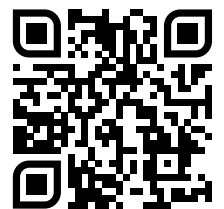


HAFCO METALMASTER



Edition : 2.0
Date: (10/25)

Instruction Manual

CYCLONE DUST COLLECTOR SB-C870

Order Code: (S310)

MACHINE DETAILS

MACHINE	Cyclone Dust Collector
MODEL NO.	SB-C870
SERIAL NO.	
DATE OF MANF.	

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www.machineryhouse.com.au

www.machineryhouse.co.nz

NOTE:

This manual is only for your reference. At the time of the compiling of this manual every effort to be exact with the instructions, specifications, drawings, and photographs of the machine was taken. Owing to the continuous improvement of the HAFCO METALMASTER machine, changes may be made at any time without obligation or notice. Please ensure the local voltage is the same as listed on the specification plate before operating any electric machine.

SAFETY SYMBOLS

The purpose of safety symbols is to attract your attention to possible hazardous conditions



WARNING

Indicates a potentially hazardous situation causing injury or death



CAUTION

Indicates an alert against unsafe practices.

Note:

Used to alert the user to useful information



NOTE:

In order to see the type and model of the machine, please see the specification plate. Usually found on the back of the machine. See example (Fig.1)

Fig.1

HAFCO METALMASTER	
PRODUCT SPECIFICATIONS	
Model: SB-C870	
Flow Rate: 870m ³ /h	Voltage: 240V/50Hz
Nett Weight: 47-50kg	Motor: 0.55kW
MFG Date:	FLC: 2.3A
Serial No:	<input type="text"/>
Imported by www.machineryhouse.com.au	Made in China www.machineryhouse.co.nz

C O N T E N T S:

1. GENERAL MACHINE INFORMATION

1.1 Specifications..... 4

1.2 Electrical Requirements 4

1.3 Identification..... 5

2. SAFETY

2.1 General Metalworking Machine Safety 6

2.2 Specific Safety For Drill/Mill 9

3. SETUP

3.1 Unpacking 10

3.2 Clean Up 10

3.3 Site Preparation..... 10

3.4 Lifting Instructions..... 10

3.5 Assembly..... 11

3.6 Blast Cabinet Dust Port Modification..... 12

4. MAINTENANCE & SERVICING

4.1 Schedule 13

4.2 Troubleshooting..... 14

Spare Parts..... 15

NOTICE

**READ AND UNDERSTAND THIS
MANUAL BEFORE OPERATING
THIS EQUIPMENT**



1.1 SPECIFICATION

Order Code	S310
MODEL	SB-C870
Fan Capacity (Cubic metres/hr)	870
Dust Collecting Capacity (kg / hr)	2.9
Type	Two Stage
Waste Tank Capacity (Ltr)	22
Min Load Capacity (Ltr)	12
Motor (hp / kW)	3/4 / 0.55
Voltage (V)	240
Amps (A)	10
Noise Level (dba @ 1mtr)	75
Shipping Size (L x W x H) (cm)	117 x 59 x 48
Net Weight (kg)	49.5
Gross Weight (kg)	52

1.2 ELECTRICAL REQUIREMENTS

Place the machine near an existing power source. Make sure all power cords are protected from traffic, material handling, moisture, chemicals, or other hazards. Make sure there is access to a means of disconnecting the power source. The electrical circuit must meet the requirements for 240V.

NOTE : The use of an extension cord is not recommended as it may decrease the life of electrical components on your machine.

