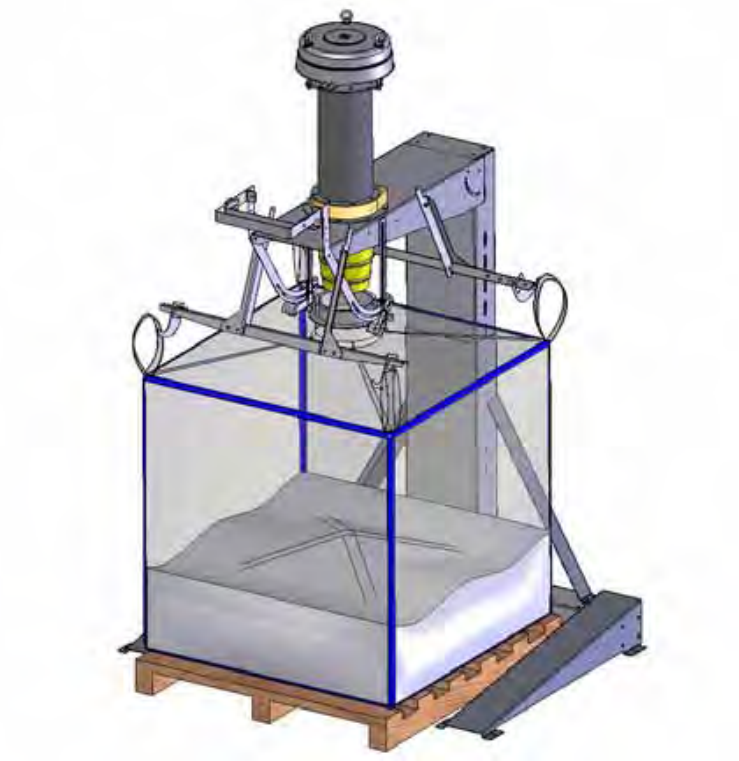
EN

EASYFILL™ RC

Dust Collector with Filter for RECOFILL™

2

INSTALLATION OPERATION AND MAINTENANCE



Manual No. EXT.158.--.M.EN	Issue: A4	Latest Update: 02/11
ORIGINAL INSTRUCTIONS IN ENGLISH		

WAMGROUP®

EXTRAC®

All the products described in this catalogue are manufactured according to **WAMGROUP S.p.A. Quality System procedures**. The Company's Quality System, certified in July 1994 according to International Standards **UNI EN ISO 9002** and extended to the latest release of **UNI EN ISO 9001**, ensures that the entire production process, starting from the processing of the order to the technical service after delivery, is carried out in a controlled manner that guarantees the quality standard of the product.

CONTENTS

SUBJECT INDEX

Handbook objectives

This handbook has been created by the manufacturer in order to supply the installation, operation and maintenance-related technical information of the big-bag filling EASYFILL™ model.

The handbook as integral part of EASYFILL™ must be kept during the entire lifespan of the big-bag filling system in a known and easily accessible place, available whenever it needs to be consulted.

Should the handbook be lost, crumpled or in any other illegible condition, you should ask for a new copy from the manufacturer by indicating the serial number of the system, as well.

If transferring the ownership of EASYFILL™ the handbook must be delivered to the new owner as integral part of the system.

The handbook is addressed to technical specialist staff, appointed and authorised by the manufacturer, the owner and the fitter to perform all interventions on EASYFILL™ for which a specific technical intervention-related competence is required (electrical, mechanical etc.).

The images may differ from the actual structure of the system yet they do not interfere with the operation exposure.

In case of doubts, please address the manufacturer for clarifications.

The manufacturer reserves its right to bring alterations to the handbook without any obligation to communicate them in advance, except for the alterations regarding the safety provisions.

The technical information contained in this handbook is the manufacturer’s property, and shall be handled as confidential.

It is prohibited to use the handbook for other purposes than the ones directly related to the installation, operation and maintenance of the system.

