OIL Stopper

Controlling oil mist
to provide workplaces
with comfortable
air environments

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JAB QMS,EMS CM027

ISO 9001 ISO 14001

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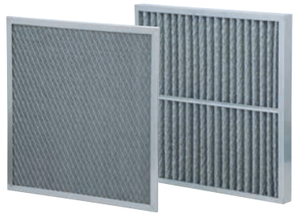
Trapping oil mist to collect and drain as oil
Providing comfortable air environments for the workplace

Thorough oil mist control helps provide the workplace with clean air.

Consisting of the new TEG casing with an oil mist collection and drainage mechanism and an oil mist filter, the Oil Stopper helps dramatically improve air quality in the working environment.

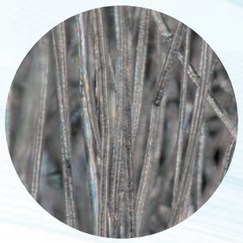
TEG casing

Quickly drains trapped oil mist.



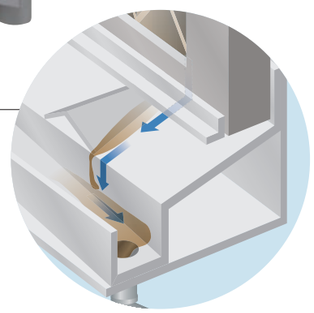
Oil mist filter

Traps airborne oil mist with metallic fibers.



Traps
oil mist.

Drains
trapped oil.



Reduces oil odors.

Prevents fires.

Prevents filter adhesion for **easier maintenance.**

OIL Stopper

Point 1 Quick drainage mechanism

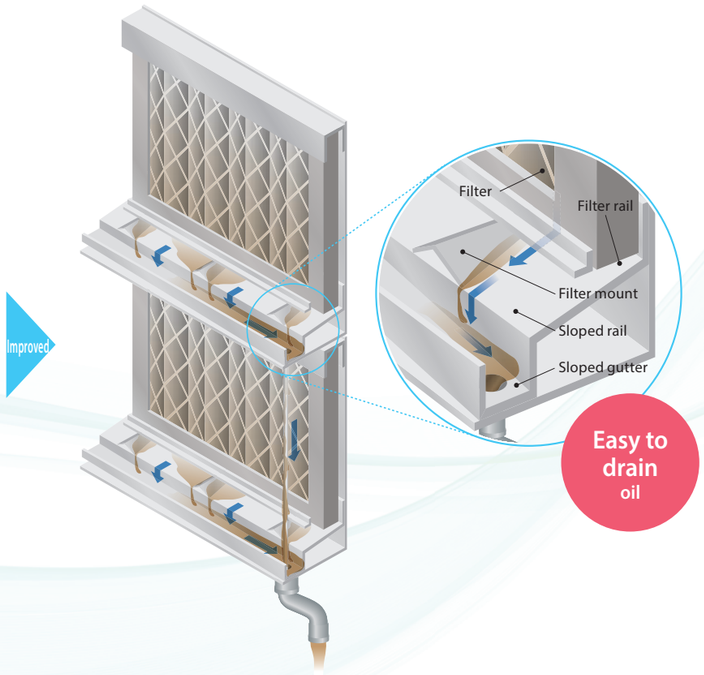
Patent pending

Trapped oil is collected and drained by a sloped rail that guides oil drips from the filter to a sloped gutter that quickly carries oil away.

Our conventional model

Collected oil drips into the casing gutters to be drained. For stacked filters, oil collected in an upper filter drips straight down. The interior of the casing and the lower filters are covered with oil.

Our new model: Oil Stopper



Collected oil runs along the sloped rail into the sloped gutter of the casing and drains directly through the port. Oil drips from the upper filter do not fall into the filter below; instead, they're guided by the dedicated sloped gutter. The inside of the casing and the filters stacked below are not covered with oil.

