

MIST
CATCH

Non-filter
oil mist
collector

Electrostatic
oil mist
collector

Filter
oil mist
collector

Option

Auto-cleaning
unit

Non-filter oil mist collector OMC-N2 series

Structure & mechanism

Original technology enabled high collection rate with no filter



Structure

• Exhaust port

Large exhaust port slows down the speed of outgoing air to prevent oil scattering.

Clean air

• Rectifying plate/demistor

Captures oil droplets to prevent them from scattering outside the exhaust port.
(OMC-N215(H) and OMC-N225(H) only)

• Motor

Top Runner Motor
Oil seal on the motor axis prevents oil entry into motor interior

○ Primary treatment part

○ Turbo fan

○ Collection unit

○ Impinging plate

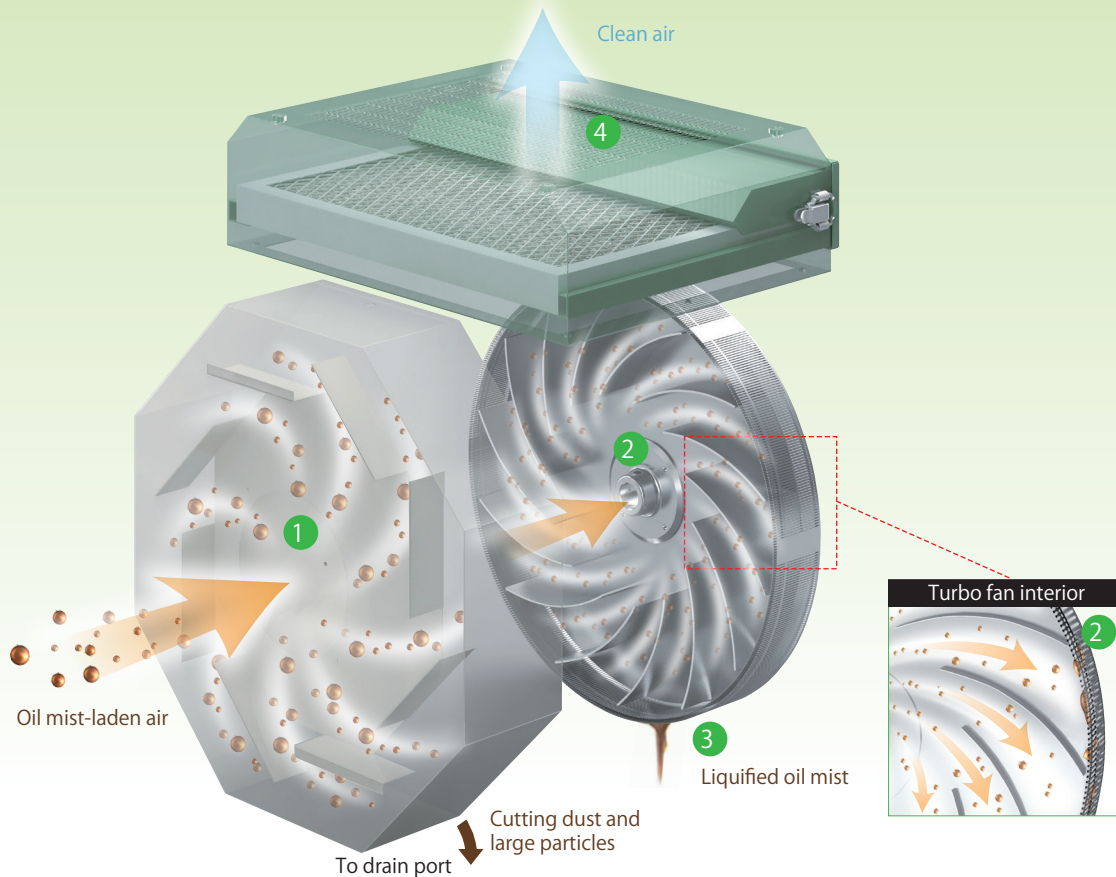
Oil mist-laden air

Oil drain port

Access door

Allows access to Collection unit from either side of MISTCATCH

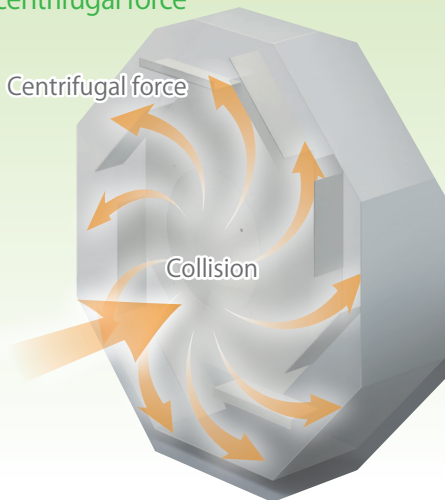
Mechanism



- 1 Oil mist flows along the impinging plate. At the primary treatment part, cutting dust and large particles are removed.
- 2 Turbo fan accelerates the air speed to blow it in the centrifugal direction to let the oil particles hit against the collection unit.
- 3 Oil particles adhered to the collection unit are gathered on the inner wall by centrifugal force to be discharged from the drain port in the form of liquid.
- 4 Clean air goes out.

Product Point 1

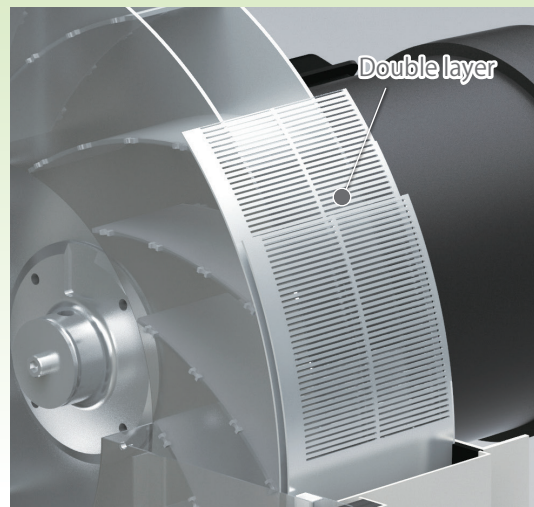
Primary treatment using inertial collision and centrifugal force



The incoming air hits against the Impinging plate and then rotates along the inner wall of the primary treatment part. Large particles and dust are separated from the air during this process.

