

## USERS MANUAL

**Bottom valve**

**zBOT**

**Fig. 935.06, 935.00**

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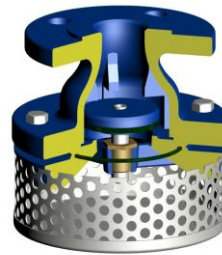


Fig.935.06

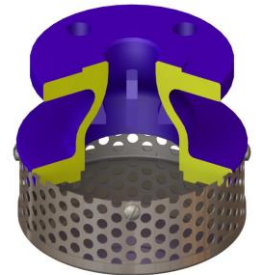
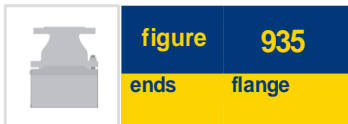


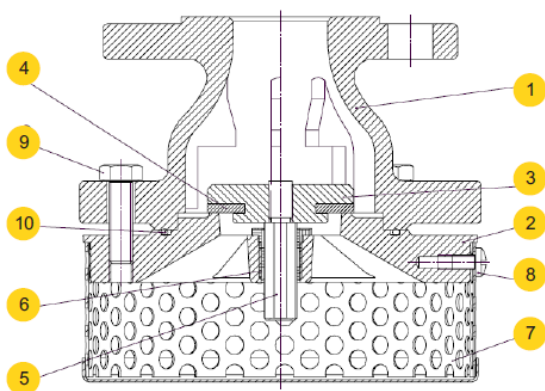
Fig. 935.00

### 1. PRODUCT DESCRIPTION

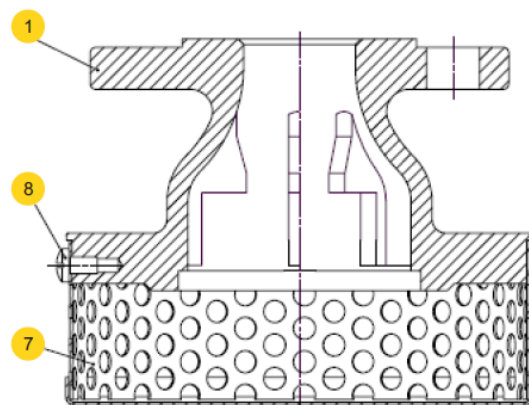


There are two types of manufactured bottom valves: with non-return valve Fig.935.06 and without valve Fig.935.00.

**type 06**



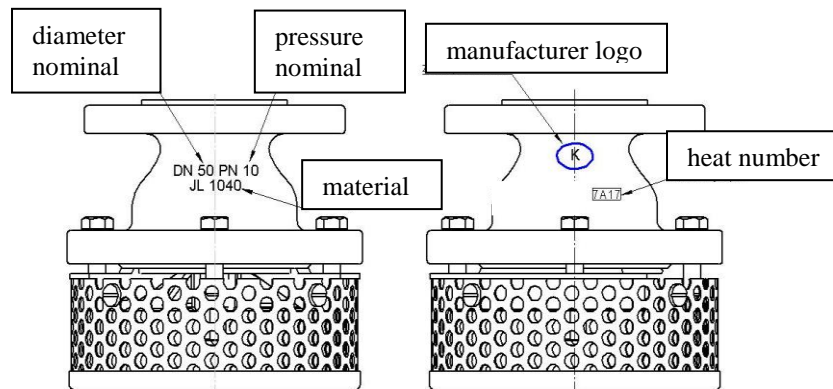
**type 00**



body material		A	
type		06	00
1	body	EN – GJL-250 JL1040	
2	cover	EN – GJL-250 JL1040	----
3	disc	EN – GJL-250 JL1040	----
4	disc gasket	EPDM	----
5	stem	X20Cr13 1.4021	----
6	sleeve	CuZn40Pb2	----
7	screen	X5CrNi18-10 1.4301	
8	screw	A2-70	
9	hexagon bolt	8.8 - A2A	----
10	packing ring	EPDM	----
max. temperature		90°C	

