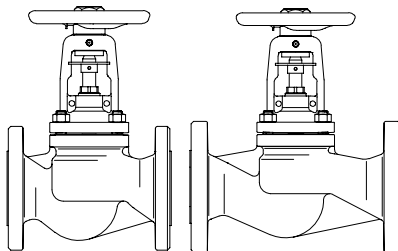


Free of maintenance stop valve with bellow seal - metallic sealing

**ARI-FABA®-Plus ANSI**  
**Class 150 / Class 300**  
**Straight through with flanges**

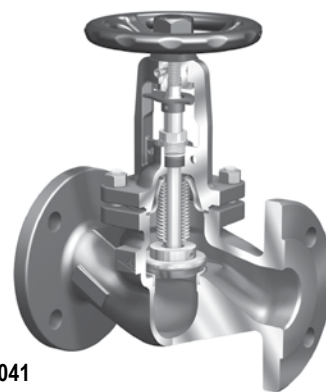
- EN ISO 15848-1 / TA - Luft  
TÜV-Test-No. TA 07 2016 C04



SA216WCB

**Fig. 041**

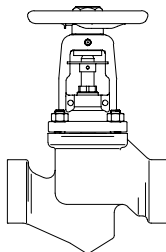
Page 2



**Fig. 041**

**ARI-FABA®-Plus ANSI**  
**Class 300**  
**Straight through with screwed sockets**  
**Straight through with socket weld ends**

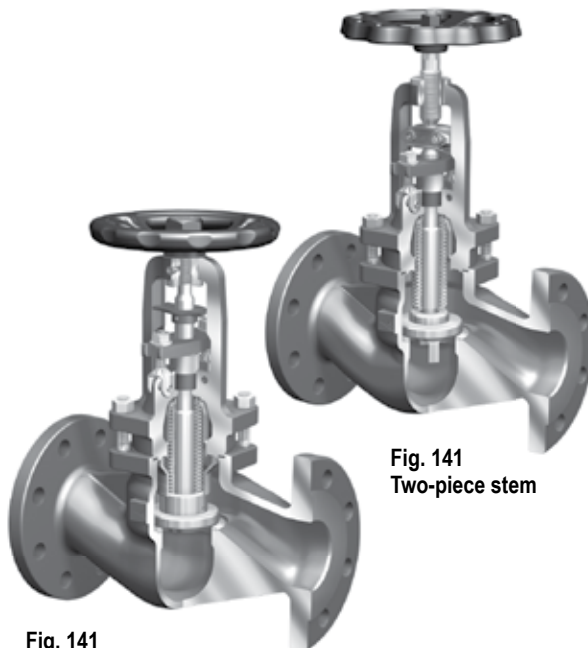
- EN ISO 15848-1 / TA - Luft  
TÜV-Test-No. TA 07 2016 C04



SA105

**Fig. 049**

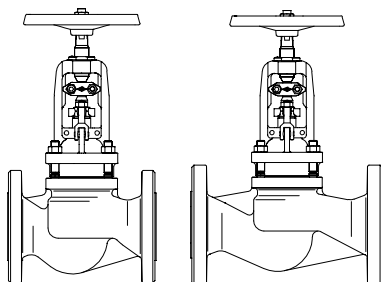
Page 3



**Fig. 141**  
**Two-piece stem**

**ARI-FABA®-Supra I ANSI**  
**ARI-FABA®-Supra C ANSI**  
**Class 150 / Class 300**  
**Straight through with flanges**

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



SA216WCB

**Fig. 141**

Page 4

**Fig. 141**  
**One-piece stem**

**Features:**

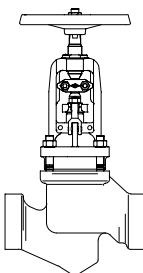
- Double wall bellows seal as standard
- Plug with marginal seat
- Stem with fine thread
- Flat lubricating nipple
- Locking device, countersunk
- Bonnet optimised for accessories
- Secondary sealing: gland packing
- Position indicator as standard
- Non-rotation lock for each nominal diameter

**Additional features ARI-FABA®-Supra:**

- Bellows seal welded to bonnet
- Bellows seal 10.000 load cycles
- Industrial version: Bellows seal shielded  
Chemical version: Bellows seal flushed
- Stem back seal
- Yoke gasket, double chambered
- Welded seat
- Actuator retrofitting

**ARI-FABA®-Supra I ANSI**  
**ARI-FABA®-Supra C ANSI**  
**Class 300**  
**Straight through with screwed sockets**  
**Straight through with socket weld ends**

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



SA105

**Fig. 149**

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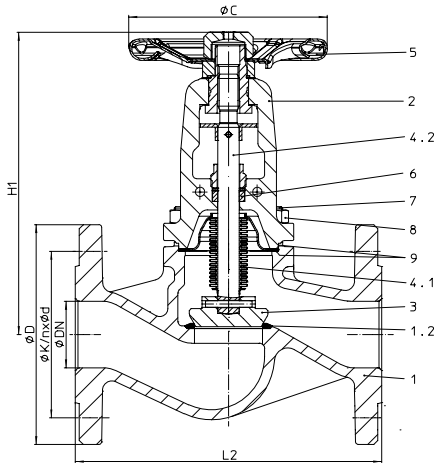
**Stop valve - straight through with flanges and bellows seal - Class 150 / 300 (SA216WCB)**


Figure-No.	Nominal pressure	Material	Nominal diameter
32.041	ANSI150	SA216WCB	DN 15-250 / NPS 1/2"-10"
35.041	ANSI300	SA216WCB	DN 15-250 / NPS 1/2"-10"

Test:	• EN ISO 15848-1 / TA - Luft TÜV-Test-No. TA 07 2016 C04
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Flanges:	• acc. to ASME / ANSI B16.5
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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 8)

