

HCY-LG Cabin Mist Collector

new edition

Filtration efficiency can be up to 99.9%

Creative module design & longer filter life, minimize maintenance cost.



Clean
Solutions

Green Your Factory

BODHI Eelectronic Equipment Co., Ltd.

BODHI COLLECTOR
www.bodhicollector.com

Company Introduction

Wuxi BODHI Electronic Equipment Co., Ltd was founded in 2003, Its head-quarter is located in the beautiful city Wuxi, China and has a R&D facility in Detroit, USA, is a specializes in researching, developing, producing and selling air filtration equipment of high-tech enterprise. Our company has been taken orders of innovative technology, guaranteed quality since its foundation, insisting on the principle of pursuing subsistence on quality and creating credit on service. We provide a power technical support and advanced & reliable equipments for customers. BODHI's product research and engineering design ability has been reached to the international advanced level, and has perfect independent technical theory system and a number of independent intellectual property rights. We have been received high praise from home and aboard customers with reliable quality and excellent service.

"Professional, so excellence". Our company has been dedicated in studying the core technology of collecting and purifying oil mist, welding fume and dust for many years. BODHI has developed more than 20 series and 200 different models of products. Our technology contains cartridge purification, centrifugal purification, electrostatic purification, electromagnetism purification, cyclone purification and so on. We also offer a wide breadth of filters to fit different user needs.

What's more, we are constantly developing filter technologies. Such as HEPA filter, drawer-style filter, labyrinth filter/separation plate and other patented technologies. Compared to other similar products, BODHI's products have higher filter efficiency and loner service life with various filter materials.

Typical Applications



CNC Machining

In the process of CNC machining, it will use a lot of metal cutting fluid, and therefore it will form a large number of oil mist particles in the air, which has a great harm to human health.

SAIC Motor Corporation Limited

Faw-Volkswagen

Baic Motor Corporation Ltd

GAC Group.

China FAW Group Corporation

China Changan Automobile Group

China National Heavy Duty Truck Group

Great Wall Motor Company Limited

Geely

DF Motor Corporation



Heat treatment

Because of rapid changes in temperature, it will produce a large amount of smoke, toxic and harmful gases.

China Spring Co. Ltd

Shanghai Heating Machine-electrial Equipment

Yuci Hydraulics Co. Ltd

Wuhu Zhongrui Spring Co. Ltd

Luoyang Shining Induction Heating Co. Ltd

HYDAC Hydraulic Technology (Shanghai) Limited

Parker Hannifin Corp

Proud Synchronous Technology (Wuxi) Co., Ltd.

Tianjin Zhongxing Automotive Components Limited

Super Meeting KMC Transmission (Suzhou) Limited

Changchun Aodong Mu Pm Limited

Tianjin Bo Xin Auto Parts Limited



Gearing

Gear machining process can produce a large amount of polluted air immediately. This kind of pollution belongs to heavy oil mist issues.

Nanjing No.2 Machine Tool Works

Shuanghuan Company

AISIN Gear

Qijing Gear Transmission Co. Ltd

Ningjiang Machines

Gleason Sales China

Qinchuan Machine Tool Group Co. Ltd

QIQIHAR Heavy CNC Equipment Corp. Ltd

Zhejiang Zomax Auto Transmission Co. Ltd

Tianjin No.1 Machine Tool Works

Dalian Innovation Parts Manufacturing Corp.

Hunan Hicam Precision Industry Co. Ltd



HCY-LG1 Econmical Filtration Equipment Cabin Mist Collector

HCY-LG1 Series

BODHI HCY-LG1 oil mist collector is particularly designed for large CNC machines. It adopts cabinet type design with independent switch and working lamp. We have two collection mode--one to one type and one to more type. HCY-LG1 filter material is very suitable for incerpating emulsion particles.

- Powerful suction, low noise, No virbration.
- Filtration efficiency can be up to 99%.
- High quality alloy steel, along with surface anti-rust treatment.

Optional Colour



HCY-LG3 General Filtration Equipment Cabin Mist Collector

HCY-LG3 Series

BODHI HCY-LG3 oil mist collector is the equipment that suits for different kinds of machines. Multiple filtering layers with high efficiency.

Creative cabin design, saving space. Meet customer's individual demands

- Widely used, apply for different industries
- Adopt multiple filtering technologies.
- Multiple modules, meet customer's individual demands

Optional Colour



Adopt exculsive design, extend to longer filter life.



