Customer



OM2

Model	Unit	OM2-10	OM2-15	OM2-18
Motor	KW	0.38	0.75	1.5
Voltage/Freq.	V/Hz	3⌀220V 60Hz / 3⌀380V 50Hz		
Speed	Rpm	220V (3485rpm) / 380V (2850rpm)		
Air Flow Rate	m^3/min	10(60Hz) 7(50Hz)	15(60Hz) 12(50Hz)	18(60Hz) 15(50Hz)
Inlet port Dia.	mm	124	124	148
Dimension	mm(LxWxH)	455x330x445	495x380x525	535x380x525
Weight	KGS	27	35	39

OMAC3

Model	Unit	OMAC3-10	OMAC3-15	OMAC3-20	OMAC3-30	OMAC3-40
Motor	KW	0.18	0.37	0.56	0.75	1.12
Voltage	V/Hz	3⌀220V 60Hz / 3⌀380V / 60Hz / 50Hz				
Speed	Rpm	220V (3485rpm) / 380V (2850rpm)				
Air Flow Rate	m^3/min	10.5(60Hz) 7.2(50Hz)	15(60Hz) 12(50Hz)	21(60Hz) 17.3(50Hz)	33 (60Hz) 28.3(50Hz)	42 (60Hz) 38(50Hz)
Inlet port Dia.	mm	⌀148	⌀148	⌀148	⌀200	⌀200
Dimension	mm(LxWxH)	623x330x408	693x350x430	770x390x468	815x420x498	855x420x518
Weight	KG	24.5	29.5	45	47	51

OMAC4

Model	Unit	OMAC4-10	OMAC4-15	OMAC4-20	OMAC4-30	OMAC4-40
Motor	KW	0.18	0.37	0.56	0.75	1.12
Voltage	V/Hz	3⌀220V / 3⌀380V / 60Hz / 50Hz				
Speed	Rpm	60Hz(3485rpm) x 50Hz(2900rpm)				
Air Flow Rate	m^3/min	9.5(60Hz) 6(50Hz)	14(60Hz) 9.7(50Hz)	20(60Hz) 14.5(50Hz)	31 (60Hz) 24.2(50Hz)	38 (60Hz) 35(50Hz)
Inlet port Dia.	mm	⌀148	⌀148	⌀148	⌀200	⌀200
Dimension	mm(LxWxH)	623x330x708	693x350x730	770x390x968	810x420x1048	855x420x1068
Weight	KG	27	32.5	49	52	56

OMAC4-A

Model	Unit	OMAC4-10A	OMAC4-15A	OMAC4-20A	OMAC4-30A	OMAC4-40A
Motor	KW	0.18	0.37	0.56	0.75	1.12
Voltage	V/Hz	3⌀220V / 3⌀380V / 60Hz / 50Hz				
Speed	Rpm	60Hz(3485rpm) x 50Hz(2900rpm)				
Air Flow Rate	m^3/min	8.5(60Hz) 5.5(50Hz)	13.5(60Hz) 9.2(50Hz)	18(60Hz) 13.3(50Hz)	28.5 (60Hz) 22.2(50Hz)	35 (60Hz) 33(50Hz)
Inlet port Dia.	mm	⌀148	⌀148	⌀148	⌀200	⌀200
Dimension	mm(LxWxH)	623x330x808	693x350x930	770x390x1018	815x420x1048	855x420x1068
Weight	KG	31.5	36.5	52.5	56	60

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CTM

OIL MIST AIR CLEANER

Innovative four-stage filter system.
Recyclable &Eco-friendly.
Made in Taiwan.

OMAC3 OMAC4 OMAC4-A

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CHIN TAIRY ENTERPRISE CO., LTD

ENTERPRISE SPIRITS

»Justice »Sharing »Consistent Operations

We are living in a rapidly-changing era where technology, economies and information are growing with constant breakthroughs. Keeping a competitive edge under such circumstances is a critical task for every enterprise. To achieve this goal, information integration and development of new added value are essential to move from the "red sea markets" of competitive pricing to the "blue sea markets."

