

ARMA-C



CATALOGUE  
OF PIPELINE VALVES  
MANUFACTURED BY  
"ARMA-C"





## ABOUT COMPANY

Over 17 years the company “ARMA-C” (Ukraine, Krolevetz, Sumy region), successfully manufactures and sells the wide range of pipeline valves, including:

- lever-operated and spring safety valves (trunnion-mounted and flange spring pressure relief valves);
- flange float steam traps;
- flange and couple ball valves made of steel;
- indicating liquid-level gauges;
- multipurpose valves;
- non-return lift valves;
- enameled diaphragm valves;
- enameled bottom discharge valves;
- wedge gate valves made of steel or cast iron;
- ball valves with “metal-to-metal” seal for operating temperature up to 450° ;
- manually-operated and air-operated ball valves;
- subsurface manually-operated, air-operated ball valves and hydraulic air-operated ball valves with mechanical double;
- manually-operated three-way ball valves;
- heat jacketed ball valves;
- shut-off rotary butterfly valves (multipurpose) etc. .

All manufactured valves are accompanied with specifications.

All manufactured by our company products meet their foreign counterparts and by some performance data even better them .

All equipment with trade mark “ARMA-C” finds wide application nearly in all branches of national economy and is exported outside Ukraine to 7 countries of the world: Russia, Byelorussia, Kazakhstan, Uzbekistan, Azerbaidzhan, Moldova, others.

The output of new products is regularly extended.  
We permanently update the variety of manufactured valves.

We have possibilities to manufacture the equipment according to the individual requirements of the customers.

The long-term cooperation with reliable suppliers of the raw and consumable materials, highly qualified personnel of the company from the one side and professional team of managers ready to meet any target from the other side are the guarantee of the timely delivery of the equipment .



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## » FLOAT STEAM TRAP 45 99

DN 15, 20, 25, 32, 40, 50, 65 PN 16  
SPECS 3-021833-298-92

### ■ DESIGNATION

Float steam trap is designed for automatic removal of condensate from steam pipelines, steam receivers and other equipment operated with steam heating as well as from compressed air piping and vessels.

### ■ PERFORMANCE DATA

- Process pressure, Pp, kgf/sm<sup>2</sup>- 16
- Operating temperature, ° - 300
- Flanged connection to pipeline, dimensions as per GOST 12817-80 standards .
- Operating medium: saturated steam, pressure air .  
\*At order stage it is required to specify operating medium, density, operating pressure and temperature, required capacity kg/h.

### ■ STANDARD SET OF DELIVERY :

- Steam trap assembly
- Set of maintenance documentation

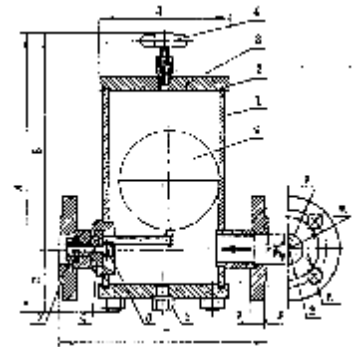
### ■ RECOMMENDED INSTALLATION DIAGRAM



- 1 –Heat consuming unit
- 2, 3, 7 –Shut-off valves
- 4 –Filter
- 5 –Steam trap
- 6 –Check valve



45 99



- 1.Body : steel 5
- 2.Gasket: paronite
- 3.Cover: steel 5
- 4.Control valve : 20 13
- 5.Plug: 20 13
- 6.Support housing: 12 18 10
- 7.Nut: 20 13
- 8.Spool: 95 18
- 9.Float with bracket: 08 18 10

### ■ TECHNICAL DATA SHEET

DN	15	20	25	32	40	50	65
A	300	300	300	325	325	325	325
B	235	235	235	250	250	250	250
C	65	65	65	75	75	75	75
D	230	230	230	280	280	280	280
E	140	140	140	165	165	165	165
F	95	105	115	135	145	160	180
G	65	75	85	100	110	125	145
H	47	58	68	78	88	102	122
I	12	14	16	18	18	18	21
J	14	14	14	18	18	18	18
K	2	2	2	2	3	3	3
Weight (kg)	11,0	11,5	12,0	17,5	18,5	20,0	22,0



