



## The "O&O mdc" Misting System



The "O&O mdc" Misting System adds a finely metered amount of cooling (and coating) liquid to the compressed air spread below the lathing diamond tools. The compressed air passes through an aperture and the resulting vacuum transports liquid to the upper inspection glass. The drops of cooling liquid are emulsified creating a micro-mist as the air passes through a nozzle.

### Conditions of Use

The following general instructions must always be observed in order to ensure correct, consistent use of the product:

- Slowly pressurise your complete system as this will prevent sudden uncontrolled movements.
- Always use the product in its original state.

### Fitting Mechanical Components

- Use the lathe built in shut-off valves, with drain outlet, to render the Misting System pressure-free (e.g. when refilling the cooling liquid).\*
- The direction of flow is towards the 90° push-in fitting (as shown in "1" in the photo below).
- Leave sufficient space below the Misting System bowl for refilling the cooling liquid.
- Place the O&O Misting System so that it is standing upright ( $\pm 5^\circ$ ).
- Use the O&O support bracket or one recommended by your lathe manufacturer.

### Fitting Pneumatic components

- Use short tubing between the Misting System and the actuators to ensure an even amount of cooling liquid mist in the compressed air.
- Connect the tubing to the pneumatic connections according to the desired variant.

### Commissioning

- Fill the Misting System bowl with cooling and coating liquid.
- Slowly pressurise your system.
- Turn the regulating screw (as shown in “2” in the photo below) in the inspection glass until the desired amount of cooling liquid is set (usually one drop every 40 to 60 seconds). Turning in an anti-clockwise direction will increase the number of drops; turning in a clockwise direction will reduce them.
- With reduced flow and fluctuations in the compressed air, the amount of drops will change automatically (proportional mist).

### Care and Maintenance

When the cooling liquid level in the Misting System bowl is low:

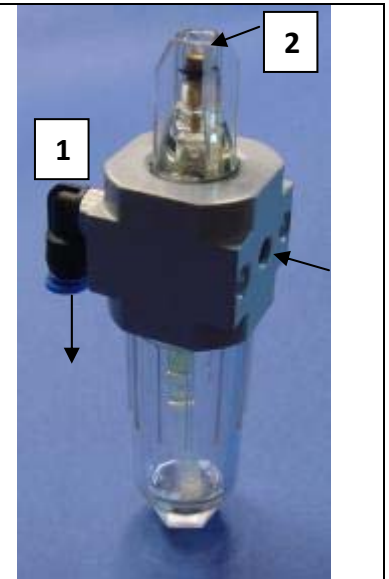
- Refill with cooling liquid. This must not take place under pressure.
  - Drain/empty the device.
  - Unscrew the Misting System bowl in an anti-clockwise direction (as seen from below).
  - Refill the Misting System bowl with cooling liquid.
  - Tighten the Misting System bowl again making sure that the O-ring sits properly in the housing.
  - Check the amount of cooling liquid drops. This does not usually need to be adjusted.
- Use only the cleaning agents specified: Water and soap suds (max. +60°C), or petroleum ether (non-perfumed).
- If there are leaks in the system, you should remedy this because the O&O Misting System can automatically empty itself during long periods of non-use.

### Eliminating Faults

<b>Faults</b>	<b>Possible Cause</b>	<b>Remedy</b>
No cooling liquid supply.	Regulating screw closed.	Open regulating screw.
	Cooling liquid level too low.	Refill cooling liquid.
Cooling liquid does not reach the actuator.	Tubing is incorrectly positioned and/or is too long.	Place the Misting System as close as possible to the actuator. Keep the tubing straight.

## Technical Specifications

Permitted primary maximum pressure:	10 bar
Medium:	5 µm filtered compressed air
Permitted temperature range:	-10°C to +60°C (storage, medium, ambient)
Mounting position:	Standing upright ± 5°
Minimum air flow to start the Misting function:	Greater than 6.3 l/min (at 6 bar)
Misting System capacity:	Max. 6.5 ml
Materials:	Housing: Aluminium; Regulating screw: Ms; Internal parts: PE, POM; Bowl and dome: PC Seals: NBR



## “O&Omdc” Misting System mounted on the DAC Lathe



NB: Make sure that the “O&O mdc” Misting System is empty when refilling. Otherwise there may be an uncontrolled leak of cooling liquid and/or compressed air. Fitting and commissioning is to be carried out by qualified personnel only, in accordance with the operating instructions. These products are specifically designed for compressed air use only.

**For any queries or comments, please contact:**

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*Thank you for choosing the “O&Omdc” Misting System.*