
- Electric actuator
- Pneumatic actuator
- Hydraulic actuator

Test:

Sealing leakage test: • DIN EN 12266-1 Leakage rate A

Options on request (refer to page 13)

Parts			
Pos.	Sp.p.	Description	Fig. 34/35.019
1		Body	GP240GH+N, 1.0619+N
1.2		Seat	Stellit 21
3		Disc	GP240GH+N, 1.0619+N
5		Stem	X20Cr13+QT, 1.4021+QT
9	x	Lamellar seal ring	Graphite / X2CrNiMoN22-5-3, 1.4462
13	x	Packing unit	Graphit
20		Hexagon nut	8 - A2B
21		Cheese head screw	A4-70
23		Cheese head screw	A4-70
24		Cheese head screw	8.8-A2B
28		Hexagon screw	A2-70
29		Hexagon nut	A2
30		Retaining ring	P265 GH, 1.0425 (nickel plated)
31		Console	S355J2H, 1.0576 (galvanized)
32		Distance bush	X5CrNi18-10, 1.4301
33		Axial bearing	X20Cr13+QT, 1.4021+QT (hardened)
34		Bottom flange	P250 GH, 1.0460
35		Bushing	X20Cr13+QT, 1.4021+QT (hardened)
36		Bushing	X5CrNi18-10, 1.4301
37		Packing box flange	X5CrNi18-10, 1.4301
38 / 39		Parallel key	A4
40		Stud	A4-70
41	x	Spiral wound gasket	Graphite / X6CrNiTi18-10, 1.4541
42	x	Spiral wound gasket	Graphite / Hastelloy C276, 2.4819
43		Parallel pin	A4-70
44		Retaining ring	X39CrMo17-1+QT, 1.4122+QT
45		Bearing Protector	Graphite webbing
46		Spring ring	FST-A2B
61 / 62		Lock washer pair	A4
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
Face-to-face dimension series 14 acc. to DIN EN 558 / ISO 5752														
L		(mm)	180	190	200	210	230	250	270	290	310	330	350	390
Dimensions														
PN 6 - PN25	H	(mm)	292	288	344	344	371	498	552	588	662	661	712	763
	E	(mm)	131	154	188	188	211	240	268	306	338	380	393	460
	I	(mm)	45	45	55	55	55	55	65	65	80	80	110	110
PN40	H	(mm)	292	288	344	344	400	575	601	636	661	681	762	819
	E	(mm)	131	154	188	188	226	252	285	317	361	406	417	496
	I	(mm)	45	45	55	55	65	80	80	110	110	110	130	130
Butt weld ends according to EN12627														
ØA		(mm)	91	117	144	172	223	278	329	362	413	464	516	619
ØB		(mm)	80,9	104,3	130,7	157,1	204,9	257	307,9	338	384,4	437	486	585
Ødi		(mm)	76	104,3	128	152	200	250	296	331	380	437	480	581
L1 (similar)		(mm)	12	14	18	20	20	25	33	45	45	33	40	40
Ød3		(mm)	88,9	114,3	139,7	168,3	219,1	273	323,9	355,6	406,4	457	508	610
s1		(mm)	4	5	4,5	5,6	7,1	8	8	8,8	11	10	11	12,5
s1 max.		(mm)	10	9	7	14	13	16	18	16	17	11,5	18	19

- DIN EN 12627 / similar Fig. 4 (ARI-Standard)

- ASME B16.25

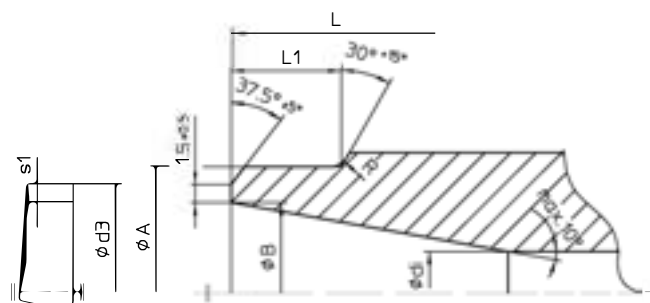
- Joint preparation acc. to - DIN EN ISO 9692-1 / DIN 2559-2

- Customer specific tube wall thickness acc. to ISO 4200

- Shod ends (on request)

- Further, customer-specific dimensions on request

Edge shaping DIN EN ISO 5817



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.