Parts			
Pos.	Sp.p.	Description	Fig. 32. / 35.041
1		Body	SA216WCB
1.2		Seat	E347-16
2		Bonnet	SA216WCB
3	x	Plug	≤ DN200 / NPS 8": SA276Gr.420 (hardened) / DN250 / NPS 10": SA516Gr.60 / Stellite 21
4		Spindle unit	
4.1	x	Bellows seal	SA240Gr.316Ti
4.2		Stem	SA276Gr.420
5	x	Handwheel	≤ DN100 / NPS 4": A366 (cataphoretic coating) / ≥ DN150 / NPS 6": SA278Class40 (epoxy-coating)
6		Packing ring	Pure graphite
7		Stud	SA193-B7
8		Hexagon nut	SA194-2H
9	x	Gasket	Pure graphite (CrNi laminated with graphite)
		L Spare parts	

DN	15	20	25	40	50	65	80	100	150	200	250
NPS	1/2"	3/4"	1"	1 1/2"	2"	2 1/2"	3"	4"	6"	8"	10"

Face-to-face dimension acc. to ANSI B16.10													
L2	ANSI150	(mm)	108	117	127	165	203	216	241	292	406	495	622
	ANSI300	(mm)	152	178	203	229	267	292	318	356	444	559	622

Dimensions		Standard-flange dimensions refer to page 12											
H1	(mm)	205	205	210	225	230	245	265	365	425	550	720	
ØC	(mm)	125	125	125	150	150	175	225	300	400	520	520	
Travel	(mm)	6	6	8	13	13	16	20	25	40	50	70	
Kvs-value	ANSI150	(m³/h)	4,8	6,6	11,1	26,5	41	70	100	153	378	610	980
Zeta-value	ANSI150	--	3,5	5,9	5,1	5,8	5,9	5,8	6,5	6,8	5,7	6,9	6,5
Kvs-value	ANSI300	(m³/h)	5,3	7,2	12	28,5	43	75	105	170	405	675	1090
Zeta-value	ANSI300	--	2,9	4,9	4,3	5	5,4	5,1	5,9	5,5	4,9	5,6	5,2

Weights												
32.041	(kg)	5,2	5,4	5,8	6,5	12	21	24,5	40,2	78	168	261
35.041	(kg)	5,4	6,3	8,6	9,5	14,9	23	29	49,2	94	211	317

Information / restriction of technical rules need to be observed!

Operating and installation instructions can be downloaded at [www.ari-armaturen.com](http://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).

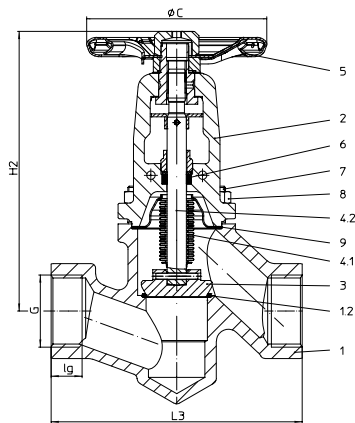
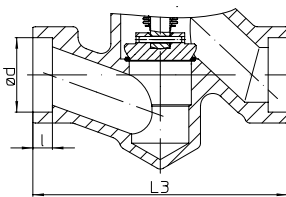
**Stop valve in straightway form with screwed sockets / Socket weld ends and Bellows seal - Class 300 (SA105)**

**Fig. 049....2** with screwed sockets

**Fig. 049....3** with socket weld ends

Figure-No.	Nominal pressure	Material	Nominal diameter
45.049....2	ANSI300	SA105	DN 15-50 / NPS 1/2"-2"

Screwed sockets: • acc. to DIN ISO 228 (BSP) or acc. to ASME / ANSI B1.20.1 (NPT) (refer to page 12)

Figure-No.	Nominal pressure	Material	Nominal diameter
45.049....3	ANSI300	SA105	DN 15-50 / NPS 1/2"-2"

Socket weld ends: • acc. to ASME / ANSI B16.11 (refer to page 12)

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

Plug design: • Plug with marginal seat standard

Parts			
Pos.	Sp.p.	Description	Fig. 45.049....2 / 45.049....3
1		Body	SA105
1.2		Seat	E347-16
2		Bonnet	SA216WCB
3	x	Plug	SA276Gr.420 (hardened)
4		Spindle unit	
4.1	x	Bellows seal	SA240Gr.316Ti
4.2		Stem	SA276Gr.420
5	x	Handwheel	A366 (cataphoretic coating)
6		Packing ring	Pure graphite
7		Stud	SA193-B7
8		Hexagon nut	SA194-2H
9	x	Gasket	Pure graphite (CrNi laminated with graphite)
L Spare parts			

DN	15	20	25	32	40	50
NPS	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"

Face-to-face dimension		Screwed socket dimensions and socket weld end dimensions refer to page 12					
L3	(mm)	117	117	139	186	186	209

Dimensions							
H2	(mm)	203	203	215	230	230	240
ØC	(mm)	125	125	125	150	150	150
Travel	(mm)	6	6	8	13	13	13
Kvs-value	(m³/h)	3,1	5,5	8,6	12,8	20	26
Zeta-value	--	8,4	8,4	8,4	10,2	10,2	14,8

Weights							
45.049....2 / ....3	(kg)	2,9	2,9	3,7	5,9	5,9	7,3

Information / restriction of technical rules need to be observed!  
 Operating and installation instructions can be downloaded at [www.ari-armaturen.com](http://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).

