NQCB/NCB Systems

Manual P/N 768 636 E
– English –

Keep for Future Reference

NORDSON Deutschland GmbH

CE

Order number
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Declaration of Conformity 2006/42/EC

Product Name	NQCB/NCB Systems
Model Number(s)	All
Product Options	All

to which this declaration relates, is in conformity with the following standards and other normative documents

Safety	BS EN 60204-1:2006 "Safety of Machinery - Electrical equipment of machines" EN 60335:Part 1:2002 "Safety of household and similar electrical appliances" BS EN ISO 12100-1, 12100-2 "Safety of machinery - Basic concepts, general principles for design"

following the provisions of 2006/42/EC Directive

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Date: 11th January 2013

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Congratulations on the Purchase of Your Nordson Product

Nordson equipment is engineered and manufactured in accordance with strict specifications, using high quality components and state-of-the-art technologies that assure reliable, long-term performance. Your product was thoroughly tested for proper operation prior to shipment.

Before unpacking and installing your new equipment, please read this manual. It is your guide to safe installation, productive operation and effective maintenance. We recommend that you keep the manual available for future reference.

Your Safety is Important to Nordson

Carefully read the *Safety* section. Your product is designed for safe operation when used according to the published instructions. Potential hazards exist when operating instructions are not followed.

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Section 1

Safety

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Section 1
Safety

1. Introduction

Read and follow these safety instructions. Task and equipment specific warnings, cautions, and instructions are included in equipment documentation where appropriate.

Make sure all equipment documentation, including these instructions, is accessible to all persons operating or servicing equipment.

2. Qualified Personnel

Equipment owners are responsible for making sure that Nordson equipment is installed, operated, and serviced by qualified personnel. Qualified personnel are those employees or contractors who are trained to safely perform their assigned tasks. They are familiar with all relevant safety rules and regulations and are physically capable of performing their assigned tasks.

3. Intended Use

Use of Nordson equipment in ways other than those described in the documentation supplied with the equipment may result in injury to persons or damage to property.

Some examples of unintended use of equipment include

- using incompatible materials
- making unauthorized modifications
- removing or bypassing safety guards or interlocks
- using incompatible or damaged parts
- using unapproved auxiliary equipment
- operating equipment in excess of maximum ratings

4. Regulations and Approvals

Make sure all equipment is rated and approved for the environment in which it is used. Any approvals obtained for Nordson equipment will be voided if instructions for installation, operation, and service are not followed.

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5. Personal Safety

To prevent injury follow these instructions.

- Do not operate or service equipment unless you are qualified to do so.
- Electrical components must be maintained by qualified personnel only.
- Do not step onto the Booth roof or top surfaces of Fan Stand/Modules
- Do not enter the booth during operation, once system is shut down only enter using correct equipment. If system is fitted with Magnetic Sweeper, switch off before entering.
- Relieve (bleed off) pneumatic pressure before adjusting or servicing pressurized systems or components. Disconnect, lock out, and tag switches before servicing electrical equipment.
- The system must be shut down before removing modules. During operation and pulse claning, high pressure air blasts down from pulse valves in the Fan Housing and could cause injury.
- While operating manual electrostatic spray guns, make sure you are grounded. Wear electrically conductive gloves or a grounding strap connected to the gun handle or other true earth ground. Do not wear or carry metallic objects such as jewelry or tools.
- If you receive even a slight electrical shock, shut down all electrical or electrostatic equipment immediately. Do not restart the equipment until the problem has been identified and corrected.
- Obtain and read Material Safety Data Sheets (MSDS) for all materials used. Follow the manufacturer's instructions for safe handling and use of materials, and use recommended personal protection devices.
- To prevent injury, be aware of less-obvious dangers in the workplace that often cannot be completely eliminated, such as hot surfaces, sharp edges, energized electrical circuits, and moving parts that cannot be enclosed or otherwise guarded for practical reasons.
- To avoid slipping, clean surfaces according to requirements
- Beware of trapping when changing modules.
- Do not operate equipment unless safety guards, doors, or covers are intact and automatic interlocks are operating properly. Do not bypass or disarm any safety devices.
- Keep clear of moving equipment such as the fan/motor assembly. Before adjusting or servicing any moving equipment, shut off the power supply and wait until the equipment comes to a complete stop. Lock out power and secure the equipment to prevent unexpected movement.

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- Ensure correct lifting process and equipment is used for heavy items.
- Operators must be aware of correct grounding and ensure all earth/ground connections are securely attached especially after changing modules.
- Operators must be aware that some components of the system, such as fan motor and lighting could reach high temperatures.
- Operators must be aware of peak noise during cartridge pulse cleaing.
- If your system is fitted with a Magnetic Floor Sweeper, operators must be aware of the strong magnets on the system.

6. Fire Safety

- To avoid a fire or explosion, follow these instructions.
- Ground all conductive equipment in the spray area. Check equipment and workpiece grounding devices regularly. Resistance to ground must not exceed one mega-ohm.
- Shut down all equipment immediately if you notice static sparking or arcing. Do not restart the equipment until the cause has been identified and corrected.
- Do not smoke, weld, grind, or use open flames where flammable materials are being used or stored.
- Provide adequate ventilation to prevent dangerous concentrations of volatile materials or vapors. Refer to local codes or your material MSDS for guidance.
- Do not disconnect live electrical circuits while working with flammable materials. Shut off power at a disconnect switch first to prevent sparking.
- Know where emergency stop buttons, shutoff valves, and fire extinguishers are located. If a fire starts in a spray booth, immediately shut off the spray system and exhaust fans.
- Shut off electrostatic power and ground the charging system before adjusting, cleaning, or repairing electrostatic equipment.
- Clean, maintain, test, and repair equipment according to the instructions in your equipment documentation.
- Use only replacement parts that are designed for use with original equipment. Contact your Nordson representative for parts information and advice.

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7. Action in the Event of a Malfunction

If a system or any equipment in a system malfunctions, shut off the system immediately and perform the following steps:

- Disconnect and lock out electrical power. Close pneumatic shutoff valves and relieve pressures.
- Identify the reason for the malfunction and correct it before restarting the equipment.

8. Disposal

Dispose of equipment and materials used in operation and servicing according to local codes.

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Section 2

Description

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Section 2
Description

1. Intended Use

Nordson utilities the same proven filter technology on all their cartridge equipment. The design ensures a constant air flow on a system due to the continuous sequential cleaning of the filter cartridge unlike conventional bag filters, which are mechanically shaken when turned off.

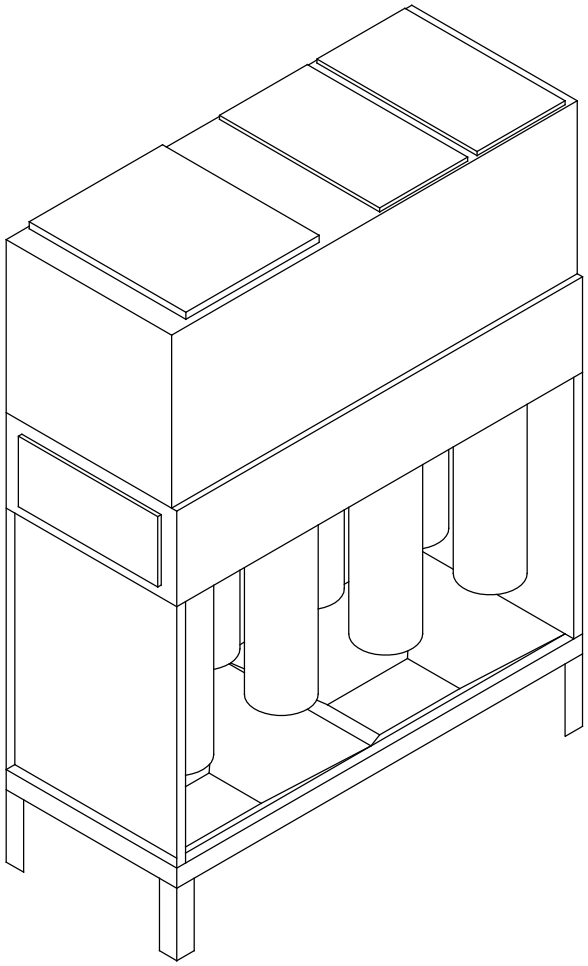

Fig. 2-1 Typical NCB Recovery System

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1. Intended Use (contd.)