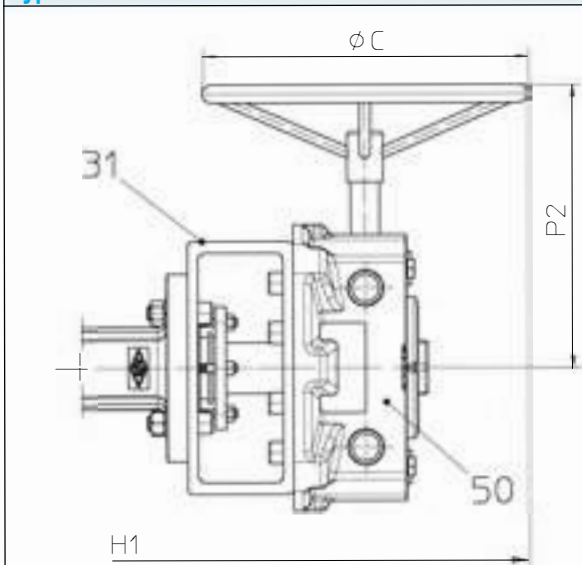
Due to the different material composition and material thickness of valves and tubes, gas welding is more susceptible to produce faults than electric welding (hardness cracks, coarse-grained structure).

DN				80	100	125	150	200	250	300	350	400	450	500	600
Weights for butt weld ended process valve															
1.0619+N	PN 6 - PN25	Fig. 34.019	(kg)	22	26	36	38	52	67	92	110	161	195	356	420
	PN40	Fig. 35.019	(kg)	22	26	36	38	59	78	113	165	208	256	371	577

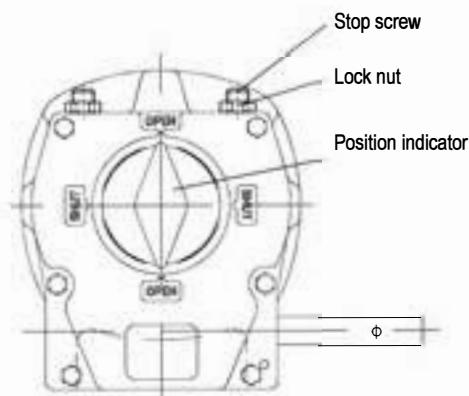
Pressure-temperature-ratings

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

acc. to manuf. standard	PN		-60°C to <-10°C	-10°C to 50 °C	120 °C	150 °C	200 °C	250 °C	300 °C	350 °C	400°C
1.0619+N	PN 6 - PN25	(bar)	18,7	25		23,9	22	20	17,2	16	14,8
1.0619+N	40	(bar)	30	40		38,1	35	32	28	25,7	23,8

ZETRIX® process valve with worm gear
Type: AB


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



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

Parts			
Pos.	Ers.	Description	Fig. 30./31./ 32./ 34./ 35.016; 50./51./ 52./ 54./ 55.016 ; 30./31./ 32./ 34./ 35.018; 50./51./ 52./ 54./ 55.018 ; 30./31./ 32./ 34./ 35.019
31		Console	S355J2H, 1.0576 (zinc coated)
50		Worm gear	
L Spare parts			

DN	80	100	125	150	200	250	300	350	400	450	500	600	700-1200
----	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	----------

Dimensions														
PN6 / PN10 / PN16 / PN25	H1 (to middle of valve)	(mm)	395	395	585	585	612	739	844	980	1110	1109	1017	1068
	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

on request

PN40	H1 (to middle of valve)	(mm)	395	395	585	585	692	973	1049	941	966	986	1121	1128
	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

