

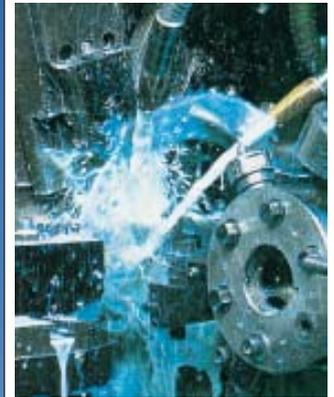
Mist & Coolant Cleaners

Capturing airborne coolant mist and recycling coolant fluids

... increasing safety and reducing costs in machine shops.



What is a Mist Cleaner ?
It captures airborne mists generated by machine tools which use coolants/oils/cutting fluids. The mist is then coalesced into a liquid, filtered and drained back into the sump of the machine tool.



What is a Coolant Cleaner ?
It sucks and empties the liquid from a machine tool sump. The liquid is then filtered and separated to remove swarf, tramp oil, bacteria, sludge and rancidity. The cleaned coolant is recycled back to the sump. Coolant Cleaners also vacuum swarf from the machine bed and floor.

Mist Cleaners

Models MS7, MS8

Ozone Mist Cleaners offer a number of unique and practical benefits over traditional products:

- They capture mists, smoke, chips and swarf, all within the one filter chamber. No need for bulky pre-separators or expensive secondary filter attachments.
- The dynamically balanced rotor is fully protected from the pollutant. No regular and costly maintenance needed.
- Incorporates the patented Channel Cartridge with its five-in-one filtering system comprising pre-separation channel, crossflow separator, microscreen, coalescing media pads and polymer drainage pleats. Ensures high efficiency and minimal service.



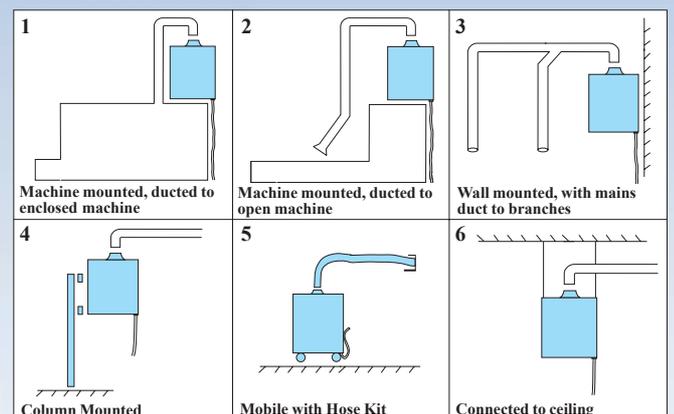
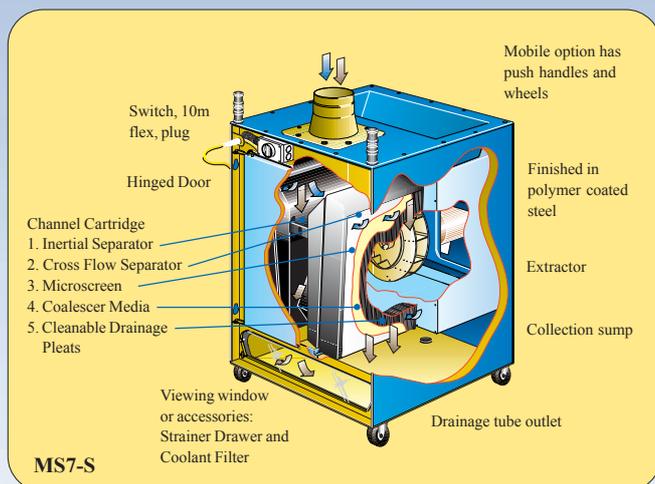
Wall Mounted MS7



Strainer Drawer & Coolant Filter

Model MS7 has a 10m² cartridge, whilst model MS8 utilises a 20m² cartridge and is suited for higher pollutant loads and multi-inlet systems. Ozone Mist Cleaners are easy to mount on machines, walls or floors. They can also be fitted with wheels for compact mobile applications.