## INDICATING LIQUID LEVEL GAUGE 12 11

12 11  
 SPECS26 – 07 – 1487 – 89

### DESIGNATION

The gauge is installed in shut-off valves mounted on boilers, vessels, apparatus and tanks for water and other liquid non-aggressive mediums with operating temperature up to 250° C

### PERFORMANCE DATA

- Pressure, MPa(kgf/sm<sup>2</sup>) – 2,5 (25)
- Temperature, ° – 250
- Material for main parts : body, cover, connecting branches are made of steel, gaskets are made of paronite, rippled glass as per GOST 1663-81

### STANDARD SET OF DELIVERY

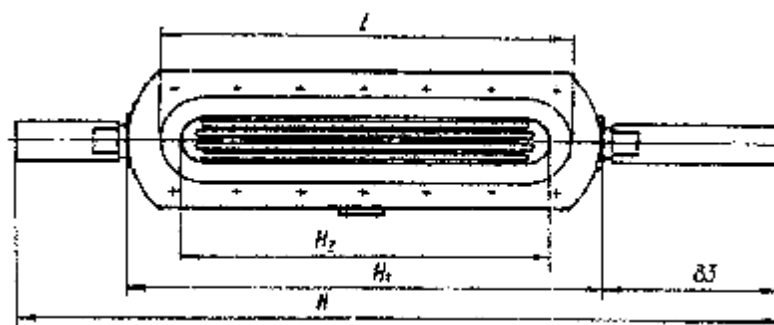
- Indicating liquid-level gauge assembly
- Set of maintenance documentation



12 11

### TECHNICAL DATA SHEET

Number of level indicator		1	2	L (length of glass)	Weight, kg not more than
2	300	162	124	140	3,0
3	320	182	144	160	4,0
4	360	224	174	190	4,2
5	390	254	204	220	4,7
6	420	284	234	250	5,4
7	450	314	264	280	6,0
8	490	354	304	320	6,6
9	510	374	324	340	7,6



## ▶ DIRECT-ACTING WATER LEVEL INDICATOR

-29 , -74 , -228 , 229 , -45-1, -45-2

### ■ DESIGNATION

Level indicators T -29 , -74 , -228 , 229 , -45-1, -45-2 are direct acting indicators designed for control of water level in drums of boiler units or vessels.

On each boiler unit it is provided for not less than two water level indicators.

### ■ PERFORMANCE DATA

- Depending on controlled medium head in the vessel (drum) the gauge body is made of ( -45-1, -45-2), with one frame( -29 ) , two or three frames ( -74 , -228 , 229 ).  
Water level indicator is mounted vertically with blowout valve downwards and with connecting branches of specified diameter welded without adapting flanges and shut-off valves. High and low water level marks are indicated on the gauge.

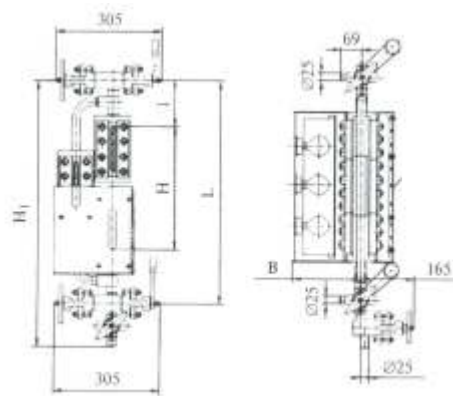


### ■ ADDITIONAL OPTIONS:

- Indicators -29 , -74 , -228 , 229 can be completed with a lighting device which is mounted for lightening of operating medium in water heater housing and a protective device which serves for protection of the personnel from burns.

### ■ STANDARD SET OF DELIVERY

- Direct acting water level indicator
- Set of maintenance documentation.