on request

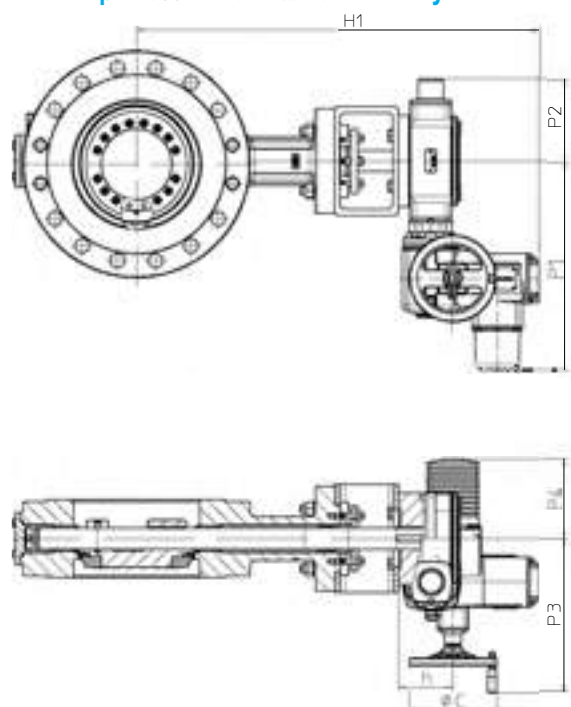
Weights																
1.0619+N	PN6/10/16/25	Fig. 30./31./32./34.016 with gear	(kg)	37	48	73	73	88	106	146	190	263	303	495	575	on request
	PN40	Fig. 35.016 mit Getriebe	(kg)	37	48	73	73	105	120	209	301	390	441	607	916	
	PN6/10/16/25	Fig. 30./31./32./34.018 with gear	(kg)	28	33	–	53	72	74	136	167	219	249	457	491	
	PN40	Fig. 35.018 with gear	(kg)	28	33	–	53	79	82	175	287	362	412	578	862	
	PN25	Fig. 34.019 with gear	(kg)	26	30	44	46	60	75	102	120	174	208	393	457	
	PN40	Fig. 35.019 with gear	(kg)	26	30	44	46	69	91	126	178	245	293	446	652	
1.4408	PN6/10/16/25	Fig. 50./51./52./54.016 with gear	(kg)	39	50	76	76	92	111	151	195	269	309	501	582	
	PN40	Fig. 55.016 with gear	(kg)	39	50	76	76	111	125	214	306	397	458	613	925	
	PN6/10/16/25	Fig. 50./51./52./54.018 with gear	(kg)	30	35	–	55	76	78	166	173	225	265	463	503	
	PN40	Fig. 55.018 with gear	(kg)	30	35	–	55	84	86	179	291	369	443	534	871	

on request





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:

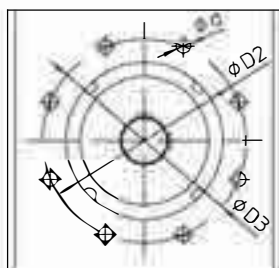
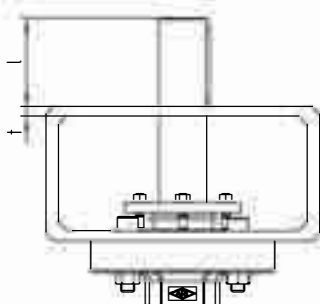
- 400V 50Hz (230V 50Hz)
- Other voltages on request

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!

Actuator flange connection EN ISO 5211



PN6 / PN10

DN		80	100	125	150	200	250	300	350	400	450	500	600	700	800	900	1000	1200	
Connection EN ISO 5211		F10		F12				F14		F16		F25			F30			F35	
Stem with 2 parallel keys 90°	(mm)	22	28	36				42		48	50	60	70	80		98	110	130	
Ø d (Hole-Ø)	(mm)	11		13				17		21		17			21			33	
Ø D2 (Inside-Ø)	(mm)	70		85				100		130		200			230			260	
Ø D3 (Screw-hole circle)	(mm)	102		125				140		165		254			298			356	
l	(mm)	45		55				65		80		110			120			165	
t	(mm)	8								12		14							22

PN16

DN		80	100	125	150	200	250	300	350	400	450	500	600	700	800	900	1000	1200	
Connection EN ISO 5211		F10		F12				F14		F16		F25		F30			F35	F40	
Stem with 2 parallel keys 90°	(mm)	22	28	36				42		48	50	60	70	98	110	120	130	160	
Ø d (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	(mm)	45		55				65		80		110		120			165	200	
t	(mm)	8								12		14						22	27

PN25

DN		80	100	125	150	200	250	300	350	400	450	500	600	700	800	900	1000	1200
Connection EN ISO 5211		F10		F12				F14		F16		F25		F30	F35			F40
Stem with 2 parallel keys 90°	(mm)	22	28	36				42		48	50	60	70	98	110	120	130	160
Ø d (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	(mm)	45		55				65		80		110		120	165			200
t	(mm)	8								12		14			22			27

PN40

DN		80	100	125	150	200	250	300	350	400	450	500	600	700	800	900	1000	1200
Connection EN ISO 5211		F10		F12		F14	F16		F25			F30		F35	F40			F48
Stem with 2 parallel keys 90°	(mm)	22	28	36		42		48	60			70	80	110	120	145	160	190
Ø d (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	(mm)	45		55		65	80		110			130		165	200			280
t	(mm)	8					12		14					22	27			37

4-square connection on request.