Multiple filter layers, filtering efficiency can be up to 99.9%



Easy operation, less maintenance cost

NEW



HCY-LGM Emulsion collection Cabin Mist Collector

HCY-LGM Series

HCY-LGM series is that BODHI newly developed for collecting emulsion particles. We offer 99.9% efficient on 0.1um or larger particles. It is easy to install, can be modified and flexible expanded with optional accessories.

- Specializes in collecting emulsion.
- Filtration efficiency can be up to 99.9%.
- Easy installation(plug & play).

Optional Colour



NEW



HCY-LGO Oil and smoke Collection Cabin Mist collector

HCY-LGO Series

The modular concept of HCY-LGO series further more provides for smooth, cost efficient production conversions or extensions during ongoing operation. By freely combining different basic modules, which can extend to longer filter life. The HCY-LGO series is practically maintenance-free easy filter changing.

- Advanced filter design
- Flexible module design
- Easy maintenance and filter change

Optional Colour



Long warranty period, perfect after-sale service.



24 hours online consulting.



Professional operation staff is onsite installation.



Selection Guide

Although cabinet oil mist collectors is not as much as single oil mist collectors. There are many causes of oil mist being produced. If you have any inquires about what model to choose, please follow the three steps, then you will find the suitable filter.

1 First Step: Choose the way of purification

Cabinet oil mist collector is applying for pure oil condition. Because of high construction cost, cabinet oil mist collector models generally used in the machine when single centrifugal models cannot handle heavy oil mist issues. What's more, electrostatic models are relatively save electricity. So if you have the requirement for energy saving, you can also choose electrostatic oil mist collectors.

2 Second Step: Required Airflow

According to the size of pollutants concentration, we can select single or central mode. For fully enclosed machine and the processing chamber is less than 10m³. We can refer to the following formula to calculate the airflow.

$$Q=a*V(m^3/h)$$

Q- Required airflow

V- Processing chamber volume (m³)

a-air changes per hour

3 Third Step: Choose accessories

Cabinet oil mist collectors have many other accessories (except host machine). The optional accessories include patented primary filter, decompression chamber, post HEPA filter, activated carbon filter. There are also some upgrade accessories, such as pressure gauge, remote control and so on.



MES Touch Screen System

Intelligence touch screen system. The screen can display status information , such as airflow, humidity, pressure and so on.



Air Velocity Transducer

Monitor air speed of main pipeline.It has 4-20mA or 0-5V singal output to PLC, and triggers alarm when it comes to low airflow.



Differential Pressures Gauge

It detects the usage and life of filter through pressure value. The differential pressure can be either mechancial or electronical.



Temperature and Humidity Sensor

Real-time monitor of humidity and temperature. Alarm for abnormal temperature and humidity.



Variable Frequency Drive System

VFD system can greatly save energy by controlling motor speed.



Automatic Valve

Receive signals from CNC machine if it is operating and open/close valve accordingly.The Automatic valve needs to be used together with PLC system and VFD system.



Spark Detector

Spark detector is installed in pipeline. If spark is detected, signal will be sent to controller. Controller then sends back a signal, and will start the CO2 fire extinguishing system or water spraying system.



CO₂ Fire Extinguishing system

Fire extinguishing system sparys Co2 gas into pipeline to put out sparkles. The emitted Co2 will disappear after a short period of time and will not affect working environment.



Drainage Pump

When detecting a high liqid level, drainage pump will correspondingly take suction order. It can pump the collected oil back to machine tools or to a specified location. The pump will stop if liquid level drops lower than designed low postion.

HCY-LG1

Economical Mist Collector



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BODHI HCY-LG1 Series oil mist collector is designed for different kinds of oil mist issues, such as emulsion, heavy mist problems. Modular design to meet various individual demands.

Fan

Adopt imported energy saving fan. Built-in fan design can effectively isolate the noise, which provides a quieter working environment.

HEPA Filter (Optional)

Optional HEPA filter slot for HEPA panel, also available for activated carbon filter panel. Which can be used for removing the peculiar smell of the aerosol.

Easy Maintenance(with 3 simple steps)

Open the machine panel, remove dirty cartridge and put clean cartridge back. The progress can be finished in less than 5 minutes.