-228

### ■ TECHNICAL DATA SHEET

Parameters	-29	-74	-228	-229	-45-1	-45-2
Nominal diameter (DN)	20	20	20	20	10	10
Process pressure (Pp) MPa	5,4	=10,0	15,5	16,5	=2,5	2,5
Operating temperature,	270	285	345	350	225	225
Operating medium	Steam-water					
Visible margin of controlled level (H), mm	320	550	400	400	202	202
Actual length (L), mm	600	950	670	670	400	440
Weight, kg	60,0	87,0	71,0	84,0	12,0	13,0



» **SPRING SAFETY VALVE  
MADE OF STEEL 17 56**

**DN 50, 65, 80, 100, 125, 150 PN16, 40, 63, 160  
SPECS 29.1-31117126-001:2012**

■ **DESIGNATION**

Safety valves are made of steel and designed for protection of emergency increase of pressure by discharge of operating medium in vessels and pipelines (valves meet the requirements of SRARP 0.00-1.07 "Design and safety operation of pressure vessels"); in steam hot water boilers and other process equipment (valves meet the requirements of SRSRP 0.00-1.08 "Design and safety operation of steam and hot water boilers").

■ **OPERATING PRINCIPLE**

Operating principle of valve is based on reacting of medium pressure under spool to spring pressure transferred through valve mounting group and stem. Medium overpressure results in spring compression adjusted for operating pressure, lifting of spool and discharge of steam (or other medium) into drain system.

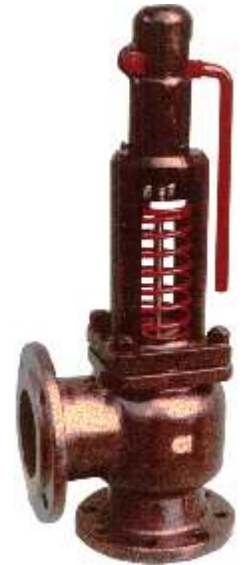
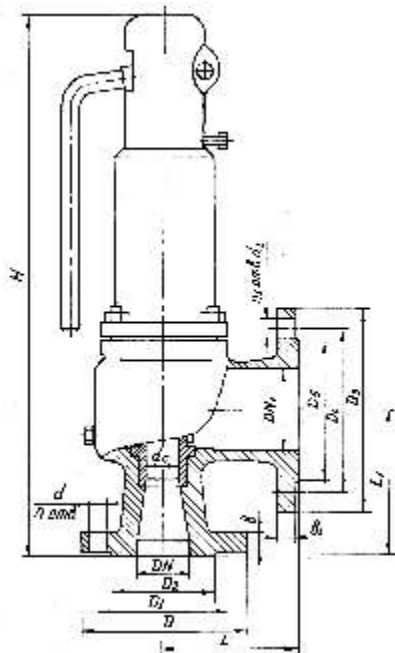
■ **PERFORMANCE DATA**

- Flow rate, not less than: for gaseous medium – 0.8, for liquid medium- 0.5, at min.diameter of valve seat flow passing part dc DN50-35mm; DN65-35mm; DN80-40mm; DN100-48mm, DN 125-48mm.
- Flow rate corresponds to the surface area for DN50-854.86mm<sup>2</sup>; DN65-854.86mm<sup>2</sup>, DN80-1256.0mm<sup>2</sup>; DN100-1808.0mm<sup>2</sup>, DN 125-1808.0mm<sup>2</sup>.
- Calculation of throughout capacity is carried out as per GOST 24570-81.
- Flanged connection to the pipeline.
- Valves for vessels and pipelines are manufactured in totally enclosed design.

