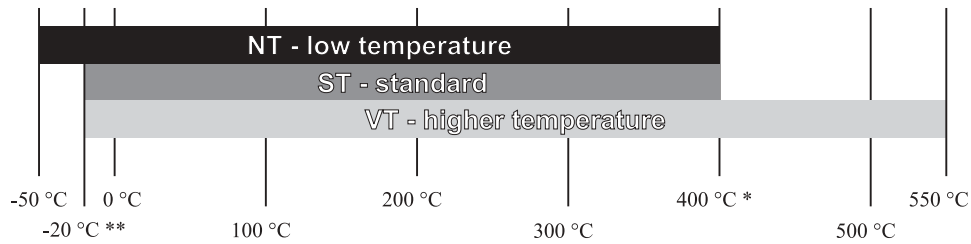


Recording number		Nominal inside diameter																
		15	20	25	32	40	50	65	80	100	125	150	200	250	300	350	400	
C26 101 540	Dewatering valve			X														
C26 103 516	Electromagnetic valve						X	X	X	X		X						
D62 017 540	Deaerating valve			X														
D15 117 540	Steam trap	X		X			X											
D15 117 616	Steam trap	X		X			X											
D17 117 540	Steam trap	X	X	X			X	X										
D17 117 616	Steam trap	X	X	X			X	X										
D71 117 616	Strainer	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
D71 117 540	Strainer	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

SURVEY OF TEMPERATURE DESIGNATION



* A higher temperature can be a little different in the dependence of sealing materials used.

** In the DIN execution this is valid from -10 °C.

RECORDING NUMBER SCHEME

D15 117 540.xx

GROUP DESIGNATION

- C - special valves and fittings
- D - separators, filters, traps
- L - flap valves
- P - safety valves
- R - regulators (controllers)
- S - gate valves
- V - shut-off and control valves
- Z - check valves
- F - filters
- RO - axial reducing valves
- BR - safety axis quick-closing valves
- RT - pressure regulators
- EP - gas preheaters

TYPE SERIAL NUMBER

CODE OF FLOW DIRECTION

- 1 - straight
- 2 - angle
- 4 - three-way
- 5 - four-way
- 0 - without resolution

CODE OF CONNECTION TYPE

- 1 - flanged
- 2 - welding on
- 3 - threaded
- 5 - with pipe union
- 7 - flange-less
- 8 - tenon-jointed

SUPPLEMENTARY SIGN

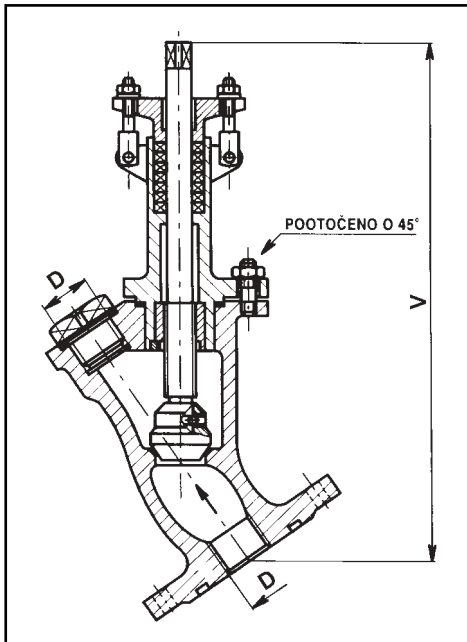
NOMINAL PRESSURE PN

MATERIAL CODE

- 1 - nodular cast iron
- 2 - alloy steel for castings
- 3 - alloy forged steel, pressed
- 4 - carbon forged steel, pressed
- 5 - carbon steel for castings
- 6 - grey cast iron
- 7 - zinc alloy
- 8 - light metals
- 9 - plastic, rubber (also lining)
- 0 - stainless steel

CODE OF OPERATING MODE

- 1 - handwheel
- 2 - gears
- 3 - electric actuating mechanism
- 4 - pneumatic actuator
- 5 - arranged for actuators
- 7 - self-acting (automatic)
- 8 - without control
- 9 - with accessory control

DRAIN VALVE**APPLICATION**

The drain valve can be used as a drain element in the gas traps as well as for the condensers seated in a heating gas piping in accordance with standard ČSN 38 5502. The drain valve can be used in accordance with valid standards and operating instructions for mentioned parameters.

