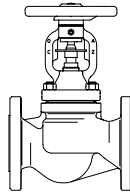


ARI-FABA® Long Life - Stop valve with bellows seal, maintenance-free

ARI-FABA®-ANSI Long Life Class 150 Globe valve with flanges

- TA-Air (zero emission) TÜV-Test-No. 088-945053

Cast steel
Series 031

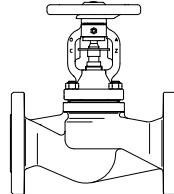


Page 2

ARI-FABA®-ANSI Long Life Class 300 Globe valve with flanges

- TA-Air (zero emission) TÜV-Test-No. 088-945053

Cast steel
Series 041

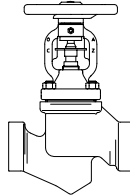


Page 2

ARI-FABA®-ANSI Long Life Class 300 Globe valve with socket ends

- TA-Air (zero emission) TÜV-Test-No. 088-945053

Forged steel
Series 049

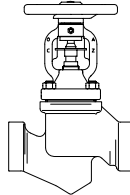


Page 3

ARI-FABA®-ANSI Long Life Class 300 Globe valve with screwed sockets

- TA-Air (zero emission) TÜV-Test-No. 088-945053

Forged steel
Series 049

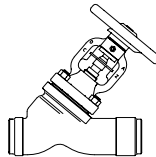


Page 3

ARI-FABA® Long Life Y-pattern Globe valve with butt weld ends

- DIN-DVGW-registration
- Test approvals TÜ.A/TÜV.AR.186-00
- TA-Air (zero emission) TÜV-Test-No. 088-945053
- TRB 801 No. 45

Cast steel
Series 066

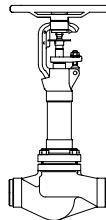


Page 4

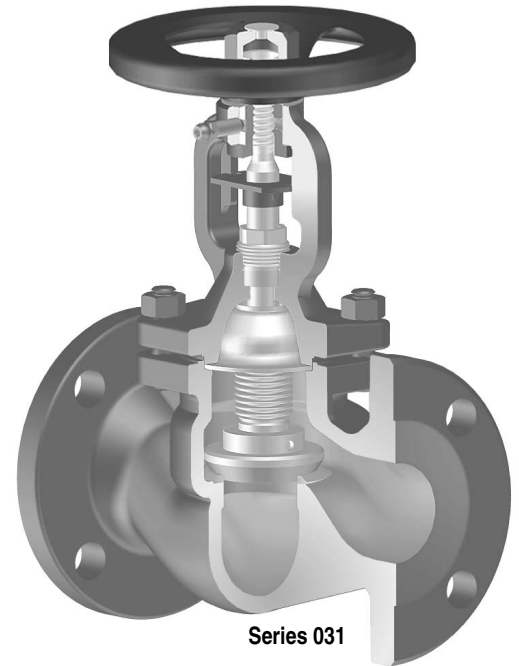
ARI-FABA® LA Globe valve, long bellow with butt weld ends

- TA-Air (zero emission) TÜV-Test-No. 088-945053
- TRB 801 No. 45

Forged steel
Cast steel
Series 067



Page 4



Features:

- Double wall bellow seal as standard
- Size 1/2" - 3" spindle with fine thread as standard
- Lubricating nipple as locking device as standard
- Maintenance-free
- Spindle with bellows seal
- Secondary sealing; gland packing
- Position indicator as standard
- Non-rising handwheel
- Non-rotation lock for each nominal diameter
- External spindle thread
- Spindle with rolled thread
- Hardened seat and plug

FABA LA:

- Bellow seal out of flow path
- Favourable zeta-values also for small nominal diameters
- Gland packing sleeve with pivot mounted bolts