■ **STANDARD SET OF DELIVERY**

- Safety valve assembly adjusted to set operating pressure
- Set of maintenance documentation

■ **TECHNICAL DATA SHEET**



17 56





## ■ TECHNICAL DATA SHEET

Designation	DN	PN	Range of pressure setting, kgf/sm <sup>2</sup>	Temperature, °C	Operating medium	Designation
55001-050	50	16	0,5 – 1,2	from -40° C up to + 350°	Liquid, gaseous, neutral to carbon steel	For vessels and pipelines
55001-065	65		1,2 – 1,5			
55001-080	80		2,5 – 4,0			
55001-100	100		4,0 – 8,0			
55001-125	125		8,0 – 16,0			
55001-150	150	0,5 – 1,5				
		1,5 – 3,0				
		3,0 – 5,0				
		5,0 – 8,0				
		8,0 – 12,0				
12,0 – 16,0						
55002-050	50	40	8,0 – 20,0			
55002-065	65		20,0 – 30,0			
55002-080	80		30,0 – 40,0			
55002-100	100		8,0 – 12,0			
55002-125	125		12,0 – 18,0			
55002-150	150	18,0 – 25,0				
		25,0 – 35,0				
		35,0 – 40,0				
		8,0 – 12,0				
55005-050	50	63	25,0 – 35,0			
55005-080	80		35,0 – 44,0			
			44,0 – 50,0			
			50,0 – 63,0			
55005-100			25,0 – 40,0			
		40,0 – 48,0				
		48,0 – 63,0				
55006-050	50	160	63,0 – 100,0			
dc=25			100,0 – 140,0			
55006-050			140,0 – 160,0			
			53,0 – 90,0			

## ■ TECHNICAL DATA SHEET

DN	PN	L	L <sub>1</sub>	D	D <sub>1</sub>	D <sub>2</sub>	D <sub>3</sub>	D <sub>4</sub>	D <sub>5</sub>	b	b <sub>1</sub>	d	d <sub>1</sub>	H	n	n <sub>1</sub>	Weight, kg, not more than
50/80	16	130	155	160	125	102	185	150	128	14	13	18	18	590	4	4	32
	40	130	155	160	125	102	195	160	133	17	15	18	18	590	4	4	33
	63	145	160	175	135	102	195	160	133	23	18	22	18	665	4	8	45
	160	145	160	195	145	115	195	160	133	27	18	26	18	720	4	8	54
65/80	16	130	155	180	145	122	185	150	128	14	13	18	18	590	4	4	33
	40	130	155	180	145	122	195	160	133	19	17	18	18	590	8	4	34
80/100	16	150	175	195	160	133	205	170	145	16	14	18	18	675	4	4	43
	40	150	175	195	160	133	215	180	158	19	17	18	18	675	8	4	45
	63	165	195	210	170	133	230	190	158	27	21	22	22	760	8	8	55
100/125	16	160	200	230	190	158	235	200	178	17	19	18	18	770	8	8	53
	40	160	200	230	190	158	245	210	184	21	19	22	18	770	8	8	55
	63	250	200	250	200	158	270	220	184	29	27	26	26	885	8	8	76
125/125	16	160	200	245	210	184	235	200	178	17	19	18	18	770	8	8	55
	40	160	200	270	220	184	245	210	184	25	21	26	18	770	8	8	57
150/200	16	205	230	280	240	212	315	280	258	21	17	22	18	940	8	8	94
	40	205	230	300	250	212	335	295	268	27	23	26	22	940	8	12	99





» SAFETY VALVE 7 56  
17 56 (17 42 )

DN 25 PN 16, 25, 40  
SPECS 29.1-31117126-001:2012

■ DESIGNATION

Designed to protect the equipment from overpressure by discharge of excessive operating medium.

■ OPERATING PRINCIPLE

Valve operating principle is based on reacting of medium pressure under spool to spring pressure adjusted on operating pressure, spool lifting and discharge of steam (or other medium) into drain system.