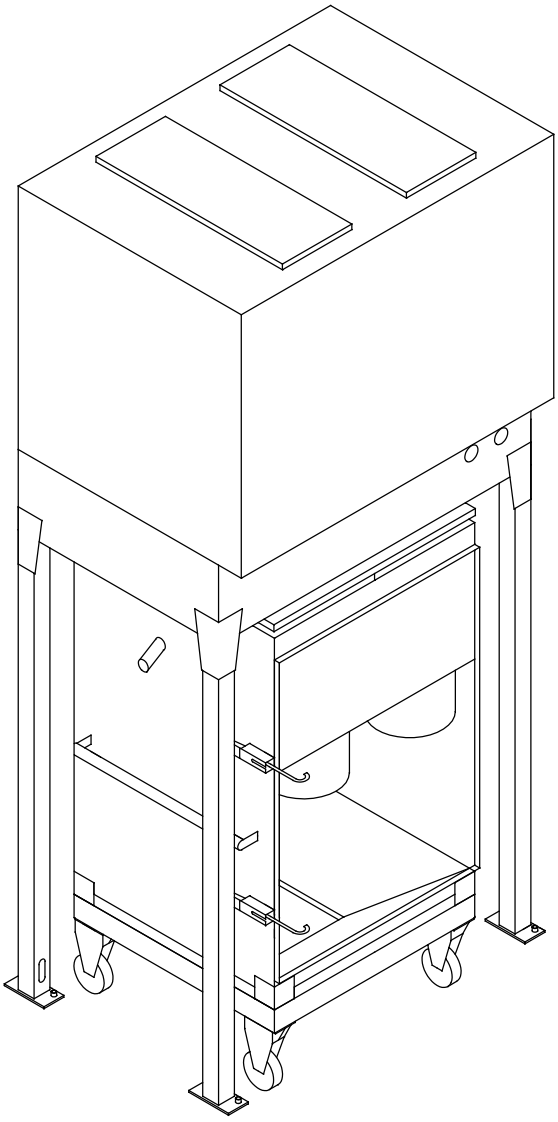

Fig. 2-1 Typical NQCB Recovery System

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2. Features

The two cartridge booth systems available are NQCB and NCB.

The NCB is for single colour or spray to waste, the module and fan sections permanently attached to the booth canopy.

The NQCB allows greater flexibility. The fan section is erected upon legs, with a detachable module beneath. These module come in three types. M1 – Spray to waste, M2 – Integral sieve hopper This allows more colours to be recycled in a cartridge booth environment. They can also be added to for future additional colours.

The systems are designed with a pre–separation (drop–out) section of generous proportions below the filter cartridge enhanced by a low velocity inlet. The filter cartridges are of a tried and tested media, each containing high performance filter media giving a separation efficiency of greater than 99.98% of particles of 4μ and over. This high efficiency enables the air to be safely returned to the workshop. Above the cartridges is the reverse jet cleaning equipment, which utilities high speed, direct operating diaphragm valves, the shock wave so created dislodges the powder from the cartridge.

The fan set is located above the reverse jet cleaning equipment and is sized according to the system, an air volume control damper is provided. In this location the fan ensures the whole recovery system is under depression, thereby reducing the risk of powder loss. The fan, of course, is working in clean air to improve reliability and reduce maintenance.

Recovered powder collects within the integral powder hoppers, from which it may be recovered and recycled automatically, or pumped to a waste bucket.

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Section 3

Installation

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Section 3
Installation

WARNING: Allow only qualified personnel to perform the following tasks. Observe and follow the safety instructions in this document and all other related documentation.

1. Transport

Transport the unit so as to avoid damage. Do not drop the unit. Use suitable packaging materials and sturdy cartons. See *Specifications* section for dimensions and weights.

Protect the unit from exposure to humidity, dust and vibrations.

2. Unpacking

Carefully unpack the unit to avoid damaging it. Check for damage caused during transport.

Save packing materials for possible later use. Otherwise recycle or dispose of properly according to local regulations.

3. Removing

Switch off the mains supply, then disconnect all electrical connections from the unit.

4. Storage

Pack the unit in suitable packing materials and sturdy cartons. Protect from humidity, dust and large temperature fluctuations (condensation).

5. Disposal

Dispose of properly according to local regulations.

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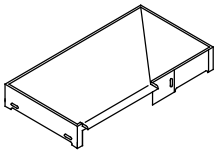
6. Setting Up the Unit

WARNING: Allow only qualified personnel to perform the installation. Observe safety instructions.

Site Preparation

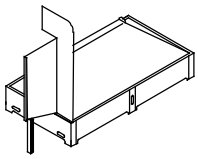
NOTE: Booths are generally delivered pre-assembled, where this is not practical due to shipping requirements or at the customers request that booth be supplied ”flat pack” for on-site assembly.

NOTE: Installation of the booth should not be undertaken without the presence of a Nordson representative or a suitably qualified person.

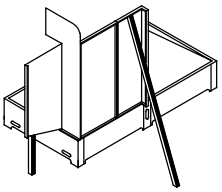


- Choose a level site on which to install the booth.
- Seal concrete floors with a suitable material to avoid dust. Other floor surfaces should be of a type that is easy to keep clean.

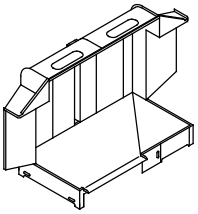
NOTE: Bolts should only be finger tight until assembly is complete.



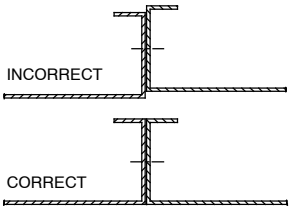
- Position base frame and level using jacking bolts supplied.
- Commence assembly with a corner panel.



- Continue by adding other panels, support as necessary.



- Fit the roof panel. If roof panels are in more than one piece, pre-assemble first.



- Ensure all panels are correctly aligned and then tighten nuts and bolts.
- On NQCB only fit mating frame.
- On NQCB systems only lift fan stand using a fork lift truck, ensure lifting blocks are placed under the flexible seal, fit legs to fan stand and move into position central to the mating frame.
- On NQCB only, roll module under fan stand and check alignment with mating frame and fan stand flexible seal.
- On NCB only, lift NCB module into position, and fix to the booth canopy.
- Finally, seal all internal joints using acrylic sealant (NOT SILICONE). Clean excess sealant to leave a smooth joint.

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7. Electrical

WARNING: Allow only qualified personnel to perform electrical connections.

A single supply cable is required to the control panel. The supply should be fed from a suitable disconnect device. Introduce the cable into the panel using an IP6X cable gland. Ensure that all the electrical wires are suitably sized for the fan motor loading and adequate fuse/circuit protection is provided at the source of supply.

NOTE: The fan motor is designed to be switched ”direct-on-line” up to 7.5 KW and “Star-Delta” 11KW and above (refer to the electrical circuit schematic supplied with the unit, for power requirements before installation).

On starting the fan motor, check for correct rotation, normally clockwise looking at the motor from the impeller end, (air is pushed out of the exhaust on the fan scroll). Do this by starting and immediately stopping the fan motor. Proper fan rotation is extremely important. With the fan running in the wrong direction, it will deliver approximately 40% of its rated air volume. Correct by reversing any two leads on the load side of the fan motor starter. Check operation of solenoid.

8. Pneumatic

Before operating the spray booth, ensure that the air supply has reached a suitable quality and that air has been drawn off the system through the drain leg. This will ensure that any materials left in the line during installation do not enter the spray booth.

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Section 4

Operation

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Section 4
Operation

WARNING: Allow only qualified personnel to perform the following tasks. Observe and follow the safety instructions in this document and all other related documentation.

1. Commissioning

To start up the system, follow the following steps in sequence.

- Close the fan damper down to leave only a 25mm (1") gap.
- Isolate the system and check all electrical connections.
- Check motor overload is set at, or preferably below, the maximum current rating of the motor.
- Switch off the fan breaker and check operation of the contactor having re-connected the power to the system.
- Switch on the fan breaker and check the fan rotation by rapidly turning the fan on and then off, rotation can be observed on the fan motor cooling fan.

NOTE: As standard NCB/NQCB units are supplied with final filters situated in the acoustic hood. Unless this final filters are removed, the above will not be observed.

- Start the fan again and set the air volume control damper to give the designed face velocity.
- Check the operation of the air flow switch. This is normally used to interlock the application equipment supply and should be on only when the fan is running if the air flow switch functions correctly.
- Open the compressed air isolation valve and check for air leaks, remedy as necessary, set the pulse pressure to 6.4 bar (95 p.s.i.).
- Turn on the cartridge cleaning sequence switch (pulsing or pulse) and set the interval and duration of pulse to give at least 20 seconds between pulses to allow the pulse manifold to fully recharge, minimise the pulse duration sufficient to give a short, sharp bang, longer pulse durations only waste air. Turn off the cartridge sequencer.
- Check the operation of the booth light. where applicable

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1. Commissioning (contd.)

It may be necessary to open the air volume control damper to maintain the booth face velocity, as the filter cartridges gradually build a stable powder cake, after about 160–200 hours running this should be established.

2. Daily Operation

- Turn air supply to air reservoir on and adjust via air regulator to at least 6–6.5 Bar (90–95 p.s.i). (recommended).
- Turn on fan assembly.

Operating Checks

- Monitor exhaust discharge, exhaust should remain visually clean, if a leak develops it will be first noticed as a puff of dust immediately after a cleaning pulse.
- Monitor pressure drop. Equilibrium dP is generally 750–1000Kpa (3”–4”) on the minihelic gauge provided as standard.