ANSI 150 lbs with flanges, made of SA 216 WCB

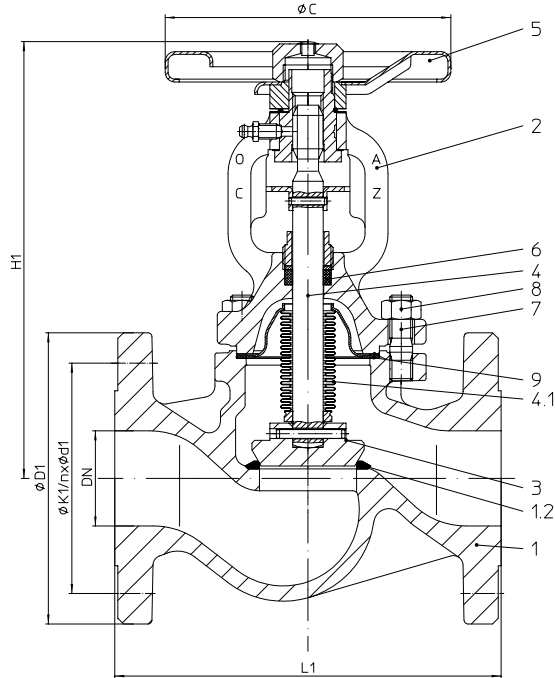


Figure	Nominal pressure	Material	Size
34.031	ANSI 150	SA 216 WCB	1/2" - 10"
Test: TA-Air TÜV-Test-No. 088-945053			
At high differential pressures a balancing plug is necessary! (refer to page 5)			

Selection of possible applications:

- Industry
 - Vacuum plant
 - Powerstations
 - Ammonia
 - Flue gas purification plant
 - Hot water
 - Processing technology
 - Heating plant
 - Gas supply
 - District heating
 - Vapour facilities
 - Cooling and freezing systems
 - Heat transfer oil
 - General plant manufacturing
 - Recycling facilities
 - Steam systems
- other applications on request -

Size	1/2"	3/4"	1"	1 1/2"	2"	2 1/2"	3"	4"	6"	8"	10"
Weights (lb)	11.4	11.8	12.8	14.3	26.4	46.2	54.0	88.0	172.0	370.0	572.0
Cv-value	4.7	8.3	12.8	32.4	51.2	83.7	125.6	197.7	437.2	761.6	1197.7

ANSI 300 lbs with flanges, made of SA 216 WCB

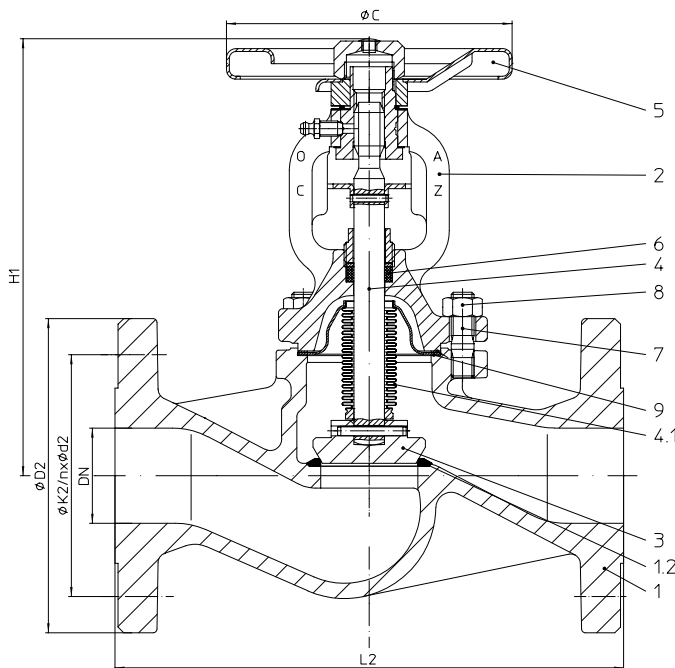


Figure	Nominal pressure	Material	Size
35.041	ANSI 300	SA 216 WCB	1/2" - 10"
Test: TA-Air TÜV-Test-No. 088-945053			
At high differential pressures a balancing plug is necessary! (refer to page 5)			

Selection of possible applications:

- Industry
 - Vacuum plant
 - Powerstations
 - Ammonia
 - Flue gas purification plant
 - Hot water
 - Processing technology
 - Heating plant
 - Gas supply
 - District heating
 - Vapour facilities
 - Cooling and freezing systems
 - Heat transfer oil
 - General plant manufacturing
 - Recycling facilities
 - Steam systems
- other applications on request -