Success for business depends on team work instead of on an individual. To be a shining star on the business stage, resource integration and self-evaluation for improvement are the keys.

We design and manufacture high-tech products which contribute to environmental protection. The driving force behind CTM is not to simply achieve massive profits or to sound famous. Instead, it is our strong commitment to pursuing excellence. Meticulous operational management, attentive production processes, innovative R&D and a comprehensive marketing network are only basic conditions for those who pursue excellence. What's more, at CTM , we exceed these basic conditions by listening to customer requirements, understand current trends, penetrating new markets and looking to the future.

Recognized by Domestic Renowned Machine Manufacturers.

永進機械 協鴻工業 中鋼機械 油機工業 友嘉實業 台灣麗偉 麗福機械
東台精機 程泰機械 和大工業 匠澤機械 永崴鎔工業 福裕事業 松穎機械
亞崴機電 台灣瀧澤 鉅基科技 健溢機械 麗馳科技 和和機械 建德工業
力勁機械 安加實業 福碩精機 台灣力得衛 東捷科技 正陽企業 媽鑫機械
新衛電腦機械 譁泰精機 寶元科技 榮光機械 凱柏精密機械 快捷機械 永銓機器
衛威進科技 洽群機械 富格蘭科技 力鋁機械 鐳鋁工業 高鋒工業 盛方源科技
巨庭機械 眾程科技 金竑精密

Mtech ANCA PTY LTD MASTERTECH CO.,LTD. HYUNDAI WIA 한국정밀기계(주) BFG Machine DOOSAN DMG

Patented Design. Technological Leadership.

OUR PRODUCTS MEET INTERNATIONAL STANDARDS - CE, TAF, UL, AND CUL

DESIGN CONCEPT

» We Have Only One Earth

What Are Fine Particulate Matters?

Our living environment is full of various natural or man-made harmful or harmless fine particulate matters with different sizes. Among which, the most impact to human health is industrial production where oil mist and powder dusts, etc. may generate during machining. They not only pollute the environment, but also cause serious damage to the machine operators and all personnel in the plant.

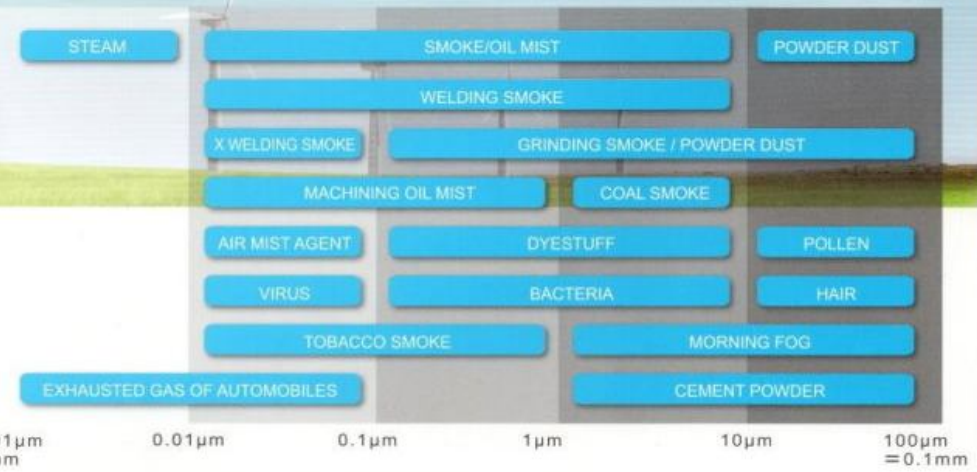
The machining process including burning, grinding, welding and milling, etc. will generate various sizes of fine particulate matters from 0.1 μm to 100 μm (0.1 mm). Among which, particles sizes of under 0.4 μm compare over 90% of total powder dust. Such particles will enter into the blood through lung bubbles, resulting in serious damage to human health.