Application:

- Gas piping

TYPE / DN / PN / TEMPERATURE / RANGE

C26 101 540 DN 25 PN 40 -50 °C to 40 °C

Produced in executions ST, NT

FUNCTION

The drain valve opens and closes a condensers passage from gas traps during their draining-off or pumping to a tank truck by means of a hose through an outlet hole, which is otherwise locked by means of a union nut. It is necessary to screw down the tube to the hole in a valve flange before the attachment of the drain valve to a gas trap. The length, quality and type of a tube is determined in accordance with the standard ČSN 38 6410. The drain valve must be mounted so that the axe of a plug and a hole may be in the vertical position and the plug down under.

MATERIAL AND CONNECTION

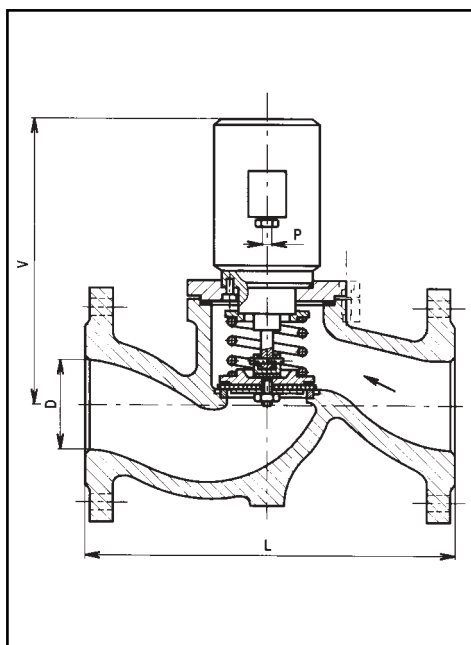
Body, head	42 2643.1 42 2643.9 (-50°C)
Valve seat of a body	STAINLESS WELD DEPOSIT
Valve cone	STAINLESS
Seat of a valve cone	CONE BASE MATERIAL
Valve spindle	STAINLESS
Plug	STAINLESS
Seal	ASBESTOS-FREE
Pipe connection	ČSN

Note: Connecting flanges dimensions see pages 114,115.

DIMENSION TABLE

PN	40
DN	25
D [mm]	G 1"
V [mm]	311
z [mm]	39
m [kg]	8,0

ELECTROMAGNETIC VALVE



APPLICATION

The electromagnetic valve is a remote controlled valve. The valve is used for the quick closing or opening of a gas passage due to the connection or disconnection of a circuit, in which is connected electromagnetic controlling element, by means of sensor, opening, closing or eventually fall-out loss of electrical energy.

The valve can be used for each heating gas in accordance with the standard ČSN 38 5502, the air and other inactive gas, namely for the pressure rating mentioned at the table. The allowed temperature range of a handled liquid in a valve can be -10 °C to +40 °C. The environment temperature can be -10 °C to +40 °C with the highest relative humidity 50% at 40 °C and 90% at 20 °C. The valve can be used only in case without a danger of fire or flammable gas and vapour explosion in accordance with the standard ČSN 33 2320. If the handled liquid is dirty or contains hydrates, then it is necessary to filter or eventually preheat the handled liquid in order to reach its right and reliable function.

CONNECTION

The nominal sizes are in accordance with the standard ČSN EN 558-1. The connexion sizes and treatment of PN 16 flanges sealing faces with a rough sealing bar is in accordance with standard ČSN 13 1060 (see the sizes table).

MATERIAL

The valve body and bonnet are made of carbon cast steel, the valve cone with a spindle is made of carbon steel with a surface anticorrosion treatment, the seal is made of rubber packing "O" rings.