A drainage tube recycles captured coolant back to the machine tool. Larger chips and swarf are captured by the OD8 Strainer Drawer accessory, which simply slides out for emptying. Reclaimed coolant can also be filtered by adding an MP8 Coolant Filter.



Mist Cleaners



Oil mist particles are approximately 0.3 to 10 microns in size. Within this range is the danger zone where mist can be inhaled, absorbed into the body, but not exhaled. Mist control improves worker health and saves coolant wastage. For example, a single high speed grinder can spread as much as 45 litres of coolant - in the form of mist - into the machine shop every shift.

Bin Mist Cleaners

Models MB7, MB8

Models MB7 and MB8 feature an 80 litre quick release bin fitted with wheels for safe handling. The bin is simply raised or lowered by a foot operated, geared lifting mechanism and forms a direct and positive seal with the filter chamber.



For mist, chips and swarf MB8

Both models can be used as a mobile Cleaner or fixed to the floor. A drainage plug is located in the base of the bin for recycling condensed coolant.

Bin Mist Cleaners are ideal for capturing a combination of mist and smoke together with chips and swarf which settle in the bin.



Mobile with Hose Kit MB8-N, KM150

Bin Mist Cleaners are also perfect for mobile use with an Ozone Magnetic Hose Kit which is simply positioned near the pollutant source.

Mini Mist Cleaners

Model MS2

The compact model MS2 is ideal for smaller machine tools. It features a coalescer media pad and a 5m² high efficiency, cleanable polymer cartridge and is suitable for flow rates up to 60 litres per second. The Cleaner is fitted with a 100mm inlet spigot and a drainage tube for recycling condensed coolant.

Installing individual MS2 Cleaners on each machine tool eliminates the need for connecting ductwork, keeping the workshop neat and tidy. Typically, the MS2 is connected to the machine tool enclosure by a short length of duct or flexible hose.

Alternatively, it can be fitted with wheels and carry handle for portable use around the workshop.



Mounted on top of machine tools MS2

Canopy/Recirculator Mist Cleaners Model TM8

When the machine tool has no enclosure, and at-source capture methods are not possible, the Ozone model TM8 Mist Cleaner is the answer.

Canopies, such as the Ozone model EC8 shown here, are connected to the Cleaner inlet by ducting.

The Cleaner can also be used without a Canopy, as a Recirculator for ambient mist control. Recirculators can be mobile, fixed to the wall or connected to the ceiling. A drainage tube in the Cleaner base allows captured coolant to be recycled back to the machine tool.

Model TM8 is also perfect for cooking oil mist collection. Connected to a fryer canopy, it captures cooking mist, which is coalesced, filtered and recycled back to the fryer sump.

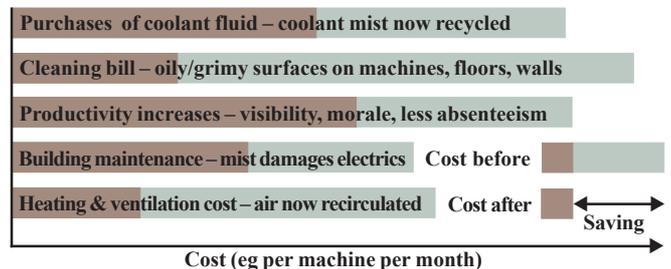


TM8, EC8, OP300, 2 x SS301

Why buy a Mist Cleaner ?

Mist Cleaner benefits:

- Substantial cost savings - refer to the five cost components in the graph.
- Reduced fire hazard and insurances - oily surfaces are a serious risk.
- Reduced risk of accidents - less slippery surfaces.
- Operator health and safety - coolants cause bronchitis, dermatitis, headaches and sore eyes. Some coolants are known carcinogens.
- Improved lighting - less maintenance of stained light fittings.
- Mist recycling allows for the option of a higher grade coolant being used, with improved benefits in machined parts quality.



Coolant Cleaners

Coolant becomes polluted in three ways. It becomes loaded with foreign **particulates** such as swarf, chips, fines, grinding grit, dirt and rust. Equally damaging is the build up of foreign **liquids** or tramp oils, from lubricating oils and other contamination. Finally, **bacteria** and fungi breed directly under the surface of the tramp oil. All these pollutants cause coolant to degrade quickly and operating costs to increase.