Point 2 High drainage performance

More than 90% of oil is drained.

Oil drips from the filter are carried by the gutter and quickly drained through the port to prevent oil from accumulating in the casing. A comparison of the Oil Stopper and the previous model shows the obvious differences in drain performance.

Comparison test with conventional model

Time elapsed since start of test	Drainage amount (g) of total oil supply (drainage ratio %)	
	Our conventional model	Oil Stopper
15 min	77 (30.8)	188 (75.2)
1 hour	147 (58.8)	214 (85.6)
3 hours	167 (66.8)	224 (89.6)
17 hours	179 (71.6)	226 (90.4)
24 hours	181 (72.4)	227 (90.8)

* 250 g of cooking oil is supplied to each device over the course of two minutes.
* Oil drained from the drain port is measured as the amount drained.

Preventing damage caused by oil mist

Oil mist can generate a range of hazards for employees and community residents, including health issues and poor working environments.
The Oil Stopper helps create a clean air environment and prevents various hazards.

?! TOPICS
What is oil mist?

Oil mist consists of airborne oil particles. Among the most common sources of oil mist in factories is the cutting fluid used with cutting machines or lathes. Oil mist is also generated in restaurant kitchens—for instance, during deep frying.

Factory

Cutting machine

Lathe

Restaurant

Kitchen

Protect businesses, employees, and community residents with the Oil Stopper.

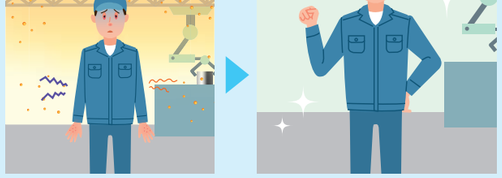
Safeguarding employees and community residents against oil mist damage helps protect a business's reputation and trust. The Oil Stopper helps create clean air environments that protect people and companies.

The air is clean and safe!

1 Protects against health issues.

I have rashes all over my body.

I'm completely healthy.



Oil mist can affect any part of the body and cause headaches and inflammation of the eyes, nose, throat, and skin. Oil mist control helps protect employees and community residents against health issues.

2 Prevents occupational accidents.

The floor is sticky and dangerous.

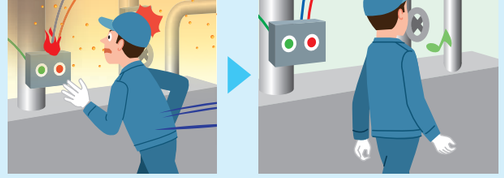
This workspace is clean and comfortable.

Prevents employees from slipping and falling on oily floors.

3 Ensures safety.

A sudden fire breaks out.

It's safe because the air is clean.

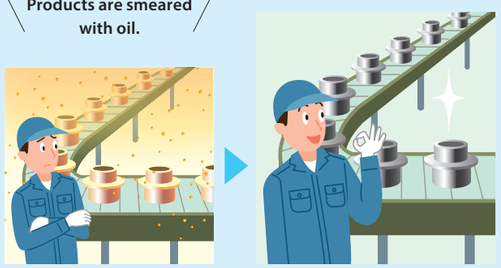


Prevents electrical insulation failure in wire ducts and contamination of air conditioning ducts due to oil mist to minimize risk of fire or spreading fire.

4 Ensures product quality.

Products are smeared with oil.

Products are clean.



Oil mist control prevents oil smears on products and equipment in a factory to help ensure product quality.

5 Maintains productivity.

It's dim—things are hard to see.

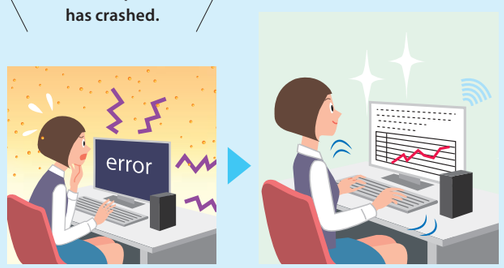
The bright light makes work easier.