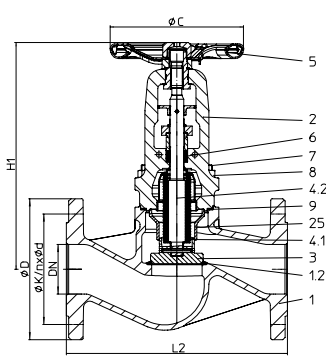
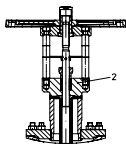
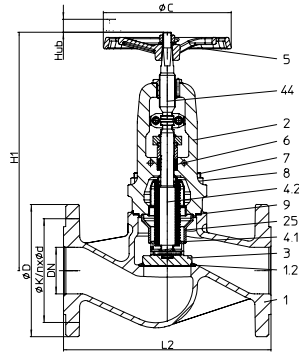
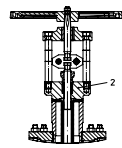
**Stop valve - straight through with flanges and bellows seal - Industrial version (SA216WCB)**

**Fig. 141....111 DN15-150 / NPS 1/2"-6"**  
**One-piece stem**

**Bonnet DN200-250 / NPS 8"-10"**  
**One-piece stem**

**Fig. 141....112 DN15-150 / NPS 1/2"-6"**  
**Two-piece stem**

**Bonnet DN200-250 / NPS 8"-10"**  
**Two-piece stem**

Figure-No.	Nominal pressure	Material	Nominal diameter
32.141....111	ANSI150	SA216WCB	DN 15-250 / NPS 1/2"-10"
35.141....111	ANSI300	SA216WCB	DN 15-250 / NPS 1/2"-10"
32.141....112	ANSI150	SA216WCB	DN 15-250 / NPS 1/2"-10"
35.141....112	ANSI300	SA216WCB	DN 15-250 / NPS 1/2"-10"

Test:	• EN ISO 15848-1 / TA - Luft TÜV-Test-No. TA 07 2016 C04
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Flanges:	• acc. to ASME / ANSI B16.5
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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 8)

Parts					
Pos.	Sp.p.	Description	Fig. 32. / 35.141....111 One-piece stem	Fig. 32. / 35.141....112 Two-piece stem	
1		Body	SA216WCB		
1.2		Seat	E347-16		
2		Bonnet	≤ DN150 / NPS 6": SA216WCB / ≥ DN200 / NPS 8": SA105, SA106Gr.B, SA516Gr.60		
3	x	Plug	≤ DN150 / NPS 6": SA276Gr.420 (hardened) / ≥ DN200: SA516Gr.60 / Stellite 21		
4.1		Bellows seal	SA240Gr.316Ti		
4.2		Stem	SA479Gr.316Ti		
5	x	Handwheel	≤ DN100 / NPS 4": A366 (cataphoretic coating) / ≥ DN150 / NPS 6": SA395 (epoxy-coating)	SA395 (epoxy-coating)	
6		Packing ring	Pure graphite		
7		Stud	SA193-B7		
8		Hexagon nut	SA194-2H		
9	x	Gasket	Pure graphite (with CrNi-grooved)		
25		Guide bush	≤ DN25 / NPS 1": SA240Gr.316Ti / ≥ DN40 / NPS 1 1/2": SA351CF8M		
44		Stem, top	--	AISI440	
L Spare parts					

DN	15	20	25	40	50	65	80	100	150	200	250
NPS	1/2"	3/4"	1"	1 1/2"	2"	2 1/2"	3"	4"	6"	8"	10"

Face-to-face dimension acc. to ANSI B16.10			Standard-flange dimensions refer to page 12										
L2	ANSI150	(mm)	108	117	127	165	203	216	241	292	406	495	622
	ANSI300	(mm)	152	178	203	229	267	292	318	356	444	559	622

Dimensions													
H1 One-piece stem	(mm)	225	225	230	270	275	300	380	460	570	785	940	
H1 Two-piece stem	(mm)	240	240	240	290	295	335	395	505	605	810	940	
ØC	(mm)	125	125	125	150	150	175	225	300	400	520	520	
Travel	(mm)	6	6	8	13	13	16	20	25	40	50	70	
Kvs-value	ANSI150	(m³/h)	4,2	6,1	10	26	40,5	70	100	153	378	615	980
Zeta-value	ANSI300	--	4,6	6,9	6,2	6	6,1	5,8	6,5	6,8	5,7	6,8	6,5
Kvs-value	ANSI150	(m³/h)	4,7	6,4	11	28	42,5	75	105	170	405	675	1090
Zeta-value	ANSI300	--	3,7	6,2	5,2	5,2	5,5	5,1	5,9	5,5	4,9	5,6	5,2

Weights													
32.141	(kg)	5,8	6	6,6	7,5	13,5	23,8	29,6	52,8	85	193	288	
35.141	(kg)	6	6,9	9,4	10,5	16,4	25,8	34,1	61,8	101	230	335	

Information / restriction of technical rules need to be observed!

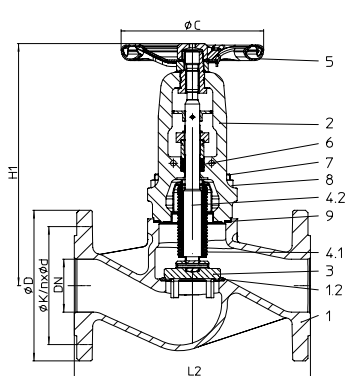
Operating and installation instructions can be downloaded at [www.ari-armaturen.com](http://www.ari-armaturen.com).

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

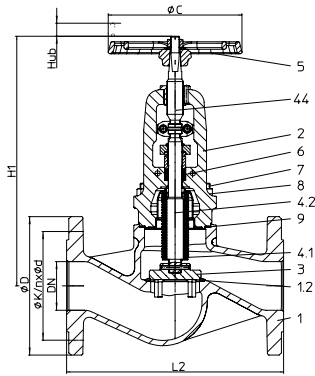
The engineer, designing a system or a plant, is responsible for the selection of the correct valve.