Size	1/2"	3/4"	1"	1 1/2"	2"	2 1/2"	3"	4"	6"	8"	10"
Weights (lb)	11.8	13.9	19.0	21.0	32.8	50.6	64.0	108.0	207.0	425.0	649.0
Cv-value	5.8	8.7	14.0	34.9	53.5	89.5	132.6	224.4	468.6	832.6	1264.0

ANSI 300 lbs with socket weld ends, made of SA 105

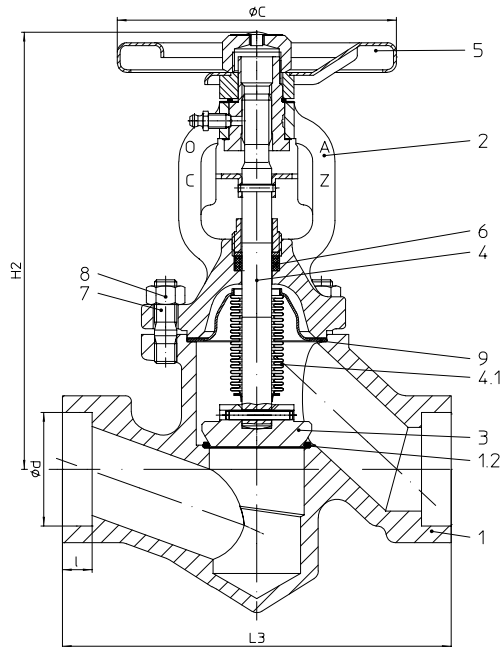


Figure	Nominal pressure	Material	Size
35.049	ANSI 300	SA 105	1/2" - 2"

Selection of possible applications:

- Industry
 - Powerstations
 - Flue gas purification plant
 - Processing technology
 - Gas supply
 - Vapour facilities
 - Heat transfer oil
 - Recycling facilities
 - Vacuum plant
 - Ammonia
 - Hot water
 - Heating plant
 - District heating
 - Cooling and freezing systems
 - General plant manufacturing
 - Steam systems
- other applications on request -

Size	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
Weights (lb)	6.4	6.4	8.14	13.0	13.0	16.1
Cv-value	3.6	6.4	10.0	14.9	23.3	30.2

ANSI 300 lbs with screwed sockets (NPT), made of SA 105

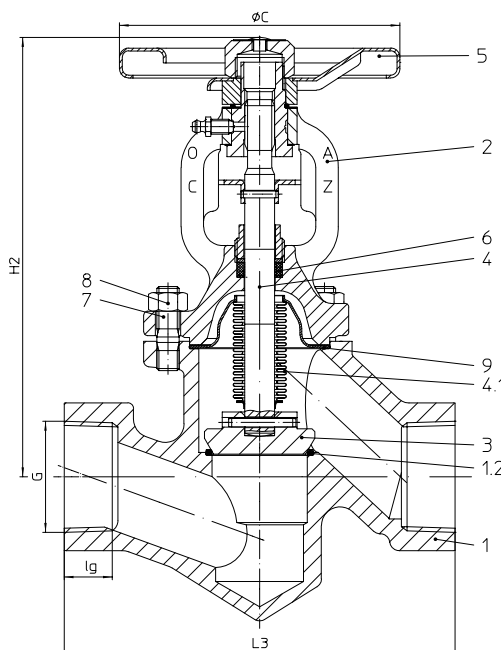


Figure	Nominal pressure	Material	Size
45.049...2	ANSI 300	SA 105	1/2" - 2"

Selection of possible applications:

- Industry
 - Powerstations
 - Flue gas purification plant
 - Processing technology
 - Gas supply
 - Vapour facilities
 - Cooling and freezing systems
 - General plant manufacturing
- other applications on request -

Size	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
Weights (lb)	6.4	6.4	8.14	13.0	13.0	16.1
Cv-value	3.6	6.4	10.0	14.9	23.3	30.2

