

NEX FLOW™ AIR PRODUCTS CORP.
Water Separator (Made by N.T.K. Corp.) Water Separator
-Instruction manual-

Thank you for purchasing the water separator for mist removal in compressed air systems. This new water separator eliminates liquid in compressed air such as mist and oil by employing a high-speed centrifugal filtration method with multi-nozzles (patent pending), which has been recently developed. This is a new type of mist and oil remover without the use of consumable components like filter elements or mechanically moving parts. Therefore, maintenance and the replacement of filter elements is virtually eliminated (except for the automatic drain valve), providing a truly maintenance free filter system. After use, even 100% of the initial performance is maintained throughout the life of the unit. Please read the instructions manual carefully before using and apply them correctly.

1. Rated specification.

Model	NF-200	NF-500	NF-1500
Max flow rate SCFM(SLPM)	9(255)	22(623)	64(1812)
Pressure range PSIG(Bar)	140(9.65)		
Discharging method of the drain	Automatic(With manual drain), float valve type		
Connection	NPT-1/4	NPT-1/4	NPT-1/2
Drain Outlet Hose	(Ø6mm) One-touch connecting nipple		
Air temperature (°C)	-20~60		

2. Installation.

- ① Install the water separator as close as possible to the air equipment in use. If connection pipe length(from water separator to air equipment) is too long, it may cause condensation in the pipes.
- ② Check the direction of air flow to make sure the filter is installed in the correct direction of flow '→'
- ③ The water separator must be installed vertically. A slight slope is acceptable, but please install the water separator in as vertical a position as possible.
- ④ If you use lubricator, please install the lubricator after the water separator.

3. Drain (condensate) discharging.

- ① The water separator has an auto drain system but you can discharge manually as well. When the drain reaches a certain level the float valve will automatically eject the liquid. However, if the float valve is blocked you must discharge manually. To discharge manually push up on the discharging nipple lightly underneath the unit.
- ② Until the supply air pressure reaches constant-pressure{about 20PSIG(0.15Bar)}, air may be ejected from the outlet drain which is normal. The ideal is to provide air pressure of more than 20PSIG(0.15Bar). We recommend that installation of a check valve in front of water separator.
- ③ The automatic drain valve is consumable. So, please replace when damaged or blocked. (Shown right figure.)

4. Caution in handling.

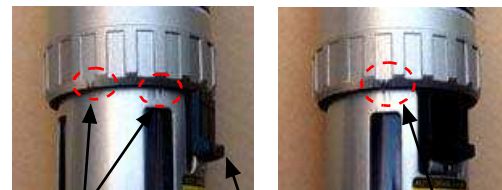
- ① The bowl is manufactured with Polycarbonate. so, do not use or clean with an organic solvent. When cleaning the bowl, please use a neutral detergent.
- ② Do not use more than 140PSIG(about 9.65Bar) pressure.
- ③ If you separate the bowl or pipe from water separators for repair, please remove the air completely in water separator first.
- ④ Please use within rated pressure and flow. If you use more than the maximum flow rate, it may cause increased pressure loss and reduced mist removal efficiency.

◆ Appearance and Part Names.



NF-500

◆ Separation and assembling of bowl(Bowl guard)



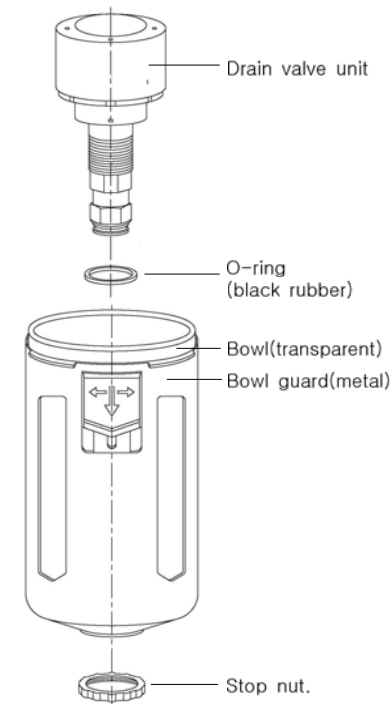
Upper/Under mark Bowl stopper Matching of marks

*Under normal conditions, the upper marks is offset from the bottom mark 45 degrees, as shown in the left figure. To separate the bowl (bowl guide) for cleaning or for changing the drain valve, separating procedures are as follows: 1.Pull down the bowl stopper. 2. Raise the bowl guide and at the same time, as shown in the right figure, the upper mark should line up with the bottom mark (when rotating the bowl guide left or right.). 3. When it is lined up, pull the bowl guide down, then it will separate.
 *The Upper mark is located with four points at 90-degree intervals around the product, and separation or insertion is able to be anywhere at these points. When inserting, insert with upper and bottom mark when lined up, then rotate until you hear a clicking sound. As shown the left figure, please shift 45 degrees. In this state, it does not rotate unless the bowl stopper is pulled down.

***Recommendations to prevent clogging of the drain valve.**

If you expect the inclusion of foreign matter such as dust from the air, we recommend installing a standard air filter in front of water separator to prevent clogging of the drain valve.

◆ Changing the drain valve.



*** Changing the drain valve.**

To change the Drain valve, please refer to the above figure (exploded view).
 1)Remove the bowl(and bowl guide) from the body. (Shown in left figure.).
 2)Unwind the stop nut, as shown in the figure. When you reassemble after changing the drain valve, please note the seated position{(O-ring (black rubber) and retainer (plastic white))}. When you reassemble, it is more convenient to reinsert after the O-ring is put into the retainer and the then put together

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