

AIR UNIT

MACC300-8A、10A

Thanks for using MACC300 series air unit. Pls. refer to this manual and use correctly.



MINDMAN INDUSTRIAL CO., LTD.

Address: No. 106, Sec.3, CHENGTE
Road., Taipei, Taiwan, R.O.C
TEL: 886-2-2597-6201(key)
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Symbol of safety

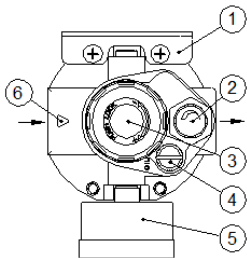
Please read this manual and understand the meaning of symbol here under before applying, Maintaining, Repairing and disassembling the product.



This means 「error operations may have product malfunction or be out of order」

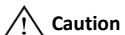
SPECIFICATION

Bore	8A	10A
Port size	1/4	3/8
Medium	Air	
Max. Working pressure	1.0 MPa	
Proof pressure	1.5 MPa	
Set pressure range	0.05~0.85 MPa	
Ambient temperature	-5~60°C (No freezing)	
Filtering efficiency	Standard:5μm	Option:40μm
Effective orifice	25mm ²	30mm ²
Oil reservoir	50 c.c.	
Oil dripping min. flow	50 L/min(ANR)	60 L/min(ANR)
Recommended lubricant	Turbine Oil Class 1 ISOVG32	
Weight	0.66Kg	



1. Bracket
2. Outer Dome & Needle Valve
3. Pressure Control Handle
4. Lubricating Plug
5. Pressure Gauge
6. Air Direction Mark

OPERATION



Caution

- Operation pressure, below 1.0 MPa.
- Please be avoided direct sunrays and free of volatility environment like thinner and trichloroethylene to prevent the PC made "bowl" from crack.
- Ambient temperature: -5~60°C (No freezing)

INSTALLATION

- The installation direction must follow the arrow direction at body top to have air flow in.
- The drain port must be installed downward.
- Please reserve enough space to access for maintenance.
- Prior to making piping, flush inside the tube with clean air lest particles and chips should remain.
- Pressure gauge can be attached to the port (1/8") on the side.

AIR FILTER SECTION

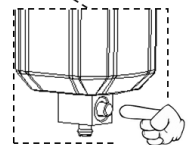
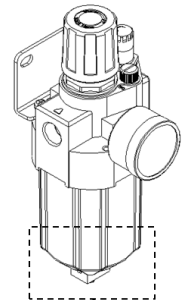
■ DRAINING

<FEATURES>

- Push the button on the drain valve to drain off the water. When drain is exhausted completely, keep the drain valve closed.
- The drain valve will automatically function when the air pressure inside is below 0.05MPa.

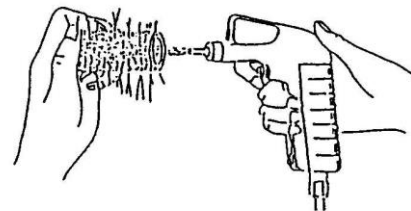
Please operate the drain valve when air line is pressurized and inside water has reached the mark of "drain limit line".

Please note that the accumulated water may flow out to the piping if the water reach above the "drain limit line".



■ ELEMENT

Pressure drop between inlet and outlet reach 0.07MPa, or use for two years. Wash the filter element or replace it to new one.



PRESSURE ADJUSTING SECTION

HOW TO ADJUST PRESSURE

Pull up the handle lightly to be unlocked.

Give clockwise turn to the handle, and the adjusting is compressed to open the valve and allows air to the secondary side and secondary pressure to increase.

Secondary pressure acts upon the bottom surface of the piston through the suction pipe, which brings force to meet the thrust force of the adjusting spring.

When secondary pressure increases and upward thrusting force of the piston balances with the downward thrusting force by the adjusting spring, the valve closes with the valve opening pressure released.

Secondary pressure at this time is set pressure.

When the secondary air is consumed and pressure decreases, the

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balance between the above mentioned thrust force is broken, which causes the valve open, and air is introduced into until the pressure is restored. Secondary pressure is introduced into the below section of the valve lest primary pressure should give influence when varied. The suction pipe decreases the pressure below the bottom surface of the piston lower than secondary pressure by utilizing the speed of secondary flow, keeps the valve wide open, and prevents secondary pressure from decreasing. When secondary pressure comes higher then set pressure, piston is pushed up to close the valve and the relief valve opens to exhaust the surplus pressure into atmosphere.