Filter Principle

High speed rotating impeller generated a vacuum negative pressure. Mist is inhaled into the machine through air inlet. Large particles are filtered out. Then oil-mist go through second filter layer, 65% particles are filtered out. The rest polluted air will have impact with core filter and be filtered. Finally clean air will go back to factory for reuse.





■ Built-in Fan

Built-in fan design, effectively isolate the noise.

Safe, stable and reliable.

Adopt energy saving fan, effectively convert energy to airflow.

Compact design, exquisite appearance and easy maintenance

■ Core filter

The filter can fulfill self-cleaning by its centrifugal force. It has a high efficiency for capturing particles larger than 0.3um.



■ Primary filter

Multiple metal material, stable structure, small air resistance and high filter density. Large surface and high absorption efficiency, it can effectively filter out 95% of polluted particles.

■ Mixing smoke chamber

On one hand, it avoids the airflow has direct contact with filter cartridge. On the other hand, it balances the airflow, which avoids internal turbulence caused by uneven use of the filter surface .



Model		HCY-280LG1	HCY-320LG1	HCY-400LG1	HCY-500LG1
Output		380V/3P (220V/3P or 460V/3P Requested)			
Power Supply	KW	1.5	2.2	3	4
Max Airflow	m ³ /h	2800	3200	4000	5000
Suction port diameter	mm	150	200	200	200s
W	mm	600	700	800	900
L	mm	600	700	800	900
H	mm	1700	1700	1700	1700
Paint Colour	RAL	RAL 9002 (Modify on special request)			

HCY-LG3 General Mist Collector



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BODHI HCY - LG3 oil mist collector is designed for various working conditions, especially for working condition of oil mist mixed with dust. Multiple filter layers, which can greatly improve the efficiency of filtering.

Intergrated Fan

Direct mounted fan, centrifugal fan with standard motor exhaust side silencer. (According to the standard of the ISO 10816 - impeller passes static balance and dynamic balance test.)

HEPA Filter (optional)

Collects particles up to 0.3um, and the filtration efficiency can be up to 99.97%.

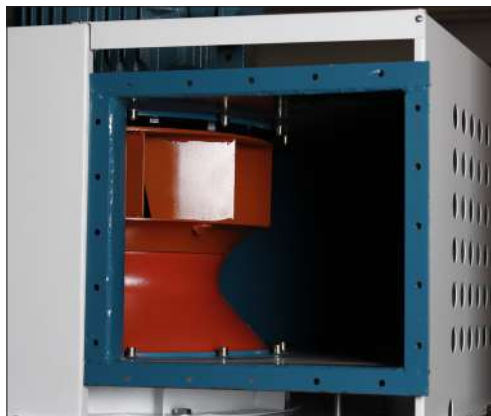
Filtering Principle

The HCY-LG3 series has 8 filter layers. From bottom to top: coarse metal wire filter, fine metal wire filter, media filter, glass fiber filter. After multiple filter layers, the clean air can be directly discharged into the air.

Mixing smoke chamber

On one hand, it avoids the airflow has direct contact with filter cartridge . On the other hand, it balances airflow, which avoids internal turbulence caused by uneven use of the filter surface.





■ Effective Imported Fan

Built-in fan design, which can isolate the noise.
Safe, stable and reliable.
Adopt energy saving fan, effectively convert energy to airflow.
Low speed fan, fan outlet is equipped with rubber to reduce vibration.



■ HEPA Efficient Filter

Adopt glass fiber fabric, H13 efficient clapboard type filter level.
Filtering efficiency is high; Double sided with metal retainer;
Firm structure; Large ventilation rate with low air resistance.



■ 8 fine Filter Layers

BODHI HCY-LG3 adopts 8 filter layers.
The 1-2 layers use G3 filter with mixed metal mesh surface, which can block off 95% of polluted particles.
The 3-4 layers use G4/5 filter. The filter is made of high quality alloy steel. It has characteristics of impact resistance, and is deformation worry free.
The 5-8 layers use high canopy cotton. After cleaning in cleaning fluid, it can be reused.

