

INSTRUCTION MANUAL

MICRO alescerc

$\left\{ \begin{array}{l} \text{MICRO-naught type} \\ \text{(for oil removal)} \\ \text{ODOR-naught type} \\ \text{(for odor removal)} \end{array} \right\}$

1238

- Please read this instruction manual carefully before using this product, particularly the section describing safety.
- Retain this instruction manual with the product for further consultation whenever necessary.

For Safety Use

To use this product safely, basic knowledge of pneumatic equipment, including materials, piping, electrical system and mechanism, is required (to the level pursuant to JIS B 8370 Pneumatic System Rules).

We do not bear any responsibility for accidents caused by any person without such knowledge or arising from improper operation.

Our customers use this product for a very wide range of applications, and we cannot keep track of all of them. Depending on operating conditions, the product may fail to operate to maximum performance, or cause an accident. Thus, before placing an order, examine whether the product meets your application, requirements, and how to use it.

This product incorporates many functions and mechanisms to ensure safety. However, improper operation could result in an accident. To prevent such accidents, read this instruction manual carefully for proper operation.

Observe the cautions on handling described in this manual, as well as the following instructions :



Precautions

- The filter and the lubricator use a plastic bowl. Do not use them with an organic solvent. The bowl will be damaged. With an organic solvent, use a filter and a lubricator containing a metal bowl.

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Manual No. SM-197963-A

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NOTE: Letters & figures enclosed within Gothic style bracket
(examples such as [C2-4PP07] · [V2-503-B] etc.) are editorial
symbols being unrelated with contents of the book.

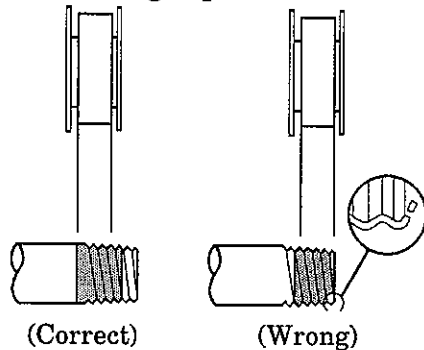
1. CAUTION

- 1) Refer to the catalog for the product specifications and model markings.
- 2) Do not use the alescer in a place exposed to the direct sun.
- 3) Be sure that the pressure of the compressed air is no more than 1.0 MPa .
- 4) Be sure to keep the operating temperature to no more than 54 °C for the MICRO-naught type and no more than 30 °C for the ODOR-naught type.
- 5) The presence of the following gases in the compressed air corrodes the mantle or causes it to swell. Avoid the use of the alescer in a place where such gases may enter the compressed air.
 - Sulfur dioxide
 - Chlorine gas
 - High-density ozone
 - Aromatic hydrocarbon compound (ex. benzene, toluene, phenol, cyclohexane, etc.)
 - Chlorine hydrogen compound (ex. trichloroethylene, chloroform, etc.)
 - Keton (ex. acetone, etc)
 - Aldehyde (ex. formaldehyde, acetaldehyde, etc.)
 - Amines (ex. ethylamine, methylamine, etc.)
- 6) As the polycarbonate resin is used, never use the product in an atmosphere of organic solvent. The product's chemical resistance changes depending on the material of the bowl. Refer to the catalog for the details.
- 7) When the auto drain is mounted, choose the N.C. type (option F1). The N.O. type may cause the contamination of the secondary air of the MICRO alescer.
 - ※ No auto drain option for the ODOR-naught type.
- 8) The product with the auto drain should not be used in a place with high drain concentration. Instead, use the heavy-duty drain type or the snap drain model.
- 9) Always use the MICRO alescer ODOR-naught type together with the MICRO-naught type or the OILMIST filter.

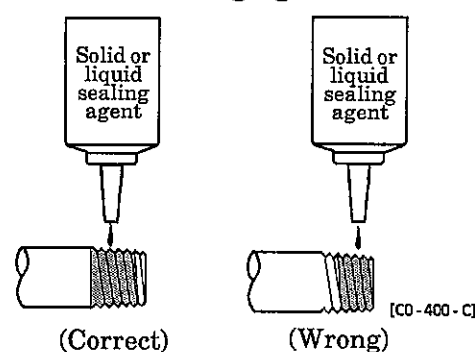
2. INSTALLATION

- 1) Install the alescercer as close to the air pressure equipment as possible.
- 2) Be sure to set a pre-filter, either an air filter ($5\mu\text{m}$) or the sub-micron type ($0.3\mu\text{m}$), before the MICRO alescercer.
- 3) Be sure that the air flows in the direction indicated on the product.
- 4) Set the alescercer in a way that its bowl faces downward.
- 5) Sealing tape or a sealing agent is used for piping. Be sure to leave two threads from the end of the screw as shown in the drawings so as to prevent fragments of the tape or the agent from entering the pipe or the equipment.