This information is supplied by the manufacturer in the original language (Italian), and may be translated into other languages in order to satisfy the legal and/or business requirements.

Symbols

In order to highlight certain fragments that are relevant from the point of view of safety or in order to indicate important pieces of information, we have adopted certain symbols that are hereinafter described.

It is important to strictly observe and follow the information contained by the symbols.

Danger - Attention

It indicates highly dangerous situations, which may seriously endanger personal safety and health.

Caution- Precaution

It indicates that one must adopt appropriate behavior in order not to endanger personal health and safety or cause material damages.

Important

It indicates technical information of the utmost importance that shall not be overlooked.

Glossary and terminology

Operator: any person appropriately trained and authorised by the production manager in order to commission the device and perform any kind of ordinary maintenance.

Fitter: a company having the appropriate specialist technical staff and equipment, capable of correctly assembling and performing special maintenance without any risks.

Specialist technician: any person appointed or authorized by the manufacturer, the owner or the fitter in order to perform interventions on the system in case any specific intervention-related technical competence is required (electrical, mechanical, etc.). Besides being familiar with the operation of the system, the specialist technician must know the operation of the equipment or machine which the big bag filling system is fitted on.

Ordinary maintenance: all interventions needed for keeping the system in proper working conditions, in order to guarantee a longer working life and constantly comply with the safety standards.

Extraordinary maintenance: all interventions needed in order to keep the system functional and efficient.

Safety arrangements: all precautions that the authorized staff must observe before performing any interventions on the system.

The precautions are listed below.

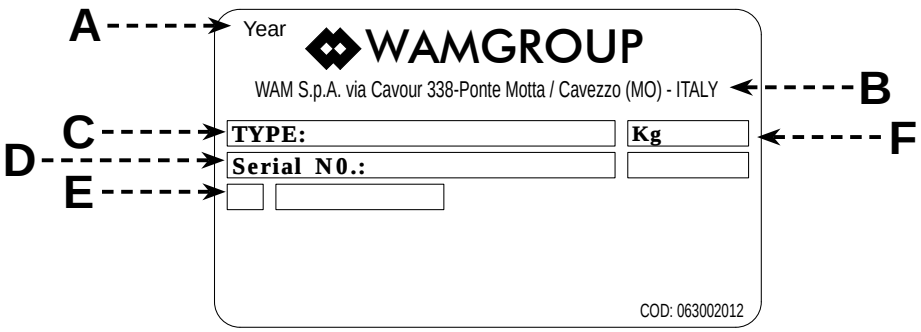
- Make sure that the system is disconnected from all energy supplies and is blocked by proper devices and may be reconnected at any times.
- Light properly the area around the operations.
- Wait until the dust inside the big-bag has completely settled.

The manufacturer's data and the identification details of the system

Important

Do not alter the data on the identification plates.
Keep the data on the plates clean, intact and legible.
It is recommended that if the plate is damaged or is no longer legible (even if one piece of information has been erased), you should ask for a new plate from the manufacturer and proceed to its replacement.

The plates represented below identify the equipment herein as well as its main parts.
The plates contain the main references needed for safe operation.



Identification plate of equipment.

A) Year of manufacture
B) Manufacturer's identification
C) Type of equipment
D) Serial No.
E) Progressive number of section
F) Weight of the equipment

Assistance inquiry

For any technical assistance inquiry please address directly the manufacturer's dealer.
For any inquiry, you should provide the equipment identification data, the type of failure you encountered and any other information that may be useful in order to identify the inconvenience.

Warranty

The warranty validity and applicability conditions are contained in the sales agreement.

Disclaimer

The device is supplied according to the specifications of the buyer's order and the conditions applicable in the moment of purchase.

The manufacturer is exempt of any responsibility regarding personal, material and operational safety if the loading and unloading operations, the tran sport, the positioning on site, the use, the repair and the maintenance operations etc. are not performed according to the notices described in this handbook, in compliance with the national legislation on force.

