

TECHNICAL MANUAL



Industrial Clean BASIC

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- Type: professional central vacuum cleaner
- Model: Industrial Clean Basic
- Revision 2.0.0

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For the best results, we suggest to use SISTEM AIR original accessories and materials. The SISTEM AIR Trademark is a registered trademark and is property of TECNOPLUS S.r.l.

GENERAL INFORMATION

1. HOW TO USE THE MANUAL

The instruction manual has been written by the manufacturer and is an integral part of the vacuum cleaner. If the system is resold, given or hired out to others, the manual must be handed over to the new user or owner.

We recommend using and storing it carefully for the entire working life of the vacuum cleaner.

This manual explains how to use the equipment correctly in order to obtain the best performance while maintaining optimal working and safety conditions.

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TECNOPLUS s.r.l. reserves the right to upgrade or modify this manual or the vacuum cleaner itself at anytime without giving any prior notice to third parties.

2. DESCRIPTION OF THE VACUUM CLEANER

Constant research applied to central vacuum cleaners and advanced electronic technology have allowed TECNOPLUS S.r.l. to create the new dust separator Industrial Clean.

The central vacuum cleaner, suitable for any type of residential building (private houses, offices, hotels, service sector), consists of a network of PVC trace pipes, housed in walls or in false ceilings running through the various rooms; at the end of the pipes are positioned the suction sockets.

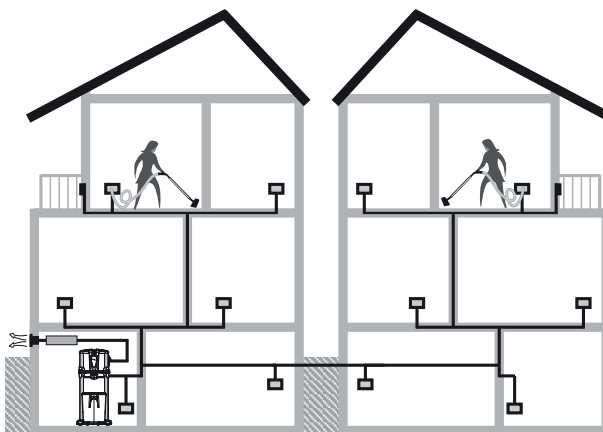
The SISTEM AIR vacuum cleaner is usually placed in a utility room, garage or other storeroom and connected to the suction pipes network.

The system is switched on by inserting the sleeve coupling of the flexible vacuum cleaning hose in any of the suction sockets.

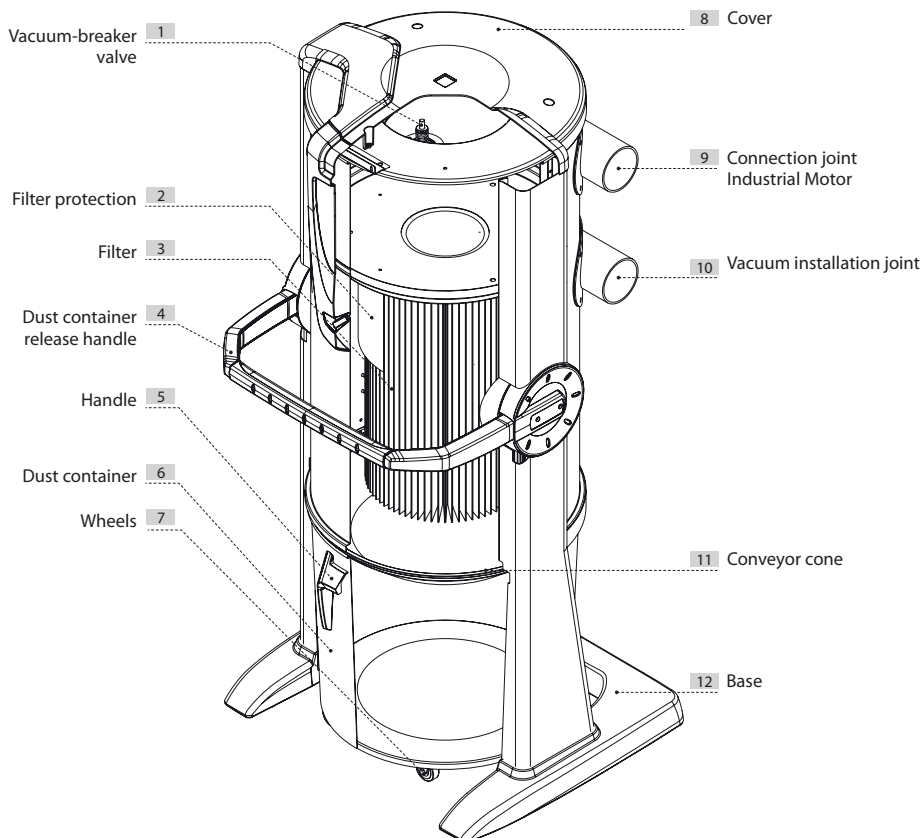
If the piping network doesn't feature any electrical power supply, the system can be switched on and off by means of a remote control device (optional accessory).