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

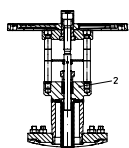
**Stop valve - straight through with flanges and bellows seal - Chemical version (SA216WCB)**



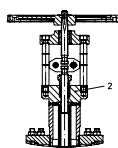
**Fig. 141....153 DN15-150 / NPS 1/2"-6"**  
**One-piece stem**



**Fig. 141....154 DN15-150 / NPS 1/2"-6"**  
**Two-piece stem**



**Bonnet DN200-250 / NPS 8"-10"**  
**One-piece stem**



**Bonnet DN200-250 / NPS 8"-10"**  
**Two-piece stem**

Figure-No.	Nominal pressure	Material	Nominal diameter
32.141....153	ANSI150	SA216WCB	DN 15-250 / NPS 1/2"-10"
35.141....153	ANSI300	SA216WCB	DN 15-250 / NPS 1/2"-10"
32.141....154	ANSI150	SA216WCB	DN 15-250 / NPS 1/2"-10"
35.141....154	ANSI300	SA216WCB	DN 15-250 / NPS 1/2"-10"

Test:	• EN ISO 15848-1 / TA - Luft TÜV-Test-No. TA 07 2016 C04
Flanges:	• acc. to ASME / ANSI B16.5
Plug design:	• V-port plug with marginal seat standard

**At high differential pressures a balancing plug is necessary!**  
 (refer to page 8)

Parts				
Pos.	Sp.p.	Description	Fig. 32. / 35.141....153 One-piece stem	Fig. 32. / 35.141....154 Two-piece stem
1		Body	SA216WCB	
1.2		Seat	E347-16	
2		Bonnet	≤ DN150 / NPS 6": SA216WCB / ≥ DN200 / NPS 8": SA105, SA106Gr.B, SA516Gr.60	
3	x	Plug	≤ DN150 / NPS 6": SA276Gr.420 (hardened) / ≥ DN200 / NPS 8": SA516Gr.60 / Stellit 21	
4.1		Bellows seal	SA240Gr.316Ti	
4.2		Stem	SA479Gr.316Ti	
5	x	Handwheel	≤ DN100 / NPS 4": A366 (cataphoretic coating) / ≥ DN150 / NPS 6": SA395 (epoxy-coating)	SA395 (epoxy-coating)
6		Packing ring	Pure graphite	
7		Stud	SA193-B7	
8		Hexagon nut	SA194-2H	
9	x	Gasket	Pure graphite (with CrNi-grooved)	
44		Stem, top	--	AISI440
L Spare parts				

DN	15	20	25	40	50	65	80	100	150	200	250
NPS	1/2"	3/4"	1"	1 1/2"	2"	2 1/2"	3"	4"	6"	8"	10"

Face-to-face dimension acc. to ANSI B16.10												Standard-flange dimensions refer to page 12	
L2	ANSI150	(mm)	108	117	127	165	203	216	241	292	406	495	622
	ANSI300	(mm)	152	178	203	229	267	292	318	356	444	559	622

Dimensions												
H1 One-piece stem	(mm)	225	225	230	270	275	300	380	460	570	785	940
H1 Two-piece stem	(mm)	240	240	240	290	295	335	395	505	605	810	940
ØC	(mm)	125	125	125	150	150	175	225	300	400	520	520
Travel	(mm)	6	6	8	13	13	16	20	25	40	520	520
Kvs-value ANSI150	(m³/h)	4	5,5	9,2	24	37	60	86	122	305	524	796
Zeta-value ANSI150	--	5,1	8,4	7,4	7,1	7,3	7,9	8,8	10,7	8,7	9,3	9,8
Kvs-value ANSI300	(m³/h)	4,4	6	10	25,5	38,5	64	90	135	325	580	885
Zeta-value ANSI300	--	4,2	7,1	6,2	6,3	6,7	7	8,1	8,8	7,7	7,6	8

Weights												
32.141	(kg)	5,8	6	6,6	7,5	13,5	23,8	29,6	52,8	85	193	288
35.141	(kg)	6	6,9	9,4	10,5	16,4	25,8	34,1	61,8	101	230	335

Information / restriction of technical rules need to be observed!  
 Operating and installation instructions can be downloaded at [www.ari-armaturen.com](http://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).

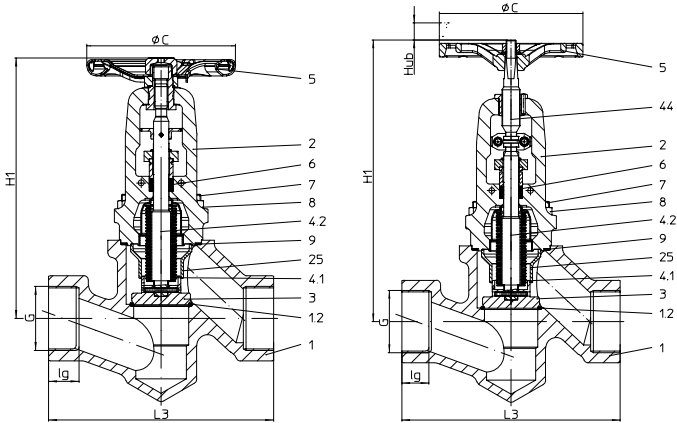
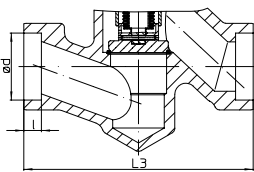
**Stop valve in straightway form with screwed sockets / Socket weld ends and Bellows seal - Industrial version (SA105)**