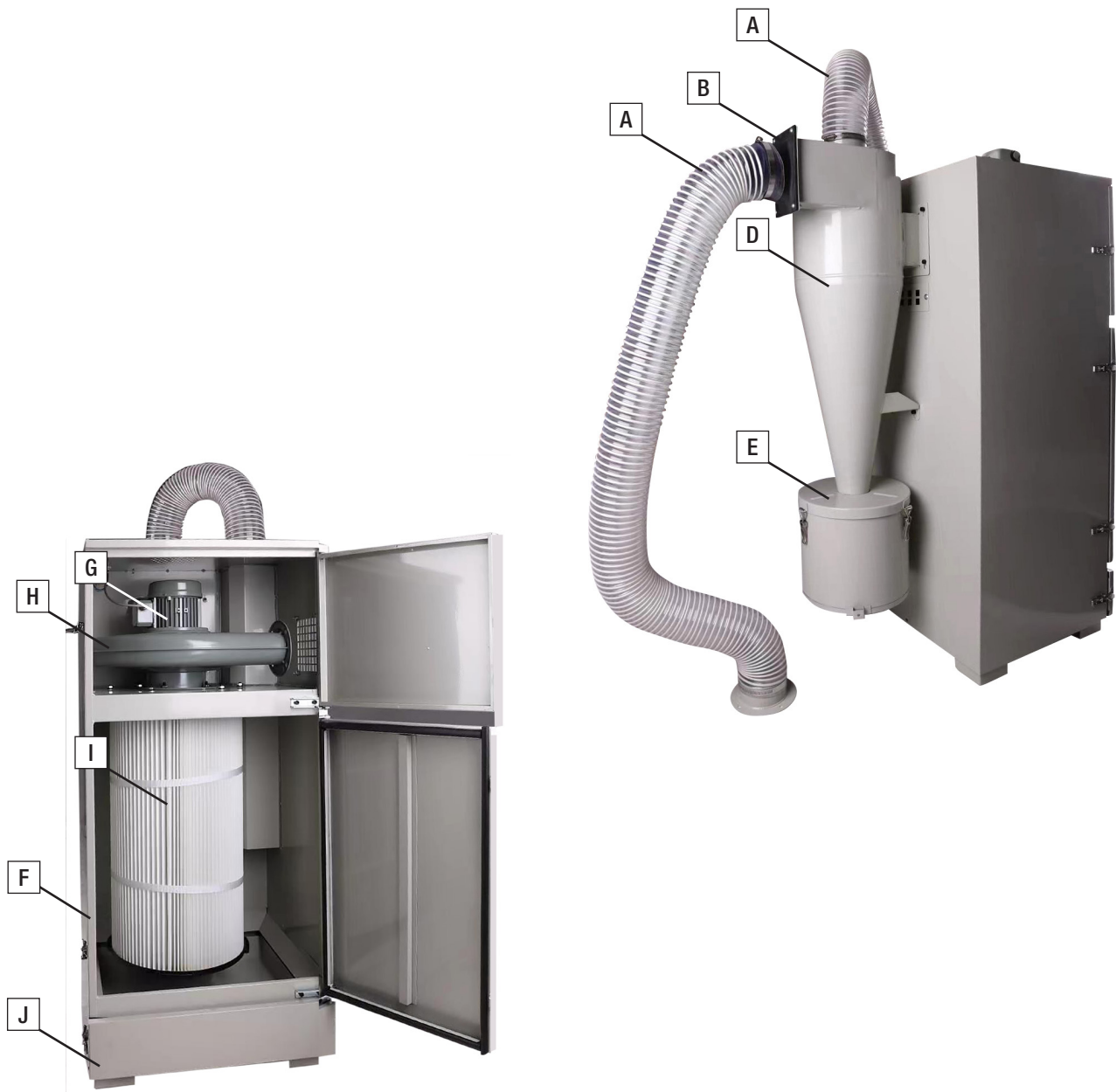
ELECTRICAL REQUIREMENTS

Nominal Voltage.....	240V
Cycle.....	50 Hz
Phase.....	Single Phase
Power Supply Circuit.....	10 Amps
Full Load Current.....	2.3 Amps

(Full load current rating is also on the specification plate on the motor.)

1.3 IDENTIFICATION

Become familiar with the names and locations of the controls and features shown below to better understand the instructions in this manual.



A	Long Inlet Hose	F	Cabinet
B	Hose Flange	G	Motor
C	Short Hose	H	Impeller
D	Cyclone	I	Filter
E	Dust Reclaimer	J	Dust Drawer

2.1 GENERAL SAFETY REQUIREMENTS

DO NOT use this machine unless you have read this manual or have been instructed in the use of this machine in its safe use and operation



WARNING

This manual provides safety instructions on the proper setup, operation, maintenance, and service of this machine. Save this manual, refer to it often, and use it to instruct other operators. Failure to read, understand and follow the instructions in this manual may result in fire or serious personal injury—including amputation, electrocution, or death.

The owner of this machine is solely responsible for its safe use. This responsibility includes, but is not limited to proper installation in a safe environment, personnel training and authorization to use, proper inspection and maintenance, manual availability and comprehension, of the application of the safety devices, integrity, and the use of personal protective equipment.