The Industrial Clean dust separator features innovative characteristics which make it more suitable for professional applications (small hotels, offices, sports centers, beauty shops) with reduced encumbrance.

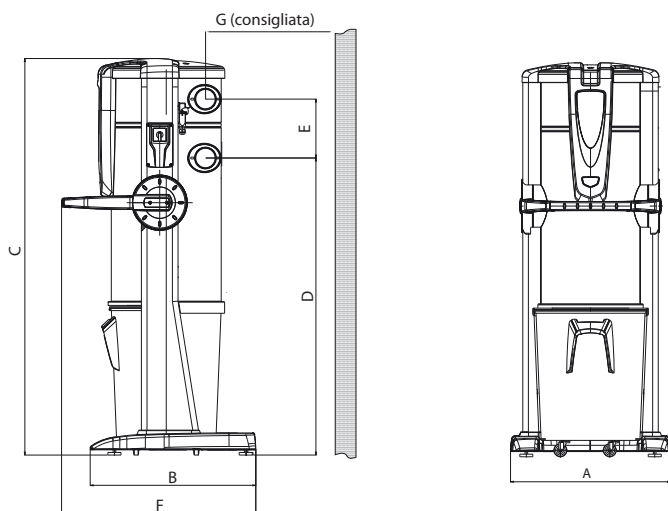
It is run by a second generation electronic system that Sistem Air applies to its vacuum cleaners to allow a simplified management of the cleaning unit.



3- TECHNICAL FEATURES



Industrial Clean			
Model Article		BASIC LT 80	BASIC LT 160
		3400.20	3400.21
Safety vacuum-breaker valve		YES	YES
Supply	V ac	220/240	220/240
Max air flow (motor)	m ³ /h	700	1200
Filtering surface	cm ²	24000	43400
Dust container capacity	l	62	106
Weight	kg	53	67
Measurement A	mm	615	750
Measurement B	mm	633	633
Measurement C	mm	1515	1616
Measurement D	mm	1135	1148
Measurement E	mm	281	281
Measurement F	mm	745	745
Measurement G	mm	500	500
Measurement M (air inlet)	mm	80	100
Measurement N (air outlet)	mm	80	100



4 - CONSTRUCTION FEATURES

The Industrial Clean Basic dust separators can be used in different contexts, thanks to their versatility and combination possibilities with the other components of the industrial central vacuum system. The dust containers are available in two versions with different capacity and can be used in both big or small industrial contexts.

The choice must be made depending on the total air flow of the motors they are combined with and on the number of users.

Since the industrial dust separators are a component of the installation, it is recommended to make a definitive choice only after carefully evaluating the project globally, considering the needs of use and the type of installation, but also the other necessary components in order to obtain the most complete vacuum system.

Motor air flow	MODEL	ARTICLE	Recommended number of users Ø 32	Recommended number of users Ø 40	Dust container capacity l	Filtering surface cm ²
Fino a 700 m³/h	BASIC LT 80	3400.20	4	3	62	24000
Fino a 1200 m³/h	BASIC LT 160	3400.21	8	4	106	43400

The Industrial Clean Basic dust separators are designed and manufactured in compliance with all the criteria imposed by the current regulations and European directives while carefully paying attention to crucial elements like performance, power and operating capacity.