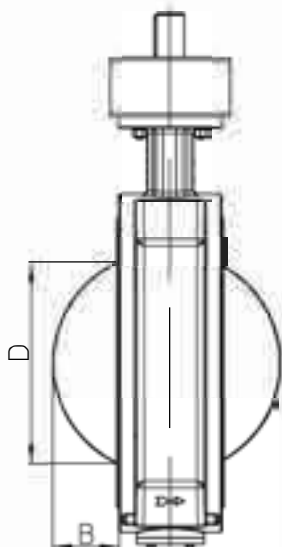


Kvs-value / Zeta-value (Fig. 016, 018, 019)																			
DN			80	100	125	150	200	250	300	350	400	450	500	600	700	800	900	1000	1200
PN6/10	Kvs-value	(m³/h)	100	190	345	515	1245	2110	3195	4230	5650	8165	9260	13520	27800	39569	45914	57885	80980
	Zeta-value	—	6,54	4,42	3,28	3,05	1,65	1,40	1,27	1,34	1,28	0,98	1,16	1,13	0,47	0,42	0,49	0,47	0,50
PN16/25	Kvs-value	(m³/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	0,68
PN40	Kvs-value	(m³/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	0,86

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
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
B	(mm)	9	21	–	38	60	69	89	105	127	148	171	213
D	(mm)	43	73,5	–	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
B	(mm)	–	–	–	–	–	–	9	23	37	59	69	99
D	(mm)	–	–	–	–	–	–	87	161	215	292	327	424



Options

- Design acc. to EN ISO 15848-1/ TA-Luft (add. secondary sealing possible with 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 of 1.4571 for special applications
- Blow-out protected stem acc. to API 609
- Toxic sealing (on request)
- Heating jacket (on request)

Triple offset design — Metal seal — Self-aligning sealing ring
New from ARI: up to DN 1200 — with butt-weld ends — fully lugged class 600