The manufacturer will not be held liable for injury or property damage from negligence, improper training, machine modifications or misuse.



Safety glasses must be worn at all times in work areas. Earmuffs should be worn if the work area is noisy.



Sturdy footwear must be worn at all times in work areas.



Gloves should NOT be worn when operating machinery. Should only be worn when handling the material



Long and loose hair must be contained with a net or under a hat

OWNER'S MANUAL. Read and understand this owner's manual before using the machine.

DISCONNECT POWER FIRST. If using power, always disconnect the machine from power supply before making adjustments, or servicing the machine. This prevents any risk of injury from unintended startup or contact with live electrical equipment

TRAINED OPERATORS ONLY. Operators that have not been trained have a higher risk of being seriously injured. Only allow trained or supervised people to use this machine. When the machine is not being used, disconnect the power, to the machine to prevent unauthorized use—especially around children. Make the workshop safe.

2.1 GENERAL SAFETY REQUIREMENTS Cont.

WEARING PROPER APPAREL Do not wear clothing, apparel or jewelry that can become entangled in moving parts. Always tie back or cover long hair. Wear non-slip footwear to avoid accidental slips, which could cause loss of operating control.

HEARING PROTECTION. Always wear hearing protection when operating or observing loud machinery. Extended exposure to this noise without hearing protection can cause permanent hearing loss.

REMOVE ADJUSTING TOOLS. Tools left on machinery can become dangerous projectiles upon startup. Never leave hex keys, wrenches, or any other tools on machine. Always verify removal before starting!

USE CORRECT TOOL FOR THE JOB. Only use this tool for its intended purpose. Do not force the machine or its attachments to do a job for which they were not designed. Never make unapproved modifications. Modifying the machine or using it differently than intended may result in malfunction or mechanical failure that can lead to personal injury or death!

AWKWARD POSITIONS. Keep proper footing and balance at all times when operating machine. Do not overreach! Avoid awkward hand positions that make operating control difficult. This could increase the risk of accidental injury

GUARDS & COVERS. Guards and covers reduce accidental contact with moving parts or flying debris. Make sure they are properly installed, undamaged, and working correctly.

DUST PROTECTION. Only use safety equipment that has been approved by an appropriate standards agency. Breathing protection must be approved for specific hazards in the work area.

FORCING MACHINERY. Do not force the machine. It will do the job safer and better at the rate for which it was designed.

NEVER STAND ON MACHINE. Serious injury may occur if the machine is tipped or if the cutting tool is unintentionally contacted

STABLE MACHINE. Unexpected movement during operation greatly increases risk of injury or loss of control. Before starting, verify machine is stable and if using a mobile base it is locked in position.

UNATTENDED OPERATION. To reduce the risk of accidental injury, turn the machine OFF and ensure all moving parts have completely stopped before walking away. Never leave the machine running while unattended.

MAINTAIN WITH CARE. Follow all maintenance instructions and lubrication schedules to keep the machine in good working condition. A machine that is improperly maintained could malfunction, leading to serious personal injury or death.

CHECK DAMAGED PARTS. Regularly inspect the machine for any condition that may affect the safe operation. Immediately repair or replace damaged or parts that are incorrectly fitted before operating.

CHILDREN & BYSTANDERS. Keep children and bystanders at a safe distance from the work area. Stop using machine if they become a distraction.

USE PROPER EXTENSION CORD. Make sure any extension cord being used is in good condition and the right amperage for the machine . Your extension cord must also contain a ground wire and plug pin. Always repair or replace extension cords if they become damaged.

2.1 GENERAL SAFETY REQUIREMENTS Cont.

HAZARDS ASSOCIATED WITH MACHINES include, but are not limited to:

- Being struck by ejected parts of the machinery
- Being struck by material ejected from the machinery
- Contact or entanglement with the machinery
- Contact or entanglement with any material in motion

Health Hazards (other than physical injury caused by moving parts)

- Chemicals hazards that can irritate, burn, or pass through the skin
- Airborne items that can be inhaled, such as oil mist, metal fumes, solvents, and dust
- Heat, noise, and vibration
- Ionizing or non-ionizing radiation (X-ray, lasers, etc.)
- Biological contamination and waste
- Soft tissue injuries (for example, to the hands, arms, shoulders, back, or neck) resulting from repetitive motion, awkward posture, extended lifting, and pressure grip)

Other Hazards

- Slips and falls from and around machinery during maintenance
- Unstable equipment that is not secured against falling over
- Safe access to/from machines (access, egress)
- Fire or explosion
- Pressure injection injuries from the release of fluids and gases under high pressure
- Electrical Hazards, such as electrocution from faulty or ungrounded electrical components
- Environment in which the machine is used (in a machine shop, or in a work site)



WARNING!