**Fig. 149....111....2 with screwed sockets**  
**One-piece stem**
**Fig. 149....112....2 with screwed sockets**  
**Two-piece stem**

**Fig. 149....111....3 / ....112....3 with socket weld ends**

Figure-No.	Nominal pressure	Material	Nominal diameter
45.149....111....2	ANSI300	SA105	DN 15 - 50 / NPS 1/2"-2"
45.149....112....2	ANSI300	SA105	DN 15 - 50 / NPS 1/2"-2"

Screwed sockets:	• acc. to DIN ISO 228 (BSP) or acc. to ASME / ANSI B1.20.1 (NPT)
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Figure-No.	Nominal pressure	Material	Nominal diameter
45.149....111....3	ANSI300	SA105	DN 15 - 50 / NPS 1/2"-2"
45.149....112....3	ANSI300	SA105	DN 15 - 50 / NPS 1/2"-2"

Socket weld ends:	• acc. to ASME / ANSI B16.11
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Test:	• EN ISO 15848-1 / TA - Luft TÜV-Test-No. TA 07 2016 C04
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Plug design:	• Plug with marginal seat standard
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Parts				
Pos.	Sp.p.	Description	Fig. 45.149....111 One-piece stem	Fig. 45.149....112 Two-piece stem
1		Body	SA105	
1.2		Seat	E347-16	
2		Bonnet	SA216WCB	
3	x	Plug	SA276Gr.420 (hardened)	
4.1		Bellows seal	SA240Gr.316Ti	
4.2		Stem	SA479Gr.316Ti	
5	x	Handwheel	A366 (cataphoretic coating)	SA395 (epoxy-coating)
6		Packing ring	Pure graphite	
7		Stud	SA193-B7	
8		Hexagon nut	SA194-2H	
9	x	Gasket	Pure graphite (with CrNi-grooved)	
25		Guide bush	≤ DN25 / NPS 1": SA240Gr.316Ti / ≥ DN40 / NPS 1 1/2": SA351CF8M	
44		Stem, top	--	AISI440
L Spare parts				

DN	15	20	25	32	40	50
NPS	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"

Face-to-face dimension		Screwed socket dimensions and socket weld end dimensions refer to page 12					
L3	(mm)	117	117	139	186	186	209

Dimensions							
H1 One-piece stem	(mm)	225	225	235	235	275	285
H1 Two-piece stem	(mm)	240	240	255	255	295	305
ØC	(mm)	125	125	125	150	150	150
Travel	(mm)	6	6	8	13	13	13
Kvs-value	(m³/h)	2,8	5	8	12,5	20	26
Zeta-value	--	10,3	10,2	9,7	10,7	10,2	14,8

Weights							
45.149....2 / ....3	(kg)	3,5	3,5	4,5	6,7	6,9	8,8

Information / restriction of technical rules need to be observed!

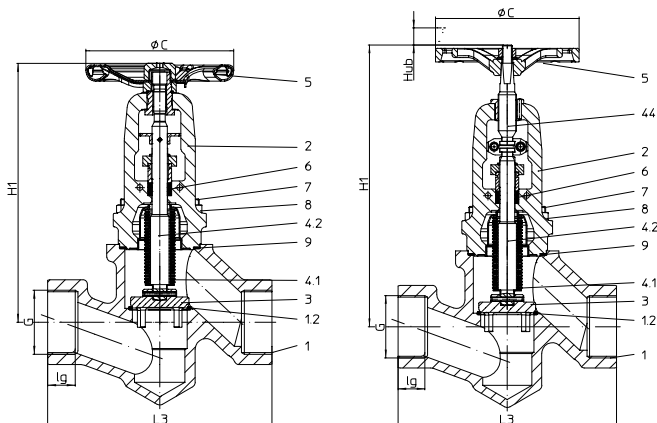
Operating and installation instructions can be downloaded at [www.ari-armaturen.com](http://www.ari-armaturen.com).

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.

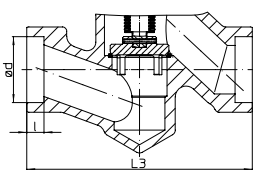
Resistance and fitness must be verified (contact manufacturer for information, refer to Product overview and Resistance list).

**Stop valve in straightway form with screwed sockets / Socket weld ends and Bellows seal - Chemical version (SA105)**



**Fig. 149....153....2 with screwed sockets**  
**One-piece stem**

**Fig. 149....154....2 with screwed sockets**  
**Two-piece stem**



**Fig. 149....153....3 / ....154....3 with socket weld ends**

Figure-No.	Nominal pressure	Material	Nominal diameter
45.149....153....2	ANSI300	SA105	DN 15 - 50 / NPS 1/2"-2"
45.149....154....2	ANSI300	SA105	DN 15 - 50 / NPS 1/2"-2"
Screwed sockets:	• acc. to DIN ISO 228 (BSP) or acc. to ASME / ANSI B1.20.1 (NPT) (refer to page 12)		

Figure-No.	Nominal pressure	Material	Nominal diameter
45.149....153....3	ANSI300	SA105	DN 15 - 50 / NPS 1/2"-2"
45.149....154....3	ANSI300	SA105	DN 15 - 50 / NPS 1/2"-2"

Socket weld ends:	• acc. to ASME / ANSI B16.11 (refer to page 12)
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Test:	• EN ISO 15848-1 / TA - Luft TÜV-Test-No. TA 07 2016 C04
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Plug design:	• V-port plug with marginal seat standard
--------------	---