Product Point 2

Collection unit with ultimate level of colliding force



The collection unit causes more oil particles to collide to achieve higher collection efficiency. OMC-N2**H models lead the non-filter oil mist collectors in collection rate by its optimized design.

MIST
CATCH

Non-filter
oil mist
collector

Electrostatic
oil mist
collector

Filter
oil mist
collector

Option

Auto-cleaning
unit

Non-filter Oil mist collector

OMC-N205 (H)

Industry-leading collection efficiency as a non-filter unit



Top runner motor

RoHS



Collection method



Features



Model/Specifications

| Model | OMC-N205 | OMC-N205H |
|-------------------------|---|---|
| Max. airflow *1 | 4.5 / 5m ³ /min | |
| Max. static pressure *1 | 0.59 / 0.85kPa | |
| Collection efficiency | 99% or more (2μm or larger) | 99% or more (1μm or larger) |
| Rated voltage | 3-phase, 200VAC, 50Hz/200-220V, 60Hz | |
| Motor output rating | 0.4kW (2P) | |
| Motor efficiency *2 | 76.0 / 76.0-77.0% | |
| Current consumption *1 | 1.9 / 1.7 - 1.7A | |
| Working temperature | 0 to +40°C | |
| Max. working humidity | 85%RH, free from condensation | |
| Noise | 66/70dB (A) | |
| Max. suction air temp. | +80°C | |
| Conformity | EMC directive | EMI:EM61000-6-4 EMS:EN61000-6-2 |
| | EMD | EN ISO/12100 : 2010 EN60204-1 : 2006+A1 : 2009 Overvoltage category II, Pollution level 3 |
| | Environment | RoHS |
| Suction port diameter | φ 98mm | |
| Paint color | Powder coating, Ivory (10GY9/1 equivalent) and Light green (10GY8/4 equivalent) | |
| Weight | 25.0kg | |
| Drain port | φ 31 pipe | |
| Standard accessory | 2m φ 32 drain hose, 1 drain hose band, 4 anti-vibration rubber, 1 maintenance sticker, 1 instruction manual | |

*1 Rated value in 25°C air temperature

*2 Efficiency value in a motor single body

⚠ Caution

- Be sure to read the instruction manual carefully before use.
- This product is intended for collecting general watersoluble and oil mist that generates during production process using various machine tools. Never have it inhale the following substances.
 - Ignition sources and fire sparks generated in machine processing
 - Flammable substances such as gasoline, thinner, benzin, kerosene and others as well as oil and cleaning liquid with an ignition point 80 degrees C or below,
 - Explosive substances such as aluminium, magnesium and titan as well as materials ridden with those substances,
 - Flammable liquid, mist and materials ridden with these substances,
 - Corrosive and adhesive substances and hazardous gas or air with a lot of unusual substances
 - Dust
 - Hot air exceeding 80 deg. C.
 - Large amount of liquid
 - Substances that remarkably accelerate rusting of metals or aging of plastics
- This product should not be used in an atmosphere which contains chlorine, sulfuric or fluorine gasses, oxalic acid, xylene, or methyl tetrachloride and the like.
- Tampering or repairing the product should be strictly avoided. Please contact us for repairing service.
- Precision apparatuses should not be arranged near the exhaust port where fine particles may fall on.
- Do not operate the product with its terminal box uncovered.
- Electrical connection should be done via an appropriate circuit breaker
- Indoor use only. The altitude of the site of use should be lower than 1000m.
- The site of use should be free from vibration or impact.
- Electrical works required for mounting the product should be done by professionals or qualified personnel.
- Make sure that the packaging is not damaged on delivery. Damages during transportation may lead to product failure. In case any damage is found, contact us immediately.

Maintenance



Remove the screw with a screw driver.



Unlatch the door to open.



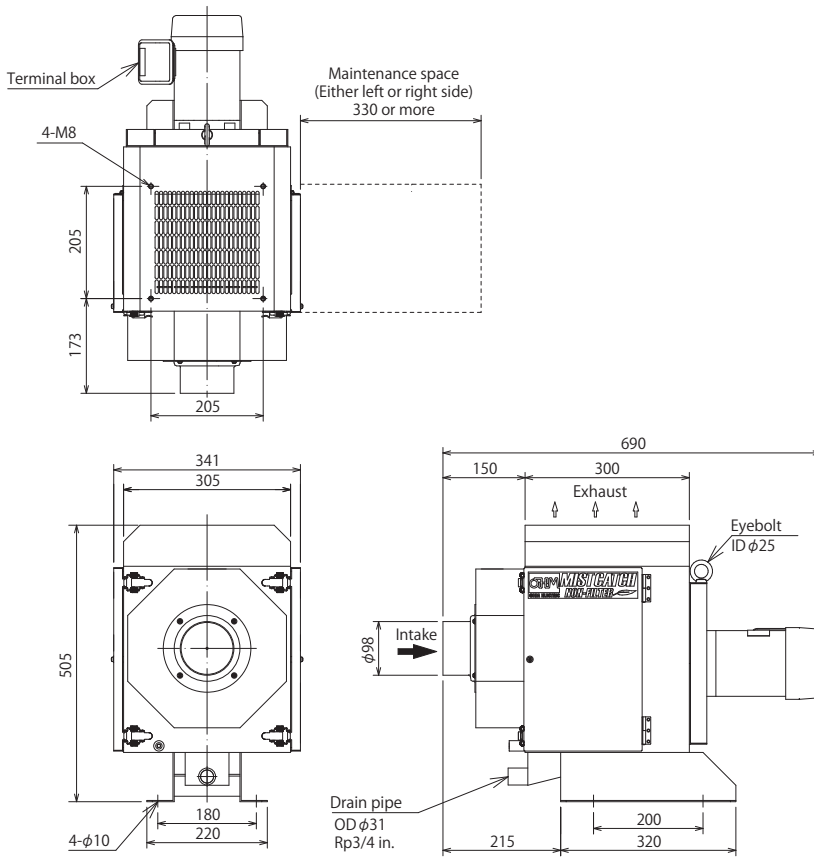
Unfix the fasteners of the collection unit.