Operating Adjustments

- Compressed air is specified at a pressure of 90–95 p.s.i. The integral timer is pre–set to clean a segment of cartridge elements approximately every 20 seconds, depending on powder loading.
- Higher than design dP (pressure drop across filter elements) can often be lowered by increasing the frequency of cleaning, minimum dwell time between pulses should not be less than 10 seconds for a short period of time.
- As the pulse duration and interval is adjustable, they can be finely adjusted for efficient operation to overcome the differences experienced with powder types.

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Section 5

Maintenance

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Section 5
Maintenance

WARNING: Allow only qualified personnel to perform the following tasks. Observe and follow the safety instructions in this document and all other related documentation.

WARNING: Breathing in certain airborne dusts (including finishing powders) may be hazardous to health. Ask the powder manufacturer for a Material Safety Data Sheet (MSDS) for information. Use appropriate respiratory protection.

1. Daily Maintenance

- Every four- (4) hours, with the fan operation, clean the booth interior with a rubber squeegee, or other non-sparking cleaning device, pulling the powder into the recovery section of the booth. Pay particular attention to remove any powder building up on the sieve mesh (where applicable).
- Every four- (4) hours check the collector bin levels - if the bin is above half full, empty it.
- Every four- (4) hours or less check the feeder hopper for powder level. Before adding powder use the vacuum cleaner to prevent powder dust from getting out into the room.
- Every four- (4) hours check the powder pump and gun, clean according to the product manual.
- Every four- (4) hours clean UV detectors (where applicable)

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2. Routine Maintenance

Powder Hoppers

- Check the hopper for foreign materials, empty and clean if necessary.

Fan Assembly

- Changes in vibration and noise levels are easily identified as an indication to possible problems.
- Current readings taken at regular intervals over the equipment lifetime forms a reliable indicator and record of its condition and performance.
- A fan has inherent vibration; the wiring of ALL connections must be checked for integrity and tightness once a year.
- Any sign of leakage of powder around a seal means either the seal is not sound or the covers are not properly fastened. Check weekly and any time traces of powder are noticed.

Seals

- Record the airflow at regular intervals; thus charted, any degradation of system performance due to cartridge blocking will become immediately apparent.

Cartridges

- Record the airflow at regular intervals; thus charted, any degradation of system performance due to cartridge blocking will become immediately apparent.
- Signs of powder leakage may be due to the cartridge seal leaking. Tighten up the crank after ensuring seal integrity.
- Cartridges and final filters cannot be manually cleaned but must be replaced.
- On units with final filters, powder leakage may not be noticed, but if adequate records have been kept, the faults will be apparent.

Fluid Beds

- These will be damaged if they are stood on or allowed to become damp. They must be replaced; SMOOTH SIDE UP.

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Transfer Pumps

- Within the pump is a venturi, which by the very nature of powder will wear. The diminishing efficiency will be noticed by the loss in returned powder. Remove pumps from the collectors. Remove the discharge hose and blow through with a safety compressed air gun. Disassemble the pump and clean all parts with an air gun and a soft clean cloth. Replace worn or damaged parts.

- For further information on servicing transfer pumps refer to the product manual.

Final Filters

- This is a feature to protect against powder escaping to the immediate area in case of a cartridge leak.

Compressed Air

- Open the dip leg. Using a clean white cloth check for water, oil or other contaminates. Correct as necessary.

NOTE: The air drier, if fitted, should remain on at all times to prevent moisture from accumulating in the system components.

Grounding

- Continually check for grounding of parts to hangers. Clean/strip hangers regularly.

Electrical Safety

- The unit should be tested for electrical safety, at intervals of not more than 12 months, according to the Electricity at Work regulations 1989 (as revised) or similar for non–UK installations.

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3. Cartridge Replacement

Nordson will be pleased to advise on action necessary in case of any mishap, fault or any other enquiry relating to the equipment.

WARNING: Ensure Personal Protective Equipment is worn while carrying out this procedure.

The following steps cover the removal of spent cartridge filters and their replacement with new filters.

WARNING: Ensure that all services are turned off and locked out after cleaning the booth.

WARNING: A powder laden cartridge filter can be heavy. It may be necessary for two persons to be available to remove the cartridge filter.

- Clean the booth base and walls to avoid unnecessary contact with the powder.
- Relieve all air pressure in the system. Turning off the air supply and operating the pulsing can do this. or by releasing the pressure safety valve attached to the air manifold.
- Lock out and disconnect services to the booth.
- Unbolt and remove the diverter vanes fitted in front of the cartridges on NCB systems only.
- Each cartridge is held in place by a crank rod. Remove the cartridge by unscrewing the crank rod about 50mm. Lift the cartridge up and push the top of the crank rod towards the back of the booth. The top of the crank has a hooked end, which locates in the hanger. The action of lifting and pushing back releases the hook from its location.
- Inspect the cartridges for damage. Do not fit damaged cartridges.

NOTE: Do not use any cartridge filters other than those approved by Nordson. The use of the cartridges not specially designed to Nordson standards could seriously affect the operation and performance of your Nordson Booth.

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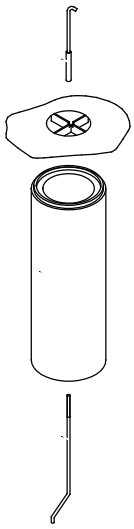
- Ensure before fitting cartridges that each cartridge has two crank halves, seal washer and earthing strip.



WARNING: Handle the cartridges with care. A drop of 150mm can cause perminant damage to the cartridge filter.

- Take the lower crank with the handle and with the handle at the bottom place on the crank the earthing strip.

- On top of the earthing strip fit the seal washer with the rubber face uppermost. Failure to do this will cause the cartridge not to seal and powder will leak past the cartridges.

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Section 6

Troubleshooting

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Section 6
Troubleshooting

WARNING: Allow only qualified personnel to perform the following tasks. Observe and follow the safety instructions in this document and all other related documentation.

1. Important Hints for Troubleshooting

The following tables provide general information for the troubleshooting of basic problems. Sometimes more detailed information, circuit diagrams or measuring devices are also needed for troubleshooting.

It must be noted that a fault can occur for several reasons. It is advisable to check all possible causes for a given fault. Obvious causes of malfunction such as broken wires, missing fasteners etc., should be noted during visual inspections and corrected immediately.

The Unit does not contain any user serviceable parts; approved parts available from Nordson must replace any parts that fail.

2. Troubleshooting Guide

Problem	Possible Cause	Corrective Action
Fan will not start	Power off	Switch on power
	Overload operated	Re-set overload
	Breaker tripped	Investigate cause
	Wiring fault	Repair of replace
	Motor failure	Investigate cause Replace
	Contactor fault	Repair or replace Check push button wiring.

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2. Table of Troubleshooting
(contd.)

Problem	Possible Cause	Corrective Action
Loss of extract	Damper vibrated closed	Reset and lock
	Cartridges not clean	Run cleaning sequence for thirty (30) minutes
	Low pulse pressure	Set pressure at 6.4 bar (95 p.s.i.)
	Cleaning valve fault	Repair or replace
	Sequence card fault	Replace, try other output
Powder escaping	Door seal	Tighten star knobs
	Cartridge leak	Replace seal
		Check cartridge seal
		Tighten or replace cartridge
	Powder pump not on spigot	Replace, but check ”0” Ring condition and replace if necessary
	Powder hose leak	Replace hose and clip if necessary
(Waste Bucket Systems)	Bucket faces not sealing	Re-seat
Powder not transferred to hopper or waste container	Transfer pumps not operating	Check pump air supply
	Transfer pump venturi worn	Replace venturi
	Hose fault	Check hoses for leaks and blockages
	Fluidising fails	Check fluidising air supply
		Check conditions of fluid beds

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Section 7

Parts

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Section 7
Parts

1. Introduction

To order parts, call the Nordson Customer Service Center or your local Nordson representative. Use the parts list, and the accompanying illustration, to describe and locate parts correctly.

Using the Illustrated Parts List

Numbers in the Item column correspond to numbers that identify parts in illustrations following each parts list. The code NS (not shown) indicates that a listed part is not illustrated. A dash (—) is used when the part number applies to all parts in the illustration.

The number in the Part column is the Nordson Corporation part number. A series of dashes in this column (- - - - - -) means the part cannot be ordered separately.

The Description column gives the part name, as well as its dimensions and other characteristics when appropriate. Indentions show the relationships between assemblies, subassemblies, and parts.

Item	Part	Description	Quantity	Note
—	000 0000	Assembly	1	
1	000 000	• Subassembly	2	A
2	000 000	• • Part	1	

- If you order the assembly, items 1 and 2 will be included.
- If you order item 1, item 2 will be included.
- If you order item 2, you will receive item 2 only.

The number in the Quantity column is the quantity required per unit, assembly, or subassembly. The code AR (As Required) is used if the part number is a bulk item ordered in quantities or if the quantity per assembly depends on the product version or model.

Letters in the Note column refer to notes at the end of each parts list. Notes contain important information about usage and ordering. Special attention should be given to notes.

