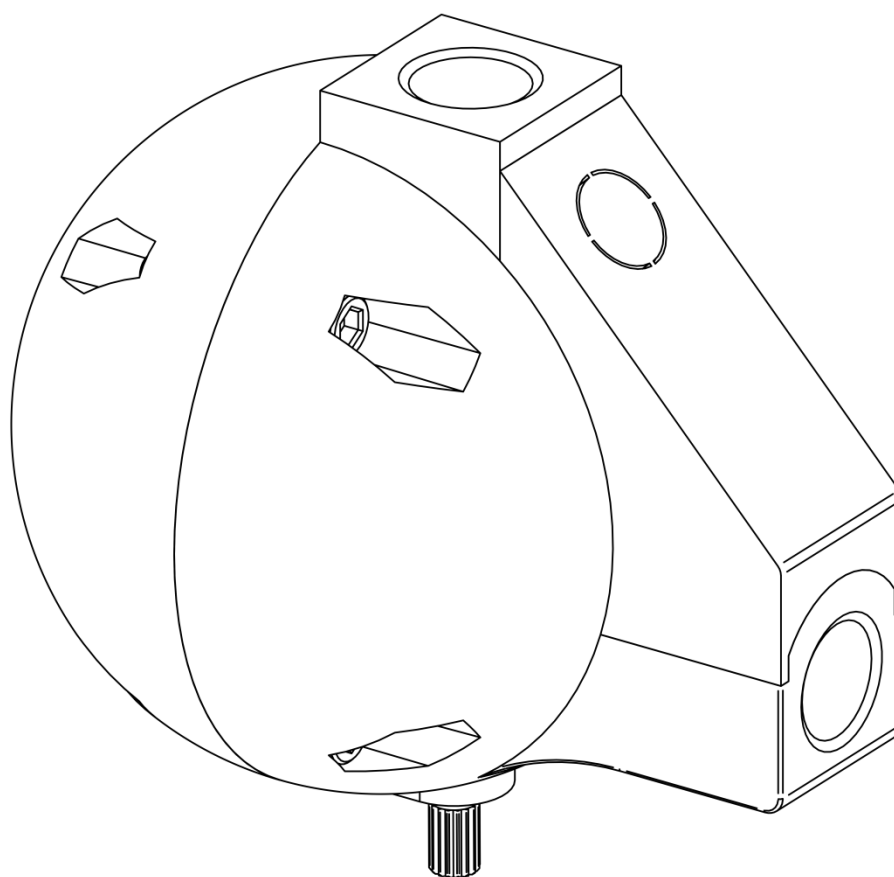


Installation and operating manual

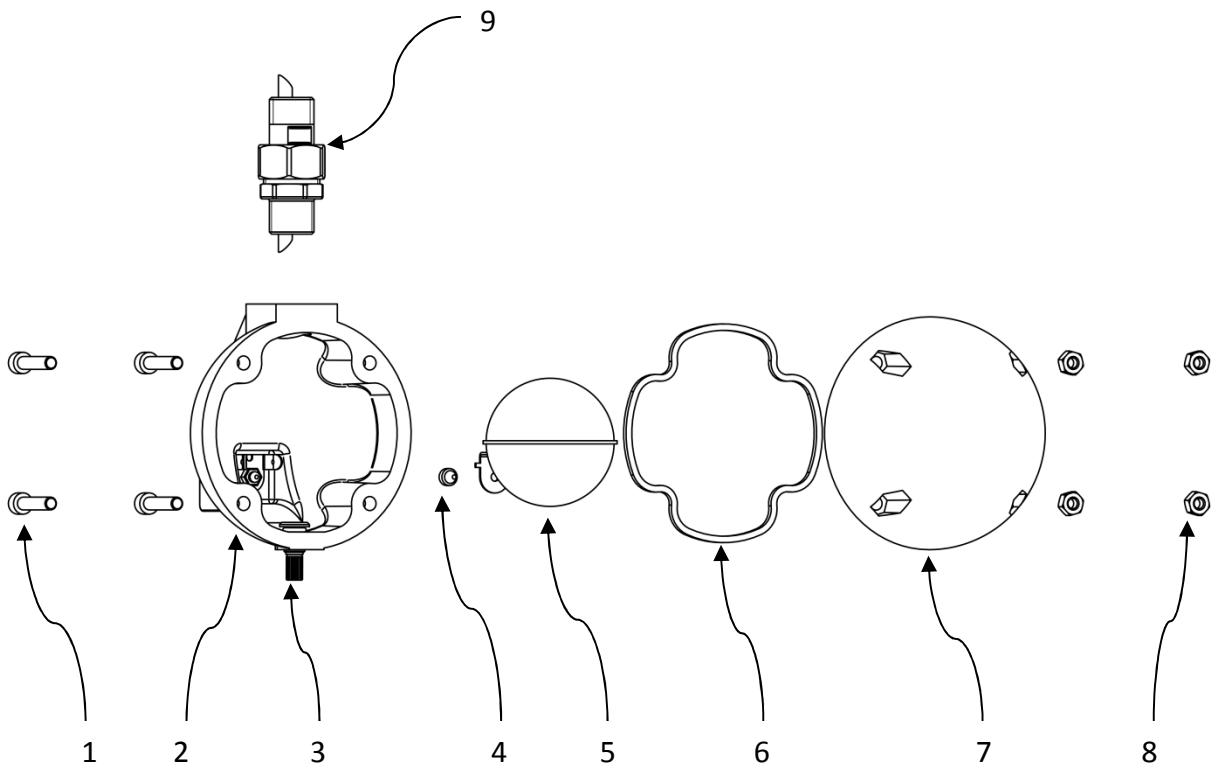
NED 12



Please read the following instructions carefully before installing automatic drain unit into service. Trouble free and safe operating of the unit can only be guaranteed if recommendations and conditions stated in this manual are respected.

CE

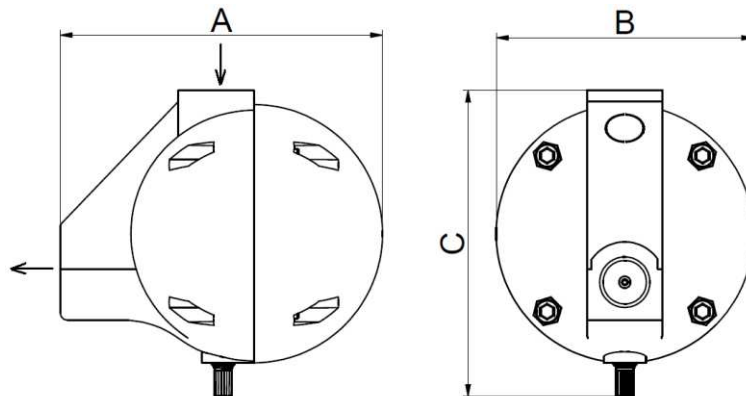
Components



Part	
1	M6 screws
2	Drain housing
3	Manual drain
4	Orifice sealing
5	Floater
6	Housing sealing
7	Drain housing
8	M6 nuts
9	Connection nipple

Technical data

Operation pressure range	0 – 20 bar / 0 – 290 psi	
Minimum recommended operating pressure	1,5bar (g)	21,8 psi
Drain capacity (7 bar / 101 psi)	167 l/h 0,1 scfm	
Drain capacity (16 bar / 235 psi)	252 l/h 0,15 scfm	
Operating temperature range	1,5 – 65°C 35 - 149 °F	
Operating media	Condensate (air, water, oil); Non-agressive	
Inlet connection	½" NPT	
Outlet connection	½" NPT	
Reservoir volume	0,4 l	
Mass	0,6 kg	
Dimensions A x B x C [mm]	5.3" x 4.33" x 5.11"	
Valve type	Direct acting, Normally closed	
Discharge orifice cross section	1,8mm	0,0708 inch



CALCULATION OF CAPACITY

For rough calculation of discharge capacity at certain pressure use following equation:

$$Q = 63\sqrt{\Delta p} \quad \text{Example: if operating at 7bar; } Q = 63\sqrt{7} = 166,7$$