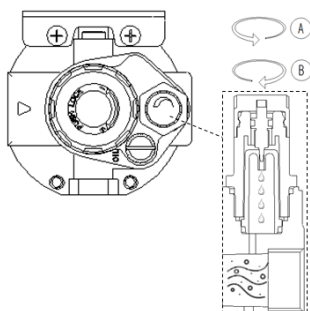
LUBRICATOR SECTION

Be sure to use turbine oil class 1(ISO-VG32 EQUIVALENT) for lubricant. Do refrain from using spindle oil and machine oil, which causes the swollen of packing, and eventually results in failure of operation. Also keep mixed from using, or sludge, rust, corrosion, and deterioration of sealing are sure to result.

ADJUSTING OF DRIPS

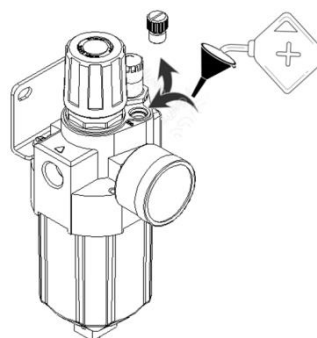
Quantity of drips is in proportion with quantity flow.

After the needle valve is set, quantity of drips varies, increase or decrease, depending upon increase or decrease of quantity of airflow. Clockwise turn of the needle valve decreases dripping quantity, which counterclockwise increases. Drips are to be adjusted or set according to the characteristics of operation of the equipment on the line. For lubrication to solenoid valve and air cylinder, for instance as airflow largely increases in operation. Lubricant is largely required. Lubrication can be made reasonably by adjusting at the time airflow is highest.



HOW TO SUPPLY OIL

Supply oil through the feed plug on the body. You do not have to stop airflow in the line. Remove the feed plug and pressure in the oil case escapes. The check valve operates to shut off air pressure. Accordingly air pressure in the oil case becomes equal to atmospheric outside which allows supplying oil through the feed plug. When oil supply is completed, close the feed plug, as it was to allow air pressure gradually enters the oil and start dripping again.

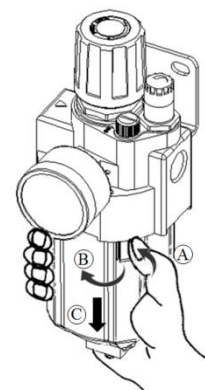


DISASSEMBLING PROCEDURES

⚠ Caution

- Relieve the air pressure inside the air unit and pipe before disassembling. If not, during disassembling the air unit, highly pressure air will be relieved suddenly to outside, and may make parts dropped down.
- When re-assembling, Pls. hold "clamp ring" and turn right to end stop point, do not stop in the middle way to prevent the "case" and "clamp ring" from dropping down.

1. Stop air pressure in the line and discharge drain.
2. Push down the lock button on the side of the case guard to unlock. (Action A)
3. Turn 45 degree counterclockwise pushing the button. (Action B)
4. Pull down (Action C), and the case guard and the case can be removed. Now, the lower half part can be inspected.



■ Replacement of parts

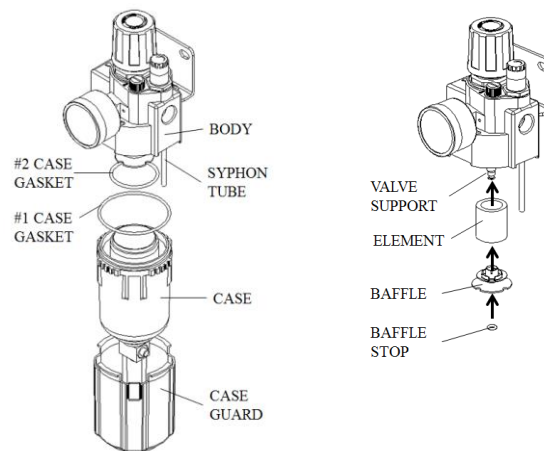
The aged and swollen O-rings are to be replaced with new ones.

■ Cleaning

Metal parts can be cleaned by using volatile solvent and will not cause any harm.

Other parts (except made of metal) can be cleaned by using light mineral oil or neutral solvent.

Wipe off all the solvent and cleaner before re assembling.



- * Pls. Keep this manual for reference.
- * Pls. consult to local agent or distributors for any requirements of parts.
- * All part made of metal or plastic can be recycled for use.