The main technical characteristics are the following:

- Epoxy-powder coated cylindrical body made of metal
- Base coated with shockproof material to protect the unit.
- Metal bin for dust collection (62/106 l capacity) equipped with wheels for a more comfortable handling.
- Dust bag and bag-stretcher for dust collection, to ensure quick and hygienic disposal operations of the material collected
- Left or right connection possibility both to input pipes (suction) and to exit pipes (motor groups).
- Vacuum-breaker valve to prevent that the motor works in critical conditions.
- Polyester filter cartridge with M-class certificate, washable in water.
- Metallic filter protection to prevent accidental breaks.
- Liquid suction by using the optional accessory.
- Electrostatic material suction, once the grounded metallic pipe network has been carried out.

5 - SAFETY FEATURES

It is recommended to read carefully all the installation, use and maintenance instructions detailed in this manual.

Furthermore, the following WARNINGS should always be observed:

- Never use the machine for unauthorized purposes.
- Keep children away from the vacuum cleaner when functioning. Children should not play with the machine nor with the suction sockets.
- This equipment should not be used by persons (including children) with reduced psychic, sensory or mental capacities or by persons with no experience or knowledge of the system, unless under the guidance or instructed to use the machine by persons responsible for their safety.
- Children must always be supervised to ensure they do not play with the machine.
- Wear protective gloves and mask to carry out maintenance, to empty the dust bin or replace and clean the filter.
- Only use original spare parts and accessories.
- Do not suction clean fabrics, heavy materials, ashes or hot embers.
- Never suction clean liquids
- Do not use the system without a filter cartridge.
- Do not block the exhaust air pipes or the motor cooling intakes.
- No part of the body should come into contact with the suction accessories.
- Do not suction clean building materials (concrete, lime wastes, plaster dust, etc.) once the installation is completed. This will quickly clog the filter cartridge.
- **Do not vacuum any material which may cause electrostatic charges in the piping system, if not previously communicated to the constructor.**

Finally, remind that pictograms or danger and warning signals can be found on those parts of the equipment where, if not strictly followed, potential risky situations may occur.

WARNING: TECNOPLUS S.R.L. declines any form of responsibility or guarantee if the purchaser, or anyone in his stead, makes even the slightest modification or adjustment to the purchased product. The unit has been designed to satisfy at best the present needs of the domestic central vacuum cleaners

market, both in terms of quality and operating capacity.

All materials and components used to manufacture this product comply with CE safety regulations. All relevant certifications are held at TECNOPLUS S.R.L. headquarters.

5.1 Declaration of absence of dangerous substances

TECNOPLUS S.r.l. declares that its products and appliances have been manufactured with materials which comply with the restrictions established by the health and environment protection regulations in force and do not contain SVHC-classified substances (Substance of Very High Concern) in compliance with CE regulation 1907/2006 (REACH: i.e. Registration, Evaluation, Authorization and Restriction of Chemical Substances). Although these substances have not been used during the processing cycles of raw materials and during the manufacturing cycles of our products, their presence in p.p.m. (parts per million) cannot be completely excluded due to micro-pollution of raw materials.

5.2 Fixed closure safety guards

The access to the electric parts is protected by a cover which can only be removed by unscrewing the Torsen screws used to fix the soundproofing dome of the housing where the suction motors are assembled. Every intervention on the control board and on the motors must be carried out by qualified personnel only after disconnecting the electrical power supply and by removing the electric plug from the electric inlet.

5.3 Movable closure safety guards

There are no movable closure guards assembled on the appliance. Every guard assembled is considered a fixed guard and is fastened with special screws.

TECNOPLUS s.r.l. reminds you that it is absolutely forbidden to replace the screws used to design and manufacture the appliances with screws that feature different characteristics.

TECNOPLUS s.r.l. will immediately suspend the product guarantee in case of machine tampering carried out by the Customer.

6 - AUTHORIZED USE





The Industrial Clean Basic dust separator has been designed exclusively to vacuum clean dust, very small size solids and dry materials.

The use of the dust separator is authorized in industrial contexts through connection to a wall-traced pipe network and to a standard home electrical wiring.