MATERIALS

Housing material	Aluminium (EN-AC-46000)
Fittings, Screws	Brass, Brass-zinc plated, Steel
Floater	Stainless steel 1.4301
Sealing	NBR
Cover	PA 6

Safety instructions

- ❑ Depressurize the system before carrying out any work on the piping.
- ❑ Installation and maintenance work may only be carried out when the device is not under pressure.
- ❑ Installation and maintenance work may only be carried out by trained and experienced staff.
- ❑ Do not exceed max. operating pressure or operating temperature range (see data label).
- ❑ Do not use the device in hazardous areas with potentially explosive atmospheres.
- ❑ Use original spare parts only.
- ❑ Use the device for the appropriate purpose only.



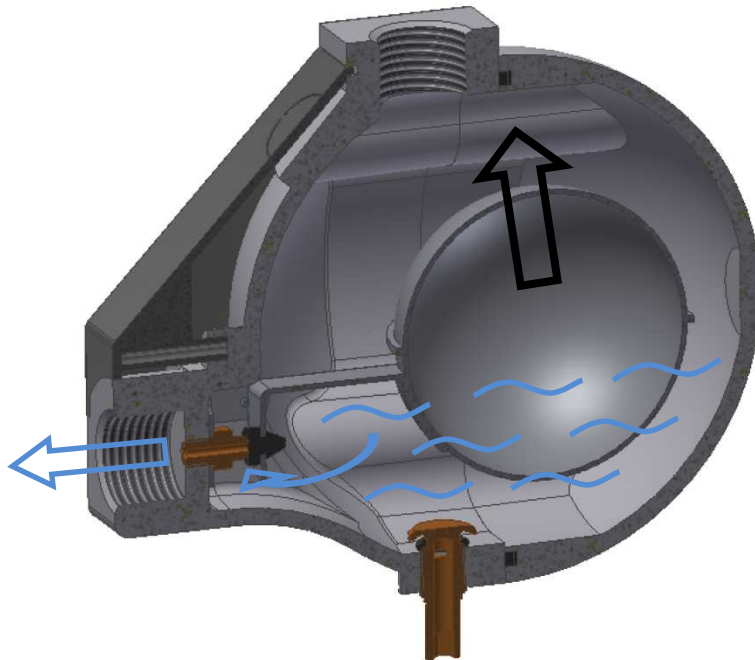
Appropriate use

NED 12 series condensate drain is intended exclusively for the following purpose:

- ❑ Draining condensate from compressed air system (air compressors, air receivers/pressure vessels, air dryers and air filters).

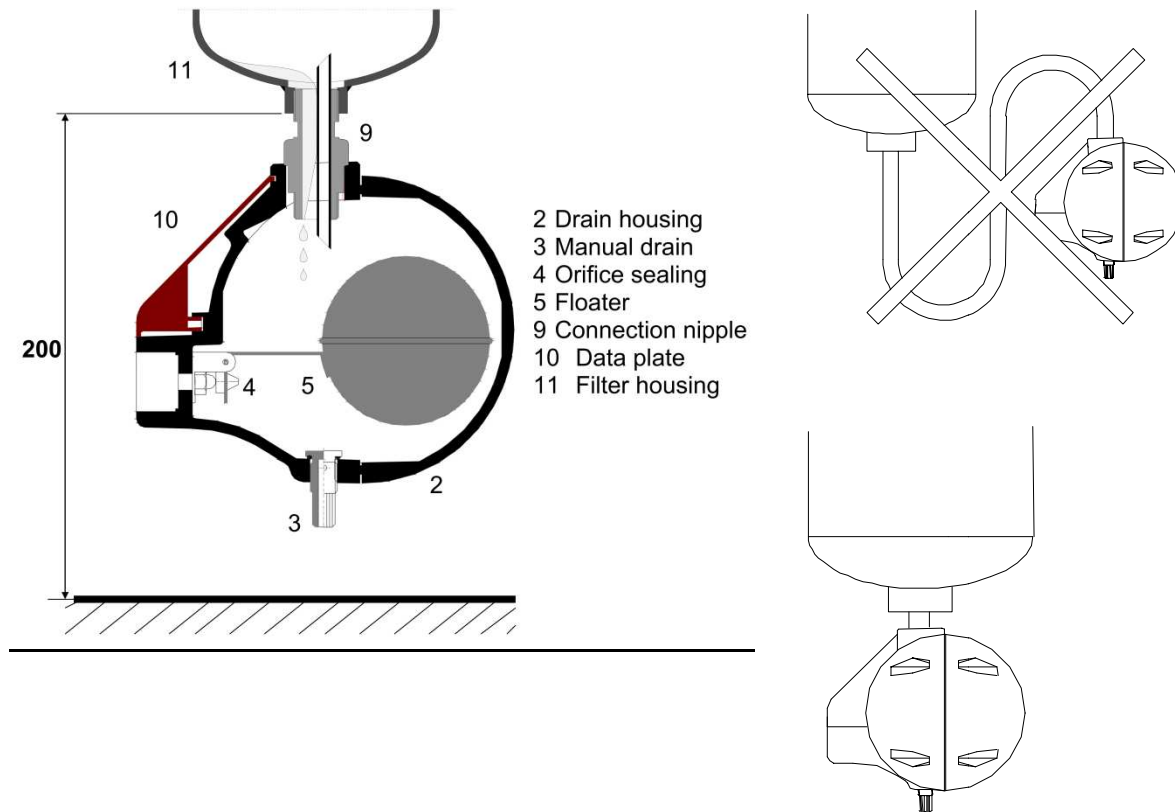
Any other form of use or one going beyond this shall be considered as inappropriate. We shall have no liability whatsoever for any damage incurred as a result.