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2. Typical NQCB Fan Stand assembly

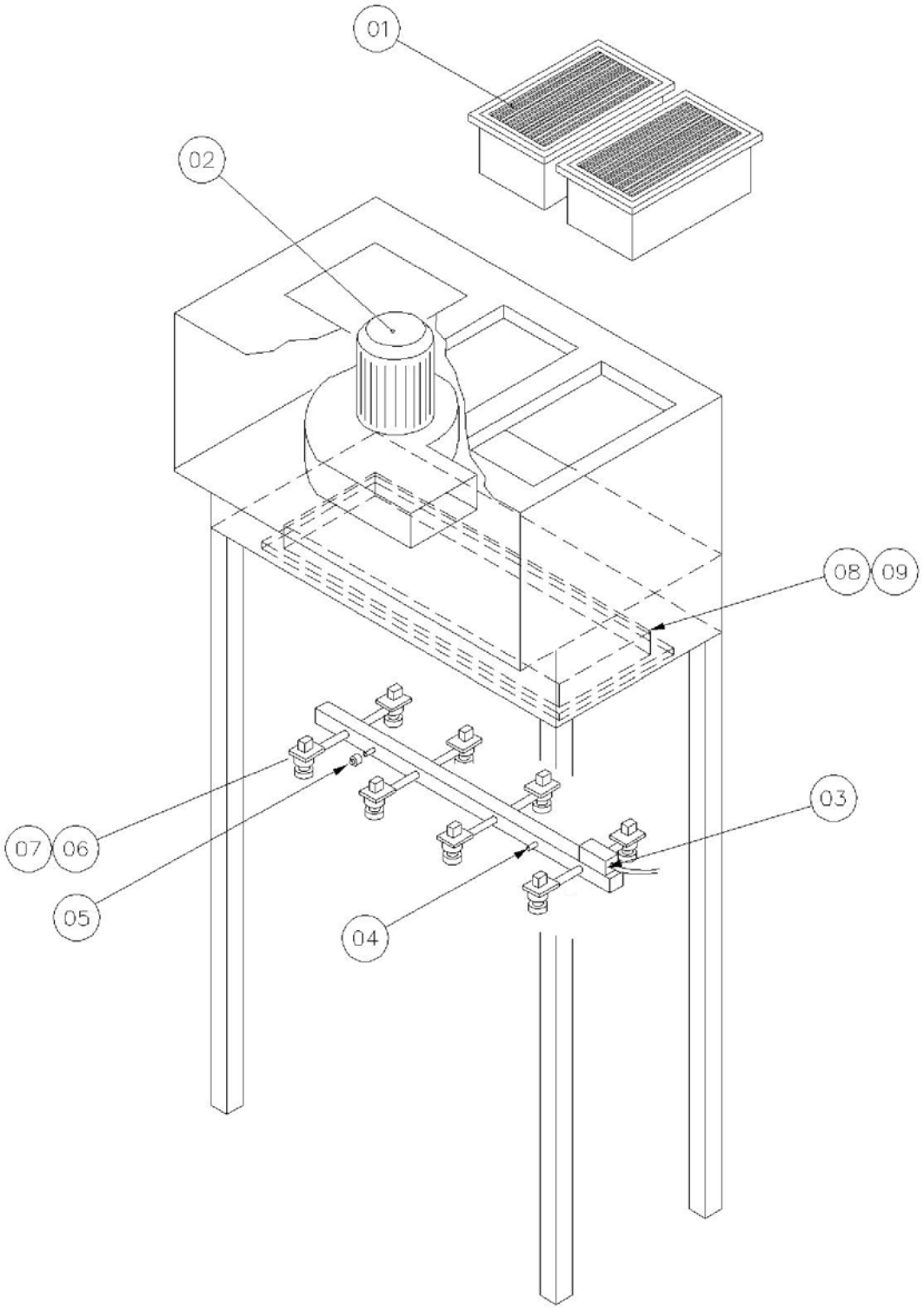

Fig. 7-1 NQCB Fan Stand Assembly

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Item	Part	Description	Quantity	Note
01	7034112	• FILTER, FINAL (FOR 3000 MODEL) 610*610*292	1	
	7034113	• FILTER, FINAL (FOR 3000 MODEL) 305*610*292	0	
01	7034112	• FILTER, FINAL (FOR 4500 MODEL) 610*610*292	1	
	7034113	• FILTER, FINAL (FOR 4500 MODEL) 305*610*292	1	
01	7034112	• FILTER, FINAL (FOR 6000 MODEL) 305*610*292	2	
	7034113	• FILTER, FINAL (FOR 6000 MODEL) 305*610*292	0	
01	7034112	• FILTER, FINAL (FOR 7500 MODEL) 305*610*292	3	
	7034113	• FILTER, FINAL (FOR 7500 MODEL) 305*610*292	0	
01	7034112	• FILTER, FINAL (FOR 9000 MODEL) 305*610*292	4	
	7034113	• FILTER, FINAL (FOR 9000 MODEL) 305*610*292	0	
01	7034112	• FILTER, FINAL (FOR 11250 MODEL) 305*610*292	AR	
	7033113	• FILTER, FINAL (FOR 11250 MODEL) 305*610*292	AR	
02	-	• ***FAN ASSEMBLY (CONTACT NORDSON)***	-	
03	NA	• ELECTRICAL CONNECTION, PULSE SIGNALS	-	
04	-	• AIR INPUT CONNECTION, PULSE MANIFOLD	-	
05	-	• VALVE, SAFETY RELIEF	1	
06	165726	• NOZZLE, BLOW DOWN, 1”BSP FEMALE	AR	
07	768402	• VALVE, PULSE, 1”BSP	AR	
NS	768151	• TUBING, 12MM, POLY.	AR	
08	766347	• CYLINDER, 50MM STROKE	AR	
09	766364	• FLEXIBLE SEAL, 3000CFM MODEL	1	
	766365	• FLEXIBLE SEAL, 4500CFM MODEL	1	
	766366	• FLEXIBLE SEAL, 6000CFM MODEL	1	
	766367	• FLEXIBLE SEAL, 7500CFM MODEL	1	
	766368	• FLEXIBLE SEAL, 9000CFM MODEL	1	
NS	767211	• KNOCK-ON SIDE SEAL	AR	

- See figure 7.1

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3. Typical NQCB M1 Module Assembly