The Industrial Clean LT 80 e LT 160 dust separators have to be used combined with one or more blowing motors in installations planned to support an air flow up to 700 m³/h for the basic LT 80 version and up to 1200 m³/h for the LT 160 version.

These components are used in installations presenting the following characteristics

- Mounting column measuring 63/80 mm (for the LT 80 version), or 63/80/100 mm (for the LT 160 version), based on the configuration chosen.
- Dust inlet measuring 80 mm (LT 80) or 100 mm (LT 160).
- Possibility for up to 4 contemporary users to use the installation for the LT 80, or up to 8 contemporary users for the LT 160 model.

MODEL	OPERATOR Ø flexible hose 32	OPERATOR Ø flexible hose 40
BASIC LT 80		
BASIC LT160		

7 - UNAUTHORIZED USE

It is extremely important **NOT** to use the appliance in the following circumstances which are considered to be inappropriate and dangerous:

- The system must not be used to vacuum clean fabrics, heavy or hot/burning materials.
- The system must not be used to vacuum clean liquids.

Furthermore the system has not been designed for use in environments with risk of explosion, and therefore:

- it is forbidden to suction clean materials with high-explosion risk (gunpowder) or materials which are individually inert but that, once collected and mixed in the dust bin, could provoke dangerous chemical reactions.
- It is absolutely forbidden to use the vacuum cleaner in explosive atmosphere or outside the standard temperature, pressure and humidity levels.
- **Do not vacuum any material which may cause electrostatic charges in the piping system, if not previously communicated to the constructor.**

Any use of the appliance other than those specified above is forbidden.

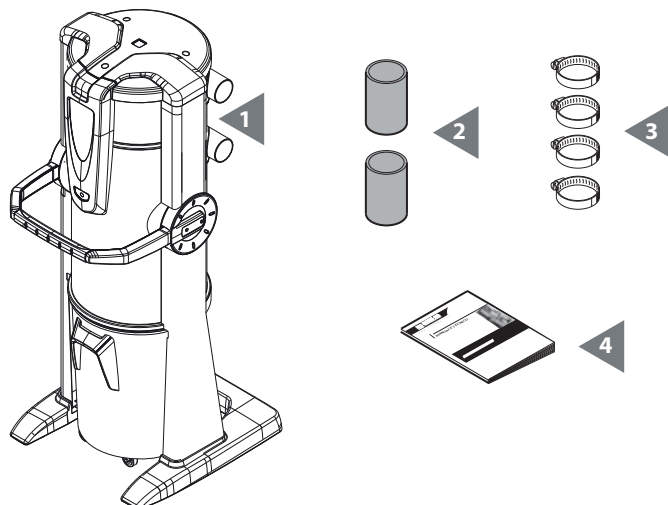
Any change or modification made to the system in order to vacuum clean a particular type of material must obtain the prior written approval of the manufacturer.

The use of the system for purposes other than those for which it was manufactured, represents an irregular condition which can cause damage to the product and seriously compromise the operator's safety.

8 - EQUIPMENT AND ACCESSORIES

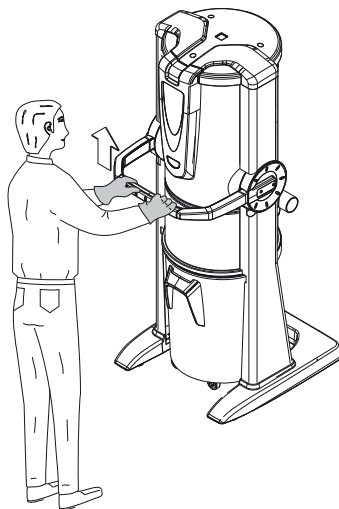
The packaging of the machine also includes a series of accessories as detailed below:

- 1) N°1 Industrial Clean Basic dust separator
- 2) N°2 rubber sleeves for the connection to the suction pipe network
- 3) N°4 metal clamps to fix the sleeves
- 4) N°1 installation, use and maintenance manual