Parts				
Pos.	Sp.p.	Description	Fig. 45.149....153 One-piece stem	Fig. 45.149....154 Two-piece stem
1		Body	SA105	
1.2		Seat	E347-16	
2		Bonnet	SA216WCB	
3	x	Plug	SA276Gr.420 (hardened)	
4.1		Bellows seal	SA240Gr.316Ti	
4.2		Stem	SA479Gr.316Ti	
5	x	Handwheel	A366 (cataphoretic coating)	SA395 (epoxy-coating)
6		Packing ring	Pure graphite	
7		Stud	SA193-B7	
8		Hexagon nut	SA194-2H	
9	x	Gasket	Pure graphite (with CrNi-grooved)	
44		Stem, top	--	AISI440
L Spare parts				

DN	15	20	25	32	40	50
NPS	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"

Face-to-face dimension		Screwed socket dimensions and socket weld end dimensions refer to page 12					
L3	(mm)	117	117	139	186	186	209

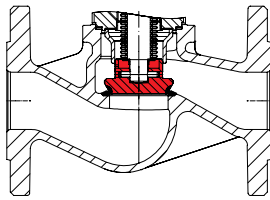
Dimensions							
H1 One-piece stem	(mm)	225	225	235	235	275	285
H1 Two-piece stem	(mm)	240	240	255	255	295	305
ØC	(mm)	125	125	125	150	150	150
Travel	(mm)	6	6	8	13	13	13
Kvs-value	(m³/h)	2,6	4,7	7,3	11	18,2	23,5
Zeta-value	--	12	11,6	11,7	13,8	12,3	18,1

Dimensions							
45.149....2 / ....3	(kg)	3,5	3,5	4,5	6,7	6,9	8,8

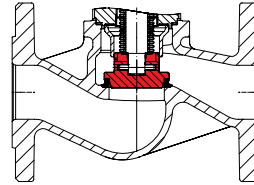
Information / restriction of technical rules need to be observed!  
 Operating and installation instructions can be downloaded at [www.ari-armaturen.com](http://www.ari-armaturen.com).  
 A production allowance acc. to TRB 801 No. 45 exists.  
 The engineer, designing a system or a plant, is responsible for the selection of the correct valve.  
 Resistance and fitness must be verified (contact manufacturer for information, refer to Product overview and Resistance list).



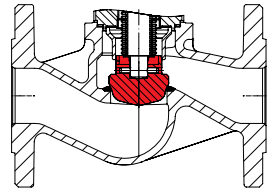
## ARI-FABA®-Plus / ARI-FABA®-Supra I



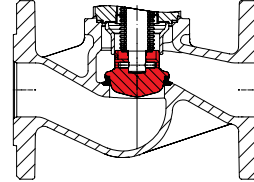
Isolation plug with marginal seat; stellited seat and plug <sup>1)</sup>



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

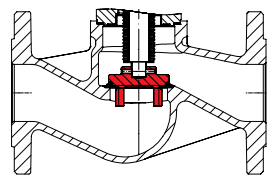


Regulating plug with marginal seat <sup>1)</sup>

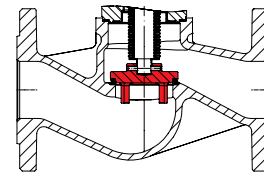


Regulating plug with soft seal <sup>1)</sup>  
Max. operating temperature 200°C at PTFE + 25% carbon

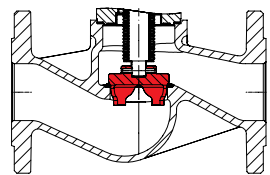
## ARI-FABA®-Supra C



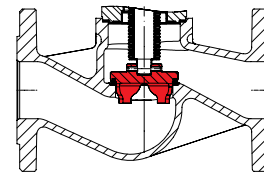
V-port plug with marginal seat; stellited



V-port plug with soft seal  
Max. operating temperature 200°C at PTFE + 25% carbon

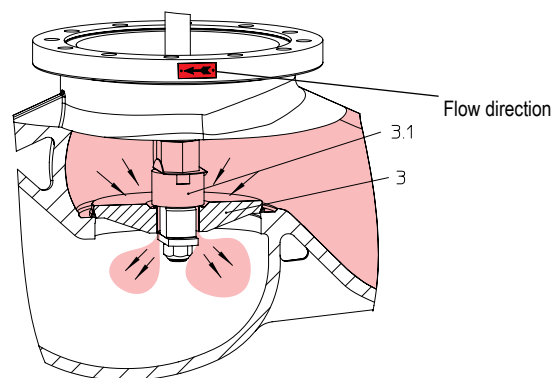


V-port regulating plug with marginal seat



V-port regulating plug with soft seal PTFE + 25% carbon  
Max. operating temperature 200°C at PTFE + 25% carbon

<sup>1)</sup> for max. permissible  $\Delta P$  in throttling function, refer to annex: Flow diagram (FABA-Plus)



### Balancing plug

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

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.

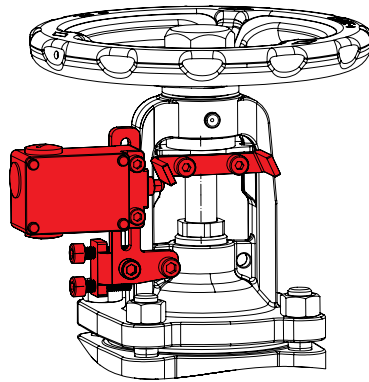
The pressures of the medium on either side of the plug can not be equalized if the medium is discharged into open air.

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.