MOUNTING

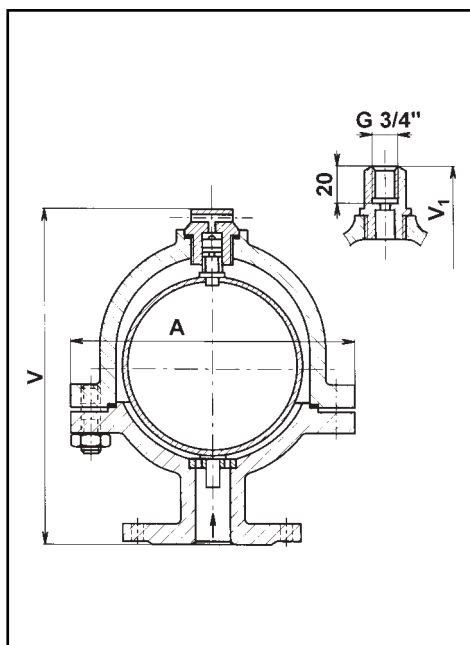
The valve is mounted to a piping only in a position with a vertical spindle and an electromagnetic element above. It is necessary to secure the connexion with a direct current supply (double-pulse rectifier in a bridge connexion).

VARIOUS

ξ = losses coefficient, data mentioned at the table are valid for a open valve.

DIMENSION TABLE

DN	Range [MPa]	D	L	V	D ₁	D ₂	D ₃	a	f	d	n	P	ξ	Current [A]		Electromagnet	kg
														starting	constant		
150	0 ÷ 0,005	150	480	420	280	240	212	22	3	22	8	13,5	5,5	2,45	0,3	ESP-02-220	93,0
65.18	0 ÷ 0,015	70	290	270	180	145	122	18	3	18	4	13,5	4,6	1	0,2	ESP-01-220	27,0
80.18		80	310	280	200	160	133	20	3	18	8	13,5	3,1	1	0,2	ESP-01-220	34,0
100.18		100	350	350	215	180	158	20	3	18	8	13,5	2,6	2,45	0,3	ESP-02-220	55,0
150.18		150	480	475	280	240	212	22	3	22	8	13,5	6,1	3,5	0,5	ESP-03-220	110,0
50.19	0 ÷ 0,06	50	230	370	160	125	102	18	3	20	4	13,5	7,6	2,45	0,3	ESP-02-220	32,0
80.19		80	310	450	200	160	133	20	3	18	8	13,5	2,9	3,5	0,3	ESP-03-220	59,0

DEAERATING VALVE**APPLICATION**

The valve is used as a self-acting deaerating valve for inactive liquids.

Application:

- Heat distribution systems
- Select chemical industries

TYPE / DN / PN / TEMPERATURE / RANGE

D62 017 540 DN 25 PN 40 0 °C to 200 °C

Produced in execution ST.

FUNCTION

In the double body of spherical shape there is seated an easily movable float equipped on top with a cone. During the float rising or sinking the cone is closing or opening a passage through a valve seat. If a liquid comes to a body of deaerator, the float is rising and the cone is closing at a valve seat. If the air or gas accumulate in the body, the level of a liquid sinks as well as the float with a cone, which is releasing a passage through a valve seat so that the valve is deaerated. If the handled liquids are bed-smelling or otherwise annoying the environment, then it is necessary to remove a released gas by means a tube - in this case it is possible to use the special type of a pipe union.

MATERIAL AND CONNECTION

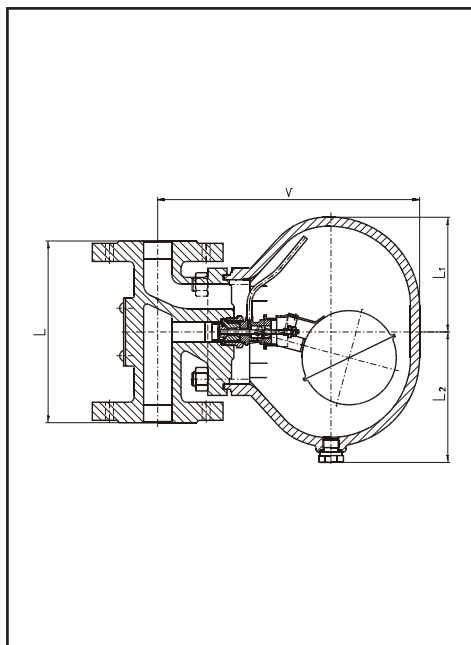
Head, bonnet	42 2643
Float	CARBON STEEL
Valve cone	STAINLESS
Pipe union	STAINLESS
Seal	WITHOUT ASBESTOS
Pipe connection	ČSN DIN, 2545 a DIN 2501

Remark: Connecting flanges dimensions see pages 114,115.