17 56

■ PERFORMANCE DATA

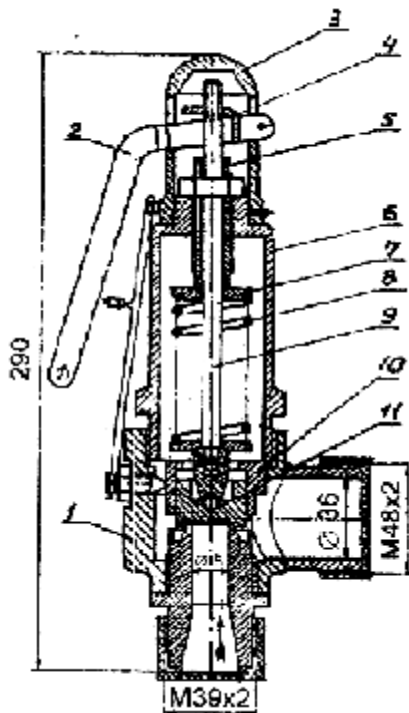
- Flow rate, not less than: for liquid – 0.5; for gas – 0.7
- Flow rate corresponds to the space area 200 mm<sup>2</sup>
- Calculation of throughput capacity is carried out as per GOST 24570.

■ STANDARD SET OF DELIVERY

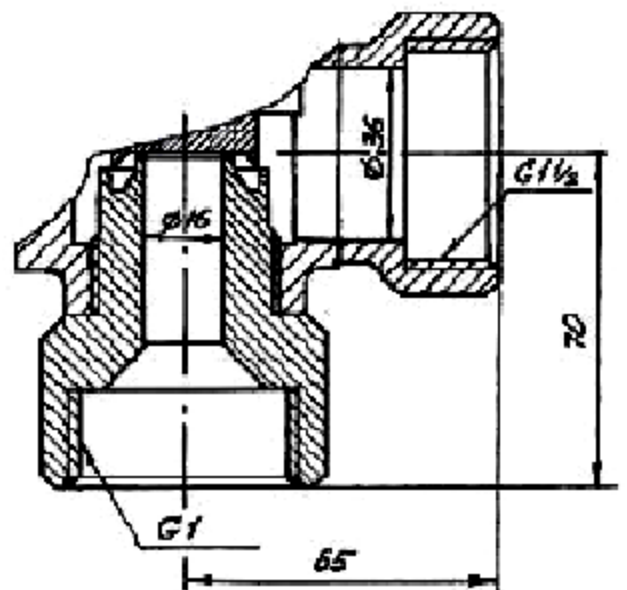
- Safety valve assembly adjusted to set operating pressure
- Set of maintenance documentation



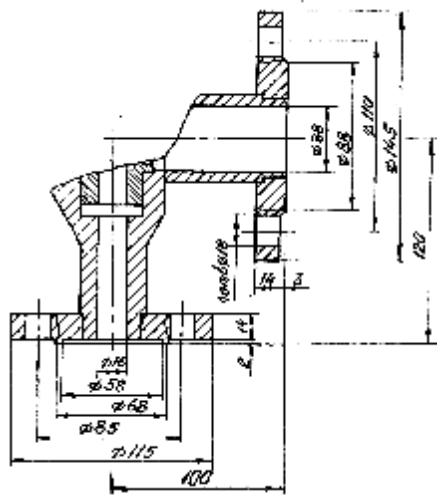
■ TECHNICAL DATA SHEET



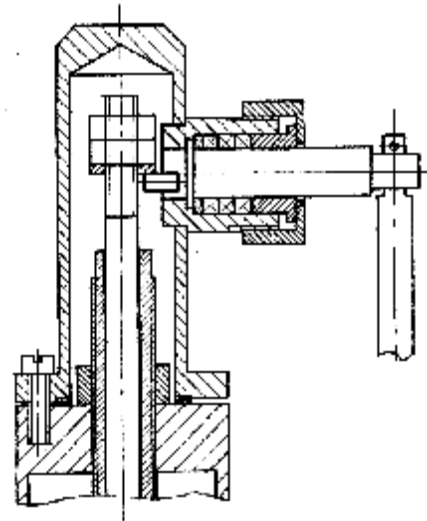
- |                          |                   |
|--------------------------|-------------------|
| 1 – body                 | 7 -spring support |
| 2 –handle ( for release) | 8 - spring        |
| 3 –cap                   | 9 - stem          |
| 4 –regulator             | 10 –guide bushing |
| 5 –adjusting screw       | 11 – spool        |
| 6 – valve sleeve         |                   |