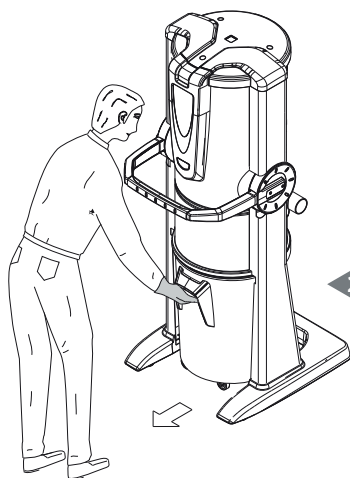


9 - EMPTYING THE DUST CONTAINER

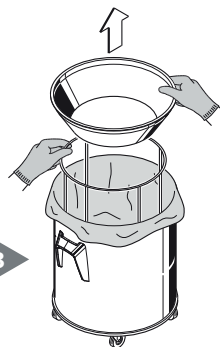
Use both hands to raise the release handle 1



2 Remove the dust container

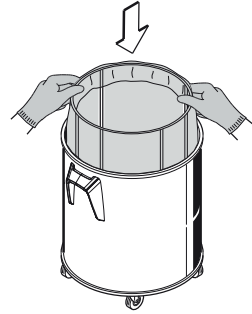


Remove the conveyor cone and the bag-stretcher 3

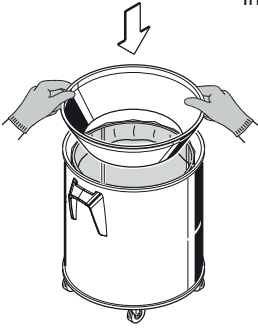




4 Tie up the dust bag and remove it from the container

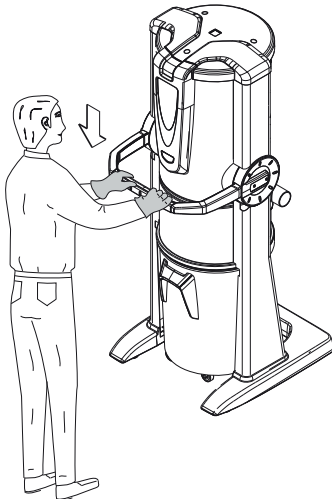
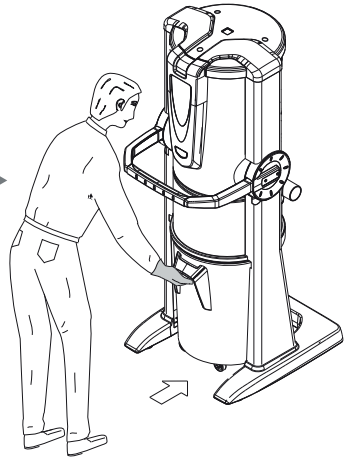


5 Introduce a new dust bag and the bag-stretcher



6 Assemble the conveyor cone

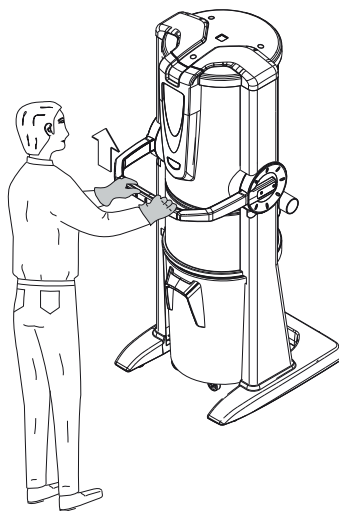
7 Put the dust container back in its position



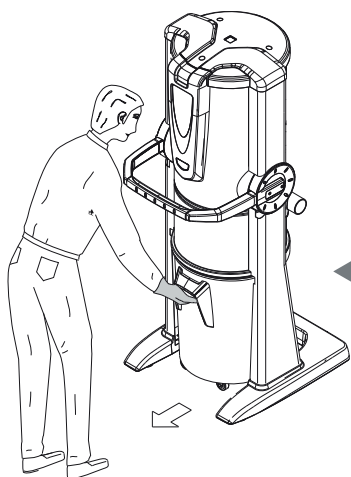
8 Use both hands to lower the clip handle

10 - REPLACING THE FILTER CARTRIDGE

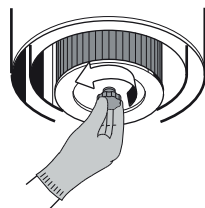
Lift the release handle using both hands **1**