●Sealing tape

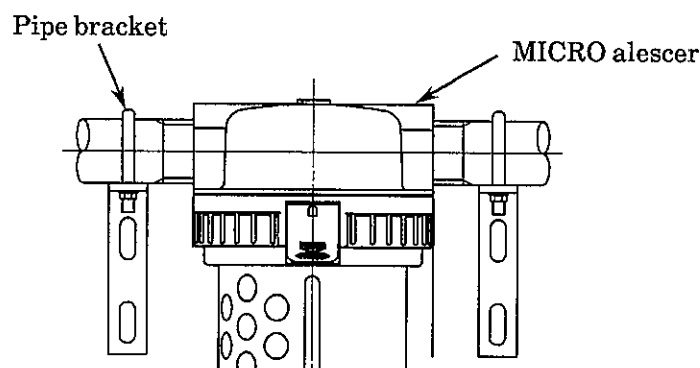


●Solid sealing agent



- 6) Be sure to remove the cutting oil or rust-proof oil for the piping.
- 7) When using pipe bracket (optionally available : 6132), assemble lubricator and piping first (see below), and mount them together on pipe bracket and fix them.

Install pipe bracket on the wall etc.



- 8) Drain piping

Plastic bowl	: Can be fitted by directly inserting a soft nylon tube ($\phi 5.7 - \phi 6$ m bore).
Metal bowl	: Rc1/4 available for the one with the auto drain. In the case of the manual cock, it is Rc1/8 with the cock removed. Use a stop valve for piping.

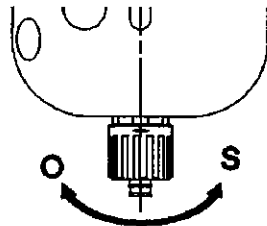
※ For the one with the auto drain, the tube should be no more than 5m long and should be kept under the drain level.
- 9) For operation and maintenance, be sure that there is space of 240 mm or more beneath the bowl.

3. OPERATION

1) Draining

(No auto drain option for the ODOR-naught type)

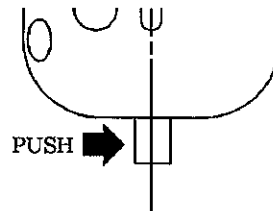
Plastic bowl with manual
cock and auto drain



Draining starts by turning the cock in the direction of O, and stops by turning it in the opposite direction.

With the auto drain, the accumulated fluid will be automatically drained, but manual draining is also possible.

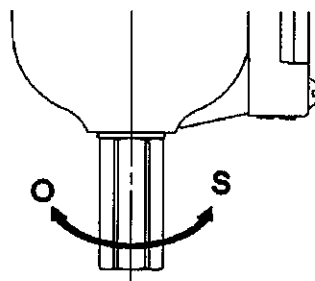
Plastic bowl with flexible
drain



Push the cock sideways in any direction, and draining will start.

Draining will stop when the cock is released.

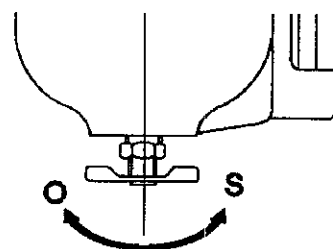
Metal bowl with auto
drain



The accumulated fluid will be automatically drained, but manual draining is also possible.

Its handling is the same as the plastic bowl. With the tightening joint attached, the bowl may not be drained manually.

Metal bowl with manual
draining



Draining starts by turning the cock in the direction of O, and stops by turning it in the opposite direction.

4. MAINTENANCE

Be sure that no pressure remains inside the product by stopping the compressed air and releasing the remaining pressure by manually operating the cock or through other means. With this done, then take out the bowl.

4.1 Regular check

- 1) Drain the bowl regularly so that the collected fluid does not exceed the drain limit.

Refer to the previous page for the method of draining.

- 2) Replace the mantle regularly so as to prevent pressure loss.

- Mantle [(MICRO-naught type for oil removal)]

The mantle is at the end of its operation life when the differential pressure becomes 0.07 MPa. Replace it with a new one.

(Mantle model : 1238-Mantle Kumitsuke or 1238-15-441B)

- Mantle X [ODOR-naught type (odor removal)]

The MICRO alescser ODOR-naught type itself cannot be measured for its operation life.

