

**FUME ELIMINATOR
OPERATING MANUAL
(DUCLEAN)**

Model : CHB Series

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Preamble

Thank you for purchasing CHB series, the automatic welding fume dust collector.

Before use, please read the directions for use to handle this product safely and properly.

After reading the directions please place this document where it's convenient to refer to it anytime.

- Please note that we are not responsible for any accident or breakdown caused by the followings.
 - 1 . Wrong operation
 - 2 . Handling diverted from specifications and inappropriate storage
 - 3 . Modification before use
 - 4 . Act of god or fire
 - 5 . Other unavoidable external causes

- Specification

This manual is about CHB series and if no specification is specified, it is deemed to apply to all in general.

- If you have any enquiries regarding the product and the manual, please contact our branch office.

- When a warning label was detached, contact our branch office to replace it with a new one.

- Please note in advance that the specification or items of outward form is subject to change for the purpose of its reform.

For the safe use

Before using the product, make sure to read and be aware of the following warning and caution with care.

Warning



Do not inhale the following substance

Explosive substance: those found as not inhalant as a result of measuring explosiveness level, such as dust of magnesium or magnesium alloy or cutting chip, etc.

Inflammable substance : Gasoline, Thinner, Benzene, kerosene, paints

Dust containing sparks : those arisen from high-speed cutter, Grind, welder

Fire source : cigarette butt, tobacco ashes and so on

Others : fluid such as water, oil, medicines

As for the explosive substances, measure its explosiveness level and confirm if it can be inhaled by a dust collector before use.

(About the measurement of explosiveness level, consult with us)



Do not use near where fume, mist or gas of inflammable, explosive, erosive substances residue

There's a risk of ignition or explosion



Do not operate when the wing bolt released

There's a risk of injury or burn in case of explosion



Do not dust off the filter when the wing bolt released

There's a risk of injury or burn in case of explosion



Do not look into or lean on a detonation blast Duct



Do not use with a voltage other than specified on the product.

There's a risk of fire or electric shock



Do not connect or detach a power cord with a wet hand

There's a risk of electric shock



Do not damage or break a power Cord.

There's a risk of fire or electric shock if a power cord is damaged when a heavy thing is placed on it or it is pulled or bent with force.

Warning



Do not modify this machine

There's a risk of fire and electric shock



Do connect Earth

In case of short-circuit, there's a risk of electric shock



Take necessary action as follows in case of fire or dust explosion inside

Promptly cut off power to the main machine

Use a fire extinguisher fit for a dust collector

Do not open the door until the internal temperature goes down to a normal temperature after extinguishment. Failure to do so may cause 2nd explosion

Caution



Use gloves when checking or replacing Filter and parts

There's a risk of injury



Do not operate with an inhalant hole closed

May cause ignition due to overheating



In case of abnormal sound, fuming, abnormal vibration, overheating or weird smell during operation, cut off power to the main machine right away



When a motor stops during operation, cut off power to the main machine right away

There's a risk of electric shock



At a time of inspection or maintenance/repair, cut off power to the main machine

There's a risk of electric shock






- Not every micro dust of the machine is an object of inhalation. Upon use, check and confirm safety of micro dust for inhalation with care
- Against possible dust explosion inside, prepare a fire extinguisher fit for the inhalant micro dust

■ Appearance



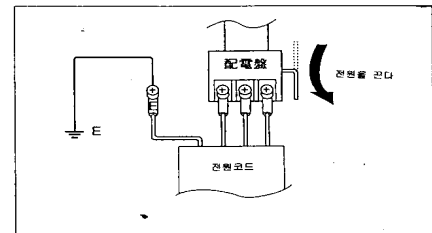
■ Before connecting sources of electricity

Connect a power cord to single phase or 3 phase sources of electricity in a following order