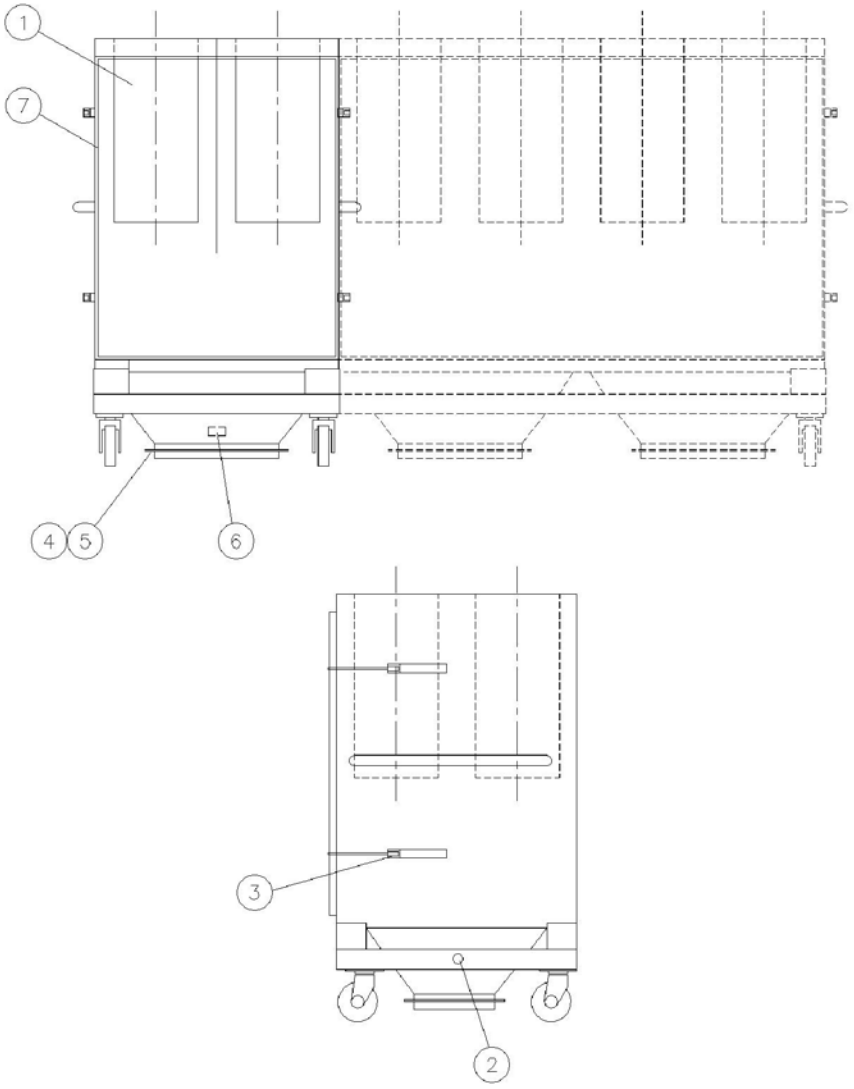

Fig. 7-2 NQCB M1 Module Assembly

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Item	Part	Description	Quantity	Note
01	767058	• FILTER, CARTRIDGE, 1000MM	4	3000cfm
	767058	• FILTER, CARTRIDGE, 1000MM	6	4500cfm
	767058	• FILTER, CARTRIDGE, 1000MM	8	6000cfm
	767058	• FILTER, CARTRIDGE, 1000MM	10	7500cfm
	767058	• FILTER, CARTRIDGE, 1000MM	12	9000cfm
	767058	• FILTER, CARTRIDGE, 1000MM	14	11250cfm
02	n/a	• CONNECTOR, PNEUMATIC, 16 WAY, FEMALE	1	
03	n/a	• LONG DRAW LATCH, HOOK	4	
	n/a	• LONG DRAW LATCH BODY	4	
04	1040130	• BED, FLUID, (3000 M1 MODULE)	1	
	1040130	• BED, FLUID, (4500 M1 MODULE)	2	
	1040118	• BED, FLUID, (6000 M1 MODULE)	3	
	1040118	• BED, FLUID, (7500 M1 MODULE)	3	
	1040118	• BED, FLUID, (9000 M1 MODULE)	3	
05	768211	• FITTING, ELBOW, 1/4 X 6MM	AR	
06	165633	• PUMP, METRIC, TRANSFER	AR	A
07	767207	• SEAL, 20MM X 20MM	AR	
NS	n/a	• CONNECTOR, PNEUMATIC, 16 WAY, MALE	1	
NS	768251	• TUBING, 6MM, POLY.	AR	
NS	7033003	• DRUM,WASTE 60 LTRS (INCLUDING TRANSFER HOSE 18X24MM and VENT HOSE 50MM DIA)	AR	

AR: As Required

NS: Not Shown

NOTE A: If your system uses a pump mount without o-rings you should use Transfer pump Part Number 244721.

- See figure 7.2

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4. Typical NQCB M2 Module Assembly

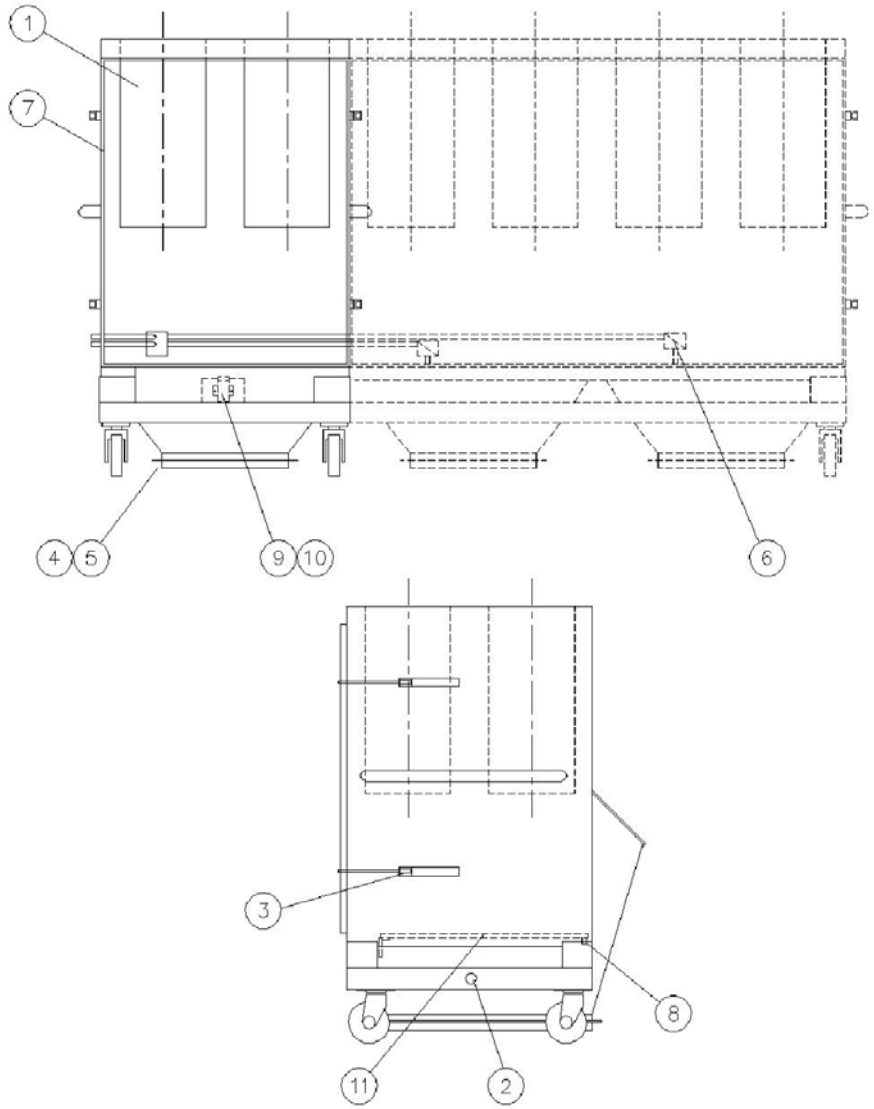

Fig. 7-3 NQCB M2 Module Assembly

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Item	Part	Description	Quantity	Note
01	767058	• FILTER, CARTRIDGE, 1000MM	AR	
02	n/a	• CONNECTOR, PNEUMATIC, 16 WAY, FEMALE	1	
03	n/a	• LONG DRAW LATCH, HOOK	4	
04	1040130	• BED, FLUID, (3000 M1 MODULE)	1	
	1040130	• BED, FLUID, (4500 M1 MODULE)	2	
	1040118	• BED, FLUID, (6000 M1 MODULE)	3	
	1040118	• BED, FLUID, (7500 M1 MODULE)	3	
	1040118	• BED, FLUID, (9000 M1 MODULE)	3	
05	768211	• FITTING, ELBOW, 1/4 X 6MM	AR	
06	165633	• PUMP, TRANSFER,	AR	A
07	767207	• SEAL, 20MM X 20MM	AR	
08	766067	• A.V. MOUNTS	4	
09	769097	• VIBRATOR	1	
10	766066	• DIAPHRAGM	1	
11	767211	• SEAL,SIDE,KNOCK-ON,MTR	3M	
NS	n/a	• CONNECTOR, PNEUMATIC, 16 WAY, MALE	1	
NS	768251	• TUBING, 6MM, POLY.	AR	

AR: As Required

NS: Not Shown

NOTE A: If your system uses a pump mount without o-rings you should use Transfer pump Part Number 244721.

- See figure 7.3

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5. Typical NCB Recovery Module