Model		HCY-600LG3	HCY-1200LG3	HCY-1800LG3	HCY-2400LG3
Output		380V/3P (220V/3P or 460V/3P Requested)			
Power supply	KW	5.5	11	15-18.5	30
	HP	7	15	20-25	40
Max Airflow	m ³ /h	6000	12000	18000	24000
	cfm	3530	7059	10588	14117
Suction port diameter	mm	350	500	650	700
	inch	13.8	19.7	25.6	27.5
W	mm	1010	1860	2710	3560
	inch	39.8	73.2	106.7	140.1
L	mm	1147	1147	1147	1147
	inch	45.2	45.2	45.2	45.2
H	mm	3423	3423	2400	2400
	inch	134.8	134.8	94.5	94.5
Paint Colour	RAL	RAL 9002 (Modify on special request)			

HCY-LGM Cabin Mist Collector



exclusive
extras

BODHI HCY - LGM large oil mist collector is designed for working condition of emulsion. The filtration efficiency is as high as 99.95%. Different material of filter layers can effectively collect droplets of emulsion. Modular design can meet customers' variable demands.

Fitering Principle

Under negative preesure of fan, the polluted air is inhaled into host machine. Firstly, oil mists contacts with butterfly filter, which filter out large oil mist particles. The rest particles will go through first S5 wire filters and glass fiber filters. Finally clean air will go back to factory again. After glass fiber filter, it can also add post HEPA filter. The machine is equipped with drainage pump. When detecting a high liquid level, drainage pump will correspondingly take suction order, it can pump the collected oil back to machine tools or a specified location. The pump will stop if liquid level drops lower than designed low position.

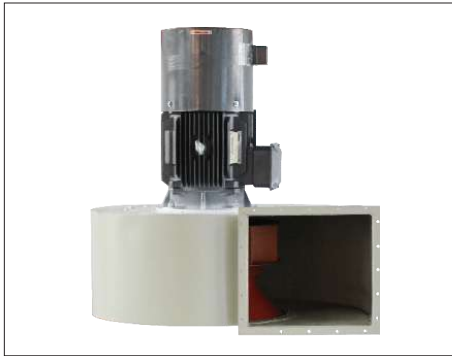
Easy maintenance

Unique pushrod design, makes the filter replacement very convenient(plug & play).

Drainage Tank

Collected emulsion dropts will be collected into the drainage tank under the effect of drainage pump.





■ Effective Imported Fan

Standard for fan performance

Impeller balance standard - ISO 1940-1:2003

Balance standard - ISO14694 &10816-3

Energy consumption, fan speed, pressure test:

Certification of motor and fan(ABS,DNV,CCS,Lloyds)

Noise test:

Certification of energy conservation and environmental protection



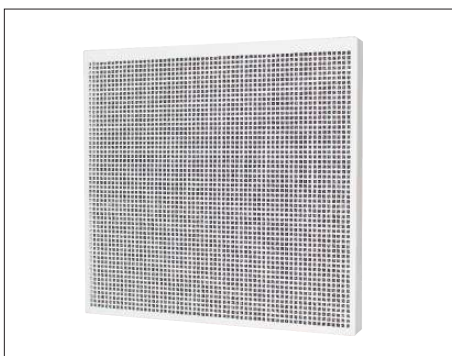
■ HEPA Filter

Labyrinth internal structure, makes the HEPA filter for capturing particles larger than $0.3\ \mu\text{m}$ (The filtration efficiency is from 99.97% to 99.99%). Meanwhile it is characterized by longer service life, strong anti-corrosion and low resistant.



■ Fine glass fiber Filter

Adopt fine glass fiber filter material, it has strong oil hydrophobic performance, non-sticky surface. Meanwhile , It can fulfill self-cleaning with its oil hydrophobic characteristic. This filter adopts F6 grade and has 90% filtration efficiency for capturing particles larger than $1\ \mu\text{m}$.



■ Metal wire filter

BODHI wire mesh filter adopts metal mesh surface, which can block off 95% of polluted particles.

The filter is made of high quality alloy frame. It has the characteristics of impact resistance and is deformation worry free. The filter has longer service life. It can be put into cleaning fluid, and this filter can be reused after cleaning.