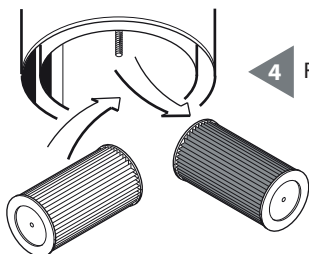
2 Remove the dust container

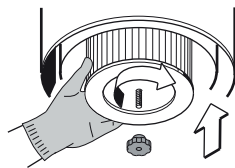


Unscrew the blocking knob **3**



4 Replace the filter cartridge

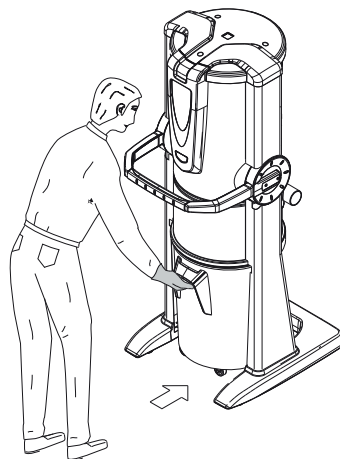




5 Screw the blocking knob

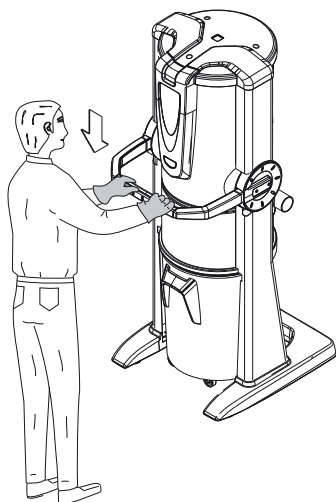
Reassemble the dust container in its position

6



7

Use both hands to lower the clip handle



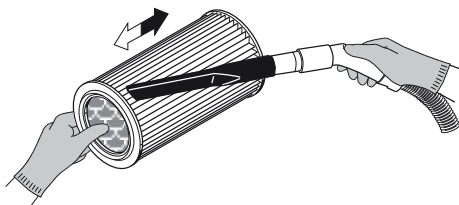
10.1 Regeneration of the filter cartridge



WARNING
DO NOT USE THE VACUUM CLEANER WITHOUT THE FILTER CARTRIDGE. ENSURE YOU HAVE REPLACED A SPARE FILTER CARTRIDGE BEFORE CARRYING OUT THIS OPERATION.

The filter cartridge can be regenerated more times by vacuum cleaning the dirt on the filtering surface; use the vacuum cleaner and the straight nozzle.

1



2

Check the filter surface is not cut. If this is the case, the cartridge should not be used again.



3

The filter cartridge can be washed under running water
WARNING: ensure the filter cartridge has completely dried before reassembling it.

11 - REPAIRS AND SPARE PARTS

11.1 Intervention Criteria



Any intervention on the vacuum cleaner for repairs and/or maintenance which are not expressly authorized in this manual is absolutely forbidden.

Any repair for breakage or malfunctioning must be carried out by qualified Technical Assistance personnel. Any intervention of non-authorized personnel will result in the invalidation of any guarantee of the product and the manufacturer will not be held responsible for any eventual damage to persons and/or objects due to such interventions.

11.2 Recommended spare parts

It is advisable to order in time those spare parts which need to be replaced most often.

In order to guarantee the optimal and long working life of the vacuum cleaner it is recommended to use only original SISTEM AIR spare parts, as detailed below.

DESCRIPTION	SPARE PART	VACUUM CLEANER MODEL	
Filter cartridge	1610.2	Industrial Clean Basic LT 80	
Filter cartridge	1610.4	Industrial Clean Basic LT 160	
Dustbag for dust collection in the bin	1614.2	Industrial Clean Basic LT 80	
	1614.3	Industrial Clean Basic LT 160	

11.3 Putting the vacuum unit out of service (general rules)

Should you decide to put the suction system out of service, this should be done with the utmost attention to everyone's health and environment.

You can get information about spaces and/or persons duly authorized for the collection and disposal of this product.