Operating



Drain is installed below pressure vessel, filter element, dryer, cyclone separator or similar pressure system element. Through $\frac{1}{2}$ " connection on the top condensate accumulates in the drain reservoir. Increasing water level rise the floating buoyancy. When the condensate level is high enough the float unblocks the discharge orifice and the condensate is purged out through $\frac{1}{2}$ " output connection. When condensate level drops float drops with it and blocks the discharge orifice. This operation prevents air loss.

Installation



Before connecting the drain, blow compressed air through the piping in order to thoroughly clean out any impurities within it.

Install the NED 12 at a level below the receiver, if not the receiver will fill up with condensate.

Install the optional connection nipple (9) in order to allow air equalisation. The connection receiver-nipple-NED 12 must be done without any extra pipe or filter.

After initial run, open NED 12 and clean all components.

It is strongly recommended that waste condensate from discharge port is connected to oil Water separator to protect the environment from pollution and to comply with environmental laws.

Once per year make a visual check of the drain and make sure there is no visual damage or leakage. Clean interior of the reservoir regularly. Intervals of cleaning depend on contamination of condensate. Replace the sealings if necessary.

RECOMMENDATIONS

- We recommend the use of ball valve between pressure vessel and inlet connection.
- We recommend the use of strainer element between pressure vessel and inlet connection.
- We recommend the use of nipple with venting tube to avoid generation of air bubbles. Nipple is screwed in inlet connection and is optional equipment.

Maintenance

WEEKLY: Open (screw carefully) the discharge valve and let the condensate flow out until the compressed air will blow through for few seconds. If a significant amount of water (more than 0.5 litres) exits the valve then the drain must be thoroughly cleaned.

YEARLY: Dismantle the drain and clean all components. Do not use solvents to clean rubber components.

Service:

It is recommended to clean reservoir at least once a year. Sealing elements are subject to wear, which depends on various operating parameters such as pressure, temperature, dirt content, etc. It is also recommended to change sealings.



Attention

Before beginning maintenance work depressurize the unit.

Spare parts:

Replacement sealings are available on demand. Please contact your distributor or manufacturer.

Warranty exclusion

The guarantee shall be void if:

- ❑ The installation and operating manual was not followed with respect to installation, initial commissioning and maintenance.
- ❑ The unit was not operated properly and appropriately.
- ❑ The unit was operated when it was clearly defective.
- ❑ Non-original spare parts or replacement parts were used.
- ❑ The unit was not operated within the permissible technical parameters.
- ❑ Unauthorized constructional changes were made to the unit or if the unit has been opened/disassembled by an unauthorized person.