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

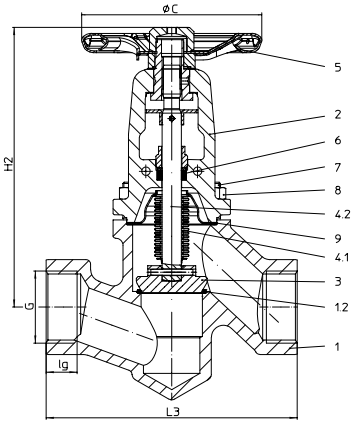


Fig. 049....2 with screwed sockets

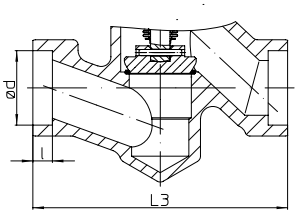


Fig. 049....3 with socket weld ends

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

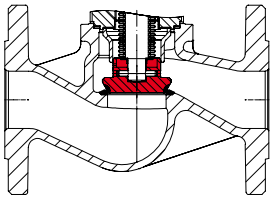
Parts			
Pos.	**Sp.p.**	**Description**	**Fig. 45.049....2 / 45.049....3**
1		Body	SA105
1.2		Seat	E347-16
2		Bonnet	SA216WCB
3	x	Plug	SA276Gr.420 (hardened)
4		Spindle unit	
4.1	x	Bellows seal	SA240Gr.316Ti
4.2		Stem	SA276Gr.420
5	x	Handwheel	A366 (cataphoretic coating)
6		Packing ring	Pure graphite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

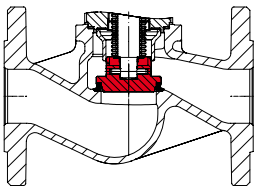
Information / restriction of technical rules need to be observed!

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).

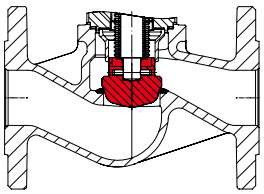
ARI-FABA®-Plus / ARI-FABA®-Supra I



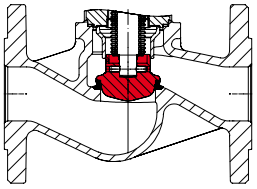
Isolation plug with marginal seat; stellited seat and plug [1)]



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

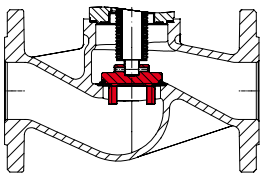


Regulating plug with marginal seat [1)]

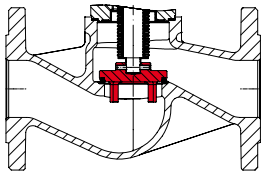


Regulating plug with soft seal [1)]
Max. operating temperature 200°C at PTFE + 25% carbon

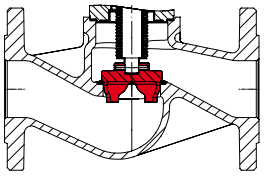
ARI-FABA®-Supra C



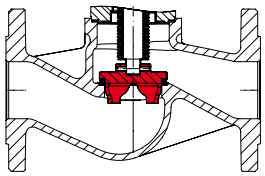
V-port plug with marginal seat; stellited



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

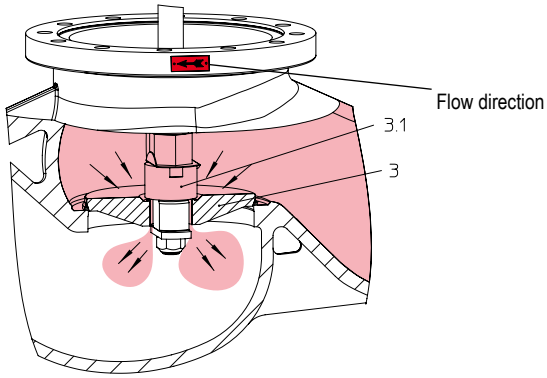


V-port regulating plug with marginal seat



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

[1)] for max. permissible ΔP 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 (ΔP)	(bar)	21	14	9

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.

ARMATUREN