DIMENSION TABLE

PN	40
DN	25
V [mm]	257
V ₁ [mm]	277
A [mm]	230
m [kg]	5,6

STEAM TRAP



APPLICATION

The steam trap is used for a condensate transport from the steam installations. The steam trap can be used in a vertical as well as in a horizontal piping after a modification. The documentation for this modification is at disposal at the producer's.

Application:

- Steam distribution

TYPES / DN / PN / TEMPERATURE / RANGES

D15 117 540	DN15, 25, 50	PN 40	0 °C to 450 °C
D17 117 540	DN15, 20, 25, 40, 50	PN 40	0 °C to 450 °C
D15 117 616	DN15, 25, 50	PN 16	0 °C to 300 °C
D17 117 616	DN15, 20, 25, 40, 50	PN 16	0 °C to 300 °C

Produced in execution ST.

At PN 40 there is the maximum temperature increased to 450 °C.

FUNCTION

The valve is partially open in still state. The steam, beginning to flow to the valve, heats bimetal plates and closes the valve. In the bonnet there is successively accumulated a condensate, which raises the float automatically and so opens the valve. The plug in a bonnet bottom serves for emptying of condensate or valve cleaning.

VARIOUS

Type D15 nominal sizes - see the table.

Type D17 nominal sizes - in accordance with EN 558-1.

ADMISSIBLE PRESSURE AND TEMPERATURE

Valid for valves D15 117 540, D17 117 540

DN	Temperature [°C]					
	120	250	300	350	400	450
The highest steam working pressure [bar]						
15÷50	32	28	28	24	21	11

Valid for valves D15 117 616, D17 117 616

DN	Temperature [°C]			
	120	200	250	300
The highest steam working pressure [bar]				
15÷50	13	13	11	10