Machines are safeguarded to protect the operator from injury or death with the placement of guards. Machines must not be operated with the guards removed or damaged.



WARNING!

People with pacemakers should consult their physician(s) before use. Electromagnetic fields in close proximity to heart pacemaker could cause pacemaker interference or pacemaker failure.

2.2 SPECIFIC SAFETY FOR CYCLONE DUST COLLECTORS

DO NOT use this machine unless you have been instructed in its safe use and operation and have read and understood this manual



A mask must be worn when excessive airborne dust is created



Safety glasses must be worn at all times in work areas



Sturdy footwear must be worn at all times in work areas



Respirator must be worn when changing or cleaning the filter

MACHINE USE

If you are at any time experiencing difficulties performing any operation, stop using the machine! Then contact your local Service Centre, or ask an experienced operator how the operation should be performed.

This dust collector must not be used for abrasives containing crystalline silica. Silica containing abrasives have been linked to severe respiratory disease such as silicosis. Only use proper abrasives such as aluminum oxide, glass bead, or walnut shell.

Only use safety equipment that has been approved by an appropriate standards agency. Unapproved safety equipment may not provide adequate protection. Eye protection must be ANSI-approved and breathing protection must be approved for the specific hazards in the work area.

DO NOT use with any openings blocked. Keep openings clear of anything that may limit air flow or hinder motor operation.

DO NOT use the Reclaimer without its Filter in place. Before each use, make sure the Filter is not clogged

DO NOT operate the dust collector in areas where explosion risks would be high if dust were dispersed into the area. Areas of high risk include, but are not limited to, areas near pilot lights and/or open flames.

DO NOT use the Dust Reclaimer to pick up water (or any other liquid) from the floor or containers such as sinks, tubs, barrels, etc.

SERVICING & MAINTENANCE

Disconnect from the power supply and allow impeller to come to a complete stop before servicing or working on the dust collector ducting system. When emptying dust from the collection bags, wear a respirator and safety glasses. Empty dust into an approved container and dispose of correctly.

3 SETUP

3.1 UNPACKING

This machine was carefully packaged for safe transport. When unpacking, separate all enclosed items from packaging materials and inspect them for shipping damage. If items are damaged, please contact your distributor.

NOTE: Save all the packaging materials until you are completely satisfied with the machine and have resolved any issues with the distributor, or the shipping agent.

When unpacking, check the packing list to make sure that all parts shown are included. If any parts are missing or broken, please contact the your distributor.

3.2 CLEAN - UP

The unpainted surfaces of the machine have been coated with a waxy oil to protect them from corrosion during shipment. Remove the protective coating with a solvent cleaner or a citrus based degreaser.

Optimum performance from your machine will be achieved when you clean all moving parts or sliding contact surfaces that are coated with rust prevented products.

It is advised to avoid chlorine based solvents, such as acetone or brake parts cleaner, as they will damage painted surfaces and strip metal should they come in contact. Always follow the manufacturer's instructions when using any type of cleaning product.

3.3 SITE PREPARATION

When selecting the site for the machine, consider the largest size of workpiece that will be processed through the machine and provide enough space around the machine for operating the machine safely. Consideration should be given to the installation of auxiliary equipment. Leave enough space around the machine to open or remove doors/covers as required for the maintenance and service as described in this manual.

It is recommended that the machine is anchored to the floor to prevent tipping or shifting. It also reduces vibration that may occur during operation.

3.4 LIFTING INSTRUCTIONS



WARNING

This machine is extremely heavy.

Serious personal injury may occur if safe moving methods are not followed. To be safe, you will need assistance and power equipment when moving the shipping crate and removing the machine from the crate.