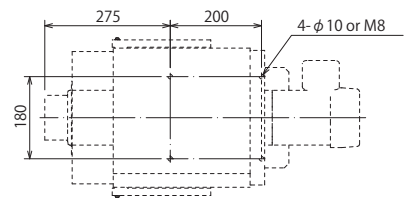
Take out the collection unit to clean using a brush or compressed air.

Outline drawing

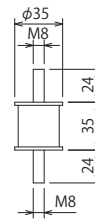
【Main unit】



Mounting cutout

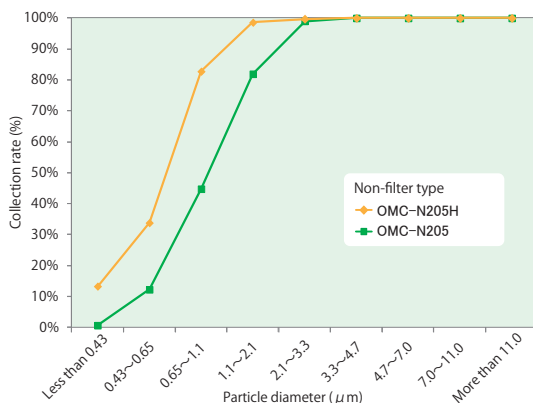


Anti-vibration rubber (Accessory)

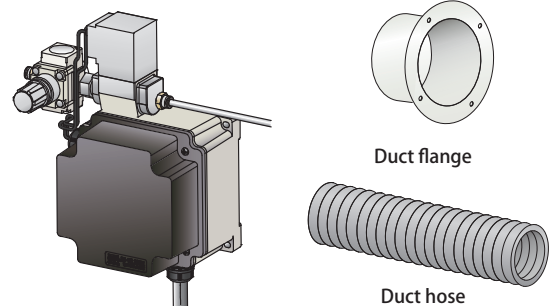


Collection rate

Test oil : Water-insoluble cutting oil
 Measured by : Low Volume Air Sampler type AN-200



Option



Auto-cleaning unit
 Keeps MISTCATCH interior clean using water and compressed air.

See **P033**

For options See **P035**

MIST
CATCH

Non-filter
oil mist
collector

Electrostatic
oil mist
collector

Filter
oil mist
collector

Option

Auto-cleaning
unit

Non-filter Oil mist collector

OMC-N210(H)

Industry-leading collection efficiency as a non-filter unit



Top runner motor

RoHS



Collection method



Features



Model/Specifications

| Model | OMC-N210 | OMC-N210H |
|------------------------|--|---|
| Max. airflow *1 | 8 / 10m ³ /min | |
| Max. static pressure*1 | 1.13 / 1.55kPa | |
| Collection efficiency | 99% or more (2µm or larger) | 99% or more (1µm or larger) |
| Rated voltage | 3-phase, 200VAC, 50Hz/200-220V, 60Hz | |
| Motor output rating | 0.75kW (2P) | |
| Motor efficiency *2 | 81.5 / 81.1-82.5% IE3 / IE3-IE3 | |
| Current consumption *1 | 3.1 / 3.0-2.8A | |
| Working temperature | 0 to +40°C | |
| Max. working humidity | 85%RH, free from condensation | |
| Noise | 70/74dB(A) | |
| Max. suction air temp. | +80°C | |
| Conformity | EMC directive | EMI:EM61000-6-4 EMS:EN61000-6-2 |
| | EMD | EN ISO/12100 : 2010 EN60204-1 : 2006+A1 : 2009 Overvoltage category II, Pollution level 3 |
| | Environment | RoHS |
| Suction port diameter | φ123mm | |
| Paint color | Powder coating, Ivory (10GY9/1 equivalent) and Light green (10GY8/4 equivalent) | |
| Weight | 40.0kg | |
| Drain port | φ31 pipe | |
| Standard accessory | 2m φ32 drain hose, 1 drain hose band, 4 anti-vibration rubber, 1 maintenance sticker, 1 instruction manual | |