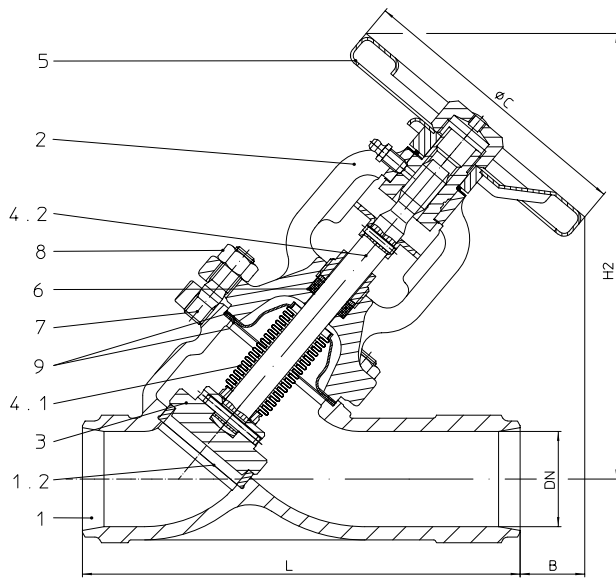
PN25 bar / PN40 bar, made of cast steel


Figure	Nom. pressure	Material	Size
34.066	PN 25 bar	SA 216 WCB	8" - 12"
	Test: DIN-DVGW-Reg. NG-4313AO 0775		
35.066	PN 40 bar	SA 216 WCB	1/2" - 6"
	for >6" refer to Fig. 35.068		
Test: DIN-DVGW-Reg. NG-4313AO 0776			
Butt weld ends acc. to DIN EN 12627-4 (refer to page 8)			
Test: TÜ.A/TÜV.AR 186-00 TA-Air (zero emission) TÜV-Test-No. 088-945053			
1/2" - 4" Throttling plug as standard			
At high differential pressures a balancing plug is necessary! (refer to page 5)			

Selection of possible applications:

- Industry
- Powerstations
- Flue gas purification plant
- Processing technology
- Gas supply
- Vapour facilities
- Heat transfer oil
- Recycling facilities
- Vacuum facilities
- Ammonia
- Hot water
- Heating technology
- District heating
- Cooling and freezing systems
- General plant manufacturing
- Steam systems

- other applications on request -

Size	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	5"	6"	8"	10"	12"	14"	16"	20"
Weights (lb)	5.5	5.7	6.6	7.1	9.9	14.1	19.8	25.1	43.4	60.6	97.0	231.5	330.7	507.1	on request		
Cv-value	6.6	7.9	14,8	19.5	41.6	55.3	89.5	124	202	324	472	917	1479	2113			

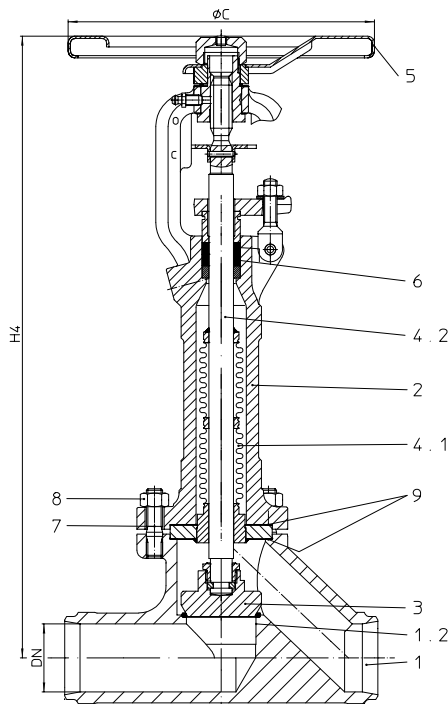
PN40 bar, made of forged steel


Figure	Nominal pressure	Material	Size
45.067	PN 40 bar	SA 105	1/2" - 2"
35.067	PN 40 bar	SA 216 WCB	2 1/2" - 10"
1/2" - 10" butt weld ends acc. to DIN EN 12627-4 alternative: 2 1/2" - 8" with extensions of St 35.8 (refer to page 8)			
Test: TA-Air (zero emission) TÜV-Test-No. 088-945053			
At high differential pressures a balancing plug is necessary! (refer to page 5)			