ZETRIX®

The ARI process valve

New from ARI:
With butt-weld ends



ZETRIX®
Manual



ZETRIX®
Electric actuator



ZETRIX®
Pneumatic actuator



ZETRIX®
Hydraulic actuator

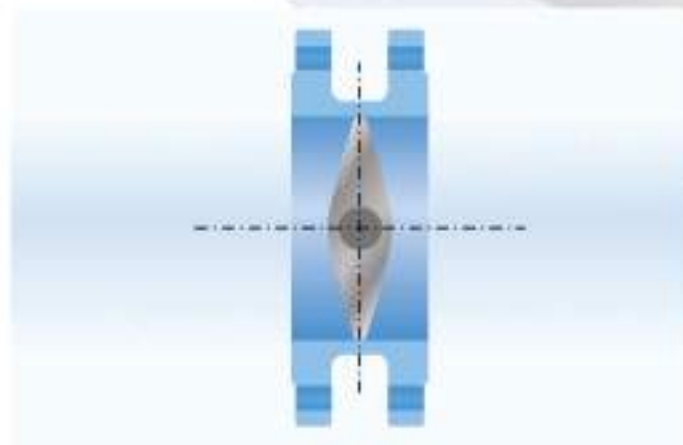
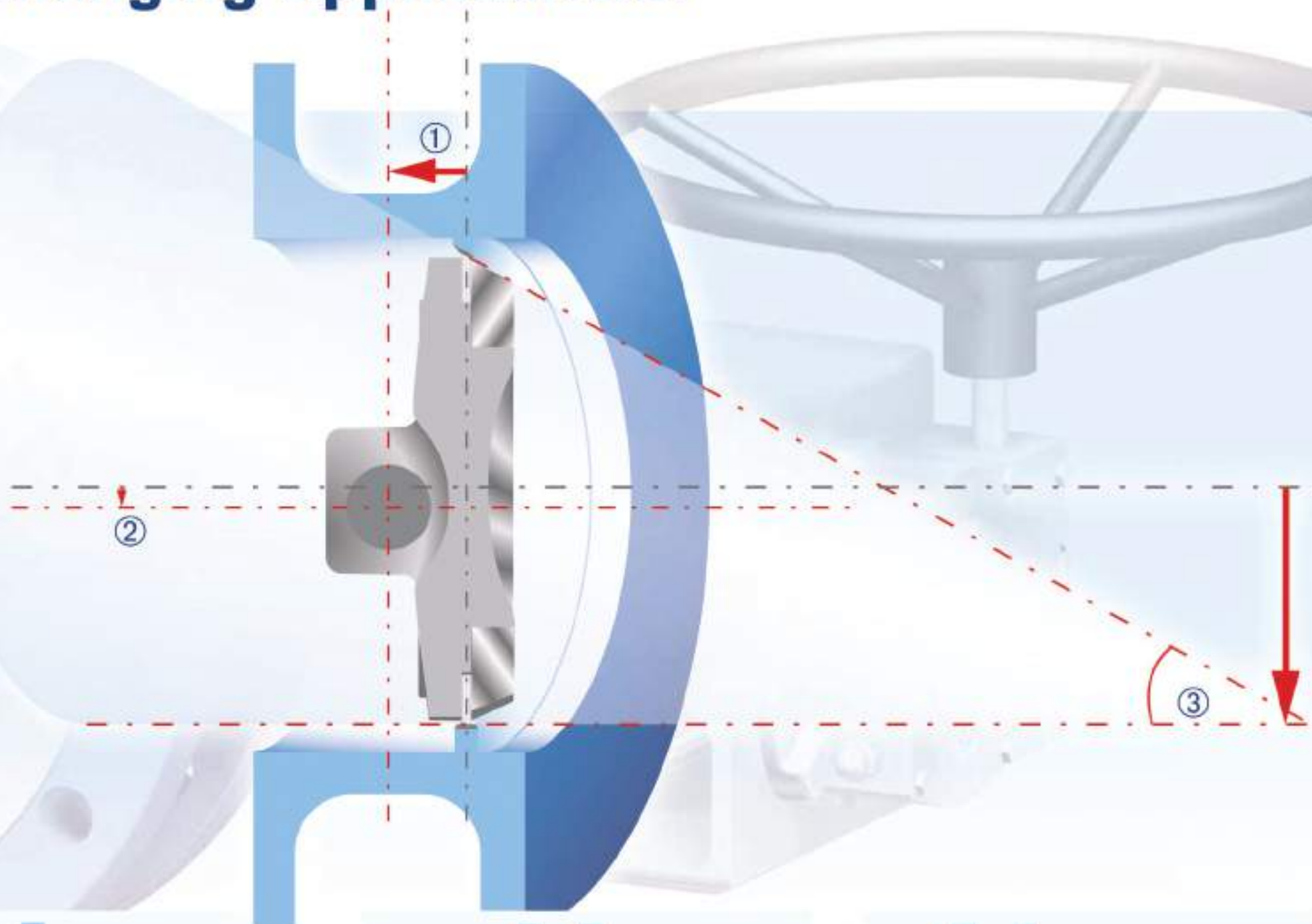
Triple offset – for challenging applications!

What is “triple offset”?

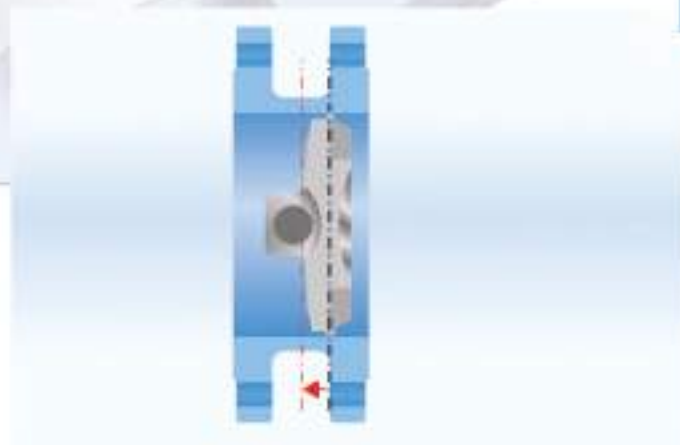
The rotating shaft of the disc is offset from the centre line of the disc seat and body seal (first offset) and the pipe's centre line (second offset). With triple offset process valves, the seat's axis of rotation is also asymmetrically apposed to the pipe axis (third offset).