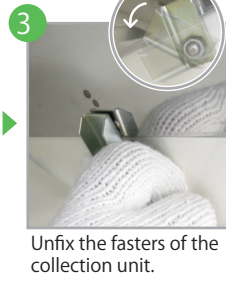
*1 Rated value in 25°C air temperature

*2 Efficiency value in a motor single body

⚠ Caution

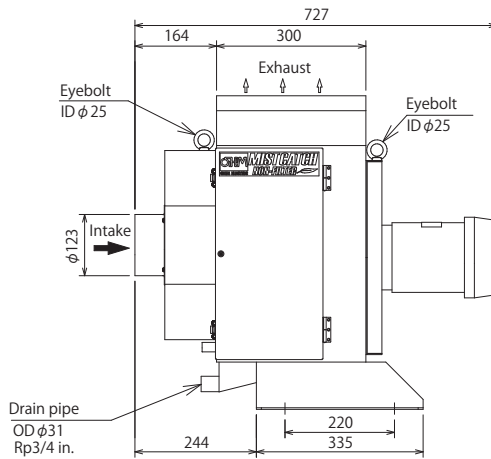
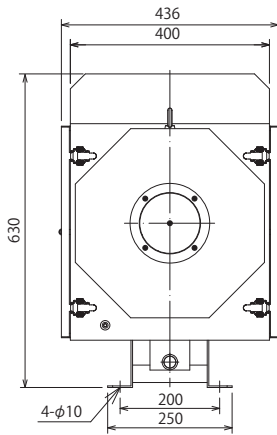
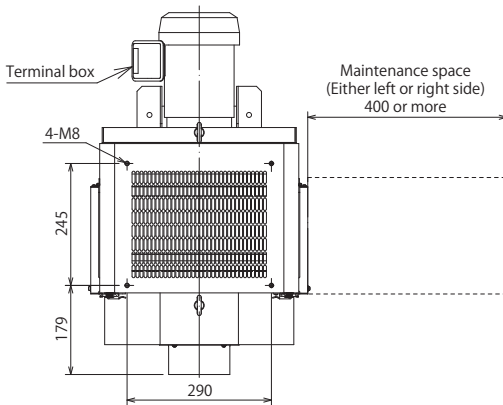
- Be sure to read the instruction manual carefully before use.
- This product is intended for collecting general watersoluble and oil mist that generates during production process using various machine tools. Never have it inhale the following substances.
 - Ignition sources and fire sparks generated in machine processing
 - Flammable substances such as gasoline, thinner, benzin, kerosene and others as well as oil and cleaning liquid with an ignition point 80 degrees C or below,
 - Explosive substances such as aluminium, magnesium and titan as well as materials ridden with those substances,
 - Flammable liquid, mist and materials ridden with these substances,
 - Corrosive and adhesive substances and hazardous gas or air with a lot of unusual substances
 - Dust
 - Hot air exceeding 80 deg. C.
 - Large amount of liquid
 - Substances that remarkably accelerate rusting of metals or aging of plastics
- This product should not be used in an atmosphere which contains chlorine, sulfuric or fluorine gasses, oxalic acid, xylene, or methyl tetrachloride and the like.
- Tampering or repairing the product should be strictly avoided. Please contact us for repairing service.
- Precision apparatuses should not be arranged near the exhaust port where fine particles may fall on.
- Do not operate the product with its terminal box uncovered.
- Electrical connection should be done via an appropriate circuit breaker
- Indoor use only. The altitude of the site of use should be lower than 1000m.
- The site of use should be free from vibration or impact.
- Electrical works required for mounting the product should be done by professionals or qualified personnel.
- Make sure that the packaging is not damaged on delivery. Damages during transportation may lead to product failure. In case any damage is found, contact us immediately.

Maintenance

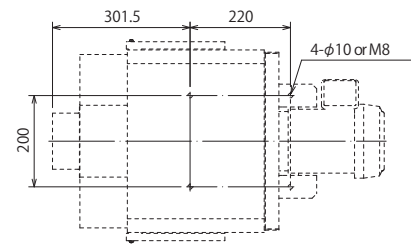


Outline drawing

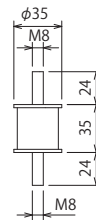
[Main unit]



Mounting cutout

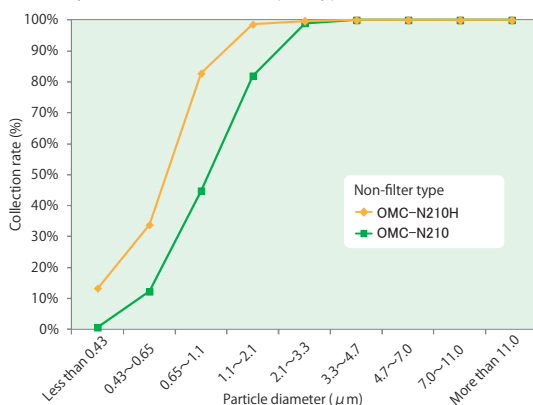


Anti-vibration rubber (Accessory)

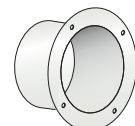
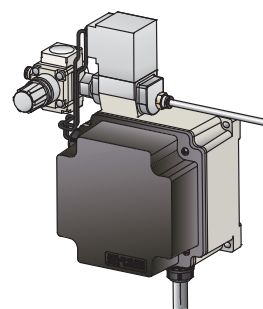


Collection rate

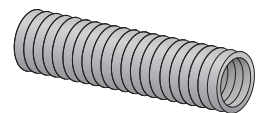
Test oil : Water-insoluble cutting oil
Measured by : Low Volume Air Sampler type AN-200



Option



Duct flange



Duct hose

Auto-cleaning unit
Keeps MISTCATCH interior clean using water and compressed air.

P033

For options See

P035

MIST
CATCH

Non-filter
oil mist
collector

Electrostatic
oil mist
collector

Filter
oil mist
collector

Option

Auto-cleaning
unit

Non-filter Oil mist collector

OMC-N215(H)

Industry-leading collection efficiency as a non-filter unit



Top runner motor

RoHS



Collection method



Features



Model/Specifications

| Model | OMC-N215 | OMC-N215H |
|-------------------------|---|---|
| Max. airflow *1 | 14.5 / 16.5 m ³ /min | |
| Max. static pressure *1 | 1.57 / 2.17 kPa | |
| Collection efficiency | 99% or more (2µm or larger) | 99% or more (1µm or larger) |
| Rated voltage | 3-phase, 200VAC, 50Hz/200-220V, 60Hz | |
| Motor output rating | 1.5kW (2P) | |
| Motor efficiency *2 | 85.8 / 85.6-86.0% IE3/IE3-IE3 | |
| Current consumption *1 | 5.6 / 5.6-5.1A | |
| Working temperature | 0 to +40°C | |
| Max. working humidity | 85%RH, free from condensation | |
| Noise | 72/76dB(A) | |
| Max. suction air temp. | +80°C | |
| Conformity | EMC directive | EMI:EM61000-6-4 EMS:EN61000-6-2 |
| | EMD | EN ISO/12100 : 2010 EN60204-1 : 2006+A1 : 2009 Overvoltage category II, Pollution level 3 |
| | Environment | RoHS |
| Suction port diameter | φ 148mm | |
| Paint color | Powder coating, Ivory (10GY9/1 equivalent) and Light green (10GY8/4 equivalent) | |
| Weight | 57.0kg | |
| Drain port | φ 31 pipe | |
| Standard accessory | 2m φ 32 drain hose, 1 drain hose band, 4 anti-vibration rubber, 1 maintenance sticker, 1 instruction manual | |

