# **Preparation unit**



### Summary of preparation unit

To achieve the optimization of system performance, the first thing is to get the gas source which accords with the specifications. Preparation unit with good performance are the precondition to make sure the gas source.

AirTAC has many kinds of preparation unit for your choice:

- 1. G series;
- 2. A, B series;
- 3. Other accessory series.





F.R.L

# **G** Series

GC200~600 Series F.R.L combination 1	136
GFC200~600 Series FR.L combination	138
GFR200~600 Series Filter & regulator 1	140
GF200~600 Series Filter 1	142
GR200~600 Series Regulator 1	144
GL200~600 Series Lubricator 1	146
G Series(Metallic bowl type)1	148
GV200~400 Series Soft start-up valves 1	149
GZ200~400 Series Safe on-off valve 1	150
GA200~600 Series Air distribution block	151

## A, B Series

AC, BC Series F.R.L combination	154
AFC, BFC Series FR.L combination	156
AFR, BFR Series Filter & regulator	158
AF, BF Series Filter	160
AR, BR Series Regulator	16
AL BL Series Lubricator	161

## **Others**

SR200 Series Regulator	164
GS, GF, GU Series Pressure gauge	165
X_DSW Series electronic digital display pressure switch	166

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# **Preparation unit**



## How to Correctly Install and Use

### The installation and application of the filter

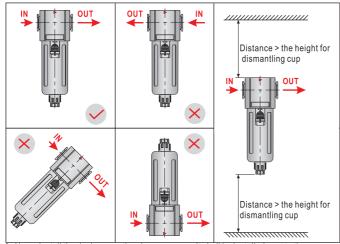
### Attention



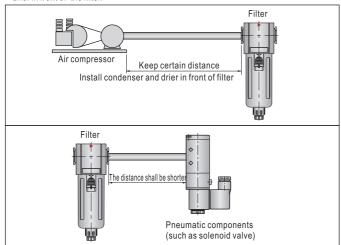
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1. Before installation, the sundry granule such as dust, oil pollution and chipping in pipeline shall be cleaned up to prevent the mixture of fragments of seal materials.

2. Never install reversingly the direction of intake and outlet. It shall be installed vertically and the bowl is downward. For the convenient of maintenance, proper space around the device shall be left. The installation height of filter shall accord with the elevation that the filter bowl can be dismantled



3. Never install the device near the air compressor. It shall be installed next to the pneumatic components at the end of pipeline, since the water and oil in the compressed air with high temperature from air compressor take on gaseous state which will not only influence the filter effect, but are easy to damage the seals. Please install condenser and drier in front of the filter.



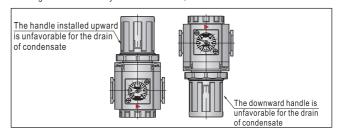
### Warning

- 1. To prevent the external force to damage the filter bowl, never install it in the side of access of delivery vehicles or a protection barrier may be built.
- 2. The drain bowl is made of polycarbonate which can not be used in the environment with synthetic oil, organic solvent, chemicals, cooling fluid, alkali and acidic matter, gluewater; and the site additive with the above matters. Meanwhile, the direct sunshine shall be avoided.
- 3. Regular draining of bowl shall be conducted. Once water level surpasses the breakwater, the sewage filtered will be carried to the output compressed air again, causing secondary pollution.
- 4. To guarantee the filter effect, the filter core shall be cleaned or changed regularly.
- 5. Please regularly examine whether the plastic drain bowl has crack, damage or other aging.

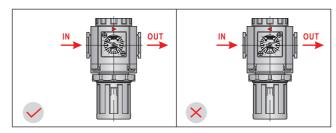
#### Installation and application of regulator

### **Attention**

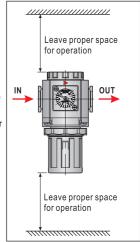
- 1. Before installation, the sundry granule such as dust, oil pollution and chipping in pipeline shall be cleaned up to prevent the mixture of fragments of seal materials.
- 2. When there is more condensate, and if the condensate stays in the valve, poor action of Regulator will be easily caused. Therefore, the handle shall be installed downward.



3. The direction of intake and outlet shall not be installed reversingly, otherwise the Regulator will leak for a long time and lose pressure- adjustment function.