 Warning	
	Do not use any other voltage than specified on the product Not a multiple wiring Risk of fire or electric shock
	Do not connect or detach sources of electricity with a wet hand Risk of electric shock
	Do not damage or break a power Cord. There's a risk of fire or electric shock if a power cord is damaged when a heavy thing is placed on it or it is pulled or bent with force.
	Connecting Earth In case of short-circuit, there's a risk of electric shock

1. Check if the specification of power source recorded on the name plate of the machine is the same as that of power source to be connected

2. Cut off the power source of switchboard or breaker to prevent an electric shock



3. Firmly fix a terminal of earth cord(green) among 4 power Cords to the earth terminal of a switchboard using a screw

4. Firmly fix a terminal of the rest power cords(R,S,T) other than earth cord into a terminal of a switchboard using a screw

5. Check the above 1~4 again and input the sources of electricity to switchboard or breaker

■ Cautions before the operation

Warning



Do not inhale the following substance

Explosive substance: those found as not inhalant as a result of measuring explosiveness level, such as dust of magnesium or magnesium alloy or cutting chip, etc.

Inflammable substance : Gasoline, Thinner, Benzene, kerosene, paints

Dust containing sparks : those arisen from high-speed cutter, Grind, welder

Fire source : cigarette butt, tobacco ashes and so on

Others : fluid such as water, oil, medicines

As for the explosive substances, measure its explosiveness level and confirm if it can be inhaled by a dust collector before use.

(About the measurement of explosiveness level, consult with us)



Do not use near where fume, mist or gas of inflammable, explosive, erosive substances residue

There's a risk of ignition or explosion



Do not operate with a wing bolt released

There's a risk of injury or burn in case of explosion



Do not dust a filter with a wing bolt of a check door released

There's a risk of injury or burn in case of explosion



Do not look into or lean on a detonation blast Duct



Take necessary action as follows in case of fire or dust explosion inside

Promptly cut off power to the main machine

Use a fire extinguisher fit for a dust collector

Do not open the door until the internal temperature goes down to a normal temperature after extinguishment. Failure to do so may cause 2nd explosion

Caution



In case of abnormal sound, fuming, abnormal vibration, overheating or weird smell during operation, cut off power to the main machine right away



When a motor stops during operation, cut off power to the main machine right away

There's a risk of electric shock



At a time of inspection or maintenance/repair, cut off power to the main machine

There's a risk of electric shock

■ Characteristic

1. CHB series is portable type, and has a strong Turbo blower which can be inhaled fume and smoke. Fume and smoke sucked in can be filtered a flowing-in flame and thick particles through 1st Filter(Demist filter), and can be perfectly collected a minute fume and dust over 99,99% through Washable1st Filter(Demist filter)
2. Washable1st Filter(Demist filter) is economical, and 1st Filter(Demist filter) is easy to replacement.
3. 1st Filter(Demist filter) can be collected 99.99% of 0.3micro meter.
4. This type has a Flexible Arm Hood which can be approached for collecting dust and fume, and Flexible Arm has four angles, and can be available 360 degree revolution.
5. Available to move and use a small space by attaching Caster.

■ Checking

1. 1st Filter(Demist filter),

Open the upper door(in case of Hatch type), and Pull out 1st filter(Pre-filter), and then Clean a accumulated dust with Air Blow at the opposite side of inhalation direction.

In case the accumulated dust doesn't brush off, wash it with water by using the neutral detergent, and use after drying a filter.

2. Main filter(HEPA FILTER)

Open the upper door, and pull out the main filter toward the upper direction.

In case there are damages and accumulated dust of 50% over, replace the filter.

■ Cautions for use

- ① Install this dust collector indoors
- ② Supply the sources of electricity marked in the specification table
- ③ Use the 4-core cabtyre cord as a power cord and earth a green coated wire for earth conductor
- ④ In case the Fan rotating direction is the reverse when the power is supplied, link the two lines of three lines except the earth conductor line, and run it
- ⑤ Don't inhale of water or oil.

■ Check of Fan rotating direction

In case of changing the connection of power upon initial operation or movement, check the fan's rotating direction in the following order and use in a right rotating direction.