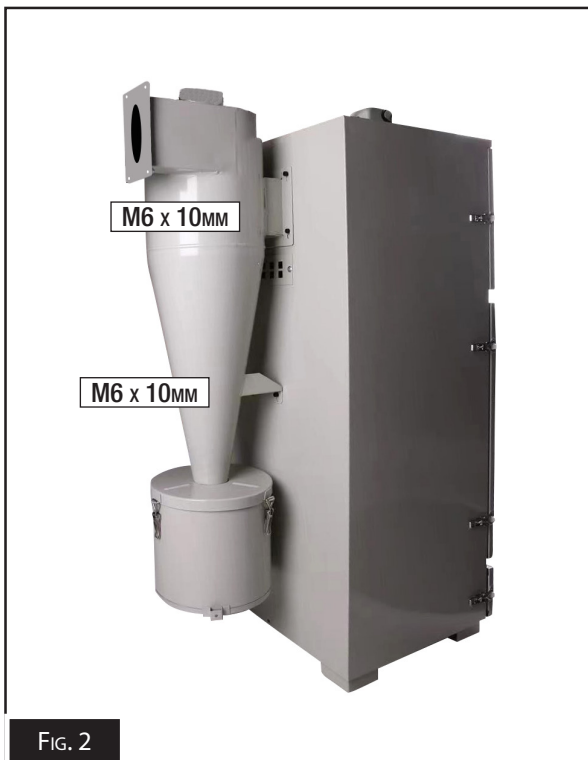
On the day that the machine arrives, make sure that a forklift or lifting device, with sufficient capacity is available to unload the machine from the vehicle. Ensure access to the chosen site is clear and that doors and ceilings are sufficiently high and wide enough to receive the machine.

3.5 ASSEMBLY

The machine must be fully assembled before it can be operated. First clean any parts that are coated in rust preventative to ensure the assembly process can proceed smoothly.

To Assemble The SB-C870 Dust Collector

1. Place the cabinet in an upright position, and attach the cyclone funnel using the 6 off M6 x 10mm Screws. (Fig. 2)



2. Connect the hose inlet flange to the cyclone funnel using the #5 gasket and four M6 x 16mm bolts and nuts. (Fig. 3)



3. Using the short flexible hose, connect the cyclone funnel to the cabinet with the large clamps. (Fig. 4)



4. Fix one ending of long flexible hose to the cyclone air inlet flange, and connect the other end of the hose to the sandblast cabinet exhaust vent. (Fig. 5)
5. Adjust all toggle locks to ensure that the doors are sealed and do not leak.



3.6 BLAST CABINET DUST PORT MODIFICATION

This modification is not essential and is only required if full utilization of the HAFCO METALMASTER SB-C870 is required. The modification consists of enlarging the exhaust dust port on the sand blast cabinet to the same size as the 100mm hose on the SB-C870.

To help with this process a pre-drilled round flat plate and a 100mm flange plate have been supplied. (Fig. 6)

1. Remove existing dust collector unit and clean the interior of the dust cabinet
2. Remove the interior deflection plate. (Fig. 6)

NOTE: The existing inlet hole, can be used as it is, but if a higher volume of air flow is required this hole will need to be enlarged to 100mm. There are multiple methods to enlarge the hole such as plasma cutters, grinders, nibbler or hole saws.

Enlarging With A Hole Saw,

3. Using the existing holes (Fig.7),

NOTE: If your Unit does not have existing holes you can use the sacrificial plate supplied as a template first to mark the 4 small holes on your sandblast cabinet, then drill the 4 holes in the sandblast cabinet then

bolt on to the blast cabinet the sacrificial plate supplied to aid in this process when using a 100mm hole saw. (Fig. 8)

4. With the hole-saw, drill through this sacrificial plate & though the cabinet wall to enlarge the hole ensuring to remove any sharp edges before mounting the 100mm hose flange. (Fig. 9)



Fig. 6

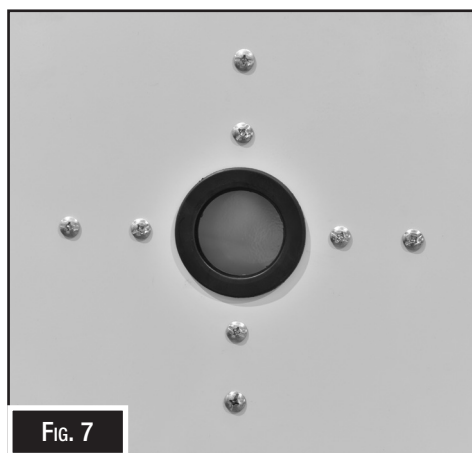



Fig. 7



WARNING!

When cleaning the cabinet or the filter, wear a respirator and safety goggles. Failure to comply can cause serious personal injury.