Selection of possible applications:

- Industry
- Powerstations
- Flue gas purification plant
- Processing technology
- Gas supply
- Vapour facilities
- Heat transfer oil
- Recycling facilities
- Vacuum facilities
- Ammonia
- Hot water
- Heating technology
- District heating
- Cooling and freezing systems
- General plant manufacturing
- Steam systems

- other applications on request -

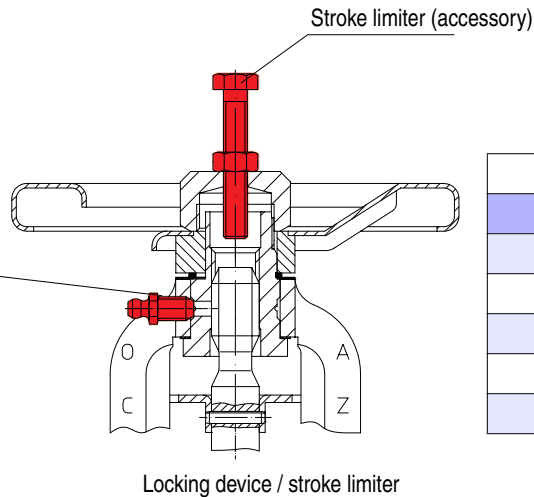
- Bellow seal out of media flow path. Especially for pulsating, turbulent flow directly behind pumps, elbows, junctions etc.

Size	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	5"	6"	8"	10"	12"
Weights (lb)	10.4	11.2	13.2	15.4	19.8	25.4	39.7	48.5	70.5	110.2	154.3	286.6	396.8	on request
Cv-value	3.8	6.7	10.7	17.4	27.1	41.9	85.1	130.5	201	335	477	843	1331	

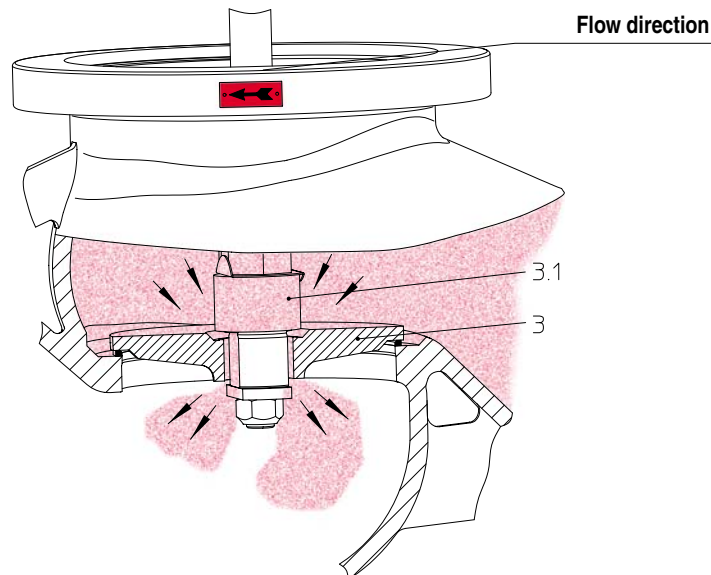
Functions:

1. Lubrication
(Prevents handwheel jamming.)
2. Locking device
(allows to lock valve at any position)

Standard:
 Lubricating nipple
 Locking device



Accessories are not included !	
Size	Hexagon screw
1/2" - 3"	M 8 x 2.17
4"	M 12 x 2.78
6"	M 12 x 3.15
8"	M 12 x 3.94
10"	M 12 x 4.72



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 values 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 pressure of the medium on either side of the plug cannot be equalized in plants served by pumps operating on their characteristic.

The pressures of the medium on either side of the plug cannot 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.

Balancing plug	Size	6"	8"	10"
Differential pressure	Δp (psi)	305	203	131

Please indicate when ordering

1. Figure-No.
2. Nominal pressure
3. Size
4. Special design / accessories

Example:

Figure 34.031; nominal pressure ANSI 150; size 4"; body material cast steel; with throttling plug.