Fine Particulate Matters
0.001 um — 0.1 um

0.01 um — 1.0 um

0.01 um — 10 um

10 um — 100 um



ENVIRONMENTAL PROTECTION. ENERGY SAVING. REDUCE CARBON. AIR PURIFICATION.

» Not Just Filtering, but Creating a Fresh Environment

Design Concept

Environmental Production & Energy Reclamation: CTM air cleaners employ washable filter system and environment protected materials. They feature extra high oil mist collection efficiency up to 98% for reuse, contributing to environmental protection and energy reclamation.
Save Energy & Reduce Carbon: With the low power consumed and high efficiency operation system, electricity consumption and carbon dioxide discharge can be reduced to meet the international trend of energy-saving and carbon reduction.
Air Purification: With the outstanding function of isolating oil mist, powder dust, toxic gas, and odors to purify air in the working environment.

CTM's design concept is not only to provide equipment to remove powder dust or waste gas in your machine or your factory. Installing a high quality air cleaner in your factory and working environment not only protects your personnel health, but it also keeps cleanliness of working environment. In addition, the air cleaner can control power consumption of a machine, smoke and dust discharge as well as noise. These help to upgrade a machine's running efficiency. Therefore, to maintain your personnel health and increase working efficiency, start with the installation of air cleaner in your factory or on your machine.

With the continuous change of modern technology and heavy industrialization means that the global green house effect is more serious than ever before. All countries in the world have set up more rigorous standards for fine particulate matter control. As metal cutting materials are becoming more and more versatile, especially in high speed machining, the toxic gases generated from coolants are becoming more seriously harmful to human health. Such gases include aluminum, mercury, PCB, etc. The oil mist air cleaners from CTM are capable of completely removing such toxic gases from your working environment. CTM cleaners are capable of recycling oil mist for reuse and capturing nano powder and toxic matters. They provide an effective solution for solving poor air quality problems indoors while creating a comfortable working environment. Furthermore, this also provides a contribution to the earth.

The World-Class Innovative Four-Stage Filtering

ENVIRONMENTAL PROTECTION CONCEPT

International Fine Particulate Matter Density Standards

To reduce the effects on health due to air pollution and provide guidance, all countries in the world have issued their own "Air Quality Standards" including fine particulate density restriction.

Standards Issued by the World Health Organization are Shown as:

Air qualty standards and guidance

Particle | Standards | $PM_{2.5}$: Annual average density 10μg/m³ Annual density in 24 hours 25μg/m³ | PM_{10} : Annual average density 20μg/m³ Annual density in 24 hours 50μg/m³

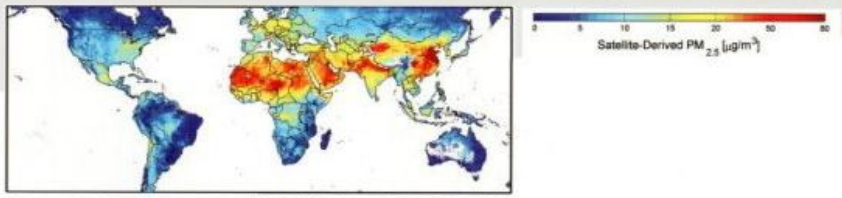
Air quality guidance and target of transitional period issued by WHO : density in 24 hours

	PM10	PM2.5	DENSITY SELECTION GUIDE
Target of Transitional Period-1 (IT-1)	150 μg/m³	75 μg/m³	Based on the danger cofficient issued by various R&D centers and meta analysis(If exceeding the AGQ valus, a short time exposure under this condition may imcrease deah percentage by 5%)
Target of Transitional Period-2 (IT-2)	100 μg/m³	50 μg/m³	Based on the danger cofficient issued by various R&D centers and meta analysis(If exceeding the AGQ valus, a short time exposure under this condition may imcrease deah percentage by 2.5%)
Target of Transitional Period-3 (IT-3)	75 μg/m³	37.5 μg/m³	Based on the danger cofficient issued by various R&D centers and meta analysis(If exceeding the AGQ valus, a short time exposure under this condition may imcrease deah percentage by 1.2%)
Air Quality Guidance	50 μg/m³	25 μg/m³	Based on exposure in 24 hours and annual average exposure.