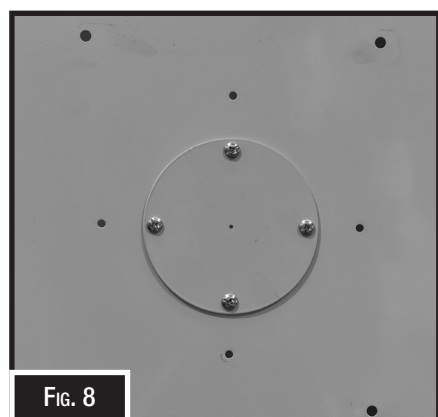


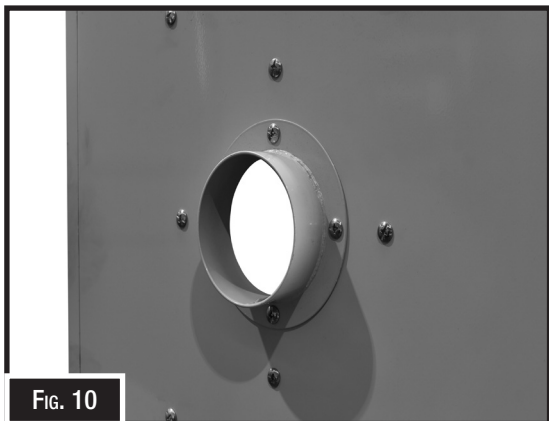
Fig. 8



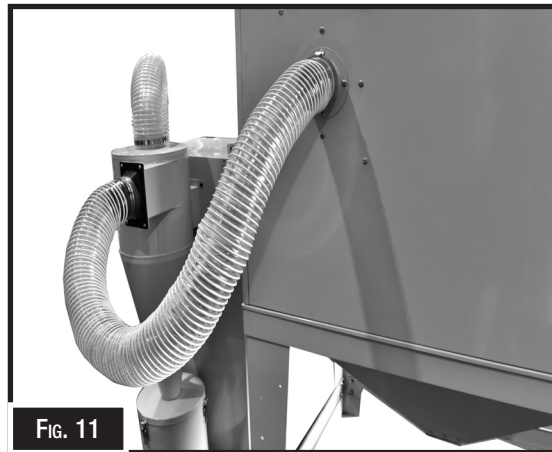
Fig. 9

3.6 BLAST CABINET DUST PORT MODIFICATION Cont.

5. Remove and discard the sacrificial plate and using the same holes, mount the 100mm flange with seal tape provided between the flange and the blast cabinet. (Fig. 10)



6. Attach the hose to the flange and secure with the metal clamp. (Fig. 11)



4. MAINTENANCE AND SERVICING

4.1 SCHEDULE

Dust Reclaimer Container

Empty after every 20 to 30 minutes of Blast Cabinet use (more often in more dusty conditions):

- a. Unplug the Power Cord from its electrical outlet.
- b. Release the Latch , and open the Dust Collector Cap at the bottom of the Dust Reclaimer. Then, allow the dust and debris to pour out into a proper waste container.
- c. Push in and out on the Pull Rod several times to help shake out any remaining dust and debris from the Dust Reclaimer.
- d. Close the Dust Collector Cap, and refasten the Latch.

Filter

Periodically, remove the Filter to keep the Dust Reclaimer working efficiently. Replace the Filter as needed:

- a. Unplug the Power Cord from its electrical outlet.
- b. Rotate the filter about 1/8th of a turn to release it from the top of the Dust Reclaimer. (Fig. 12)
- c. Remove the Filter, and clean with compressed air.
- d. Replace the Filter and Rotate 1/8th of a turn to secure it.

Replacing The Filter

- a. Unplug the Power Cord from its electrical outlet.
- b. Rotate the filter about 1/8th of a turn to release it from the top of the Dust Reclaimer.
- c. Remove the Filter, and replace with a new filter
- d. Place the new Filter and Rotate 1/8th of a turn to secure it. (Replacement Filter Order Code 9SC0024)



4. MAINTENANCE AND SERVICING

4.2 TROUBLESHOOTING

Review the troubleshooting and procedures in this section if a problem develops with your machine. If you need replacement parts then follow the procedure in beginning of the spare parts section or if additional help with a procedure is required, then contact you distributor.