Dimensions in inch (in)
Weights in pound (lb)
Cv in gal/min
1 bar $\hat{=}$ 14,5 PSI
1 in $\hat{=}$ 25,4 mm

Dimensions

Size	L acc. to DIN	L1 34.031	L2 35.041	L3 35.049 45.049...2	H2 34.066 35.066	H1 34.031 35.041	H2 35.049 45.049...2	H1 45.040	H3 FABA-LA	H4 35.067 45.067	∅C	stroke	stroke LA
in	in	in	in	in	in	in	in	in	in	in	in	in	in
1/2"	5.12	4.25	6.98	4.37	7.68	8.07	8.00	8.46	12.80	12.80	4.96	0.24	0.28
3/4"	5.91	4.61	7.01	4.37	7.68	8.07	8.00	8.46	12.80	12.80	4.96	0.24	0.28
1"	6.30	5.00	7.99	5.28	7.07	8.27	8.46	8.86	13.19	13.19	4.96	0.31	0.39
1 1/4"	7.09	--	--	7.01	7.07	--	9.05	9.06	--	13.19	4.96	0.31	0.39
1 1/2"	7.87	6.50	9.02	6.69	9.25	8.86	9.05	9.84	16.93	16.93	5.91	0.51	0.67
2"	9.06	7.99	10.51	7.87	9.25	9.06	9.45	10.04	17.13	17.13	5.91	0.51	0.67
2 1/2"	11.42	8.50	11.50	--	10.43	9.65	--	9.65	17.72	17.72	6.89	0.63	0.79
3"	12.20	9.49	12.48	--	11.61	10.43	--	10.43	18.11	18.11	8.86	0.79	0.79
4"	13.78	11.50	14.02	--	14.96	14.37	--	14.37	23.23	24.41	11.81	0.98	1.42
5"	15.75	--	--	--	16.34	--	--	15.55	--	25.39	11.81	1.26	1.57
6"	18.90	15.98	17.52	--	18.90	16.73	--	16.73	25.79	26.77	15.75	1.57	1.57
8"	23.62	19.49	22.01	--	24.21	21.65	--	21.65	31.51	32.68	20.47	1.97	1.97
10"	28.74	24.49	24.49	--	29.13	28.35	--	28.35	32.87	36.02	20.47	2.76	2.56
12"	33.46	--	--	--	31.30	--	--	30.51	--	--	20.47	3.15	2.95

Dimensions of flanges refer to page 7

Figure		34.031 / 35.041	35.049 / 45.049...2	34.044; 34. / 35.066; 35.067	45.067
Pos.	Description	Material codes			
1	Body	SA 216 WCB	SA 105	SA 216 WCB	SA 105
1.2	Seat	E 347 - 16		≤ 2": AISI 420; > 2": E 347 - 16	E 347 - 16
2	Bonnet	≤ 3": SA 105 > 3": SA 216 WCB	SA 105	≤ 3": SA 105 > 3": SA 216 WCB	SA 105
3	Plug	AISI 440, hardened		≤ 8": AISI 420 > 8": SA 516 Gr. 60 / E 347 - 16	AISI 420
4.1	Bellows	SA 479 Gr. 316 TI		SA 479 Gr. 316 TI	
4.2	Spindle	AISI 420		AISI 420 for FABA LA: SA 182 F 321	
5	Handwheel	AISI A366, coated		≤ 8": AISI A366, coated > 8": SA 278 Cl. 40	AISI A366, coated
6	Gland packing	Pure graphite			
7	Studs	SA 193 B7		SA 194 Gr. 4	
8	Hexagon nuts	SA 194 2H		1035 / 1038	
9	Seal	CrNi laminated both sides with pure graphite			

Please follow guidelines by information, restriction or technical regulation.

3rd parties who size and select valves for various application do this under their own responsibility.