Couple design



Flange design



Manually operated design of enclosed type

■ TECHNICAL DATA SHEET

Drawing No. and design	Shape sheet, manufacturing and supply	PN	DN	Operating medium	Temperature of operating medium, °C	Process pressure (calibration limits), Pp, MPa (kgf/sm <sup>2</sup> )	Type of forced blowing out	Connection to pipeline	Weight, kg, not more than
55001-025		16	25	Non-aggressive gaseous and liquid medium	225	0,1-0,2 (1,0-2,0)	Open type	Union and edge connection	3,0
-01	0,2-0,4 (2,0-4,0)								
-02	0,4-0,8 (4,0-8,0)								
-03	0,8-1,6 (8,0-16,0)								
55003-025	SPECS 29.1-31117126-001:2012					0,1-0,2 (1,0-2,0)			
-01	0,2-0,4 (2,0-4,0)								
-02	0,4-0,8 (4,0-8,0)								
-03	0,8-1,6 (8,0-16,0)	25, 40	25	Water steam and other non-aggressive medium	225	1,6-2,5 (16-25)	Open type	Union and edge connection	3,0
55005-025	Drawing 55005-025					2,5-4,0 (25-40)			
-01	1,6-2,5 (16-25)								
-02	2,5-4,0 (25-40)								
-03	1,6-2,5 (16-25)	25, 40	25	Non-aggressive gaseous and liquid medium	225	0,1-0,2 (1,0-2,0)	Open type	Union and edge connection	5,0
55005-025 - 03	Drawing 55005-025					0,2-0,4 (2,0-4,0)			
-04	0,4-0,8 (4,0-8,0)								
-05	0,8-1,6 (8,0-16,0)								
-06	1,6-2,5 (16-25)	25, 40	25	Non-aggressive gaseous and liquid medium	225	0,1-0,2 (1,0-2,0)	Close type	Flange, couple connection	5,5
55005-025 - 09	DSrawing 55005-025					0,2-0,4 (2,0-4,0)			
-10	0,4-0,8 (4,0-8,0)								
-11	0,8-1,6 (8,0-16,0)								
-12	1,6-2,5 (16-25)	25, 40	25	Non-aggressive gaseous and liquid medium	225	0,1-0,2 (1,0-2,0)	Close type	Union and edge connection	3,5
55005-025 - 15	Drawing 55005-025					0,2-0,4 (2,0-4,0)			
-16	0,4-0,8 (4,0-8,0)								
-17	0,8-1,6 (8,0-16,0)								
-18	1,6-2,5 (16-25)	25, 40	25	Non-aggressive gaseous and liquid medium	225	0,1-0,2 (1,0-2,0)	Close type	Union and edge connection	3,5
-19	0,2-0,4 (2,0-4,0)								
-20	0,4-0,8 (4,0-8,0)								
-20	0,8-1,6 (8,0-16,0)								

**Note:** As may be agreed with the customer the company can manufacture valves DN 6, 10, 15, 20, 32, 40 with pressure up to PN 64kgf/sm<sup>2</sup>



## » SINGLE LEVER -OPERATED FLANGE SAFETY VALVE 17 18 /

**DN 25, 40, 50, 80, 100 PN16**  
**SPECS 3.22-21656495-013-98**

### ■ DESIGNATION

The valve is designed for discharge of medium at pressure excess over admissible one in stationary steam and hot water boilers, vessels or pipelines. Operating medium is water, steam and other liquid and gaseous mediums neutral to grey iron cast .



### ■ PERFORMANCE DATA

- Temperature up to +225° .
- Pressure, MPa (kgf/sm<sup>2</sup>):  
 nominal PN.....1,6 (16)  
 process Pp.....0,2....1,6 (2....16)
- The valve is installed on horizontal pipeline with cover upwards.
- Material of main parts: body, cover, spool are made of 18;  
 sealing surfaces are made of 59-1, stainless steel.