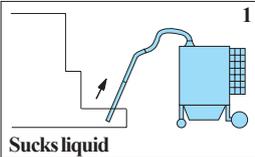
Coolant Cleaners

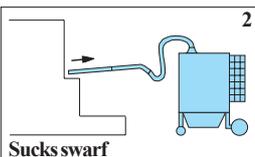
Model ML7

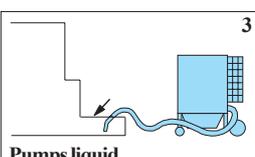
The remarkable ML7 recycles and cleans oils and synthetic fluids from machine tool sumps. Particles are filtered by a Strainer Cartridge, whilst tramp oil and bacteria are removed in a settling tank.

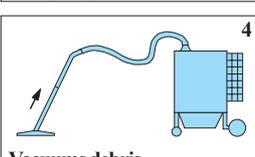
The ML7 provides a number of totally unique features. The Cleaner will both suck and pump *simultaneously* allowing on-line cleaning. It is driven by a *low amperage, single phase* motor, rated for *continuous* duty for 100,000 hours. (Other brands only run on high amps and for 800 hours). The multi-stage turbine has 2 speed settings.

The ML7 performs four jobs in one:

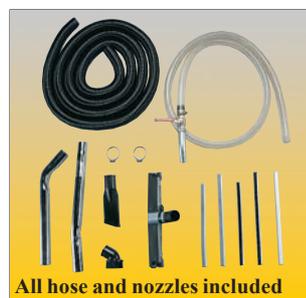
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1 It sucks up coolant liquid and sludge from the machine tool sump. A viewing window shows the liquid level. An electronic switch turns the extraction off at a preset level.
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2 It sucks up swarf and chips from the machine tool bed and immediate floor area. Pollutant is captured in an easily removable container.
- 

3 After suction is complete, and filtration and separation have occurred, the ML7 pumps the cleaned coolant liquid back into the machine tool sump.
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4 The ML7 can also be used to vacuum dusts and debris from the surrounding area and from other locations throughout the machine shop.



All tools are supplied, including 5 metres of suction hose, 2.5 metres of coolant return hose, gulper, extension wand, crevice nozzle, brush nozzle, floor nozzle and shut-off ball valve. They store neatly in the cage fitted to the Cleaner.



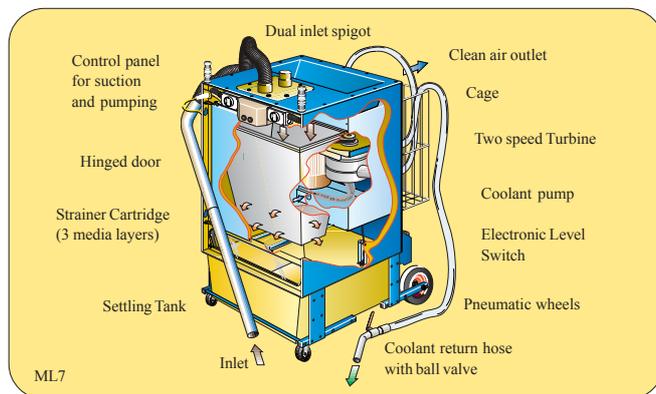
The Strainer Cartridge will hold up to 60 litres of swarf and chips and simply slides out. Various media screen inserts are available to suit different coolants, including a 300 micron mesh screen and a 25 micron polymer sheet.



The ML7 includes, as standard, an industrial floor nozzle for vacuuming the surrounding area. The nozzle includes five different seals to suit both wet and dry applications. The nozzle height is adjustable.



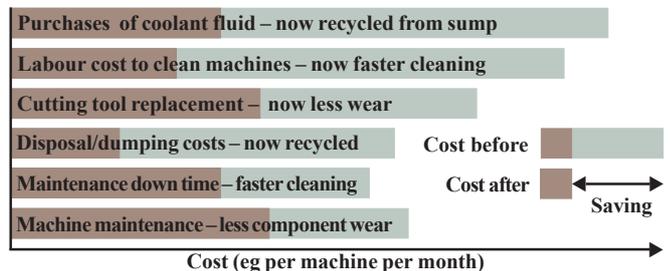
The 200 litre Separator Kit is ideal for removing large quantities of swarf and chips or for cleaning coolant from large sumps. It includes wheels, lever lock lid and the connecting duct.