*1 Rated value in 25°C air temperature

*2 Efficiency value in a motor single body

⚠ Caution

- Be sure to read the instruction manual carefully before use.
- This product is intended for collecting general watersoluble and oil mist that generates during production process using various machine tools. Never have it inhale the following substances.
 - Ignition sources and fire sparks generated in machine processing
 - Flammable substances such as gasoline, thinner, benzin, kerosene and others as well as oil and cleaning liquid with an ignition point 80 degrees C or below,
 - Explosive substances such as aluminium, magnesium and titan as well as materials ridden with those substances,
 - Flammable liquid, mist and materials ridden with these substances,
 - Corrosive and adhesive substances and hazardous gas or air with a lot of unusual substances
 - Dust
 - Hot air exceeding 80 deg. C.
 - Large amount of liquid
 - Substances that remarkably accelerate rusting of metals or aging of plastics
- This product should not be used in an atmosphere which contains chlorine, sulfuric or fluorine gasses, oxalic acid, xylene, or methyl tetrachloride and the like.
- Tampering or repairing the product should be strictly avoided. Please contact us for repairing service.
- Precision apparatuses should not be arranged near the exhaust port where fine particles may fall on.
- Do not operate the product with its terminal box uncovered.
- Electrical connection should be done via an appropriate circuit breaker
- Indoor use only. The altitude of the site of use should be lower than 1000m.
- The site of use should be free from vibration or impact.
- Electrical works required for mounting the product should be done by professionals or qualified personnel.
- Make sure that the packaging is not damaged on delivery. Damages during transportation may lead to product failure. In case any damage is found, contact us immediately.

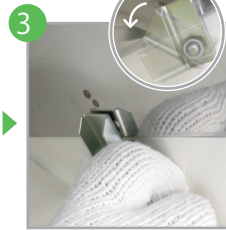
Maintenance



1 Remove the screw with a screw driver.



2 Unlatch the door to open.



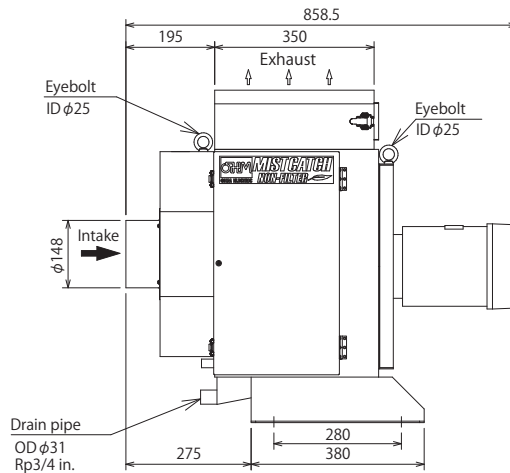
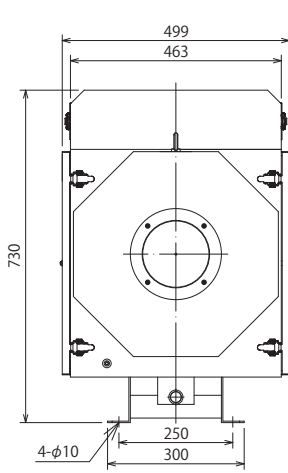
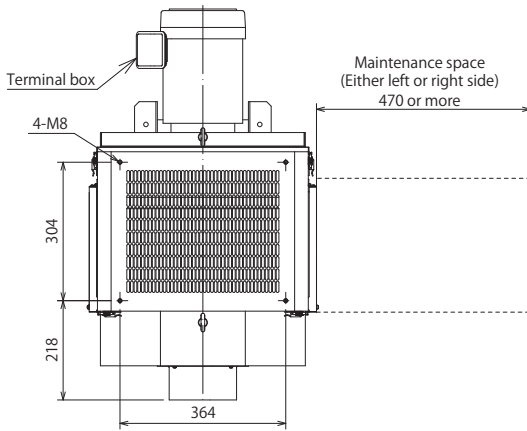
3 Unfix the fasteners of the collection unit.



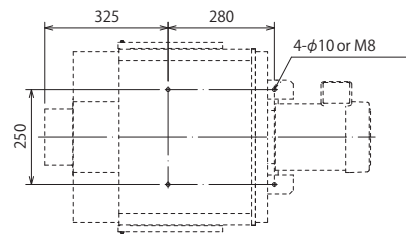
4 Take out the collection unit to clean using a brush or compressed air.