Oil mist control keeps fluorescent lamps from being covered with oil and prevents lighting issues and declining productivity.

6 Protects equipment.

The computer has crashed.

The computer is working perfectly.



Prevents entry of oil mist into machines and control panels to reduce risk of insulation failure or problems with electronics.

7 Protects community residents.

I can't hang out the laundry because of the smell of oil.

Keeps the laundry free of oil odors and stains.

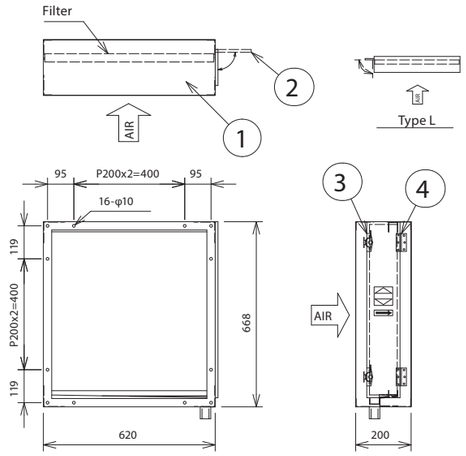
Prevents contamination of exhaust ducts and oil mist escaping to protect community residents from problems associated with oil smells and stains.

TEG casing

Quickly drains trapped oil mist.

Casing

Side-removal oil mist filter casing with gutter for oil drainage.



Casing inner structure

Patent pending

- Boosts oil drainage ratio.
- Makes maintenance easier.

In addition to the sloped rail, the casing has a gutter for quickly draining oil trapped in the filter. The larger door facilitates filter maintenance.

No.	Description	Material (type)	Remarks
①	Casing	Bonderized steel	t = 1.6
②	Access door	Bonderized steel	t = 1.6
③	Crescent lock	SUS304	
④	Hinge	SUS304	

Filter specifications

Product no.	Dimensions	Quantity	Air velocity
CNPF-5025	610WX610HX10T	1	29 m³/min (1.5 m/sec)
CNPP-5025	610WX610HX50T	1	58 m³/min (3.0 m/sec)

Casing specifications

CNP filter	Weight (including filter)
CNPF-5025	17 kg
CNPP-5025	21 kg

(1) Access door location
R (on the right) or L (on the left)
(Note: The above diagram shows Type R.)
(2) Paint color (Standard: Munsell N-7)

Model no. of TEG casing and information required for inquiries

<Model No. coding>

TEG - 10 10 (R,G,S)

- Non-standard specifications*
- A differential pressure gauge (GAUGE) is provided.
- Location of access door (R: on the right and L: on the left when viewed from inflow direction)
- Number of casings stacked vertically (10=1 row of one casing)
- Number of casings placed horizontally (10=1 column of one casing)
- Type of casing

* Non-standard specifications: Custom casings for various filter sizes available

Air flow rate and weight table of TEG casing

Model	Width		10	15	20	25	30
Height	Dimensions (mm) Total height	Total width	620	928	1233	1541	1846
		Column / Row	1	1.5	2	2.5	3
10	668	1	29 (58) / 17 (21)	42 (85) / 23 (29)	58 (116) / 28 (35)	72 (144) / 34 (44)	87 (174) / 39 (51)
15	991	1.5	42 (85) / 24 (29)	62 (125) / 32 (41)	84 (170) / 39 (51)	105 (211) / 53 (68)	128 (257) / 62 (80)
20	1296	2	58 (116) / 28 (35)	84 (170) / 36 (48)	116 (232) / 43 (58)	144 (288) / 58 (77)	174 (348) / 67 (90)
25	1619	2.5	72 (144) / 34 (44)	105 (211) / 43 (55)	144 (288) / 54 (73)	177 (355) / 64 (86)	216 (432) / 74 (103)
30	1924	3	87 (174) / 37 (49)	126 (255) / 49 (67)	174 (348) / 58 (81)	216 (432) / 70 (99)	261 (522) / 80 (114)