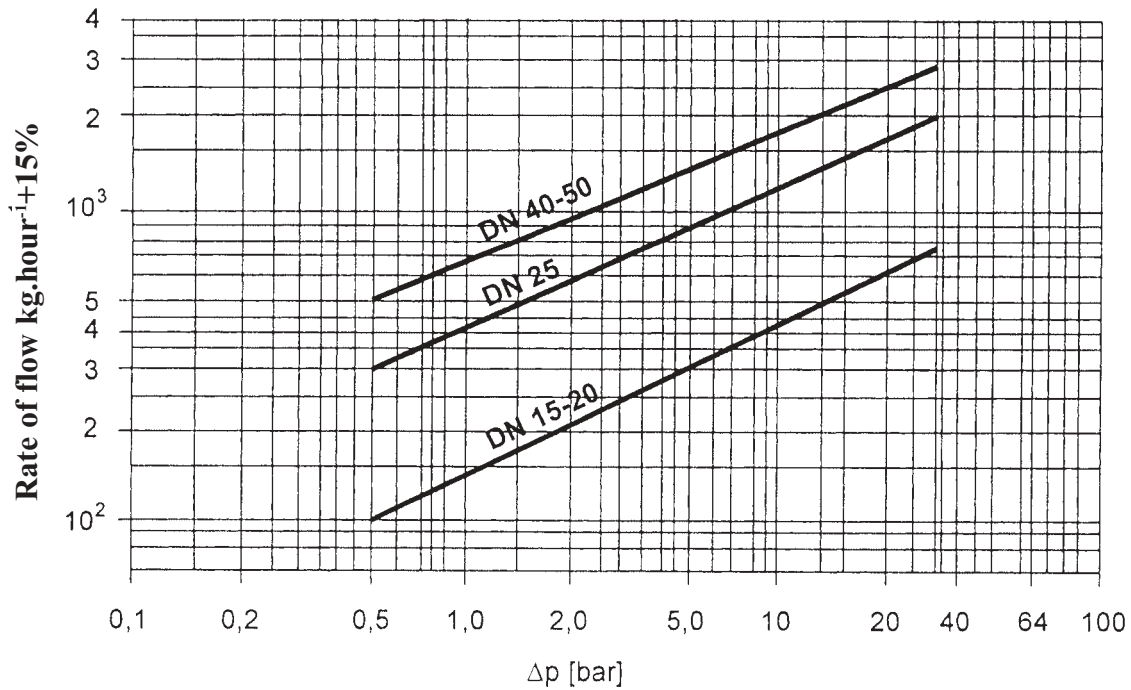
DIMENSION TABLE

	PN	40					16				
		15	20	25	40	50	15	20	25	40	50
	DN	15	20	25	40	50	15	20	25	40	50
	L ₁ [mm]	83	83	101	150	150	81	81	100	150	150
	L ₂ [mm]	98	98	115	126	126	95	95	110	126	126
D15	L [mm]	150	-	212	-	236	160	-	180	-	236
	V [mm]	212	-	212	-	279	195	-	195	-	277
	m [kg]	7,0	-	15	-	26	6,0	-	9,0	-	23
D17	L [mm]	150	150	160	230	230	150	150	160	230	230
	V [mm]	212	212	230	292	297	195	195	235	295	300
	m [kg]	6,5	7,5	14	22	25	6,0	7,0	11	20	23