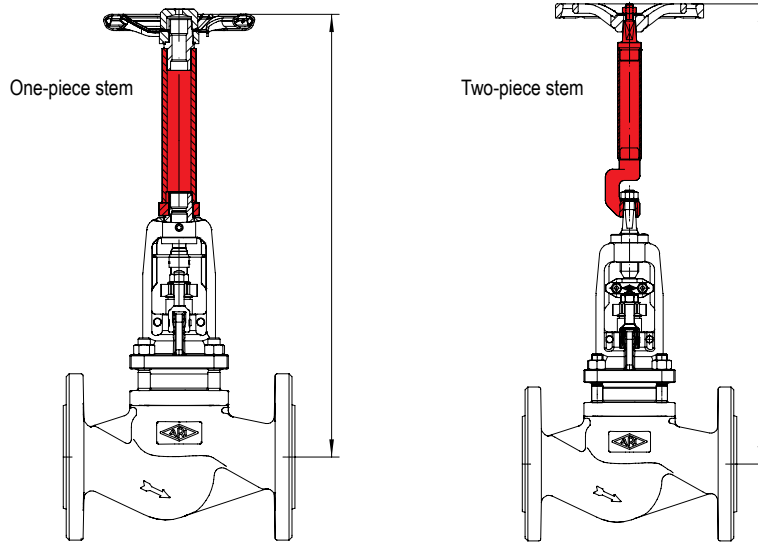
**ARI-stop valves with differential pressures exceeding the following pressures, have to be fitted with pressure balancing plugs**

DN	150	200	250
NPS	6"	8"	10"
max. differential pressure ( $\Delta P$ ) (bar)	21	14	9

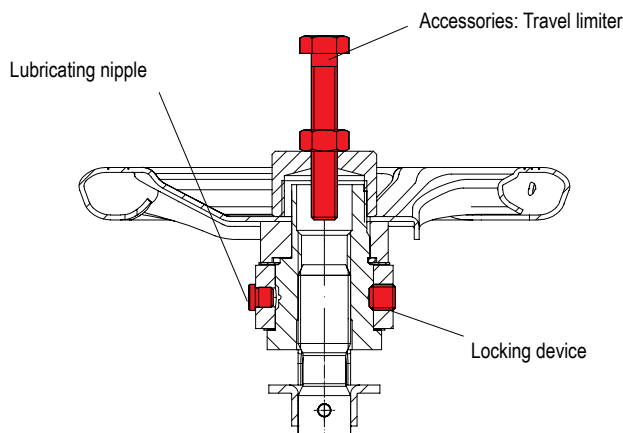




Limit switch



Stem extension (please specify height in your order)

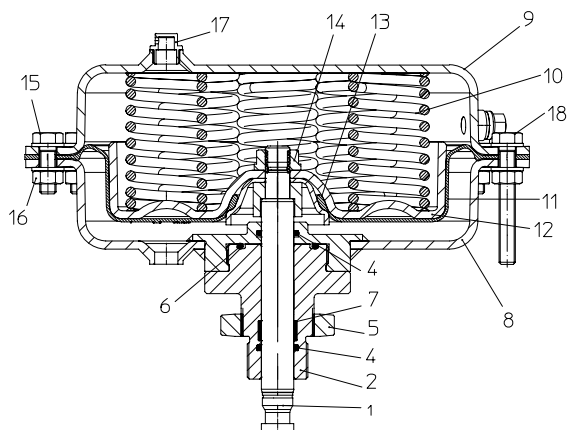
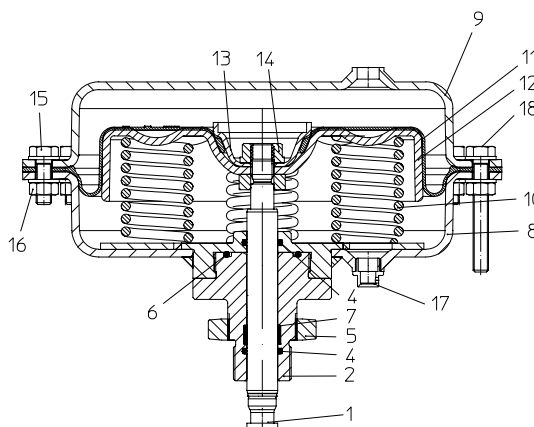
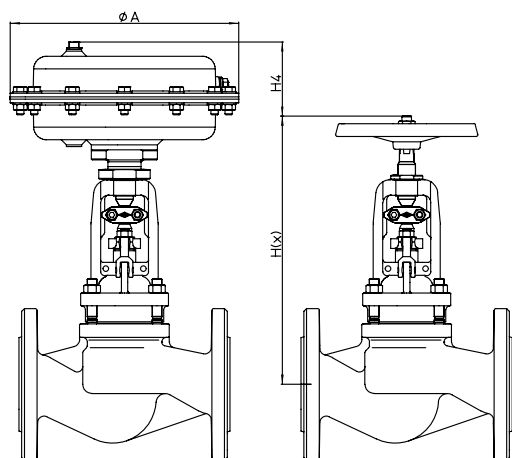


Lubricating nipple / Locking device / Travel limiter  
 (only construction FABA-Plus and FABA-Supra with one-piece stem)

Travel limiter  
 (Accessories are not included !)

DN	NPS	Hexagon screw
(mm)	(inch)	(mm x mm)
15-80	1/2"-3"	M8 x 55
100	4"	M12 x 70
150	6"	M12 x 80
200	8"	M12 x 100
250	10"	M12 x 120

## Pneumatic actuator ARI-FA


**Spring closes (Extended stem on air failure)**

**Spring opens on air failure (Retracted stem on air failure)**

**Important:**

The pneumatic actuator ARI-FA can be combined with all ARI-FABA-Supra versions with two-piece stem!

Max. medium temperature in the valve 482°F / 250°C !

Not applicable for design with balancing plugs !