Combined with the MICRO-naught type or the oil mist filter, the ODOR-naught type has reached the end of its life when the combined differential pressure is 0.07 MPa.

Replace it with a new one, and also replace the mantle of the MICRO-naught type or that of the OILMIST filter.

(Mantle model : 1238-Mantle KumitsukeX or 1238-15-441X)

For the mantle types of the MICRO alescser MICRO-naught and the OILMIST filter, refer to the operation manual and the catalog.

- 3) Regularly wash the auto drain F1 with air or water or replace it with a new one in order to prevent solid matters from depositing.

Bowl Ass'y model with auto drain

Polycarbonate bowl	N.C. auto drain	1238-bowl-F1 or 1238-15-7182
Nylon bowl	N.C. auto drain	1238-bowl-F1M or 1238-15-7188
Metal bowl with site gauge	N.C. auto drain	1238-bowl-F1MG or 1238-15-7193

4.2 Troubles and corrective measures

Troubles	Causes	Measures
Draining immediately after MICRO alescerc (MICRO-naught)	Collected fluid level exceeds the limit	Drain the fluid (see the procedures on Page 3)
Inadequate flow, large pressure drop	Clogged mantle	Stop the compressed air, remove the bowl and replace the mantle with a new one.
No draining with the drain cock open	Clogged path to the discharge port	Stop the compressed air, disassemble the bowl unit and clean or replace the unit.
No automatic draining by the auto-drain model, or air leaks from the drain port	Trouble with the auto drain or clogging	Stop the compressed air, disassemble the bowl unit and clean the inside. If this cleaning is not enough, then replace the bowl unit.
Air leak from the bowl joint	Scratched O-ring or impurities attaching to it.	Stop the compressed air, take out the bowl and clean or replace the O-ring.
	Damaged bowl	Stop the compressed air, take out the bowl and replace it.
Oily odor immediately after the MICRO alescerc ODOR-naught type, or oil at the bottom of the bowl.	End of mantle's life	Stop the compressed air, take out the bowl and replace the mantle with a new one. ※ Also replace the mantle of the MICRO-naught type or the OILMIST filter when it is used together with the ODOR-naught type.



WARNING

When a flaw, such as a crack or a scratch, is found on the bowl, replace it with a new one. Failure to follow this instruction may result in breakage of the bowl and an accident.



WARNING

Check the transparent resin bowl regularly for any smears. If there are any smears or it is otherwise unclear, replace it with a new one. Failure to follow this instruction may result in breakage of the bowl and an accident.



WARNING

When cleaning a transparent resin bowl, use a neutral detergent for home use and rinse it well with water. Any other cleaning method may result in breakage of the bowl and an accident.