Note: *Make sure you have the model of the machine, serial number, and manufacture date before calling.*

Symptoms	Possible Solution
Dust Reclaimer does not turn on.	<ol style="list-style-type: none"> 1. Make sure the Power Switch on is in its "ON" position. 2. Make sure the Power Cord Plug of the Dust Reclaimer is properly connected to a working, grounded, electrical outlet. 3. Have a qualified service technician check out the Dust Reclaimer and Blast Cabinet.
Poor visibility within the Blast Cabinet	<ol style="list-style-type: none"> 1. Check to make sure Dust Reclaimer is on. 2. Dust Reclaimer is full. Empty and clean out Dust Reclaimer. 3. Filter in Dust Reclaimer needs to be cleaned or replaced. 4. Check to make sure there is no clogging in the Wire Mesh Reinforced Hose. 5. Have a qualified service technician check out the Dust Reclaimer .
Machine lacks power	<ol style="list-style-type: none"> 1. Dust extractor canister filter is clogged and needs to be cleaned. 2. Motor is overheated and needs to be cooled 3. Dust extractor hole on the blast cabinet is too small. 4. Motor capacitor
Machine vibrates and is noisy	<ol style="list-style-type: none"> 1. Motor bearings are faulty and need to be replaced. 2. Fan impeller is rubbing on the housing and needs to b replaced or re-aligned. 3. Fan shaft bent and needs to checked with a dial indicator and changed if necessary. 4. Motor loose on the mounts and needs to be re-tightened.
Dust leaks from the machine.	<ol style="list-style-type: none"> 1. Hose clamp on the blast cabinet needs to be tightened. 2. Canister filter is not seating properly on the mounting



WARNING!

When cleaning the filter, wear a respirator and safety goggles. Failure to comply can cause serious personal respiratory injury.

CYCLONE DUST COLLECTOR

Model SB-C870

Order Code: (S310)

Edition : 2.0
Date: (10/25)

The following section covers the spare parts diagrams and lists that were current at the time this manual was originally printed. Due to continuous improvements of the machine, changes may be made at anytime without notification.

HOW TO ORDER SPARE PARTS

1. Have your machines model number, serial number & date of manufacture on hand, these can be found on the specification plate mounted on the machine.
2. A scanned copy of your parts list/diagram with required spare part/s identified.

NOTE: SOME PARTS MAY ONLY BE AVAILABLE AS AN ASSEMBLY

3. Go to www.machineryhouse.com.au/contactus and fill out the inquiry form attaching a copy of scanned parts list.



WARNING!