Specified Standards for PM10 in European Union (Directives 1999/30 And 96/62/EC)

	First Stage (Effected 2005.1.1)	Second Stage (Effected 2010.1.1)
Annual Average Value	40 μg/m³	20 μg/m³
Average value in 24 hours	50 μg/m³	50 μg/m³
Allowable Excessive Days	35	7

Worldwide Atmosphere PM2.5 Density Diagram In 2001-2006 Produced by NASA, U.S.A.



Above contents and lists are sourced from Wikipedia - Fine Particulate Matters

What Are Fine Particulate Matters?

"Fine Particulate matters" are particles that float in the air with particle size less than 2.5 μm (Hereafter called as PM2.5)

Where Do Fine Particulate Matters Come From?

PM2.5 particles are created by nature and human behavior. Natural sources include volcanic eruptions and the earth's crust rocks. Human behavior includes burning, such as petrochemical fuel, industrial discharge, and moving waste gases, etc. PM2.5 consists of various chemical materials. After photoreaction, it may create original organic carbon and regenerate organic carbon, elementary carbon, sulfuric acid, nitrate, and other ionic matters.

Fine Particulate Matters Affect Health

According to records, particulate matters (PM10) and fine particulate matters have (PM2.5) caused many health hazards (Boffette et al...2003). When talking about exposure time, health affection can be divided into short time and long time effects.

(1) SHORT TIME HEALTH EFFECTS
The short time means the duration (mMaitre et al...2006) from 24 hours to one week. Major affections include the increase of death percentage (Asthma, heart and lung disease), death percentage of new born infants and hospitalization percentage (Asthma, heart and lung disease), worse ashtma, reduced lung function, coughs, increased heart rates, and blood vessel inflammation, etc. (Pope et al...2000). Major diseases include chronic stimulation of the upper respiratory tract, heart ailments, lung cancer, acute respiratory tract inflammation for infant, chronic bronchitis for adults, lung disease, and allergies. In addition, premature death and infants life reduction are related with short time or long time exposure (Kampa et al...2007).

(2) LONG TIME HEALTH EFFECTS
Long time exposure in an environment with too much fine particulate matters may affect health, including increase of death percentage, increase of cardiovascular disease and cerebrovascular disease, reduction of lung cancer, etc. (Schwartz et al...1996: Pope et al...2000). An investigation of exposure was made by Miller in the period of 1994-1998 for female residents in 36 cities in the U.S.A. Investigated items included sex, race, smoking condition, education level, family income, BMI, diabetes, high blood pressure, and high cholesterol. The investigation indicated an increment of 10 g/m3 of fine particulate matters might increase 24% of cardiovascular diseases for women. The damage ratio is 1.24 (95%CI: 1.09-1.41). It also increases 76% of death possibility due to cardiovascular diseases. The damage ratio is 1.76 (95% CI: 1.25-2.47) and 1.35 (95% CI: 1.08-1.68) caused by PM2.5. The risk of cardiovascular disease may increase for women after menopause (Miller et al...2007)

Environmental Protection Department Will Modify Air Quality Standards. Fine Particulate Matters (PM2.5) Control Will Be Involved.

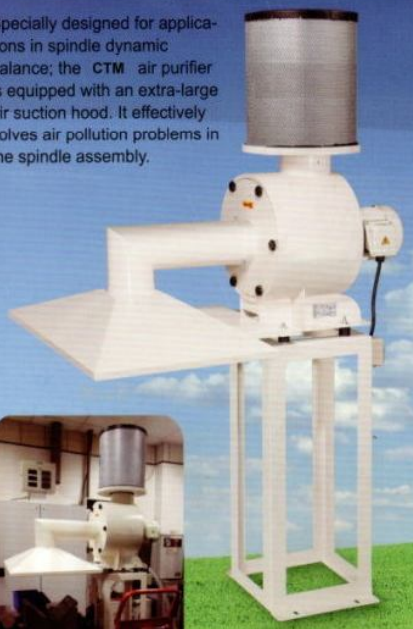
Fine particulate matters are particles that float in the air with a particle size of less than 2.5m (PM2.5). As the size of the particles is very small, they may easily enter into the human body through breathing and cause serious damage to health. In order to upgrade environmental quality and maintain our health, the environmental Protection Department in Taiwan will modify the Air Quality Standards including the control of PM2.5 air quality standards. The new regulation will employ American and Japanese standards. The controlled values are 35 μg/m³ in 24 hours and annual average value is 15 μg/m³. These values are the most rigorous standard in the world.