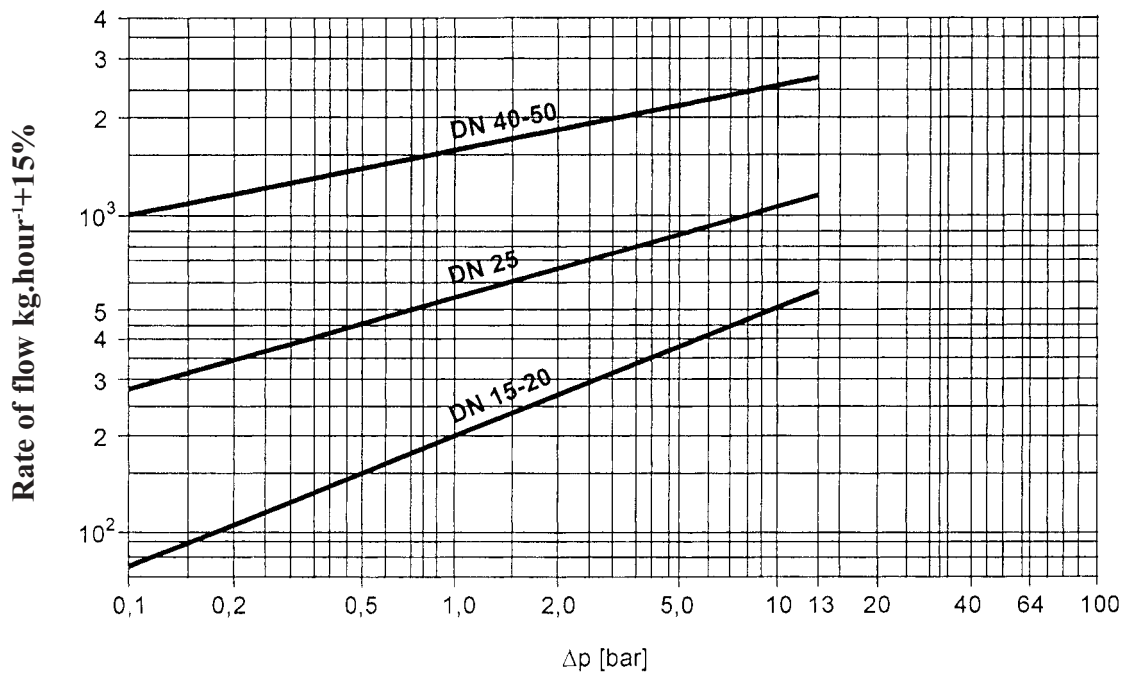
STEAM TRAP

GRAPH OF VALVE DELIVERY

D15 117 540, D17 117 540



D15 117 616, D17 117 616

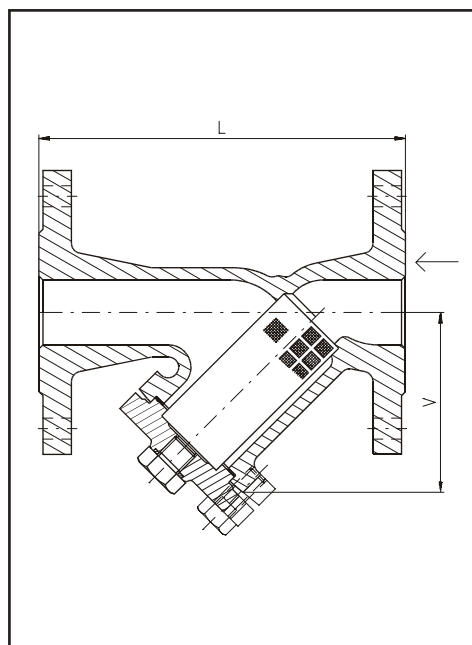


MATERIAL AND PIPE CONNECTION

	D15 117 540 D15 117 616	D17 117 540 D17 117 616
Body, Bonnet	540 616	1.0619 N GG25
Functional elements	STAINLESS	
Seal	WITHOUT ASBESTOS	
Pipe connection	DIN	
Nominal sizes	-	In accordance with EN 558-1

Note: Connecting flanges dimensions see pages 114,115.

STRAINER



APPLICATION

The strainer is used for a retaining of mechanical impurities, which are contained in handled medium in order to secure right functions of valves. The media handled can be water, steam, air and non-aggressive liquids and gas.

Application:

- Water system
- Distribution of water, steam, gas
- Air-conditioning system

TYPES / DN / PN / TEMPERATURE / RANGES

D71 117 616	DN 15÷400	PN 16	0 °C to 300 °C
D71 117 540	DN 15÷400	PN 40	-10 °C to 400 °C

Produced in execution ST.

FUNCTION

A dirty handled medium passes through a filter element, where impurities are retained. The impurities make sediment in a middle part of strainer (on a bonnet) due to gravity. Further the handled medium flows with impurities minor than a mesh size:

PN 16 ... DN 15÷65 - 0,8 mm DN 80÷400 - 1,12 mm

PN 40 ... DN 15÷65 - 0,4 mm DN 80÷300 - 1,25 mm DN 350÷400 - 1,6 mm

The mesh size is at least 2,5 x bigger than sizes calculated from DN. It is necessary to clean a strainer after some time in order to avoid an impurities whirling. A drain plug is situated in a bonnet for cleaning. The strainer must be mounted into a piping so that the drain plug should direct down.

ADMISSIBLE PRESSURE AND TEMPERATURES

PN	DN	Temperature [°C]						
		120	150	180	200	230	250	300
		The highest steam working pressure [bar]						
16	15÷400	16	14,4	13,4	12,8	11,8	11,2	9,6

PN	DN	Temperature [°C]						
		-10	120	200	250	300	350	400
		The highest steam working pressure [bar]						
40	15÷400	40	40	35	32	28	24	21

MATERIALS AND CONNECTION

	D71 117 616	D71 117 540
Body, bonnet	GG25	1.0619 N
Filter screen	STAINLESS	
Seal	WITHOUT ASBESTOS	
Pipe connection	DIN	
Nominal sizes	In accordance with EN 558-1	

Remark: Connecting flanges dimensions see pages 114,115.

DIMENSION TABLE

PN	PN 16, 40																
	DN	15	20	25	32	40	50	65	80	100	125	150	200	250	300	350	400
D71 117 616	V [mm]	84	90	94	100	115	132	160	185	240	280	350	440	540	680	755	835
D71 117 540		60	70	80	97	116	121	144	157	200	248	294	367	487	605	686	783
	L [mm]	130	150	160	180	200	230	290	310	350	400	480	600	730	850	980	1100
D71 117 616		m [kg]	2,8	3,0	3,2	5,5	7,2	9,3	13,6	18,6	28,5	38,5	61,5	123,5	165,5	285	373
D71 117 540	2,6		3,5	4,2	6,7	9,1	11,5	18,5	23,5	33,5	54	75	137	249	360	456	780
Ztrátový součinitel		2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2