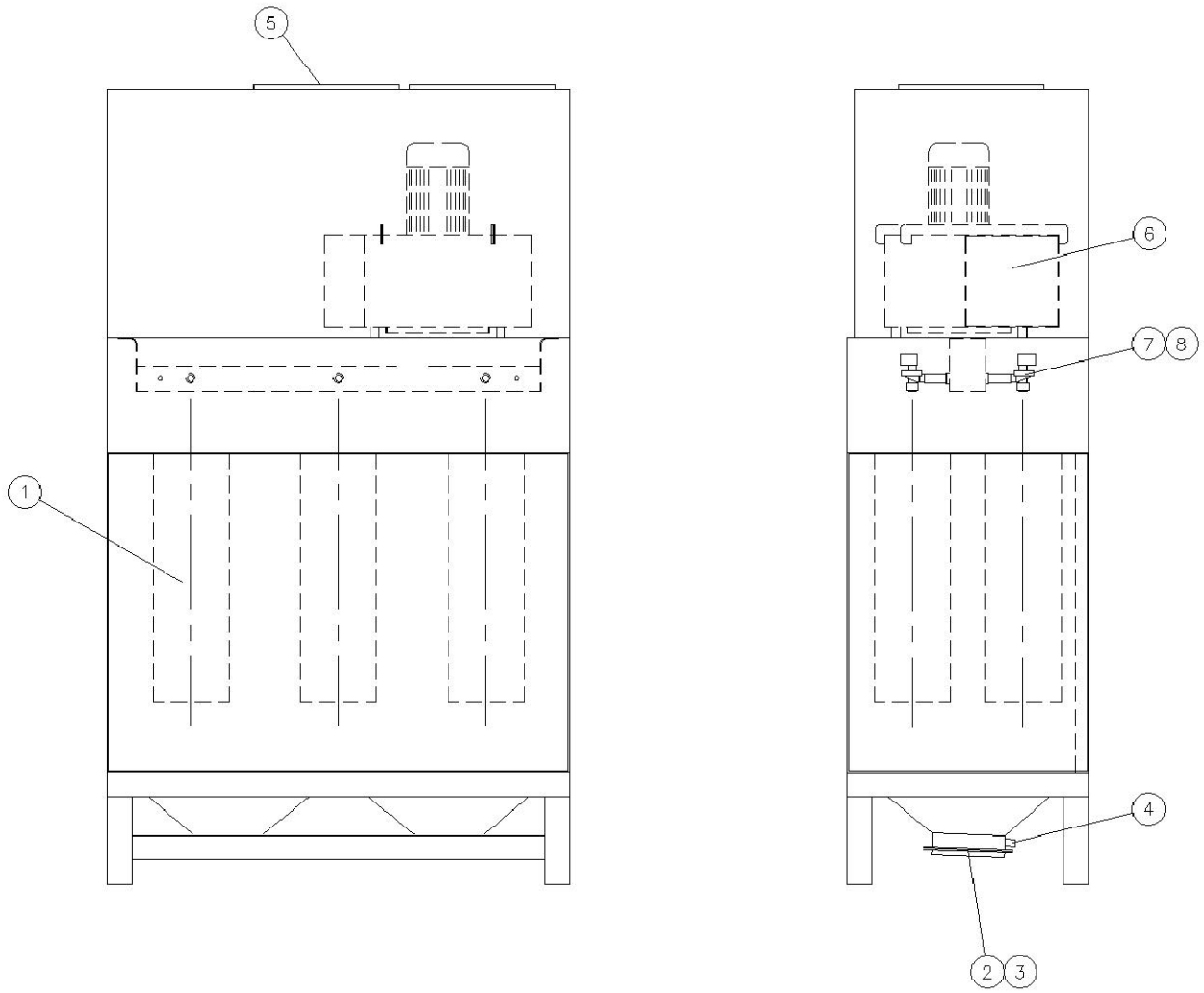

Fig. 7-4 NCB Assembly

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Item	Part	Description	Quantity	Note
01	767058	• FILTER, CARTRIDGE, 1000MM	AR	
02	1040130	• BED, FLUID, (3000 MODULE)	1	
	1040130	• BED, FLUID, (4500 MODULE)	2	
	1040118	• BED, FLUID, (6000 MODULE)	3	
	1040118	• BED, FLUID, (7500 MODULE)	3	
	1040118	• BED, FLUID, (9000 MODULE)	3	
03	768211	• FITTING, ELBOW, 1/4 X 6MM	AR	
N/S	169189	• TUBE,PICKUP,W/PUMP ADAPTER, PKG	AR	
04	165633	• PUMP, TRANSFER METRIC (for spigot with o-rings)	AR	
05	-	• ***FINAL FILTER (SEE TABLE 7.1)***	-	
06	-	• ***FAN ASSEMBLY (CONTACT NORDSON)***	-	
07	165726	• NOZZLE, BLOW DOWN, 1”BSP	AR	
08	768402	• VALVE, PULSE, 1”BSP	AR	

AR: As Required

NS: Not Shown

NOTE A: If your system uses a pump mount without o-rings you should use Transfer pump Part Number 244721

- See figure 7.4

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6. Waste Bucket Assembly

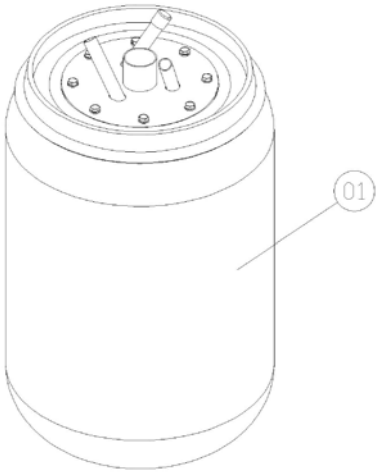

Fig. 7-5 Waste Bucket Assembly

Item	Part	Description	Quantity	Note
1	7033003	DRUM,WASTE, 60 LTRS (INCLUDING TRANSFER HOSE DIAM 18X24MM and VENT HOSE 50MM DIA	1	A

NOTE A: ONLY USED ON M1 MODULES AND NCB RECOVERY MODULES WITH FLUID BEDS
AR: As Required
NS: Not Shown

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7. Hopper Booth Base

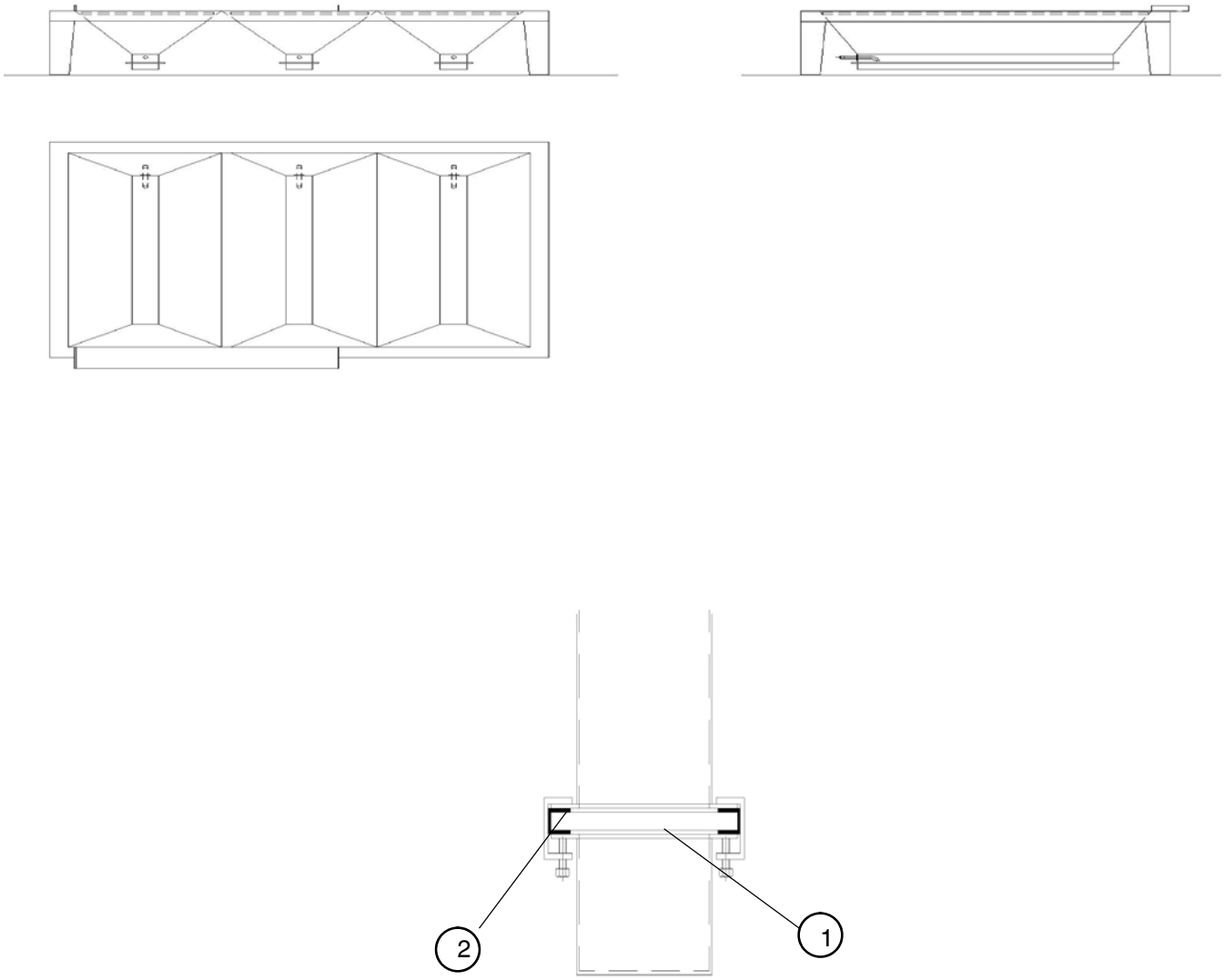

Fig. 7-6 Booth Base with Hopper Floor

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Item	Part	Description	Quantity	Note
1	1040115	PLATE,FLUID,57”*8.25”*0.5” (1448mm*209mm*13mm)	AR	
	1040118	PLATE,FLUID,21.25”*17.75”*0.5” (451mm*540mm*13mm)	AR	
	1040130	PLATE,FLUID,32.75”*21.25”*0.5” (832mm*540mm*13mm)	AR	
2	1040116	GASKET,FLUID PLATE,57.00”*8.25”*0.5” (1448mm*210mm*13mm)	AR	
	1040119	GASKET,FLUID PLATE,21.25”*17.75”*0.5” (530mm*450mm*13mm)	AR	
	1040131	GASKET,FLUID PLATE,32.75”*21.25”*0.5” (832mm*530mm*13mm)	AR	

- See figure 7.6

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Section 8

Specifications

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Section 8
Specifications

1. Electrical Requirements

380/415V, 3-phase, 50/60Hz, IP6X.

Other voltages and starters are supplied on request, check on the circuit diagram.

2. Pneumatic

Dry, clean air at 90-95 p.s.i., filtered to 5μ, or dried to 2 °C dew point, oil free.