5. CONSUMABLES AND REPAIR KITS

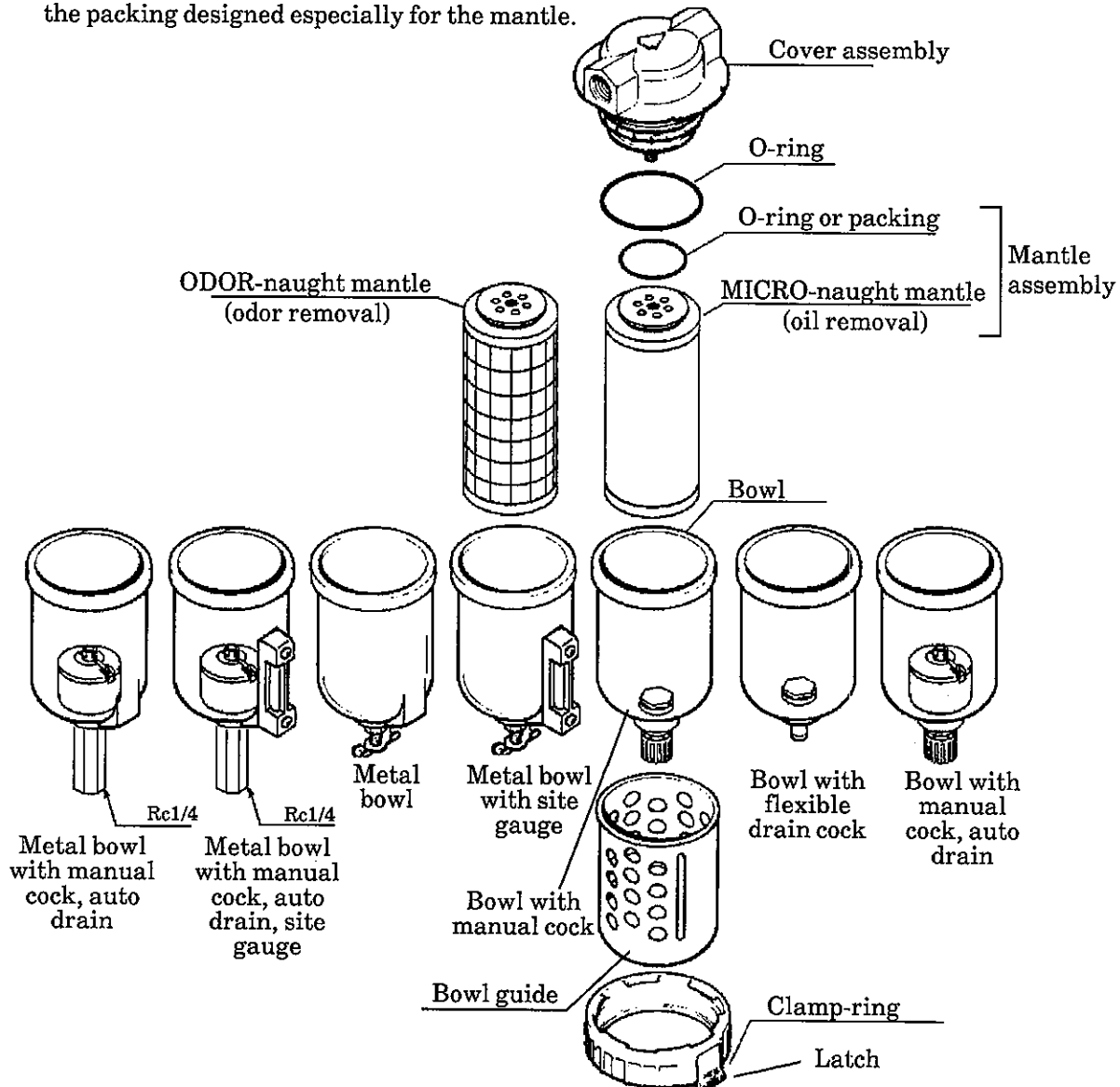
Specify "1238-parts" when ordering the parts for replacement.

O-ring : parts numbers 78 - 061

Mantle (see 7. Mantle Replacement for the replacement of the mantle)

Mantle type	Option marking	Parts No.
MICRO-naught Standard (Oil removal)	No marking	Mantle Kumitsuke or 15-441B
ODOR-naught Standard (Odor removal)	X	Mantle Kumitsuke or 15-441X

※ Mantle Kumitsuke comes with the O-ring or the packing designed especially for the mantle.



Bowl assembly (see 6. Bowl Removal and Fitting for the removal of the bowl)






Draining	Bowl material	Option marking	Parts No.
Manual cock	Polycarbonate	No marking	Bowl or 15-7163
Flexible drain	Polycarbonate	E	Bowl-E or 15-5094
Pet cock	Metal	M	Bowl-M or 15-5450
	Metal with site gauge	MG	Bowl-MG or 15-5924
N.C. auto drain with manual cock	Polycarbonate	F1	Bowl-F1 or 15-7183
N.C. auto drain with metal manual cock	Metal	F1M	Bowl-F1M or 15-7187
	Metal with site gauge	F1MG	Bowl-F1MG or 15-7193

Note 1 : Do not choose the bowl with the auto drain for the MICRO alescerc ODOR-naught type (odor removal).

2 : Do not choose the N.O. auto drain for the MICRO alescerc.

6. BOWL REMOVAL AND FITTING

Stop the compressed air and use the manual cock or other means to release the remaining pressure. Be sure that there is no pressure left inside the product before taking out the bowl.

- 1) While pressing the latch of the clamp-ring assembly with your finger, turn the assembly 30 degrees (until the  mark of the latch moves from the LOCK  and comes to IN ).
- 2) Pull it down to detach the bowl together with the bowl guard.
- 3) When reattaching the bowl, reverse the above procedures.
- 4) Before letting in the compressed air, check that the latch is locked (the  mark of the latch is at the LOCK  mark of the body).

7. MANTLE REPLACEMENT

- 1) Take out the bowl by the procedures described in 6. above.
- 2) Turn the mantle counterclockwise (to the left) to remove it.

Note 1 : To remove or set the mantle, use the hexagonal hole or the side of the bottom end plate.

2 : When removing or setting the mantle, never touch the plastic foam layer (spongelike part) of the mantle. Any contact with the layer will negatively affect the system's performance.

- 3) Set the new mantle.
- 4) Reverse the above procedures to put back the mantle and bowl.
- 5) Be sure to carry out the procedure 6. 4) above before letting in the compressed air.