Bottom valves are provided with casted marking according to requirements of PN-EN19 standard. The marking facilitates technical identification and contains:

- diameter nominal DN (mm),
- pressure nominal PN (bar),
- body and cover material marking,
- arrow indicating medium flow direction,
- manufacturer marking,
- heat number,

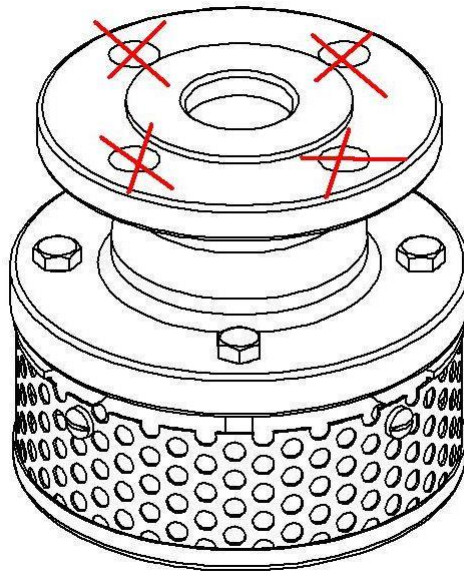


## 2. REQUIREMENTS FOR MAINTENANCE STAFF

The staff assigned to assembly, operating and maintenance tasks should be qualified to carry out such jobs.

## 3. TRANSPORT AND STORAGE

Transport and storage should be carried out at temperature from  $-20^{\circ}\text{C}$  to  $65^{\circ}\text{C}$ , and foot valves should be protected against external forces influence and destruction of painting layer as well. The aim of painting layer is to protect the strainers against rust during transport and storage. Strainers should be kept at unpolluted rooms and they should be also protected against influence of atmospheric conditions. There should be applied drying agent or heating at damp rooms in order to prevent condensate formation.



**It is not allowed to fit lifting devices to connecting holes.**

#### 4. FUNCTION

Bottom valves are designed to hold medium pollutions and keep column of water between water level in the well and suction pipe.

#### 5. APPLICATION

- industrial water
- neutral fluids

The kind of working medium makes some materials to be use or to be prohibited for use. Strainers were designed for normal working conditions. In the case that working conditions exceed these requirements (for example for aggressive or abrasive medium) user should ask manufacturer before placing an order.

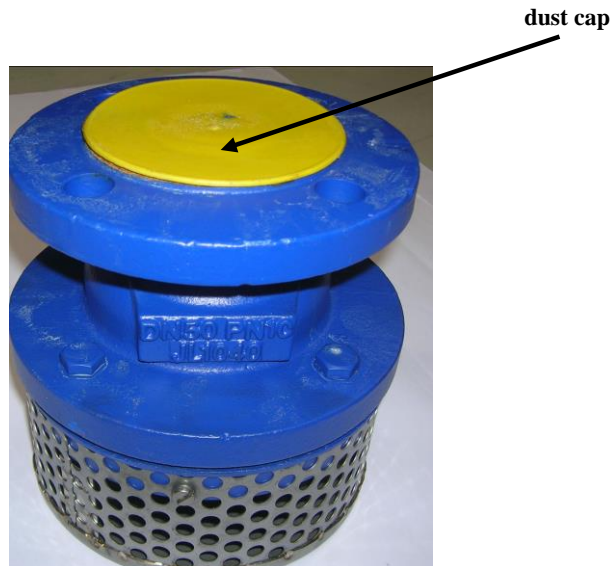
Working pressure should be adapted to maximum medium temperature according to the table as below.

Acc to EN 1092-2		Temperature [° C]
Material	PN	from -10 up to 90
EN-GJL250	10	10 bar

#### 6. ASSEMBLY

During the assembly of foot valves following rules should be observed:

- to evaluate before an assembly if the foot valves were not damaged during the transport or storage
- to make sure that applied foot valves are suitable for working conditions and medium used in the plant
- to take off dust caps if the foot valves are provided with them
- check if foot valve body is free of solid particles,
- during painting of pipeline foot valve screen should be protected ,
- foot valves should be assembled with screen downwards, in such a way that foot valve axis will be vertical,



The responsibility for correct selection of the valve to the operating conditions, distribution and installation is borne by system designer, contractor and user.