Outline drawing

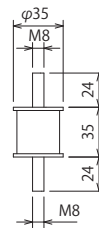
[Main unit]



Mounting cutout

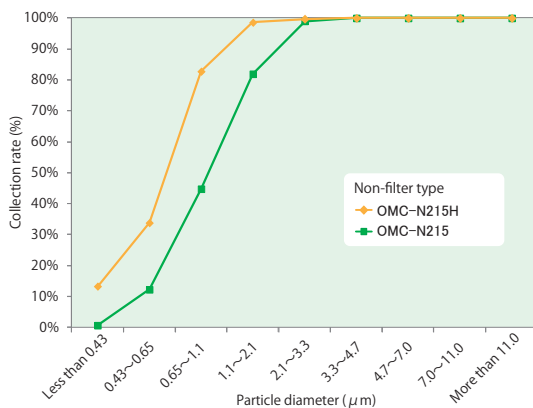


Anti-vibration rubber (Accessory)

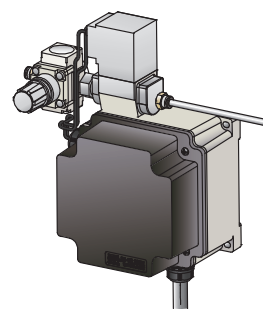


Collection rate

Test oil : Water-insoluble cutting oil
Measured by : Low Volume Air Sampler type AN-200

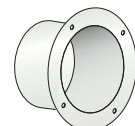


Option

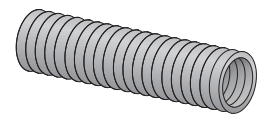


Auto-cleaning unit
Keeps MISTCATCH interior clean using water and compressed air.

P033



Duct flange



Duct hose

For options See P035

MIST
CATCH

Non-filter
oil mist
collector

Electrostatic
oil mist
collector

Filter
oil mist
collector

Option

Auto-cleaning
unit

Non-filter Oil mist collector

OMC-N225(H)

Industry-leading collection efficiency as a non-filter unit



Top runner motor

RoHS



Collection method



Features



Model/Specifications

| Model | OMC-N225 | OMC-N225H |
|-------------------------|---|---|
| Max. airflow *1 | 21.5 / 24.5m ³ /min | |
| Max. static pressure *1 | 1.88 / 2.57kPa | |
| Collection efficiency | 99% or more (2µm or larger) | 99% or more (1µm or larger) |
| Rated voltage | 3-phase, 200VAC, 50Hz/200-220V, 60Hz | |
| Motor output rating | 2.2kW (2P) | |
| Motor efficiency *2 | 86.0 / 86.8-86.9% IE3 / IE3-IE3 | |
| Current consumption *1 | 8.3 / 8.1-7.4A | |
| Working temperature | 0 to +40°C | |
| Max. working humidity | 85%RH, free from condensation | |
| Noise | 74/78dB(A) | |
| Max. suction air temp. | +80°C | |
| Conformity | EMC directive | EMI:EM61000-6-4 EMS:EN61000-6-2 |
| | EMD | EN ISO/12100 : 2010 EN60204-1 : 2006+A1 : 2009 Overvoltage category II, Pollution level 3 |
| | Environment | RoHS |
| Suction port diameter | φ 198mm | |
| Paint color | Powder coating, Ivory (10GY9/1 equivalent) and Light green (10GY8/4 equivalent) | |
| Weight | 68.0kg | |
| Drain port | φ 31 pipe | |
| Standard accessory | 2m φ 32 drain hose, 1 drain hose band, 4 anti-vibration rubber, 1 maintenance sticker, 1 instruction manual | |

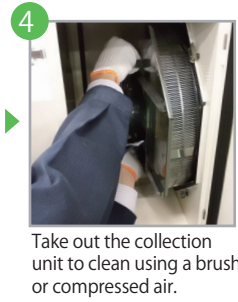
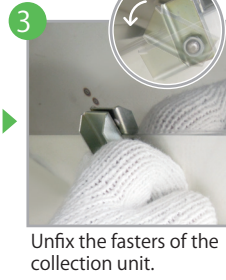
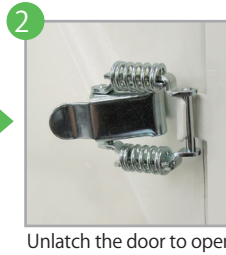
*1 Rated value in 25°C air temperature

*2 Efficiency value in a motor single body

⚠ Caution

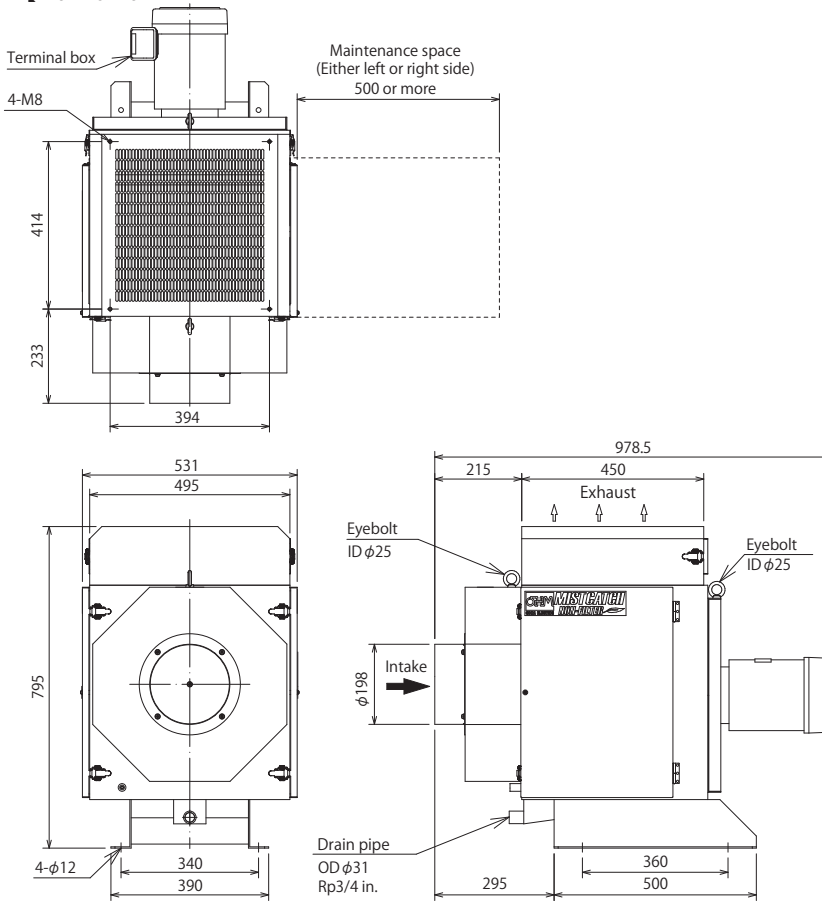
- Be sure to read the instruction manual carefully before use.
- This product is intended for collecting general watersoluble and oil mist that generates during production process using various machine tools. Never have it inhale the following substances.
 - Ignition sources and fire sparks generated in machine processing
 - Flammable substances such as gasoline, thinner, benzin, kerosene and others as well as oil and cleaning liquid with an ignition point 80 degrees C or below,
 - Explosive substances such as aluminium, magnesium and titan as well as materials ridden with those substances,
 - Flammable liquid, mist and materials ridden with these substances,
 - Corrosive and adhesive substances and hazardous gas or air with a lot of unusual substances
 - Dust
 - Hot air exceeding 80 deg. C.
 - Large amount of liquid
 - Substances that remarkably accelerate rusting of metals or aging of plastics
- This product should not be used in an atmosphere which contains chlorine, sulfuric or fluorine gasses, oxalic acid, xylene, or methyl tetrachloride and the like.
- Tampering or repairing the product should be strictly avoided. Please contact us for repairing service.
- Precision apparatuses should not be arranged near the exhaust port where fine particles may fall on.
- Do not operate the product with its terminal box uncovered.
- Electrical connection should be done via an appropriate circuit breaker
- The altitude of the site of use should be lower than 1000m.
- Indoor use only. The site of use should be free from vibration or impact.
- Electrical works required for mounting the product should be done by professionals or qualified personnel.
- Make sure that the packaging is not damaged on delivery. Damages during transportation may lead to product failure. In case any damage is found, contact us immediately.