Please ask for your „Operating istration“ at info.vertrieb@ari-armaturen.de

ARI valves are manufactured with the approval number of the German TÜV TRB 801 No. 45

Pressure-temperature-ratings ASME B16.5 / B16.34

ANSI 150	Temperature	°F	-20 up to 100	200	300	400	500	600	650	700	750	800
	Operating press.	psig	285	260	230	200	170	140	125	110	95	80
ANSI 300	Temperature	°F	-20 up to 100	200	300	400	500	600	650	700	750	800
	Operating press.	psig	740	675	655	635	600	550	535	535	505	410

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

Pressure-temperature-ratings

Flangeholes / -thickness tolerances acc. to DIN

acc. to DIN EN 1092-1		Temperature									
Material	PN	-76°F till < 14°F *	14°F till 122°F	212°F	302°F	392°F	482°F	572°F	662°F	752°F	842°F
SA 216 WCB	25 bar	271 psi	362 psi	338 psi	314 psi	281 psi	258 psi	233 psi	217 psi	209 psi	201 psi
SA 216 WCB	40 bar	435 psi	580 psi	541 psi	503 psi	438 psi	412 psi	374 psi	348 psi	335 psi	322 psi
SA 105	40 bar	435 psi	580 psi	541 psi	503 psi	438 psi	412 psi	374 psi	348 psi	335 psi	232 psi

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

* Studs and nuts made of AISI 316 required (at temperatures below -14°F)

Leakage rate according to DIN 3230 -3 (Leakage rate 1)

Alternative description according to DIN 3356 „valves“

	PN 25	PN 40	ANSI 150	ANSI 300
Flanges according to	DIN 2544	DIN 2545	ASME / ANSI B16.5	ASME / ANSI B16.5

Flanges acc. to ANSI B16.5/ Face-to-face dimension acc. to ANSI B16.10

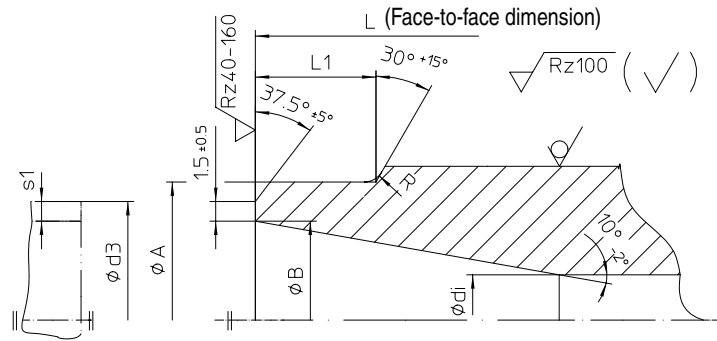
Socket ends according to ANSI B16.11

Screwed sockets according to ANSI B1.20.1 (NPT)

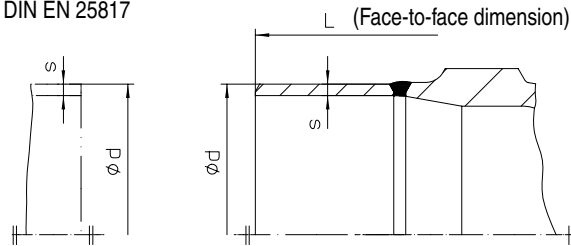
Butt weld ends according to DIN EN 12627-4 (previous DIN 3239) (refer to page 8)