## 7. MAINTENANCE

Foot valves Fig. 935 require no special maintenance.



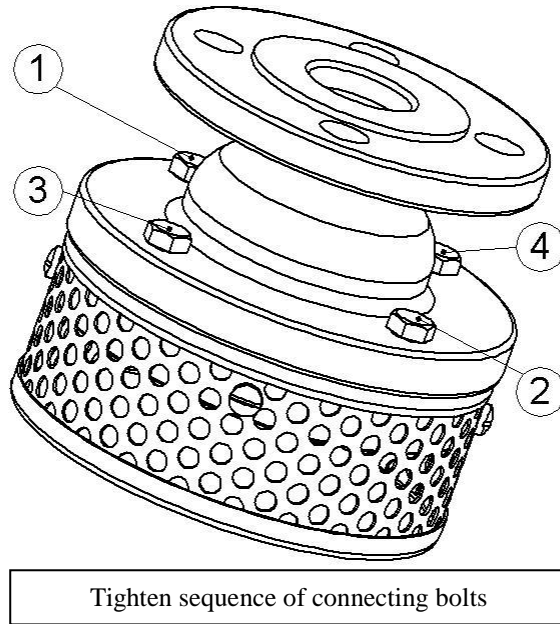
In order to assure safety performance, each strainer (especially rarely used) should be surveyed on regular basis. Inspection frequency should be laid down by user, but not less than one time per month.

## 8. SERVICE AND REPAIR



Before taking up any service jobs make sure that medium was removed from the pipeline and plant was cooled down.

- all service and repair jobs should be carried out by authorized staff using suitable tools and original spare parts.
- personal health protectives in pursuance of existing threat should be used,
- after strainer disassembly it is necessary to replace flange connection gaskets between strainer and pipeline,
- everytime when foot valve cover was removed, sealing surface should be cleaned and applied new O-ring of the same type as previously used,
- bolts should be tighten evenly and crosswise by torque wrench,



- tighten torques for bolts

Screw	Torque
M10	35 - 40 Nm
M12	65 – 70 Nm
M16	140 -150 Nm

- before foot valve re-assembly in the pipeline it is necessary to check tightness of all connections. Tightness test should be carried out with water pressure of 1,5 nominal pressure of the valve.

### 9. REASONS OF OPERATING DISTURBANCES AND REMEDY

When seeking of strainer malfunction reasons safety rules should be strictly obeyed

<b>Fault</b>	<b>Possible reason</b>	<b>Remedy</b>
No flow	Flange dust caps were not removed	Remove dust caps
Poor flow	Dirty screen	Clean or replace the screen
	Clogged pipeline	Check the pipeline
Seat leakage (column of liquid)	Medium polluted with solid particles	Clean the valve.
	Damaged disc gasket	Replace disc gasket
Leakage between foot valve body and cover	Damaged cover sealing O-ring	Replace the sealing O-ring
Broken connecting flange	Bolts tighten unevenly	Replace the valve with new one

## **10. VALVE SERVICE DISCONTINUITY**

All obsolete and dismantled valves must not be disposed with household waste. ZETKAMA valves are made of materials which can be re-used and should be delivered to designated recycling centres.

## **11. WARRANTY TERMS**

- ZETKAMA grants quality warranty with assurance for proper operation of its products, providing that assembly of them is done according to the users manual and they are operated according to technical conditions and parameters described in ZETKAMA's catalogue cards. Warranty period is 18 months starting from assembly date, however not longer than 24 months from the sales date.

- warranty claim does not cover assembly of foreign parts and design changes done by user as well as natural wear.

- immediately after detection the user should inform ZETKAMA about hidden defects of the product

- a claim should be prepared in written form.

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