1. Press 'ON' on the surface of a panel board

Fan Motor and Fan starts rotating

2. Press 'OFF' on the surface of an electric field box

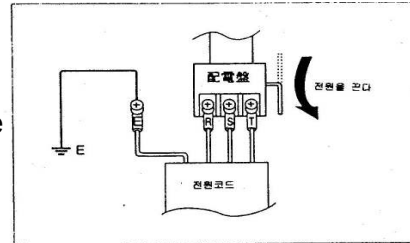
3. If Fan rotates slowly, check the rotating direction of a motor at the upper part of a main body.

If a Motor rotates in a direction of an arrow, it's okay

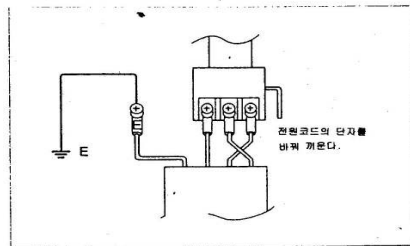
If it reverse-rotates, change the input line of 3-phase sources of electricity

■ Input method of 3-phase sources of electricity

1. Cut off power supplied to the machine to avoid any electric shock
2. Detach any 2 power cords except Earth cable from the terminal of switchboard



3. Connect detached 2 power cords after changing the terminal of a switchboard
Fix power cord firmly to a switchboard by a screw



4. Input sources of electricity to the machine
5. Check if the rotating direction is normal according to the above Fan rotating direction

■ Operation

Input power to the main machine and press "ON "

■ Stop

Press 'OFF'

ON-OFF possible at a long distance with a Remote Control

Install a long distance Switch separately (Check the terminal plate)

■ Discharge of dust

Discharge dust collected in Demist filter and HEPA filter by brushing off
Accumulated dust in Basket may cause fire or explosion

1. Press 'OFF' to stop operation
2. Discharge Dust after the machine has completely stopped
3. Release a wing bolt of the upper cover door and open the door
4. Bush off a dust attached in Demist filter and HEPA filter.
5. Install a filter
properly as per the reverse order of the above

■ Replacement of filter

Caution



Use gloves when checking or replacing Filter and parts

There's a risk of injury

Replace a Filter every 1~1.5 years. When a damage or breakdown is found at a time of inspection, replace it with a new one right away. Use the anti-electrostatic filter only. After replacement, check if neutralizing filter sends an electric current to the main body prior to use

※ Requirements

Replace a filter in consideration of the followings

Failure to do so may cause trouble, malfunction or breakdown of a product

- Do not operate without a filter
- Fix the Filter firmly using wing nuts
- Replace Filters all at the same time. A partial replacement may accelerate filter clogging

- 1) Open the upper door after release a ring .
(Please note to handle Duct hose attached the Flexible arm, there may be risk of accident by swing the Flexible arm when you open the upper door)
- 2) After opening a Hatch cover, pull up the Demist filter toward the upper direction. .
- 3) After separating a Demist filter, pull up the HEPA filter toward the upper direction
- 4) Check out the Demist filter and HEPA filter.
- 5) Replace the parts (filters) in case there are breakage.
- 6) When replacing a filter, check the condition of Packing② and change it too if necessary

■Regular check table

Check items	Check frequency				Method and description
	Everyday	1 week	1 month	1 year	
hood, connection duct/hose		○			<ol style="list-style-type: none"> 1. Check the installed condition. If it's not good, install it correctly 2. Check damage or transformation. If any, repair or replace it 3. Check any accumulated dust in dust/hose or hood. If any, adjust pipe to remove dust or prevent its accumulation
Filter		○			<ol style="list-style-type: none"> 1. Open the check door and check the installed condition. If it's not good, install it again correctly 2. Open the inspection door and check any damage or contamination. If the dust still doesn't fall off, replace the filter with a new one
Power cord			○		<ol style="list-style-type: none"> 1. Check if the power cord is old or damaged. If covering is damaged and reveals the inner cable, stop using it immediately and replace it with a new one
Dust leakage from ventilation port	○				<ol style="list-style-type: none"> 1. Check dust leakage from ventilation port. If any, check out the installation of a filter and replace it
Dust in filter	○				<ol style="list-style-type: none"> 1. Check the state of accumulation.
Motor				○	<ol style="list-style-type: none"> 1. Repair and maintenance are required every 2~3 years. contact near branch office or shop