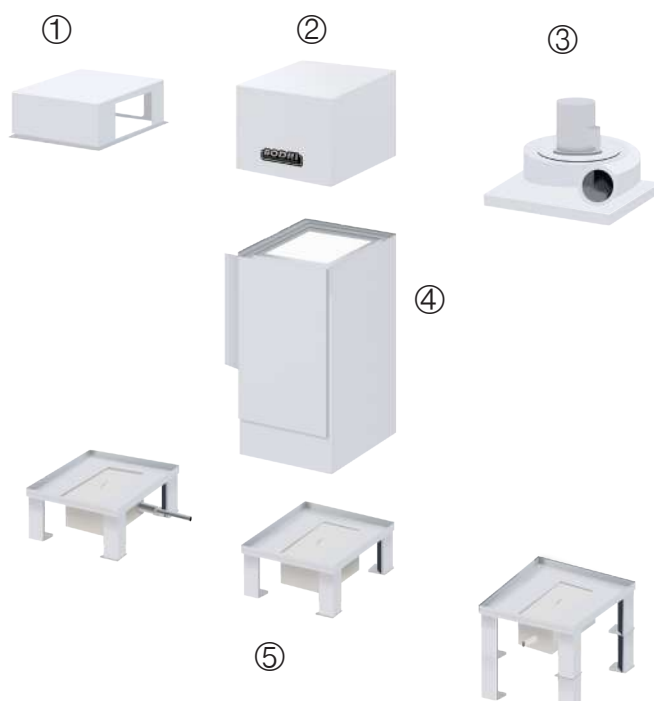
■ Butterfly pre-filter

This BODHI 's patented butterfly shape pre-filter has 90% pre-filtration efficiency. It is also self-cleaning and is well known for its free maintenance.

Patent No. : 201420376847.5



Basic Modules



Top Modules

- ① Outlet hood. Used for connecting to duct work and external fan.
- ② Intergrated fan with intergrated noise insulation.
- ③ Fan with optional silencer

Core Modules

- ④ HEPA Filter
- Glass Fiber Filter
- Metal Wire Filter
- Butterfly Pre-filter

Collection Module

- ⑤ Drainage tank for collected oil. Has 3 options: (1)with pump. (2)with oil tank. (3)with oil tank and drainage outlet.

Advantages of Module Design

By freely combining basic modules, BODHI designs efficient central extraction systems to meet customers' variable requirements. The modular concept of HCY-LGM/O series futhermore provides a complete, high performance and cost effective oil mist purification solution.



Repalce/Change filter

BODHI HCY-LGM adopts unique pushrod design, makes it very easy to replace filter, only one person can complete independently.Filter replacement time can be reduced to 15 seconds, brings great convenience for customers.



1.Ready to parpare a replaced filter



2.Put the filter cartridge into filter tank.



3.Put the pushrod down, fixed the filter.



Central HCY-LGM



Model		HCY-600LGM	HCY-1200LGM	HCY-1800LGM	HCY-2400LGM	HCY-3000LGM	HCY-3600LGM	HCY-4800LGM
Output		380V/3P (220V/3P or 460V/3P Requested)						
Power Supply	KW	5.5	11	15-18.5	30	37	55	75
	HP	7	15	20-25	40	50	73	100
Max Airflow	m ³ /h	6000	12000	18000	24000	30000	36000	48000
	cfm	3530	7059	10588	14117	17647	21176	28235
Primary filter		Butterfly type pre-filter						
Secondary filter		Metal wire filter						
Third filter		Glass fiber filter						
Efficiency filter		HEPA fiber glass						
Mist collection efficiency	%	99.9%						
Objects for collection		Suitable for emulsion oil conditions						
Maximum inlet concentration	mg/m ³	<20						
Power cord		4 cores						
Suction port diameter	mm	350	500	650	700	800	900	1000
	inch	13.8	19.7	25.6	27.5	31.5	35.4	39.4
Dimensions(W)	mm	1010	1860	2710	3560	4410	5260	6960
	inch	39.8	73.2	106.7	140.1	173.6	207.1	274
L	mm	1147	1147	1147	1147	1147	1147	1147
	inch	45.2	45.2	45.2	45.2	45.2	45.2	45.2
H	mm	3423	3423	2400	2400	2400	2400	2400
	inch	134.8	134.8	94.5	94.5	94.5	94.5	94.5
Paint color	RAL	RAL 9002 (Modify on special request)						

HCY-LGO Cabin Mist Collector



exclusive
extras

BODHI HCY-LGO oil mist collector is designed for heavy oil mist condition, especially for pure oil & smoke. Efficient modular design can add or remove modules according to variable requirements of customers.