### ■ STANDARD SET OF DELIVERY

- 17 18 /
- 

### ■ TECHNICAL DATA SHEET

Nominal diameter, DN	/	Process pressure range Pp, MPa (kgf/sm <sup>2</sup> )	Q-ty of loads, pcs	Load weight, kg	Length of lever arm, mm	Weight, kg
25	17 18	0,3...0,9 (3...9)	1	5,0	110...390	11,0
		1,0...1,6 (10...16)			200...362	16,0
40	17 18 1	0,4...0,9 (4...9)	2	11,5	174...490	24,1
		1,0...1,6 (10...16)			276...465	35,6
50	17 18	0,2...0,4 (2...4)	1	5,0	130...550	20,3
	17 18 1	0,4...0,9 (4...9)	1	11,5	190...560	25,5
	17 18 2	1,0...1,6 (10...16)	2	11,5	310...540	37,0
80	17 18	0,2...0,5 (2...5)	1	24,0	165...585	52,15
	17 18 1	0,6...0,9 (6...9)	2		360...585	76,15
	17 18 2	1,0...1,3 (10...13)	3		430...570	100,15
	17 18 3	1,4...1,6 (14...16)	4		460...570	124,15
100	17 18	0,2...0,4 (2...4)	1	27,0	285...713	65,4
	17 18 1	0,5...0,7 (5...7)	2		473...700	92,4
	17 18 2	0,8...1,0 (8...10)	3		536...700	119,4
	17 18 3	1,1...1,3 (11...13)	4		583...698	146,4
	17 18 4	1,4...1,6 (14...16)	5		605...697	173,4

## » DOUBLE LEVER-OPERATED FLANGE SAFETY VALVE 17 19 /

**DN 80, 125, 150 PN16**  
**SPECS 3.22-21656495-013-98**

### ■ DESIGNATION

The valve is designed for discharge of medium at pressure excess over admissible one in stationary steam and hot water boilers, vessels or pipelines. Operating medium is water, steam and other liquid and gaseous mediums, neutral to grey iron cast.



### ■ PERFORMANCE DATA

- Temperature up to +225° .
- Pressure, Mpa (kgf/sm<sup>2</sup>):
  - nominal PN.....1,6 (16)
  - processPp.....0,2.....1,6 (2.....16)
- The valve is installed on horizontal pipeline with cover upwards.
- Material of main parts: body, cover, spool are made of— 18;  
sealing surfaces are made of 59-1, stainless steel.

### ■ STANDARD SET OF DELIVERY

- Double lever-operated flange safety valve made of iron steel 17 19 /
- Set of maintenance documentation

### ■ TECHNICAL DATA SHEET

Nominal diameter, DN	/	Process pressure range Pp, MPa (kgf/sm <sup>2</sup> )	Q-ty of loads, pcs.	Load weight, kg	Lever arm length, mm	Weight, kg
80 (50 2)	17 19	0,3-0,6 (3-6)	2	11,5	210-540	59,0
	17 19 1	0,7-1,1 (7-11)	4		363-537	82,0
	17 19 2	1,2-1,6 (12-16)	6		390-535	105,0
125 (80 2)	17 19	0,2-0,5 (2-5)	2	24,0	220-790	109,0
	17 19 1	0,6-0,9 (6-9)	4		510-755	157,0
	17 19 2	1,0-1,3 (10-13)	6		565-715	205,0
	17 19 3	1,4-1,6 (14-16)	8		595-680	253,0
150 (100 2)	17 19	0,2-0,4 (2-4)	2	27,0	285-713	136,0
	17 19 1	0,5-0,7 (5-7)	4		473-700	190,0
	17 19 2	0,8-1,0 (8-10)	6		536-700	244,0
	17 19 3	1,1-1,3 (11-13)	8		583-698	298,0
	17 19 4	1,4-1,6 (14-16)	10		605-697	352,0