Moreover, the manufacturer is exempt of any responsibility if the device herein is used:
- incorrectly;
- by unauthorised and/or assembly-, operation- and maintenance-wise improperly trained staff;
- if alterations have been made on the original configuration, which the manufacturer did not consent to;
- if the spare parts mounted are not genuine or do not fit the model;
- in case of faulty maintenance;
- incompliantly with the National or local labor safety norms and legislation in force ;
- incompliantly with the recommendations in this manual or the warning and danger signs positioned on the equipment.

General safety provisions

Read the supplied instructions handbook attentively and observe strictly the instructions herein, especially those regarding safety.

Most work accidents are due to carelessness, non-observance of the most basic safety rules and the incorrect and inappropriate use of tools and equipments.

The accidents may be prevented and avoided with due diligence, appropriate devices and equipments as well as proper preventive measures.

Apply and observe all hygiene, accident prevention and labour safety rules in force.

The trained staff authorised to operate the equipment must possess the physical and psychological requirements, experience in the specific field as well as the necessary technical knowledge in order to perform the assigned operations.

All individuals involved in any kind of intervention must be prepared, informed and trained regarding the possible risks and the behaviour to adopt.

Pay attention to the plates on the device; keep the information legible and observe it.

Use standardized and properly safe tools, devices and instruments that cannot alter the safety level of the operations or damage the device during assembly, operation and maintenance

The parts of the device must not be altered for any reason whatsoever without the manufacturer’s prior consent..

Transport and handling safety provisions

Perform all handling and transport operations in compliance with the procedures and instructions on the packaging and in the supplied handbook.

All operations must be carried out by skilled and authorised staff.

The staff authorised to perform the handling operations must possess specific skills and experience and must make use of all the necessary measures in order to safeguard his own safety as well as the safety of individuals directly involved.

The features of the lifting and handling equipment (crane, overhead travelling crane, lift truck etc.) must be selected by taking into account the weight to be handled, the overall dimensions as well as the grip points.

The lifting phases may involve only the use of accessories such as lifting lugs, hooks, triggers, snap hooks, strips, breeches, chains, ropes etc., which are certified and appropriate for the weight to be lifted.

During the handling phases, observe the load handling provisions.

Keep system pallet horizontal, keep the load low and perform all the necessary movements slowly.

Avoid sudden movements, dangerous swings and rotations; if necessary, help the positioning with your hand and gently place the load on the ground.

Installation safety provisions

Before beginning installation it is necessary to implement a “safety plan” in order to safeguard the safety of individuals directly involved in the operations or of the staff working in the vicinity.

Strictly apply all the laws especially the ones on labour safety.

Mark off appropriately the working area before performing any installation operation in order to avoid the access of unauthorised individuals.

The electrical connections must be set according to the laws and norms in force.

Before testing, the manager responsible for the electrical connections must check whether the regulatory and legal provisions have been observed.

Use and operations safety provisions

Do not alter the big-bag filling with any other device in order to obtain other performances than the ones designed.

Any unauthorised alteration may affect the health of individuals and may damage the big-bag filling.

Operators must wear protective clothing and must be equipped with appropriate individual safety devices in order to carry out the operations required by the safety and accident-prevention standards.

Before using the equipment, make sure that all safety devices are installed and work correctly.

During the operation of the equipment, prevent the access of unauthorised individuals in the working area.

Remove any obstacle or danger source from the working area.

Maintenance and part replacement safety provisions

Danger - Attention

Prior to any intervention on the equipment, make sure that each device (EASYFILL™, RECOFIL™ and POWERFIL™) is turned off and disconnected from all power supplies and prevent their sudden reconnection by means of appropriate devices.

Keep the maximum efficiency of the system, observing the scheduled maintenance plan provided by the manufacturer.