Top left figures: Rated air flow rate (m³/min) when CNPF5025 (T = 10) is attached
Figures in ( ) represent the rated air flow rate (m³/min) when CNPP-5025 (T = 50) is attached.
Bottom right figures: Weight (kg) including the CNPF-5025 (T = 10) and casing
Figures in ( ) represent the weight (kg) including the CNPP-5025 (T = 50) and casing
*The maximum number of casings in a set is three rows by three columns.

Oil mist filter

Captures airborne oil mist.

*For more information, see the brochure for the CNP filter.

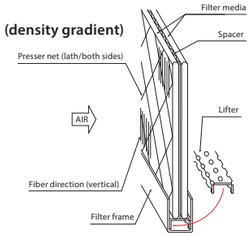
CNPF

High trapping efficiency flat type

Features

- Ultra-thin filter with frame thickness of 10 mm
- Space-saving; easy to install and remove

Structure (density gradient)



Specifications

Product no.	Air velocity (m/sec)	Initial pressure drop (Pa)	Mass-based total collection efficiency (%) (0.3 to 5.0 µm)*1	Arrestance by gravimetric method (%) *2	Standard size (mm)	Weight (kg)
CNPF-0025	1.0	37	45	85	500×500×10 (610×610×10)	1.6 (2.1)
CNPF-5025	1.0	60	55	87	**500×500×10 (610×610×10)**	1.9 (2.6)
CNPF-5010	1.0	90	65	90	**500×500×10 (610×610×10)**	1.9 (2.6)

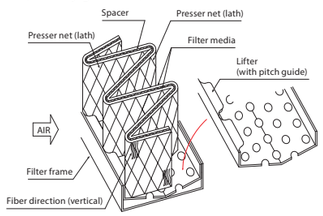
CNPP

Pleated high collection efficiency type

Features

- Pleating achieves lower pressure drop and longer life.
- Incorporates lifter with pitch guide.

Structure (density gradient)



Specifications

Product no.	Air velocity (m/sec)	Initial pressure drop (Pa)	Mass-based total collection efficiency (%) (0.3 to 5.0 µm)*1	Arrestance by gravimetric method (%) *2	Standard size (mm)	Weight (kg)
CNPP-0025	1.5	43	50	86	500×500×25 (610×610×25)	2.6 (3.4)
	2.5	44	55	87	**500×500×50 (610×610×50)**	3.7 (4.9)
CNPP-5025	1.5	70	55	88	**500×500×25 (610×610×25)**	3.3 (4.4)
	2.5	78	60	89	**500×500×50 (610×610×50)**	4.6 (6.4)
CNPP-5010	1.5	98	65	92	**500×500×25 (610×610×25)**	3.3 (4.4)
	2.5	117	70	94	**500×500×50 (610×610×50)**	4.6 (6.4)

Stainless steel demister

Lower pressure drop flat type

The CNP filter traps fine particles with high efficiency, quickly saturating the filter media and reducing oil retention. Consider using a stainless steel demister based on particle size, concentration, kinetic viscosity, and variables for the oil mist at your workplace.

Product no.	Air velocity (m/sec)	Initial pressure drop (Pa)	Mass-based total collection efficiency (%) (0.3 to 5.0 µm)*1	Arrestance by gravimetric method (%) *2	Standard size (mm)	Weight (kg)
Stainless steel demister 6-layer (with waves)	1.5	5	1	15	500×500×25 (610×610×25)	2.2 (3.0)
Stainless steel demister 20-layer (without waves)	1.0	15	6 layers	52	**500×500×25 (610×610×25)**	2.5 (3.6)

*1 Calculated from the sum of the mass per unit volume for each particle size on the filter's upstream and downstream sides
*2 JISB9908-2001