3. Air Flow and Power Details

Table 8-1

Airflow (CFM)	Airflow (m3/hr)	Motor Rating (Kw)	No. of Cartridges
3000	5100	4.0	4
4500	7650	5.5	6
6000	10000	7.5	8
7500	12750	11.0	10
9000	15300	15.0	12

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4. Part Numbers Dimensions and Weights

NQCB Fan Stand

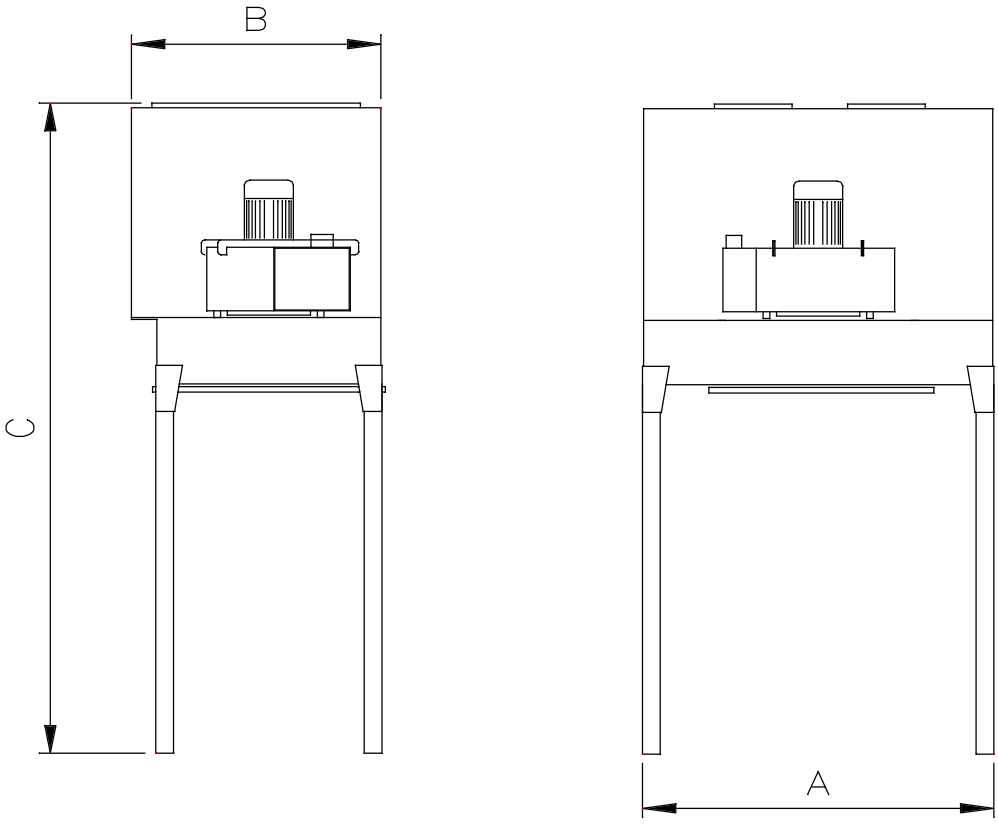

Fig. 8-1 Typical NQCB Fan Stand

Table 8-2

Part Numbers	Airflow	Dimensions (mm)			Weight (Kgs)
		A	B	C	
N/A	3000cfm (5100m3/hr)	1600	1125	3600	520
N/A	4500cfm (7650m3/hr)	2100	1125	3300	610
N/A	6000cfm (10200m3/hr)	2650	1125	3350	670
N/A	7500cfm (12750m3/hr)	3150	1125	3500	890
N/A	9000cfm (15300m3/hr)	3700	1125	3500	960

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NQCB M1 Module

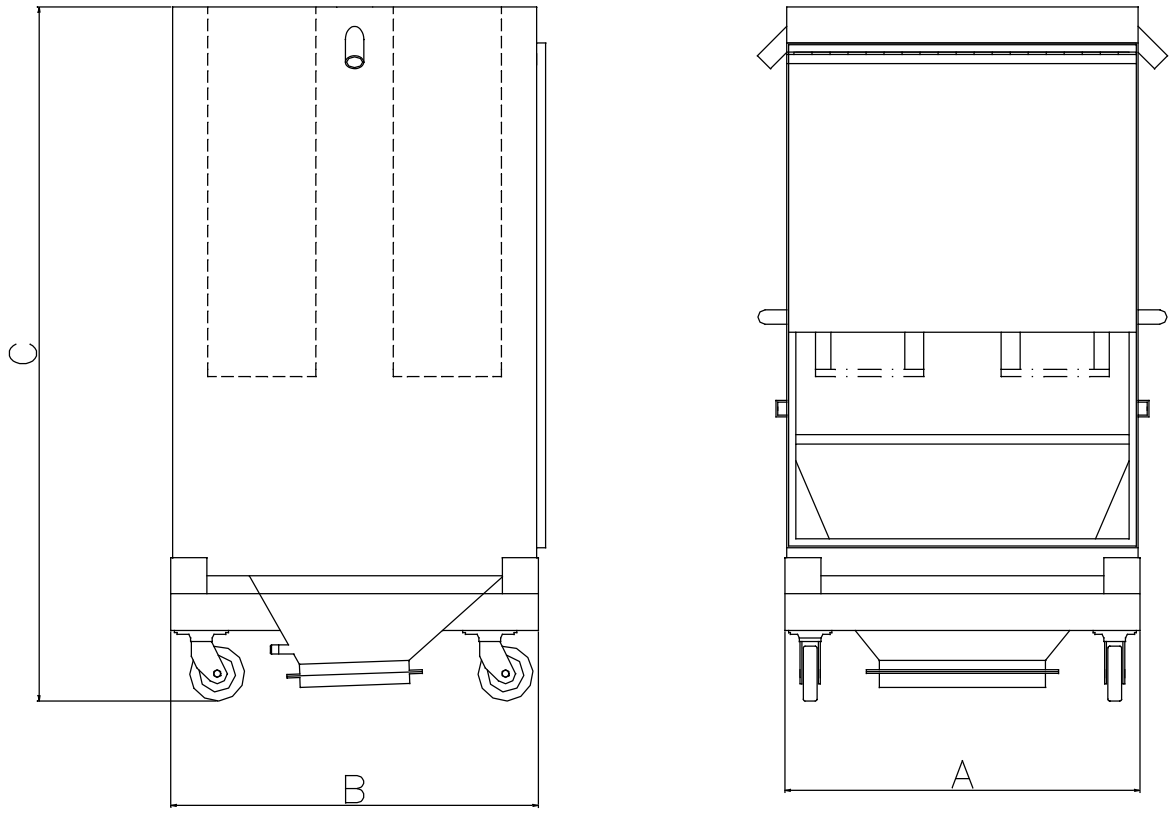

Fig. 8-2 Typical NQCB M1 Module

Table 8-3

Part Numbers	Airflow	Dimensions (mm)			Weight (Kgs)
		A	B	C	
N/A	3000cfm (5100m3/hr)	975	1010	1925	170
N/A	4500cfm (7650m3/hr)	1500	1010	1925	230
N/A	6000cfm (10200m3/hr)	2025	1010	1925	340
N/A	7500cfm (12750m3/hr)	2550	1010	1925	380
N/A	9000cfm (15300m3/hr)	3075	1010	1925	440