Maintenance

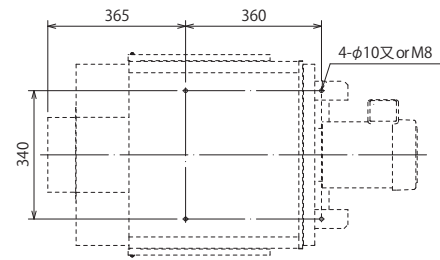


Outline drawing

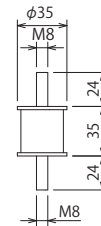
【Main unit】



Mounting cutout

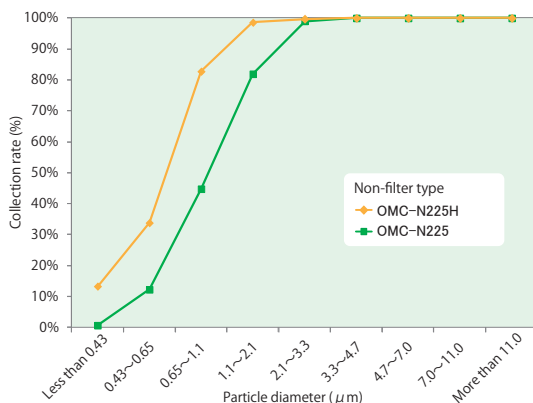


Anti-vibration rubber (Accessory)

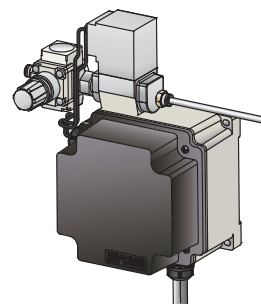


Collection rate

Test oil : Water-insoluble cutting oil
Measured by : Low Volume Air Sampler type AN-200

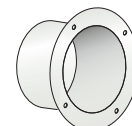


Option

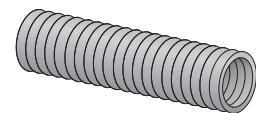


Auto-cleaning unit
Keeps MISTCATCH interior clean using water and compressed air.

See P033



Duct flange



Duct hose

For options See P035

MIST
CATCH

Non-filter
oil mist
collector

Electrostatic
oil mist
collector

Filter
oil mist
collector

Option

Auto-cleaning
unit

Non-filter Oil mist collector

OMC-11

(10m³/min)

Energy saving, high power and compact!



Example of use

RoHS

Collection method



Features



| | |
|------------------------|---|
| Model | OMC-11 |
| Max. airflow | 8/10m ³ /min |
| Collection efficiency | 83% ±% (2µm or larger) |
| Rated voltage | 3-phase, 200VAC, 50Hz/200-220V, 60Hz |
| Motor output rating | 0.2kW (2P) |
| Current consumption *1 | 1.0/1.3-1.3A or less |
| Working temperature | 0 to +40°C |
| Max. working humidity | 85%RH, free from condensation |
| Noise | 77dB(A) |
| Max. suction air temp. | +50°C |
| Suction port diameter | φ123mm |
| Paint color | Ivory (10GY9/1 equivalent) |
| Weight | 13.0kg |
| Standard accessory | 2m φ 18 drain hose, 1 drain hose band, 1 instruction manual |

*1 Rated value in 25°C air temperature

⚠ Caution

- Be sure to read the instruction manual carefully before use.
- This product is intended for collecting general watersoluble and oil mist that generates during production process using various machine tools. Never have it inhale the following substances.
 - Ignition sources and fire sparks generated in machine processing
 - Flammable substances such as gasoline, thinner, benzene, kerosene and others as well as oil and cleaning liquid with an ignition point 80 degrees C or below,
 - Explosive substances such as aluminium, magnesium and titanium as well as materials ridden with those substances,
 - Flammable liquid, mist and materials ridden with these substances,
 - Corrosive and adhesive substances and hazardous gas or air with a lot of unusual substances
 - Dust
 - Hot air exceeding 50 deg. C.
 - Large amount of liquid
 - Substances that remarkably accelerate rusting of metals or aging of plastics
- This product should not be used in an atmosphere which contains chlorine, sulfuric or fluorine gasses, oxalic acid, xylene, or methyl tetrachloride and the like.
- Tampering or repairing the product should be strictly avoided. Please contact us for repairing service.
- Precision apparatuses should not be arranged near the exhaust port where fine particles may fall on.
- Fine particles like fume or gasses are discharged with air.
- Electrical connection should be done via an appropriate circuit breaker
- Indoor use only. The altitude of the site of use should be lower than 1000m.
- The site of use should be free from vibration or impact.
- Electrical works required for mounting the product should be done by professionals or qualified personnel.
- Make sure that the packaging is not damaged on delivery. Damages during transportation may lead to product failure. In case any damage is found, contact us immediately.