Parts			
Pos.	Sp.p.	Description	Material
1		Stem	SA276Gr.420
2		Head	SA276Gr.420
4	x	O-ring	NBR
5		Lock nut	SA276Gr.420
6	x	O-ring	NBR
7	x	Guiding band	PTFE -+25%C
8		Lower diaphragm casing	AISI1008 (powder coated)
9		Upper diaphragm casing	AISI1008 (powder coated)
10	x	Spring	AISI9254
11	x	Rolling diaphragm	NBR + webbing
12		Diaphragm plate	AISI1008 (Fe/Zn12B)
13		Diaphragm flange	AISI1213 (Fe/Zn12B)
14	x	Collar nut with sealing ring	St
15		Hexagon bolt	St (galvanised)
16		Hexagon nut	St (galvanised)
17	x	Vent plug	Polyethylene
L Spare parts			

Type of actuator		FA160	FA250	FA400	FA800
Ø A	(mm)	210	250	300	405
H(x)	(mm)	refer to page 4 - 6			
max. H4	(mm)	90	105	120	165
max. pressure	(bar)	6	6	6	6
Weight (Actuator.)	(kg)	6,5	9	17	50

max. permissible closing pressures on flow-to-open P2 = 0.  
Observe regulations, refer to page 12.

DN			15	20	25	40	50	65	80	100	150		
NPS			1/2"	3/4"	1"	1 1/2"	2"	2 1/2"	3"	4"	6"		
Travel		(mm)	6	6	8	13	13	16	20	25	40		
<b>FA160</b> <b>Spring closes</b>  (Extended stem on air failure)	Air supply pressure min. (bar) <sup>1)</sup>												
		4	(bar)	40	40	26,7							
		<b>FA250</b> <b>Spring closes</b>  (Extended stem on air failure)	4,5	(bar)				20,5	11,1	1,6			
			<b>FA400</b> <b>Spring closes</b>  (Extended stem on air failure)	4,5	(bar)				40	31	14,8	6,5	1,4
<b>FA800</b> <b>Spring closes</b>  (Extended stem on air failure)	5	(bar)									17,4	4,3	

DN			15	20	25	40	50	65	80	100	150	
NPS			1/2"	3/4"	1"	1 1/2"	2"	2 1/2"	3"	4"	6"	
Travel		(mm)	6	6	8	13	13	16	20	25	40	
<b>FA160</b> <b>Spring opens</b>  (Retracted stem on air failure)	Air supply pressure min. (bar) <sup>1)</sup>	3	(bar)	40	40	21,1						
		4	(bar)	40	40	40						
		5	(bar)	40	40	40						
		6	(bar)	40	40	40						
<b>FA250</b> <b>Spring opens</b>  (Retracted stem on air failure)	Air supply pressure min. (bar) <sup>1)</sup>	3	(bar)				13,8	6,9				
		4	(bar)				30	17,3	6,2			
		5	(bar)				40	27,8	12,5			
		6	(bar)				40	38,2	18,7			
<b>FA400</b> <b>Spring opens</b>  (Retracted stem on air failure)	Air supply pressure min. (bar) <sup>1)</sup>	3	(bar)					9,6	3,9			
		4	(bar)					19,6	10,5	4,7		
		5	(bar)					29,6	17,1	9		
		6	(bar)					39,5	23,8	13,2		
<b>FA800</b> <b>Spring opens</b>  (Retracted stem on air failure)	Air supply pressure min. (bar) <sup>1)</sup>	3	(bar)							10,4	1,8	
		4	(bar)							18,9	5,6	
		5	(bar)							27,5	9,4	
		6	(bar)							36	13,2	

<sup>1)</sup>Air supply pressure max. to actuator: 6 bar

DN	15	20	25	40	50	65	80	100	150	200	250
NPS	1/2"	3/4"	1"	1 1/2"	2"	2 1/2"	3"	4"	6"	8"	10"

Standard-flange dimensions												Flanges acc. to ANSI B16.5	
ANSI150	ØD1	(mm)	89	99	108	127	153	178	191	229	279	343	406
ANSI150	ØK1	(mm)	60	70	79	98	121	140	152	191	241	298	362
ANSI150	n x Ød1	(n x mm)	4 x 16	4 x 16	4 x 16	4 x 16	4 x 19	4 x 19	4 x 19	8 x 19	8 x 22	8 x 22	12 x 25
ANSI300	ØD2	(mm)	95	117	124	155	165	191	210	254	318	381	445
ANSI300	ØK2	(mm)	66,5	82,5	89	114	127	149	168	200	270	330	387
ANSI300	n x Ød2	(n x mm)	4 x 16	1 4 x 9	4 x 19	4 x 22	8 x 19	8 x 22	8 x 22	8 x 22	12 x 22	12 x 25	16 x 29

DN	15	20	25	32	40	50
NPS	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"

Screwed socket dimensions								
ANSI300	lg	(mm)	15	16,3	19,1	21,4	21,4	25,7
ANSI300	G (BSP)	(inch)	1/2	3/4	1	1 1/4	1 1/2	2
ANSI300	G (NPT)	(inch)						

DN	15	20	25	32	40	50
NPS	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"

Socket weld ends dimensions								
ANSI300	l	(mm)	10	13	13	13	13	16
ANSI300	Ød	(mm)	21,7	27,1	33,8	42,5	48,7	61,1

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

acc. to ANSI			-29°C to 38°C	93°C	149°C	204°C	260°C	315°C	343°C	371°C	399°C	427°C
SA216WCB / SA105	ANSI150	(bar)	19,6	17,9	15,8	13,8	11,7	9,6	8,69	7,6	6,6	5,5
SA216WCB / SA105	ANSI300	(bar)	51,1	46,6	45,2	43,8	41,4	39,3	37,9	36,6	34,8	28,3

**Please indicate when ordering**

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

**Example:**

Figure 32.041; Class 150; DN 100.



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