■ Specification

TYPE		CHB - 200	CHB - 300	CHB - 500	
DIMENSION	LENGTH (A)	770mm	770mm	770mm	
	WIDTH (B)	670mm	670mm	670mm	
	HEIGHT	STANDARD (C)	750mm	790mm	826mm
		FILTER (D)	1050mm	1090mm	1126mm
FAN MOTOR	MOTOR(Kw)	1.5KW X 2P	2.2KW X 2P	3.7KW X 2P	
	POWER SOURCE	220V 1P AC, 220V/380V 3P 60Hz	220/380V 3P AC 60Hz, 440V(Optional), 50Hz		
FLEXIBLE ARM	LENGTH / QUANTITY	2m x 1 SET	3m x 1 SET	3m x 2 SET (For two people)	
	DIAMETER	Ø150mm			
FILTER	FILTRATION EFFICIENCY	99.74%			
	FILTRATION SIZE	19.3m ²			
	SHAPE	MEDIA TYPE CARTRIDGE			
TURBO FAN	VOLUME OF WIND(m ³ /min)	25m ³ /min	40m ³ /min	60m ³ /min	
	CONSTANT PRESSURE(mmAq)	230mmAq			
ROUGH WEIGHT (INCLUDING FILTER AND ARM)		ABOUT 70kg	ABOUT 74kg	ABOUT 83kg	

* Above specifications are based on 60HZ.

* Power cord (4-core cable cord) 3m-long

* This specification is subject to change without advance notice for the purpose of product development

■ Troubleshooting

In case of any abnormal conditions, cut off power first for safety and check out the product. If repair is required, contact the shop where the product was purchased or any near branch office

TROUBLE	Cause	Solution
Inhalation trouble	- Reverse rotating	-Refer to operation directions
	-Pipe trouble, clogged DUCT	-Check and repair pipes
Dust seen in exhaust port	-Damaged filter	-Replace a filter
	-Wrong mounting of filter	-Mount correctly at a right angle
	-Damaged Packing	-Replace Packing
	-Cell Plate defect	-Modify and reset
Abnormal sound or vibration	-Foreign substance attached to Blower impeller	-Clean impeller -Check out a filter
	-Abrasion and damage of Blower Motor axis	-Replace and mount
	-Tighten Blower mounting bolt	-Mount correctly
No reaction at Switch on	-Switch defect	-Repair and replace
	-Motor trouble	-Repair and replace
	-Disconnection of power cord	-Replace
	-Short-circuit of 2 nd electric pipe laying	-Check out the connecting lines
S/W tripping at a time of Switch on	- Foreign substance attached to Blower impeller	- Clean impeller
Abnormal stop	-Stop by overload	-Get rid of the cause

■ AFTER SERVICE and Warranty

■ Trouble during operation

Read the manual carefully and think of inspection. However, if the machine doesn't recover still, do not repair by oneself but request for repair from our branch office

■ Warranty

This product issues <warranty> upon request of a customer at a time of delivery

The warranty period is 1 year from the date of purchase, and there are cases where gratuitous repair may not apply even during the warranty period. (such as materials subject to wear and tear, customer's liabilities)

■ Holding period of parts

The minimum holding period of functional parts of dust collector for repair use is 6 years after discontinuance of manufacturing

Functional parts for repair use are parts required for maintaining the function and performance of a product

**In order to maintain performance and to use safely for a long term,
please use our authorized parts for replacement.**