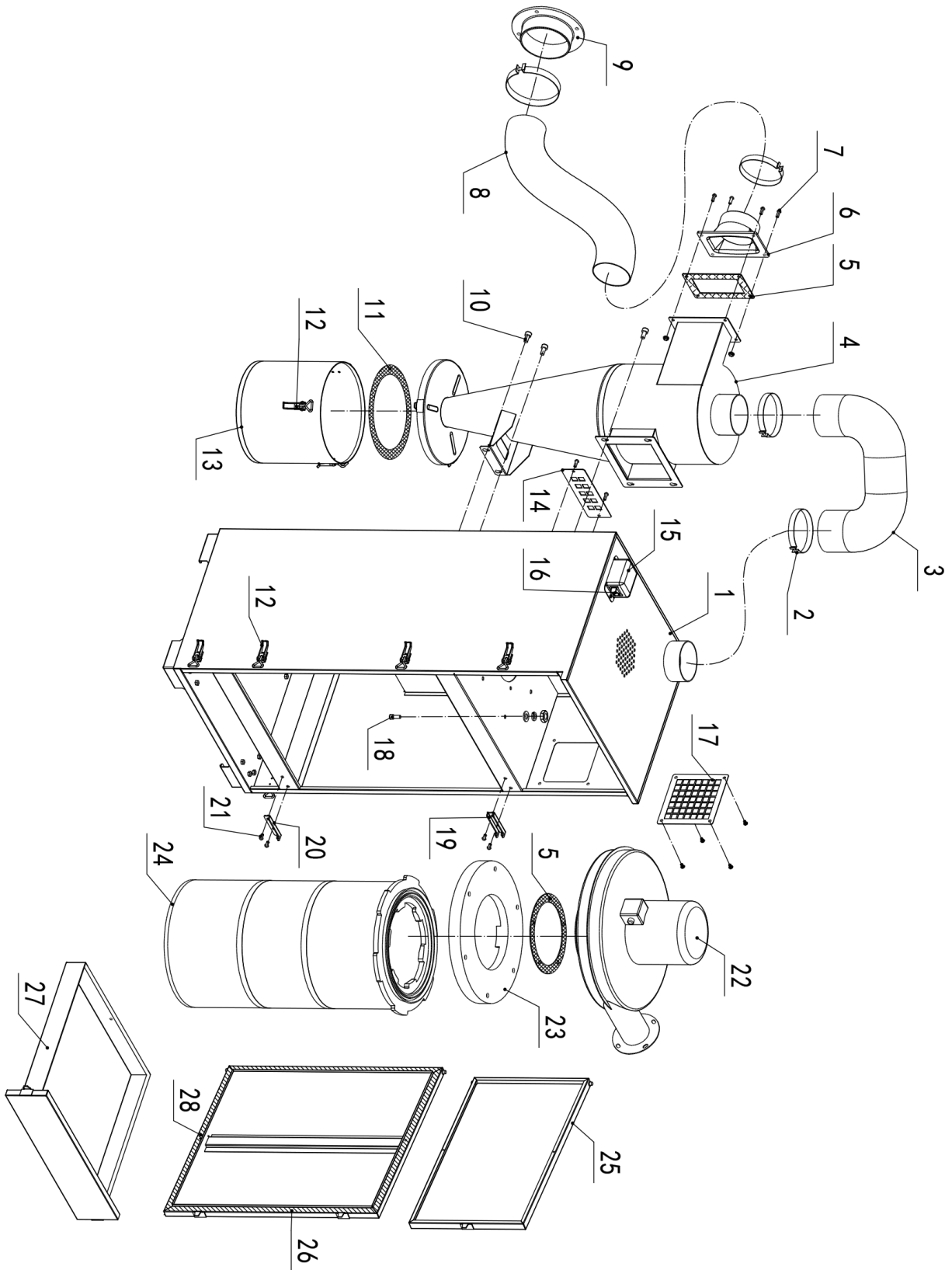
*Electricity is dangerous and could cause death.
All electrical work must be carried out by a qualified electrician.*



CAUTION!

It is impossible to cover all possible hazards Every workshop environment is different. These are designed as a guide to be used to compliment training and as a reminder to users prior to equipment use. Always consider safety first, as it applies to the individual working conditions.

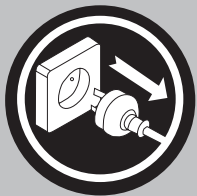
PARTS DIAGRAM



PARTS LIST

Item	DESCRIPTION	Qty	Item	DESCRIPTION	Qty
1	Cabinet Assembly	1	16	Switch	1
2	Clamp	4	17	Cover of the air outlet	1
3	Exhaust pipe Ø101x750mm	1	18	M8x20 hexagon socket head cap screw	11
4	Cyclone separator	1	19	Hinged support for the upper door	1
5	Sealing cotton 3MM	1	20	Hinged support for the lower door	1
6	Air vent seat	1	21	M6x12 hexagon socket head cap screw	4
7	M6X16 round head screw	4	22	Motor	1
8	Exhaust pipe Ø101x1500mm	1	23	Fixture for filter	1
9	Flange	1	24	Filter	1
10	M6x10 hexagon socket head cap screw	6	25	Upper Door	1
11	Sealing cotton 6MM	1	26	Lower Door	1
12	Latch	8	27	Drawer Assembly	1
13	Container for dust	1	28	Rubber Sealing Strip	1
14	Back Cover	1			
15	Switch Box	1			

NOTE: SOME INDIVIDUAL PARTS MAY ONLY BE AVAILABLE AS AN ASSEMBLY



WARNING!

Always disconnect the power to the machine before servicing or doing maintenance to the machine.



WARNING!

The machine is the sole responsibility of the owner for its safe use. This responsibility includes but is not limited to proper installation in a safe environment, personnel training, proper inspection and maintenance, manual availability and comprehension. The manufacturer will not be held liable for injury or property damage from negligence, improper training, machine modifications or misuse.



ENVIRONMENT PROTECTION

Recycle unwanted materials instead of disposing of them as waste. All tools, accessories and packaging should be sorted, taken to a recycling centre and disposed of in a manner which is compatible with the environment. When the product becomes completely unserviceable and requires disposal, drain any fluids (if applicable) into approved containers and dispose of the product and fluids according to local regulations.

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