Filter Principle

Firstly, polluted air will be inhaled into the machine by negative pressure of fan (at a design speed of 15-18m/s). Secondly oil mists contact with the pre-filter, and filter out larger oil particles. Then the rest particles are collected by S5 wire filters and glass fiber filters. Finally clean air can be discharged into the factory. The machine is equipped with the drainage pump. When detecting a high liquid level, drainage pump will correspondingly take suction order. It can pump the collected oil back to machine tools or a specified location. The pump will stop if liquid level drops lower than designed low position.

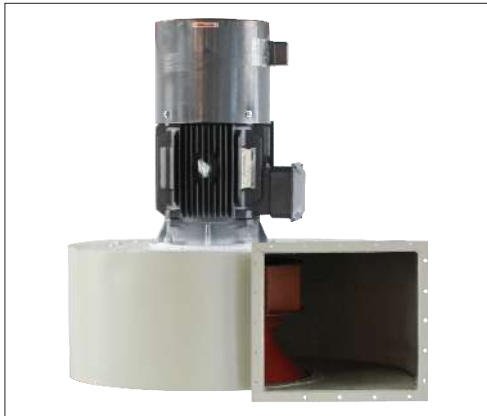
Drainage Tank

Collected oil droplets will be collected into drainage tank under the effect of drainage pump.

Mixing smoke chamber

On one hand, it avoids the airflow has direct contact with filter cartridge. On the other hand, it balances the airflow, which avoids internal turbulence caused by uneven use of the filter surface.





■ Effective Imported Fan

Standard for fan performance

Impeller balance standard -ISO 1940-1:2003

Balance standard -ISO14694&10816-3

Energy consumption, fan speed, pressure test:

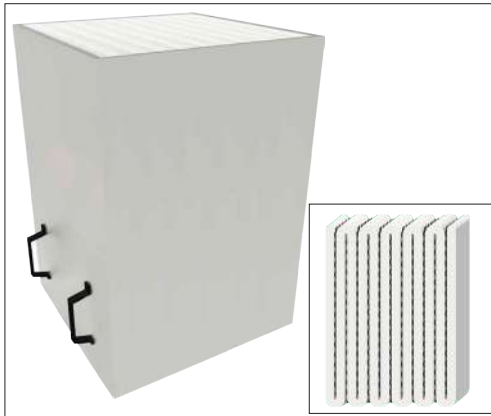
Certification of motor and fan(ABS,DNV,CCS,Lloyds)

Noise test:

Certification of energy conservation and environmental protection.

■ HEPA Filter

Labyrinth internal structure, makes the HEPA filter for capturing particles larger than 0.3um(The filtration efficiency is from 99.97% to 99.97%). Meanwhile it is characterized by longer service life, strong anti corrosion and low resistant .



■ Fine Glass Fiber Filter

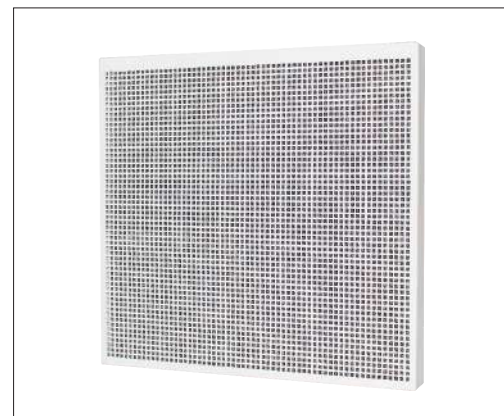
Fine glass fiber filter layer is BODHI HCY-LGO series's core filter part. It adopts U folding unique design, which greatly maximize filter area. Also, the filter has self cleaning function which extends longer filter life.

■ Labyrinth G3 Pre-filter

BODHI G3 pre-filter adopts metal mesh surface, which can block off 95% polluted particles;