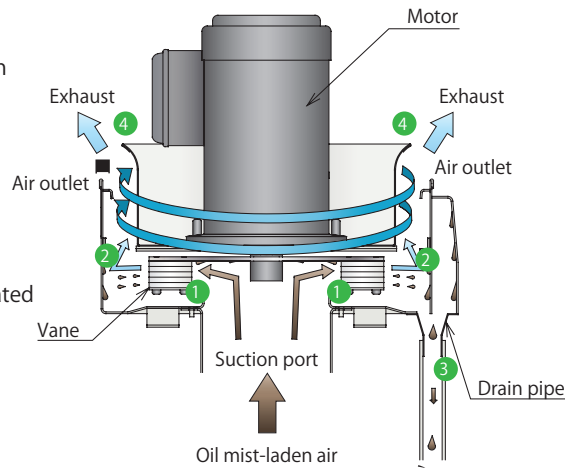
Mechanism

1

Oil-containing air is inhaled through the air intake from underneath of MIST CATCH by its rapidly spinning vane attached to the motor shaft.

2

The inhaled air flow is then accelerated by centrifugal force when passing through the numerous pores of the vane and collides against the inner wall of the MIST CATCH housing. This separates oil particles from the outgoing air.



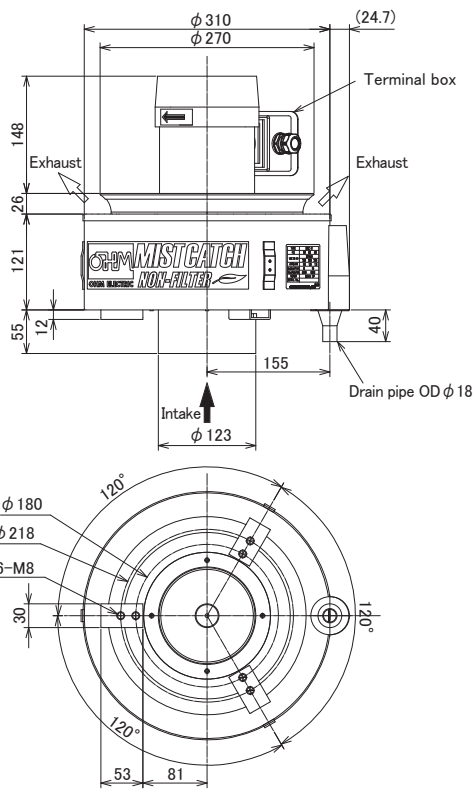
3

By air spirals around the wall, oil particles sit on the inner wall drip along the wall surface down to the slits to be discharged from the drain pipe.

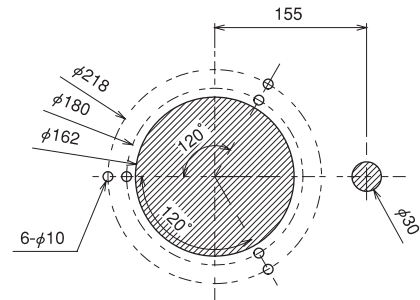
4

The outgoing air is returned to the atmosphere out of the air outlet.

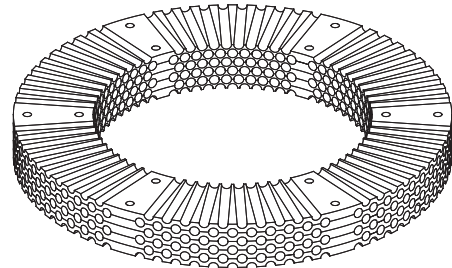
Outline drawing



Mounting cutout



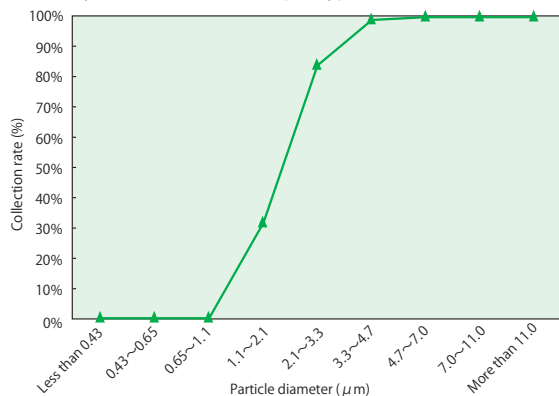
Vane construction



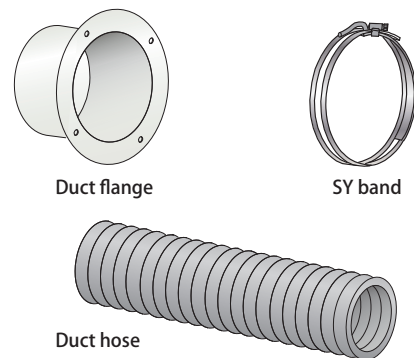
Material: TPX (Polymethylpentene)
Registered trademark of Mitsui Chemicals, Inc.

Collection rate

Test oil : Water-insoluble cutting oil
Measured by : Low Volume Air Sampler type AN-200



Option



For options See P036