Information Source: News from the Environmental Protection Department, Executive Yuan, 2011.12.14

ENVIRONMENTAL PROTECTION / ENERGY SAVING
EXTRA LARGE AIR FLOW! LOW POWER CONSUMPTION!

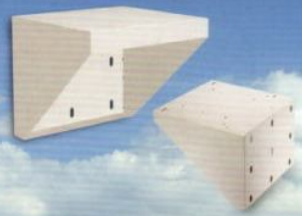
AIR PURIFIER (Special for Spindle)

Specially designed for applications in spindle dynamic balance; the CTM air purifier is equipped with an extra-large air suction hood. It effectively solves air pollution problems in the spindle assembly.



OPTIONAL

L Shape Holder
The L-shape holder allows the oil mist collector to be mounted outside of the machine guard. This may help to avoid resonance to the sheet metal.
Sizes: 330 x 330 x 300 mm



PVC Flexible Hose

Frequency Inverter

Vertical Telescopic Stand

When the oil mist collector is separately mounted on the telescopic stand, it does not affect the machining accuracy.

Fume Suction Hood

Telescopic height range: 1250-2000 mm

• Design and specifications are subject to change without priorlice

Application Examples

Sophisticated Inspection Instruments

CTM has set up a rigorous quality control system. From parts incoming inspection, self-inspection during assembling, on-process sampling inspection conducted by Q.C. staff, to final product inspection, comprehensive quality control is implemented to assure the highest quality.


Powder dust test


Vibration tester


Noise meter


VOC gas detector


Tachometer


Air flow tester


Temperature indicator

CTM

OM2 series: Two-stage filter

» First Stage:Stainless steel inclined wires.
» Second Stage:Fabric cotton material.

» With centrifugal design and big air flow rate.
» Collecting 99.97% of oil mist including the particles that are as small as 0.3μm.

OM2

OMAC3 series: Three-stage filter

First Stage:
Filter oil mist
(Paticles≧20μm)

Second Stage:
Filter water mist
(Paticles≧Sub-micron)

Third Stage
Filter oil gas
(Paticles≦1~0.1μm)

Turbulent flow plate

Stainless steel inclined wires material.

Fabric cotton material.

Resin fabric material.

Turbulent flow plate

» It is mounted before the first filter, it reduces drag and pressure loss.

OMAC3

CTM

OMAC4 series: Four-stage filter

(Water soluble cutting fluid use)

Filter oil smoke
(Paticles≦0.1~0.01μm)

Filter Drum(fiber cotton material)

OMAC4

OMAC4-A series: Four-stage filter

(Oil soluble cutting fluid + Oil smoke use)

Filter oil smoke
(Paticles≦0.01μm)

Gasify Drum
(fiber cotton + glass fiber material)
+ Active Carbon(Optional)

OMAC4-A

Gasify Drum-(Consumable)

» Made in USA of Fabric Filter Paper for filtering oil gas.
» Made in USA of Fine Glass Fiber Cotton to hold oil mist.
» Circular Filter Paper

1.High efficiency for filtering.
2.Increase filtering area. Four times more than plane-type of filtering paper.
3.Large air flow, low pressure loss and low noise.
4.Eco-friendly.
5.Active Carbon for absorbing toxic gases.

※Life-time: One year (based on 8 hours a day for 365 days but depended on your working environment.)
※PATENT NO.:101301817/101206052