Why buy a Coolant Cleaner ?

Coolant Cleaner benefits:

- Substantial cost savings - refer to the six cost components in the graph. Typical investment payback of less than 6 months.
- Improved workpiece accuracy and finish - less rework and waste.
- Operator health and safety - less respiratory, skin and eye complaints.
- Environmentally friendly - no dumping of coolant.
- Better housekeeping - less sludge in sumps, reduced rancidity and odour.
- Doubles as a factory floor vacuum cleaner.



Data Table

Cleaner Code →	MS7	MS8	MB7	MB8	TM8	MS2	ML7
Type	Standard		Bin		Canopy	Mini	Coolant Cleaner
Coalescer Filter Area (m ²)	0.35	0.7	0.35	0.7	0.7	0.2	–
Main Filter Area (m ²)	10	20	10	20	20	5	1
Dimensions, as standard – Width W (mm)	700	700	700	700	700	320	720
(case only) – Length L (mm)	700	960	700	960	960	570	850
– Height H (mm)	910	910	1160	1160	910	450	1160
Weight, as standard (kg)	127	140	140	150	136	26	160
Sound Pressure Level, semi-reverberant, 1m front, ducted inlet (dBA)	70	72	70	72	70	64	72
Inlet spigot included (number x diameter in mm)	1 x 150	1 x 200	1 x 150	1 x 200	–	1 x 100	2 x 50
Coolant return (diameter mm). (ML7 pump rate in brackets)	–	25	25	25	25	25	40 (1.0 l/s)
Container capacity (litres)	–	–	80	–	–	–	Swarf- 60 Coolant- 120
Can fit strainer drawer and coolant filter	–	Yes	–	–	Yes	–	–
Recommended air flow rate (l/s). (Extractor option in brackets)	200	350 (450)	200	350 (450)	400 (550)	60	60
Maximum air flow rate, filtered product (l/s)	400	470 (620)	400	470 (620)	575 (800)	100	100
↓ Option Code							
Extractors	– 1kW, 1-phase (switch, 10m flex, plug)	Standard	Standard	Standard	Standard	–	–
E3 3	– 3kW, 3-phase (contactor, overload)	–	Option	–	Option	–	–
–	– 1kW, 1-phase (switch, 10m flex, plug)	–	–	–	Standard	–	–
Q21	– 2.2kW, 1-phase (switch, 10m flex, plug)	–	–	–	Option	–	–
–	– 0.6kW, 1-phase (switch, 2m flex, plug)	–	–	–	–	Standard	–
–	– 2.2kW, 1-phase (240 Volt, Under 10 amps)	–	–	–	–	–	Standard
– Mounting Method	– Fixed	Standard	Standard	Standard	Standard	Standard	–
S	– Mobile (4 castor wheels)	Option	–	Option	–	Option	–
N	– Mobile (2 pneumatics, 2 castor wheels)	–	Option	–	Option	–	Standard

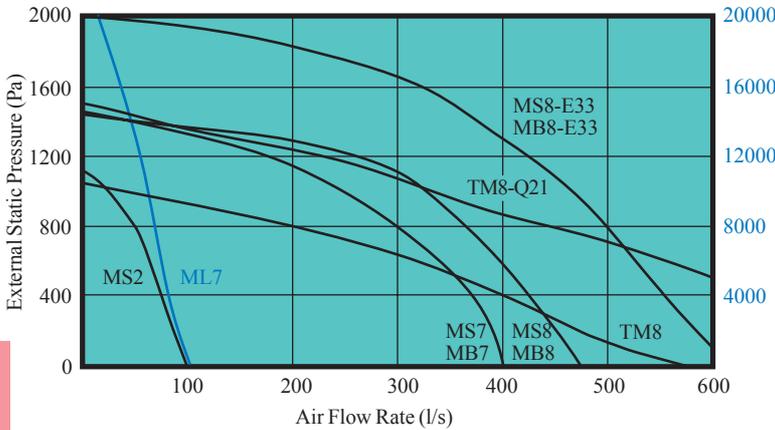
How To Order Cleaners

Choose Cleaner Code from above table

Options
 Extractor: Leave blank if standard, or Code if Option

Mounting Method: Leave blank if standard, or S or N if option

Note: if ordering for overseas, also specify phase, voltage and frequency.