The disposal and/or recycling of any part of the system must be carried out in strict compliance with the regulations in force.

12 - IDEAL LOCATION OF THE VACUUM CLEANER TO REDUCE SOUND EMISSION

The following suggestions and measures will help reducing the sound emissions of the vacuum cleaner:

- You can use sound-absorbing materials on the two side walls if these are very close to each other; this will interrupt the sound wave and avoid resonance phenomena between the two waves which could reflect on the two opposite walls.
- You can possibly soundproof the ceiling.

13 - VIBRATIONS

There is no contact between the hand, arm or body of the operator and the machine when vacuum cleaning using the flexible hose.

For this reason there is no risk related to vibrations.

14 - INSTALLATION



**- WARNING -
THESE PROCEDURES MUST BE CARRIED OUT
BY QUALIFIED STAFF**

14.1 Recommended installation

The Industrial Clean dust separator combined with one or more blowing motors must be connected to an exhaust air pipe, crucial for discharging outside the micropowders that the filter cartridge cannot retain. The vacuum cleaner must be installed in service rooms (e.g. garage, store room etc) protected from bad weather, dampness and excessive temperature variations (working environment temperature “-5 ÷ 45°C”, relative humidity 20 ÷ 85% without moisture or freezing). Install the unit in a place far from heat sources such as stoves and radiators (N.B: the unit features IP 20 protection degree).

During the set up phase, we suggest to always carefully check that the unit is positioned in the most suitable location selected for the system. Check also that sufficient space has been allowed for installation, use and maintenance purposes and for an optimal recirculation of the air around the vacuum cleaner. Construction features allow the vacuum cleaners to be connected to the pipe system with pipes coming either from right or left sides. In case of multi-storey vacuum cleaning system, we suggest you to install the unit on the lowest available floor..

14.2 Positioning of the unit

For a correct use and to facilitate maintenance it is advisable to keep a minimum distance of 60 cm on three sides around the appliance (excluding the side on which it is fixed to the wall).

14.3 Fixing the unit

The unit does not need any special fixing device. For a correct and safe positioning, it is however necessary to check that the location selected for installing the unit features the following min. requirements:

- a solid, perfectly flat and horizontal bearing surface;
- the surface must not vibrate. Furthermore it is of utmost importance to avoid any unevenness of the bearing surface that could make the unit unstable.

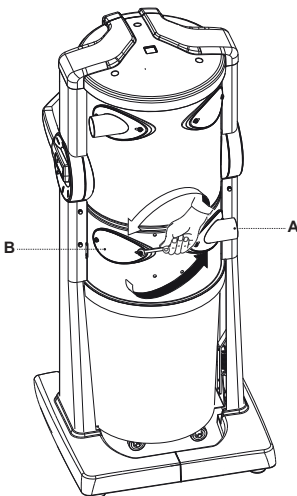
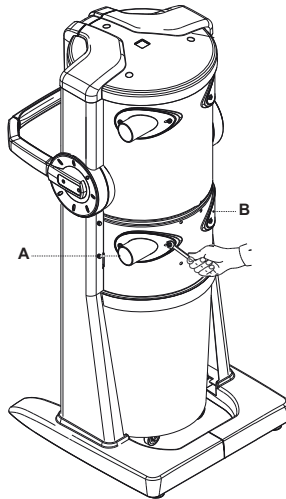
14.4 Transforming DX version (outlet pipes fitted on the right) into SX version (outlet pipes fitted on the left)

The units are generally supplied with suction and exhaust pipes on the right side (RIGHT version). If needed, the system can be transformed so to have both suction and exhaust pipe connections on the left side (LEFT version).

To do this:

Disassemble the intake of the "A" suction pipe and the "B" closing plate by removing the screws.