Besides preserving the working features as well as the essential safety features in time, a proper maintenance allows extending the operational life of the device and achieving better performance.

Strictly observe the procedures indicated in the handbook, especially those regarding safety.

Make sure that all safety devices are functional and active.

Mark off the working area in order to prevent the access of unauthorised individuals in the working area.

Replace the worn or damaged parts only with original spare parts that had the safety, reliability and interchangeability ascertained. Besides losing your warranty, the manufacturer waives any responsibility for damages caused to objects or persons due to the use of non-genuine parts or to alterations brought about during repairs carried out without its prior written consent.

Use the oils and lubricants recommended by the manufacturer.

Do not dispose the polluting materials in the environment (oils, fat, varnishes, plastic etc.), dispose rather selectively depending on the chemical composition of various products, observing the laws in force on the matter.

After completing the maintenance or replacement operations, check that no foreign bodies were left (cloths, keys etc.) inside the device before restarting the production.

General description of the device

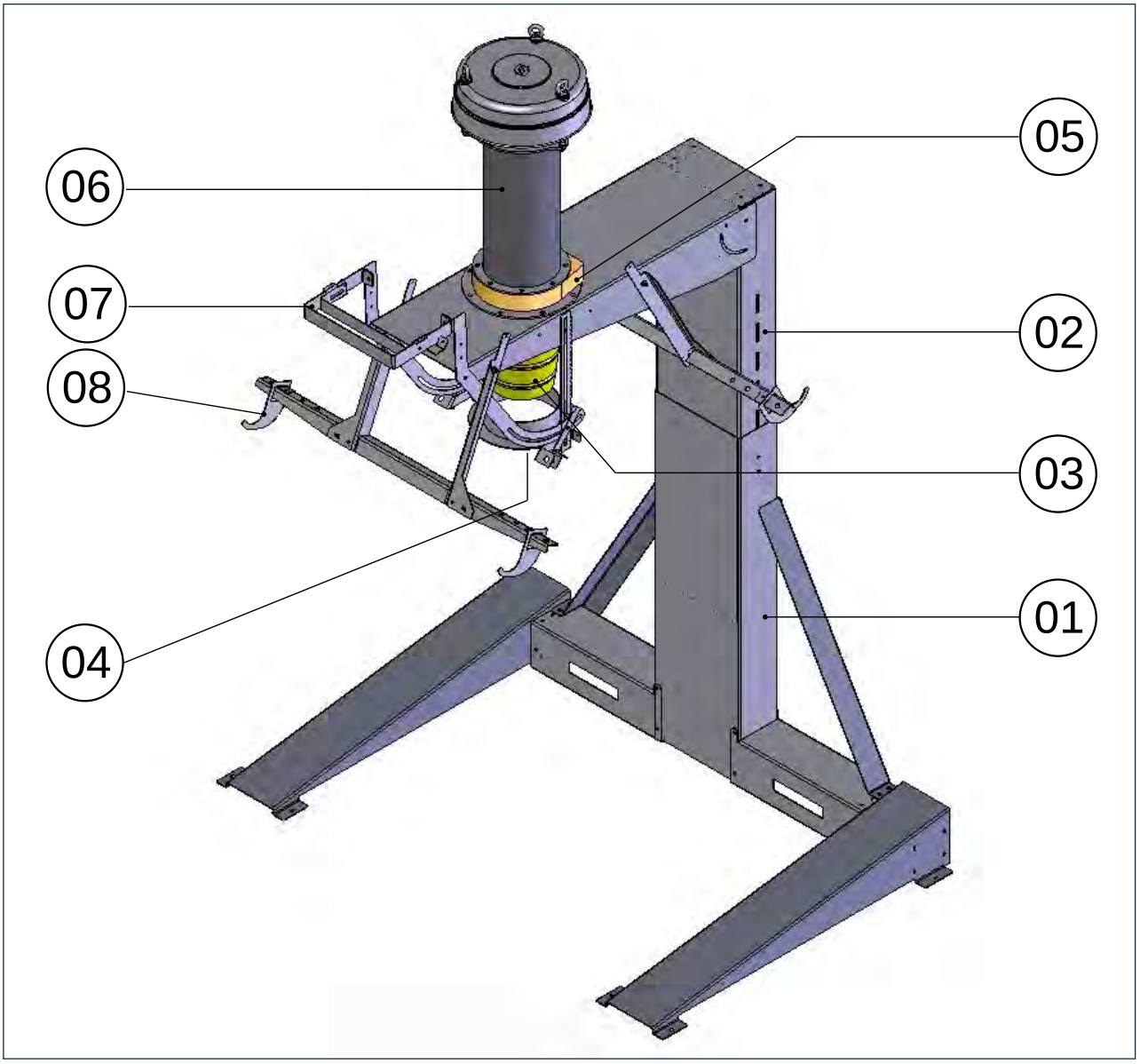
EASYFILL™ is a device used for filling various types of big bags in various shapes and sizes.