Use right hand axis for ML7. Use left hand axis for all other models. Curves show static pressure at Cleaner inlet. Set equal to static pressure of upstream system (system losses + velocity pressure at inlet). Tested with clean dry filters, inline flow, ducted inlet (TM8 300mm diam, MS2/ML7 100mm, other models 200mm), diffuse outlet, standard Cleaner at end of system (AMCA or BS type C).

Technical and Safety notes

- Mist Collection for Enclosed Machines: Guideline for the required Flow Rate (in l/s) is the greater of the following (a) 0.00075 x total cross sectional area (m²) of openings in enclosure through which mist currently escapes when machine in operation, (b) D x internal air volume of enclosure (m³) where D = from 60 for light mist concentrations to 160 for heavy mist.
- Mist Collection for Open Machines: (a) use overhead Canopy and fit curtains to three sides if possible or (b) use at-source extraction nozzles/hoods and position hood face within 200mm of source.
- Read instruction manuals provided before commencing installation and before operating products. Use continuously sloping ducting with no low points for fixed systems. Reduce external static pressure to allow for effect of wet filters.
- This brochure describes **standard** products, designed for use in non-hazardous areas and for use with nuisance pollutants which are not: explosive, flammable, hot/incendiary, mixtures of sparks and combustibles, corrosive or toxic. If risk of toxic pollutants (concentrations in breathing zone above exposure standards/TLVs), then also consider: ducting outside, product after-filters, outlet monitors, or personal respirators. Any request for non-standard products or for particular capture/filtration efficiencies or filters, must be stated in writing on the customer's final order and if accepted will be restated on Ozone's invoice.
- It is impossible to list all the potential safety issues associated with pollution control. Ozone is a supplier of standard products, not a consultant or contractor. We rely on the customer and their agents to safely select products, design connected systems, and install/operate/maintain these products and systems, to suit **their** pollutant. Customers should consult and comply with relevant National and State laws/regulations/standards.
- Extractor and Channel Cartridge patents are pending.

Accessories for Mist Cleaners

OD8 Strainer Drawer	MP8 Polymer Sheet Coolant Filter	EC8 Canopy	OP300 Pyramid
Diameter x Length 100mm x 2.5m 150mm x 5.0m	Code KM100 KM150		
Magnetic Kits		Sliding Damper	DS200
Compressed Air Cleaning Nozzle	RC6	Column	Bracket OB8
Cleaner MS7, MS8, MB7, MB8, TM8 MS2	Silencer Q17 Q12	Diameter 50mm 100mm 150mm 200mm 300mm	Clamps UK50 UK100 UK150 UK200 UK300
		Spigots SD50 SS100 SS150 SS200 SS301	Hose 5m HL50 HH100 HH150 HH200 HH300
Silencers		Clamps, Spigots, Hose	5 metre lengths
Type Polymer	Size 2 CW21	Size 7 CW7	Size 8 CW8
		Type Micro Screen Coalescer Pad	Size 2 MM2 MW2
Last digit in Cleaner Code gives "size"			Size 7 MM7 MW7
Spare Cartridges			Size 8 MM8 MW8

Accessories for Coolant Cleaners

After Filters	Separator Kit	KY200
Type Bracketry Gas	Max Flow (Required) 200L/s 400L/s	Code PA600 PG605 2PG605
		Includes Drum, Lever Lock, Dolly, Duct, 1 x 200mm Spigot
Strainer Cartridge CB7	Spare Pre-Filters	
Type Micro Screen Polymer Sheet	Code MM743 MP743	Micron Size 300 25

Useful Conversions
 1m = 1000mm = 3.38 feet
 1kg = 1000g = 2.20 pounds
 1Pa = 0.102mm water = 0.004 inches water
 1L/s = 3.60m³/hr = 2.12cfm
 1kW = 1000W = 1.34hp

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