Dimensions of flanges, socket ends and screwed sockets

Size	ANSI 150			ANSI 300			ANSI 300 Socket					PN 25 bar			PN 40 bar		
	Ø D1	Ø K1	nxØd1	Ø D2	Ø K2	nxØd2	Ø g	l	lg	Ø d	G	Ø D	Ø K	nxØ d1	Ø D	Ø K	nxØ d1
1/2"	3.50	2.36	4x0.62	3.75	2.62	4x0.62	1.38	0.38	0.59	0.85	1/2	3.74	2.56	4x0.55	3.74	2.56	4x0.55
3/4"	3.90	2.70	4x0.62	4.62	3.25	4x0.75	1.69	0.50	0.64	1.07	3/4	4.13	2.95	4x0.55	4.13	2.95	4x0.55
1"	4.25	3.10	4x0.62	4.88	3.50	4x0.75	2.00	0.50	0.75	1.33	1	4.53	3.35	4x0.55	4.53	3.35	4x0.55
1 1/4"	--	--	--	--	--	--	--	0.50	0.84	1.67	1 1/4	5.51	3.94	4x0.71	5.51	3.94	4x0.71
1 1/2"	5.00	3.85	4x0.62	6.12	4.50	4x0.87	2.88	0.50	0.84	1.92	1 1/2	5.91	4.33	4x0.71	5.91	4.33	4x0.71
2"	6.00	4.76	4x0.75	6.50	5.00	8x0.75	3.62	0.63	1.01	2.41	2	6.50	4.92	4x0.71	6.50	4.92	4x0.71
2 1/2"	7.00	5.51	4x0.75	7.52	5.86	8x0.87	4.13	--	--	--	--	7.28	5.71	8x0.71	7.28	5.71	8x0.71
3"	7.50	5.98	4x0.75	8.27	6.61	8x0.87	5.00	--	--	--	--	7.87	6.30	8x0.71	7.87	6.30	8x0.71
4"	9.00	7.50	8x0.75	10.00	7.87	8x0.87	6.18	--	--	--	--	9.25	7.48	8x0.87	9.25	7.48	8x0.87
5"	--	--	--	--	--	--	--	--	--	--	--	10.63	8.66	8x1.02	10.63	8.66	8x1.02
6"	11.00	9.48	8x0.87	12.52	10.63	12x0.87	8.50	--	--	--	--	11.81	9.84	8x1.02	11.81	9.84	8x1.02
8"	13.50	11.73	8x0.87	15.00	13.00	12x1.00	10.62	--	--	--	--	14.17	12.20	12x1.02	14.76	12.60	12x1.18
10"	16.00	14.25	12x1	17.47	15.23	16x1.12	12.75	--	--	--	--	16.73	14.57	12x1.18	17.72	15.16	12x1.30
12"	--	--	--	--	--	--	--	--	--	--	--	19.09	16.93	16x1.18	20.28	17.72	16x1.30



Edge shaping according to DIN EN 25817



Size	Butt weld ends according to DIN EN 12627-4						Extensions made of St 35.8 Pipe connection≠ welding neck flanges	
	∅ di	∅ A	∅ B	L	L1	Pipe = ∅d3 x s1	∅ d	s
1/2"	0.59	0.87	0.68	5.12	0.39	0.84 x 0.08	--	--
3/4"	0.79	1.10	0.88	5.91	0.39	1.06 x 0.09	--	--
1"	0.98	1.38	1.12	6.30	0.39	1.33 x 0.10	--	--
1 1/4"	1.26	1.69	1.46	7.09	0.39	1.67 x 0.01	--	--
1 1/2"	1.57	1.97	1.70	7.87	0.39	1.90 x 0.01	--	--
2"	1.97	2.44	2.12	9.06	0.39	2.37 x 0.13	--	--
2 1/2"	2.56	3.03	2.71	11.42	0.39	3.00 x 0.11	3.00	0.11
3"	3.15	3.58	3.19	12.20	0.47	3.50 x 0.16	3.50	0.16
4"	3.94	4.61	4.11	13.78	0.55	4.50 x 0.20	4.50	0.20
5"	4.92	5.67	5.15	15.75	0.71	5.50 x 0.18	5.50	0.18
6"	5.91	6.77	6.19	18.90	0.79	6.63 x 0.22	6.63	0.22
8"	7.87	8.78	8.07	23.62	0.79	8.63 x 0.28	8.63	0.28
10"	9.84	10.94	10.12	28.74	0.98	10.75 x 0.31	--	--
12"	11.81	12.95	12.12	33.46	1.30	12.75 x 0.31	--	--

Face-to-face dimension ETE series 1 according to DIN EN 12982 (DIN 3202 part 2)

Butt weld ends according to DIN EN 12627-4 (DIN 3239 T1, form 2)

Weld joint according to DIN EN 29692 code number 1.3.3 (DIN 2559 T1, code number 22)

The material used for ARI valves with butt weld ends is: Cast steel according to DIN EN 10213-1-2,
Forged steel according to DIN 17243.

The material used for ARI valves with extensions (2 1/2" - 8") SA106Gr.A according to DIN 17175.

Based on our experience we recommend electric welding techniques 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).