» FLANGESHUT—OFF VALVE MADE OF MALLABLE IRON CAS 15 16 1

DN 32, 40, 50, 65, 80 PN 25  
SPECS 26-07-1428-87



■ DESIGNATIOIN

The valve is installed on the pipeline as a shut-off device for water and steam at temperature not more than 225° C

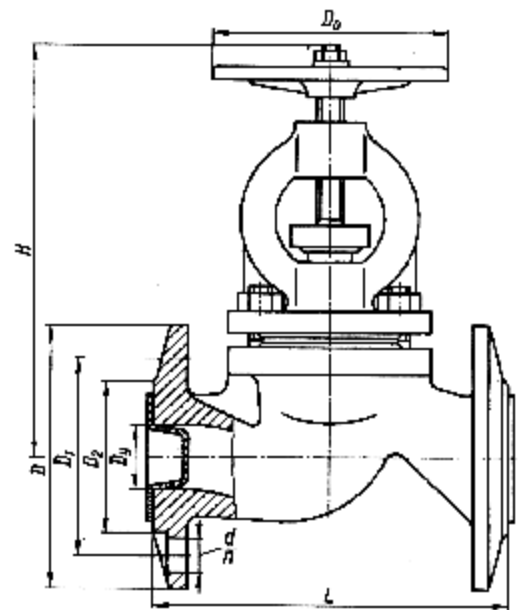
■ PERFORMANCE DATA

- Operating temperature from 100° + 225°
- Pressure MPa (kgf/sm<sup>2</sup>):  
 nominal PN.....2,5 (25)  
 processPp.....2,5 (25)
- It is provided for any setting of valve on the pipeline.
- The direction of operating medium shall match with the direction of the arrow on valve body.

■ STANDARD SET OF DELIVERY

- Flange shut-off valve made of malleable iron cast 15 16 1
- Set of maintenance documentation.

15 16 1



■ TECHNICAL DATA SHEET

DN	L	D	D <sub>1</sub>	D <sub>2</sub>	d	H	D <sub>0</sub>	n*	W <sub>max</sub> , kg		
32	180	135	100	78	18	210	120	4	8,0		
40	200	145	110	88		235			200	8	11,0
50	230	160	125	102							14,0
65	290	180	145	122		330	200	8	25		
80	310	195	160	138		360			32		

## » FLANGE LIFT CHECK VALVE MADE OF MALLEABLE IRON CAST 16 9

**DN32, 40, 50, 65, 80 PN 25  
SPECS26-07-1443-87**

### ■ DESIGNATION

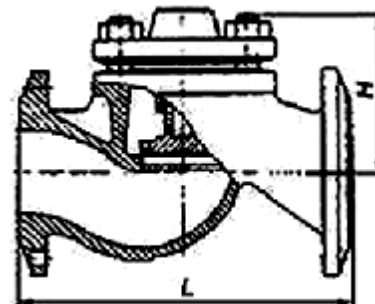
The valves are applied on pipelines to prevent return flow of water and steam.

### ■ PERFORMANCE DATA

- Temperature ..... up to +225° .
- Pressure, PN..... 2,5MPa.
- Valve seal 16 9 : flat rings in body and on spool.
- The valve is installed on horizontal pipeline with cover upwards.
- Material of main parts: body, spool are made of malleable iron cast; sealing parts in valve gate are made of PTFE 4, gasket is made of paronite.

### ■ STANDARD SET OF DELIVERY

- Flange lift check valve assembly 16 9
- Set of maintenance documentation



### ■ TECHNICAL DATA SHEET

Nominal diameter DN,mm	Actual length L, mm	Height H, mm	Weight, kg
<b>32</b>	180	90	5,54
<b>40</b>	200	105	7,45
<b>50</b>	230	105	10,48
<b>65</b>	290	140	19,60
<b>80</b>	310	155	26,80





MANUFACTURING AND SUPPLY