- 4. The set pressure at the outlet sides of Regulator shall be less than 85% of the pressure of intake side, which is to avoid overlarge pressure drop and failing in meeting the application requirement.
- 5. Two Regulator act as the loop for the intake by turns of high and low pressure. Please use free flow valve to prevent reflux.
- 6. If there are condensate, oil pollution and dust in pressure pipe at intake side, the jam in discharge orifice and restriction orifice and poor action of valve will be caused. Therefore, filter shall be installed additionally in front of
- 7. It shall be applied in the stipulated temperature range and direct sunshine shall be avoided.
- 8. Proper space around the device shall be left for pressure-adjustment operation and maintenance.
- 9. After the pressure-adjustment operation is finished, the adjustment button of Regulator



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# **Preparation unit**



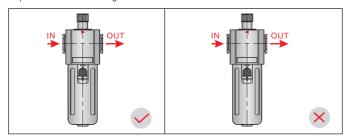
## How to Correctly Install and Use

#### The installation and application of oil feeder

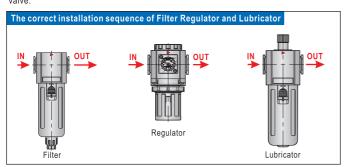


## Attention

1. The direction of intake and outlet shall not be installed reversingly. Before installation, the sundry granule such as dust, oil pollution and chipping in pipeline shall be cleaned up to prevent the mixture of fragments of sealmaterial.



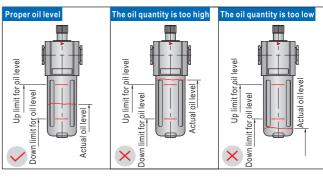
- 2. It will be difficult to supply oil and conduct maintenance if the Lubricator is set too high.
- 3. Lubricator shall be installed after the air filter and Regulator to prevent mosture entering the oil bowl and avoid oil emulsification. The throttle orifice in Regulator shall not be polluted by oil and the rubber parts shall not be influenced by oil mist. It is good for the atomization of oil that the velocity of low after Regulator is higher than that in front of the



- 4. The number in dial in adjustment ring of Lubricator shows the position of oil quantity adjustment. The larger the number is, the more the oil dripping is. It is not for oil drops.
- 5. When Lubricator works, if there is a part in the pipeline loop that can not be supplied with oil, this part shall be set with one-way valve to prevent reflux.
- 6. The air flow that is used by Lubricator must meet the requirement of necessary quantity of oil dripping (minimal flow for mist). The insufficient air flow will cause the failure of oil dripping.



- 7. The Lubricator can be added oil under pressure. When oil is added, the oil-fill plug shall be slowly opened and dismantled after the pressure in oil bowl has been completely eliminated to prevent oil-fill plug flying off or oil spraying.
- 8. The oil level in oil bowl shall stay between the up limit and down limit, and please supplement oil on a timely basis.
  - ◆ Method for supplementing oil
  - $When \ Lubricator \ is \ supplemented \ with \ oil, \ the \ oil-fill \ plug \ shall \ be \ turned \ off. \ Turbine \ oil \ description \ for \$ poured into the oil bowl shall reach 80% of its volume. Oil shall be regularly examined and supplemented to allow the device to work under the situation that oil is sufficient. (As when the oil level is under the oil suction pipe, it can not supply oil for the system. Therefore, the oil shall be supplemented before the bottom of oil suction pipe is exposed).
- ◆Oil quantity and its adjustment Generally speaking, the free air of each 10m³ uses 1cm³ as the benchmark oil supply





#### ◆Lubricant

The lubricant that is recommended for pneumatic components is one kind (ISO VG32) of turbine oil. Especially when pneumatic components are lubricated, ts particularity shall be considered. Lubricant shall be anti-rust and avoid swelling, shrink and deterioration of seal materials (pneumatic components mostly adopt  $\label{eq:NBR} \textbf{NBR} \ as \ the \ seal's \ material). In \ addition, \ the \ performance \ of \ oil \ dripping \ of \ lubricant$ shall be considered. The viscosity that is too high or too low is not proper.

9. Please regularly examine whether the plastics bowl and inspection window of Lubricator have crack, damage or other aging situation.

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# Memo



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