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NQCB M2 Module

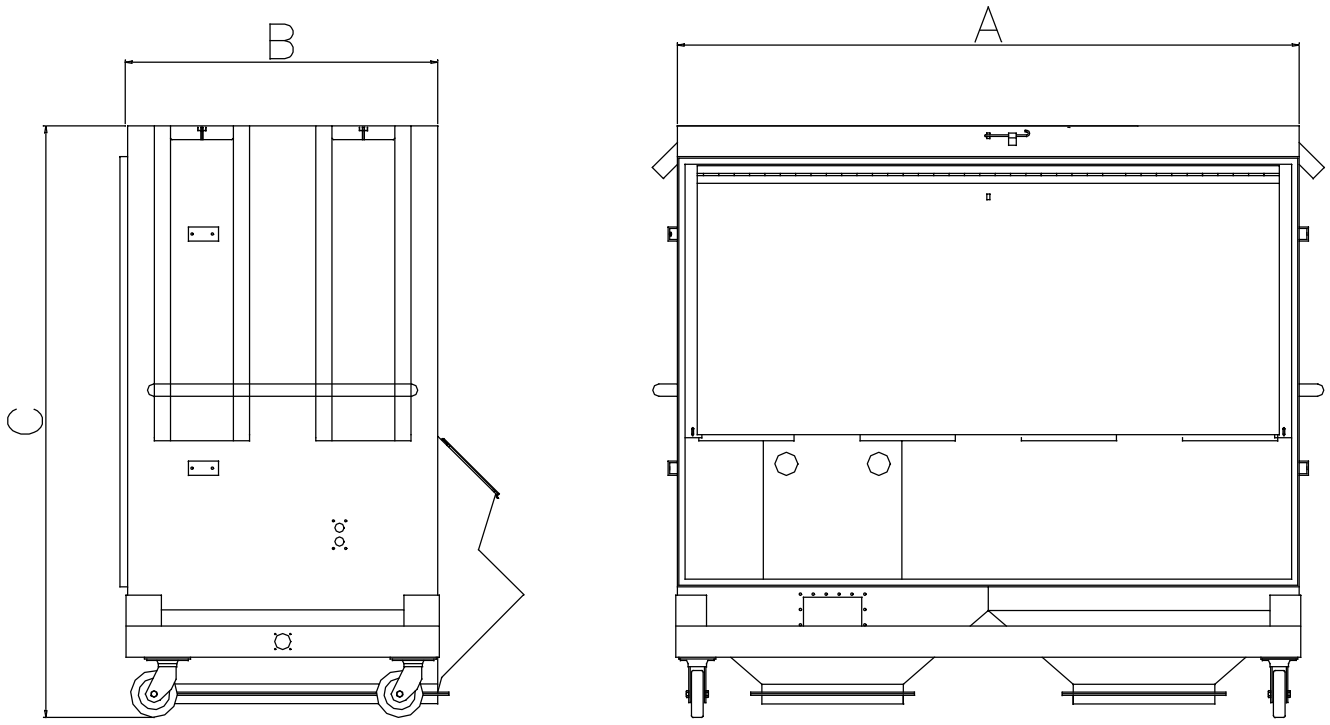

Fig. 8-3 Typical NQCB M2 Module

Table 8-4

Part Numbers	Airflow	Dimensions (mm)			Weight (Kgs)
		A	B	C	
N/A	3000cfm (5100m3/hr)	975	1010	1925	180
N/A	4500cfm (7650m3/hr)	1500	1010	1925	230
N/A	6000cfm (10200m3/hr)	2250	1010	1925	340
N/A	7500cfm (12750m3/hr)	2550	1010	1925	390
N/A	9000cfm (15300m3/hr)	3075	1010	1925	450

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NCB Recovery Module c/w Fluid Bed

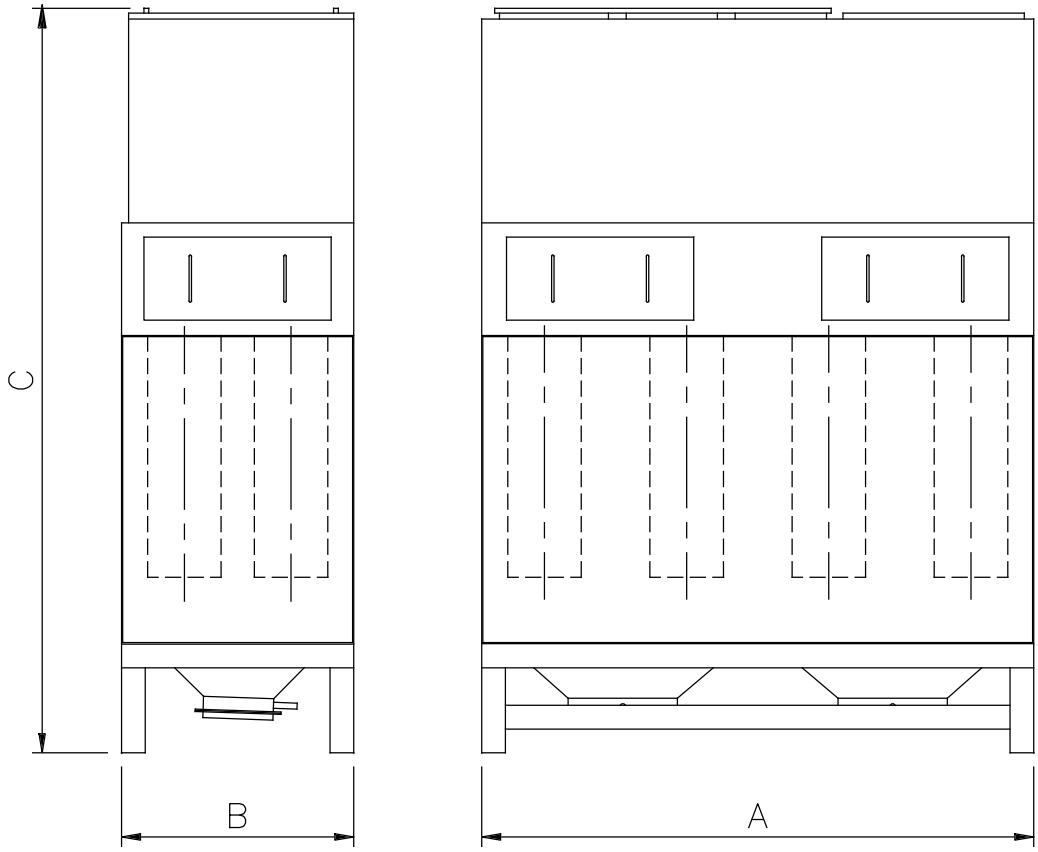

Fig. 8-4 Typical NCB Recovery Module c/w Fluid Bed

Table 8-5

Part Numbers	Airflow	Dimensions (mm)			Weight (Kgs)
		A	B	C	
N/A	3000cfm (5100m3/hr)	1280	980	3380	510
N/A	4500cfm (7650m3/hr)	1880	980	3080	580
N/A	6000cfm (10200m3/hr)	2330	980	3140	680
N/A	7500cfm (12750m3/hr)	2768	980	3330	820
N/A	9000cfm (15300m3/hr)	3330	980	3330	940

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NCB Recovery Module c/w Flat Floor

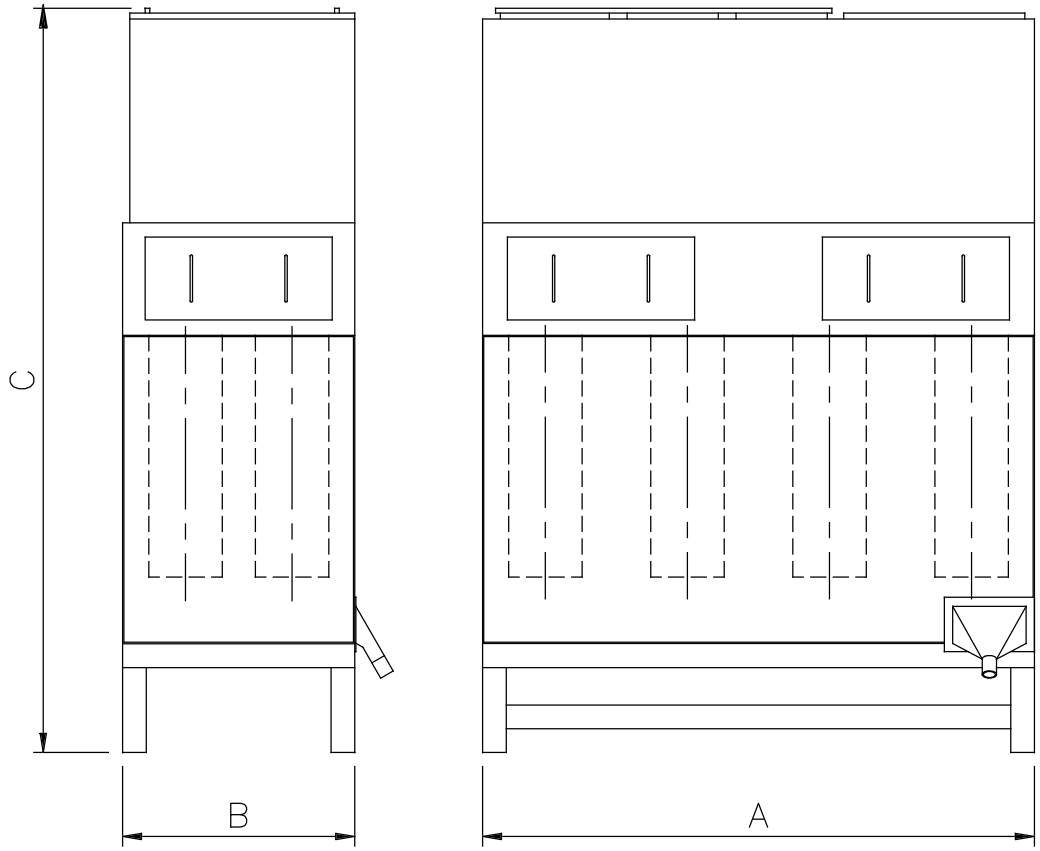

Fig. 8-5 Typical NCB Recovery Module c/w Powder Chute

Table 8-6

Part Numbers	Airflow	Dimensions (mm)			Weight (Kgs)
		A	B	C	
N/A	3000cfm (5100m3/hr)	1280	980	3380	500
N/A	4500cfm (7650m3/hr)	1880	980	3080	570
N/A	6000cfm (10200m3/hr)	2330	980	3140	670
N/A	7500cfm (12750m3/hr)	2768	980	3330	810
N/A	9000cfm (15300m3/hr)	3330	980	3330	920

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FILTER	VOLUME	NOTES	
NCB - NQCB	2000 cfm		
NCB - NQCB	3000 cfm		
NCB - NQCB	4000 cfm		
NCB - NQCB	4500 cfm		
NCB - NQCB	5000 cfm		
NCB - NQCB	6000 cfm		
NCB - NQCB	7000 cfm		
NCB - NQCB	7500 cfm		
NCB - NQCB	8000 cfm		
NCB - NQCB	9000 cfm		
NCB - NQCB	10000 cfm		
NCB - NQCB	14000 cfm		

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