1

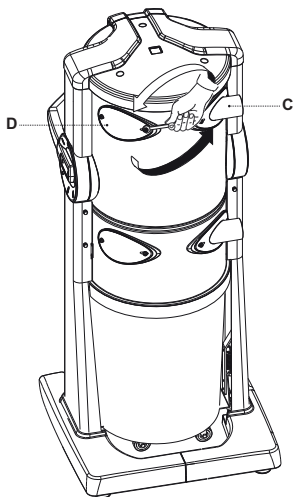
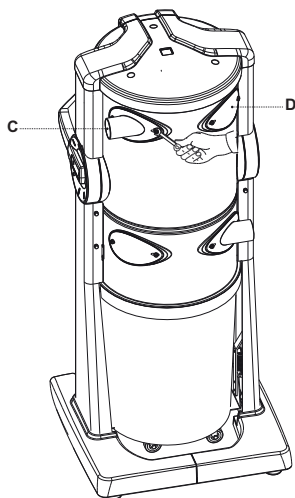


2

After exchanging their housings, re-assemble the intake of the "A" suction pipe and the "B" closing plate by fastening the screws.

Now rotate by 180° the intake of the suction pipe as shown in the picture.

Disassemble the intake of the "C" suction pipe and the "D" closing plate by removing the screws. **3**



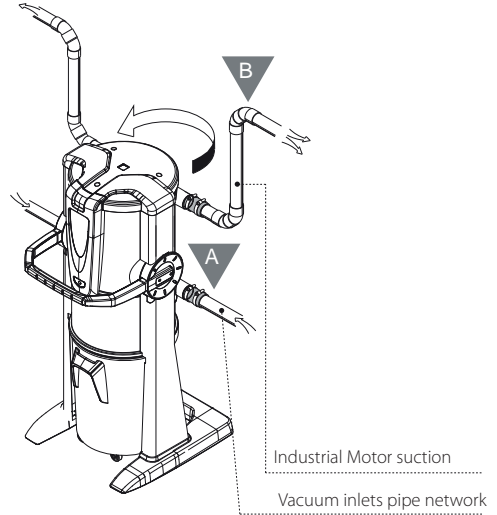
4 After exchanging their housings, reassemble the intake of the "C" suction pipe and the "D" closing plate by fastening the screws. Now rotate by 180° the intake of the suction pipe as shown in the picture.

14.5 Connection to the pipe network (see figure)

The inlets for connection to the pipe network and to the air vent pipe to the outside can be positioned both on the right side and on the left side of the control unit.

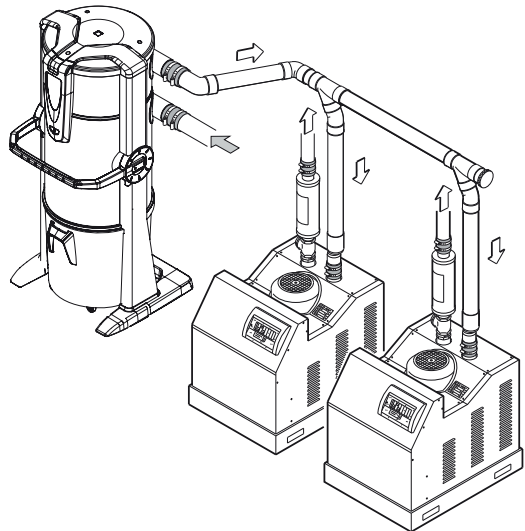
A The intakes for the connection to the suction pipes of the network and to the pipes exhausting the air outside can be assembled either on the right or left side of the unit.

B Using the sleeve and the metal clamps delivered with the unit, connect the unit to the air suction pipe. Using the sleeve and the metal clamps delivered with the unit, connect the unit to the suction pipe of the blower motor.



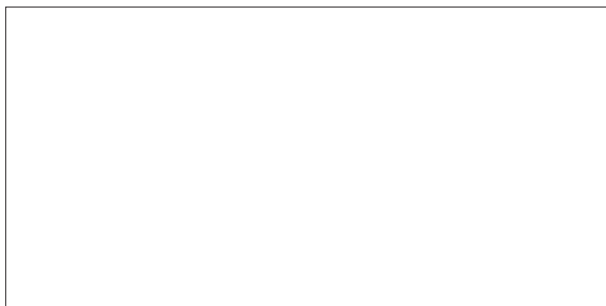
N.B. It is recommended to collocate as close as possible the dust separator to the Industrial Motor to prevent the pressure drop caused by the pipe network length and by the use of joint elbows and derivations.

Example of connection to the pipe network



Industrial Clean

BASIC



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