Benefits for you

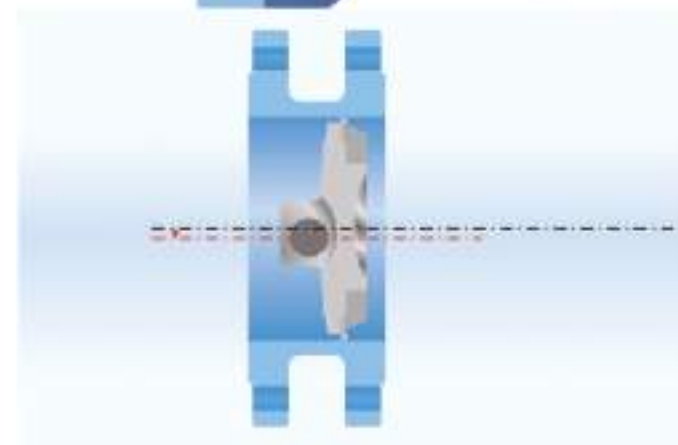
- Frictionless swivel movement.
- Permanently leak-proof due to the metal seal principle.
- Versatile applications with regard to media and temperature.



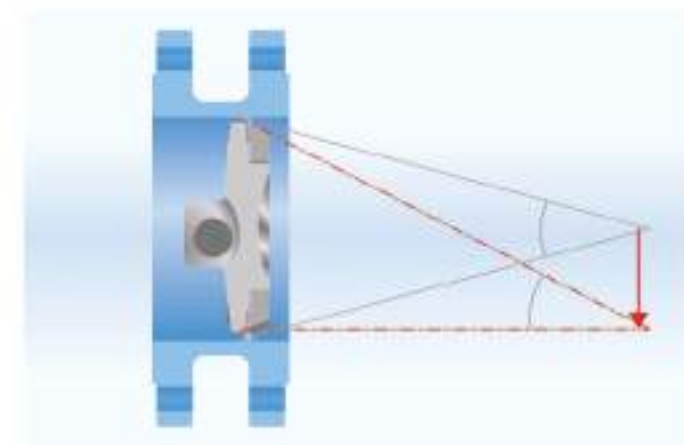
Centric disc design –
The pivot point is centrally disposed to both the seat and the pipe.



① **First offset –**
The rotating shaft of the disc is offset from the centre line of the disc seat and body seal.



② **Second offset –**
The pivot point is also displaced from the pipe's centre line.



③ **Third offset –**
The seat's axis of rotation is also asymmetrically apposed to the pipe axis.

ZETRIX®

**Absolutely tight.
Versatile.
Durable. Safe.**



Maximum closing force with minimum effort because the contact angles are optimised with our special geometry optimisation software.



Self-aligning sealing ring facilitates thermal compensation and ensures tightness regardless of temperature variations.



Lamellar structure made of stainless steel and graphite lends additional elasticity to the sealing ring. Double sealing mechanism in the form of a special, spiral-wound gasket made from a heat-resistant elastic material.



Triple offset design guarantees a frictionless rotary movement of the sealing ring into the seat.



The ZETRIX® process valve seals according to the area seating principle; the required contact pressure is applied via the actuator, which can be switched off as a function of the torque.



The ZETRIX® process valve is extremely versatile. It can be used as a pipe-end valve on both sides (accident prevention regulations must be observed). The bracket for mounting the actuator is defined according to ISO 5211. The extended bonnet allows insulation thicknesses in line with industrial standards.



Optimal durability because even the standard version has a stellited seat.

Reliably tight – even in harsh industrial environments

- Due to the triple offset disc design (maximum closing force with minimum effort).
- Due to the "smart" sealing ring (uniform closing force, the ring is self-aligning and free-floating on the sealing surface).

- Due to a wide range of additional safety options.
- Due to the stellited seat (Stellite No. 21).
- Due to the metal seal principle.

Design

- Body acc. to EN 12516, ASME B16.34 and API 609.
- Tight metal shut-off.
- Triple offset sealing geometry.
- Flexible, self-aligning, lamellar metal sealing ring (floating).

- Optimised characteristic permits shut-off and control function.
- Extended bonnet suitable for pipe insulation from -60°C to +427°C.
- Easy to automate due to the actuator interface incl. position indicator acc. to ISO 5211.

Safety

- Tightness conforming to leakage rate A in accordance with EN 12266, API 598 and API 6D (bidirectional).
- Bearing protectors.
- Blow-cut protected stem.
- Retaining ring and thrust bearing bolts locked.
- Pressure-temperature profile acc. to EN 1092, ASME B16.34.
- Approvals: Firesafe, TA-Luft / ISO 15848-1, SIL, ATEX.

Durability

- Long and maintenance free service life due to the stellited seat.
- Rotary movement without wear or friction (seat and sealing ring) due to the optimised contact angles.
- Hardened stainless steel bearings.