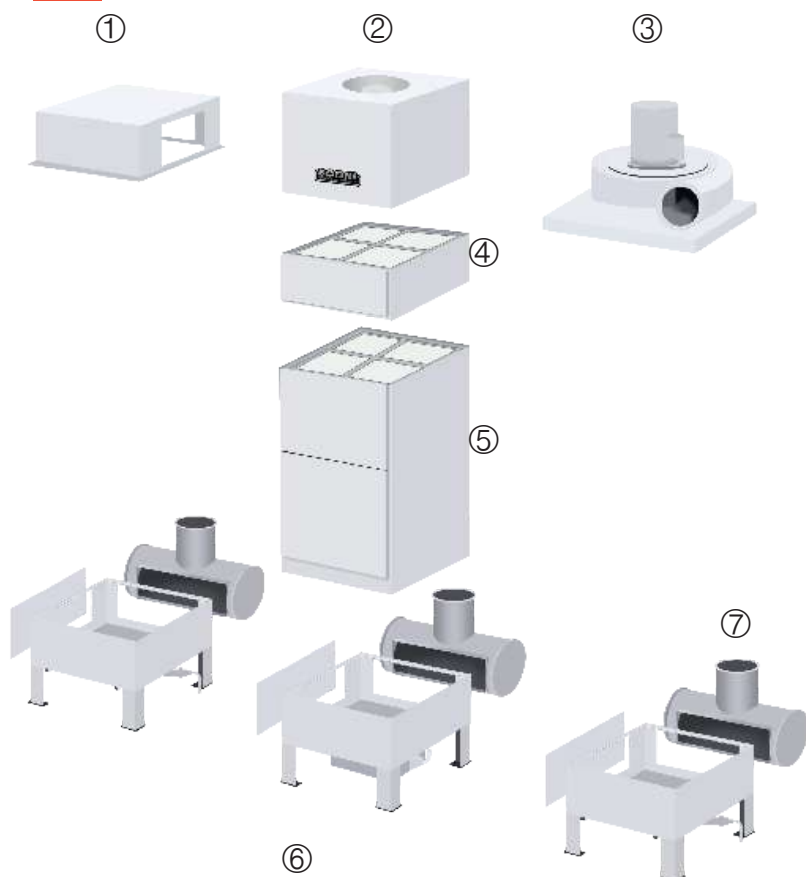
Filter is made of high quality alloy frame,it has characteristics of impact resistance and is deformation worry free;

The filter has longer service life. It can be put into the cleaning fluid, and the filter can be reused after cleaning.





Basic Modules



Top Modules

- ① Out hood. Used for connecting to duct work and external fan.
- ② High-grade fan with intergrated noise insulation
- ③ Fan with optional silencer

Core Modules

- ④ Optional HEPA filter for capturing larger 0.3um
- ⑤ Fine glass fiber filter & Labyrinth G3 pre-filter.
- ⑥ Drainage tank for collected oil. Has 3 options:
 - (1) with oil pump
 - (2) with oil tank
 - (3) with oil tank and drainage outlet
- ⑦ Air inlet

The Advantages of Module Design

By freely combining basic modules, BODHI designs efficient central extraction systems to meet customers' variable requirements.

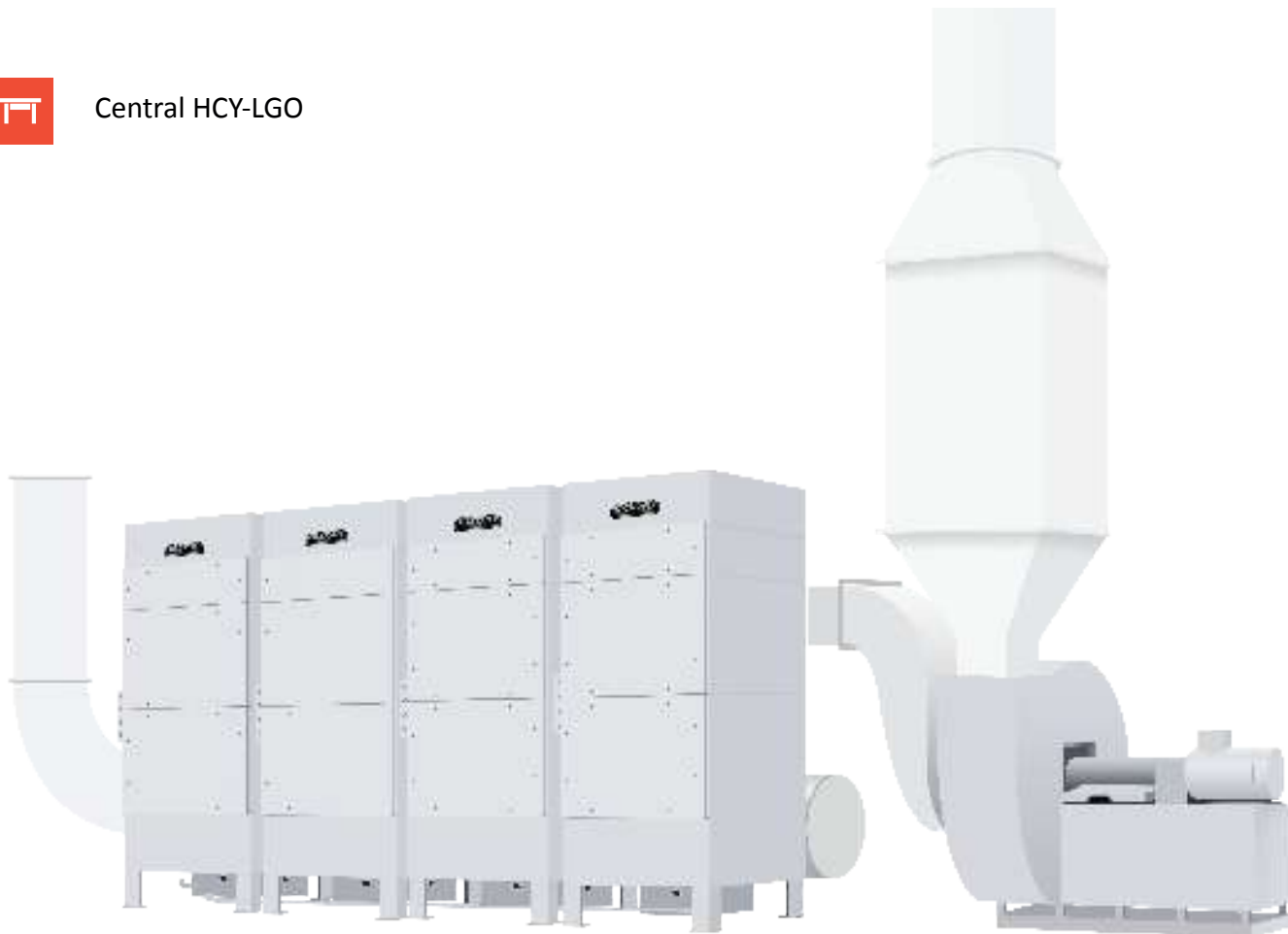
The modular concept of HCY-LGM/O series futhermore provides a complete, high performance and cost effective oil mist purification solution.



Replace/Change Filter

For filter replacement, BODHI HCY - LGO adopts innovative design for replacement. Only one person can complete filter replacement, which brings great convenience for customers. As the picture shows, operator presses both handles at the same time and removes the dirty filter, and then replaces with a new filter.





Model		HCY-600LGO	HCY-1200LGO	HCY-1800LGO	HCY-2400LGO	HCY-3000LGO	HCY-3600LGO	HCY-4800LGO
Output		380V/3P (220V/3P or 460V/3P Requested)						
Power Supply	KW	5.5	11	15-18.5	30	37	55	75
	HP	7	15	20-25	40	50	73	100
Max Airflow	m ³ /h	6000	12000	18000	24000	30000	36000	48000
	cfm	3530	7059	10588	14117	17647	21176	28235
Primary filter		S5						
Second filter		Fine Glass Fiber						
Third Filter		Fine Glass Fiber						
Efficiency Filter		HEPA Glass Fiber H14						
Filtration efficiency	%	99.9%						
Objects for collection		Suitable for pure oil&smoke						
Maximum inlet concentration	mg/m ³	<20						
Power cord		4 cores						
Suction port diameter	mm	350	500	650	700	800	900	1000
	inch	13.8	19.7	25.6	27.5	31.5	35.4	39.4
Dimensions(W)	mm	1180	2360	3540	4720	5900	7080	9440
	inch	46.5	92.9	139.3	185.8	232.2	278.7	371.6
L	mm	1230	1230	1230	1230	1230	1230	1230
	inch	48.5	48.5	48.5	48.5	48.5	48.5	48.5
H	mm	2930/3960	2930/3960	2930/3960	2930/3960	2930/3960	2930/3960	2930/3960
	inch	115.3/155.9	115.3/155.9	115.3/155.9	115.3/155.9	115.3/155.9	115.3/155.9	115.3/155.9
Paint Color	RAL	RAL 9002 (Modify on special request)						