In particular, EASYFILL™ RC is a variant equipped with a jet cleaned cartridge filter for pneumatically filling big bags via the RECOFIL™ system.

EASYFILL™ is made up of one metal frame with an adjustable height for keeping the big bag open (without supporting its weight) during the filling operations by means of the provided special elastic arms.

These elastic arms make it possible to use the EASYFILL™ for big bags of various sizes.

Main parts



The standard version of the EASYFILL™ RC big bag filling system is made up of:

1) Supporting frame
2) Extensible frame
3) Filling head
4) Quick fastening sealing system
5) Pneumatic collector
6) Filter
7) Closing handle
8) Big-bag fastening hooks on spring balancers

1) - Supporting frame

It supports the filling head during the big-bag loading phase. It is made sheet steel, which ensures resilience and strength facilitating its handling.

2) - Extensible frame

Assembled inside the supporting frame, if extended, it may adapt the entire structure to various heights of the big-bags. The upper console is equipped with four preloaded arms with hook springs at the far ends for keeping the big-bag constantly open in order the facilitate its filling.

3) -Filling head

It is a device that holds the filling hole of the big-bag during the filling phases. It is made of SINT® engineering polymer and has a frustoconical shape in order to adapt better to the filling hole of various sized big-bags.

The standard one is equipped with a 4-sleeve collector to be fed via RECOFIL™; it also has the role to support the airing filter.

4) - Quick fastening sealing system

It is made up of a ratchet device that blocks the big-bag hole on the filling head, ensuring dust recovery during the filling phase.

It is possible to easily unblock the arrest by means of a special handle.

5) - Pneumatic collector

It is made up of an engineering polymer collar that plays a collector role for the recovery of input dust from maximum 4 users of 1”, transporting it to the big-bag.

6) - Filter

Assembled in the filling head, it makes it possible for the air coming from RECOFIL™ to escape. It is equipped with a jet cleaned replaceable cartridge.

7) - Closing handle

It is made up of a lever that allows the operator to easily actuate the ”Quick fastening sealing system” **4)**.

Then, a special handle allows the operator to release the big bag at the end of the filling operation.

8) - Big-bag fastening hooks on spring balancers

These are the hooks on which the big-bag ears are fastened and, which being placed on spring balancers, keep it open during the filling phase. The position of such hooks may easily be adjusted on the supporting arm in order to be able to use big-bags of various sizes.

Operation principle

The big-bag is kept open by fastening hooks mounted on the spring balancers; the hole of the big-bag is kept tight to the filling head by means of the quick fastening sealing system.
During operation, dust and air get to the filling head via the pneumatic collector.
Dust falls into the big-bag while the filter cleans the air of dust and clean air is released into the atmosphere.

Use

EASYFILL™ must firmly be attached to the ground during use.

The content of the big bag must not empty on the EASYFILL™ structure in any case.

The height difference between the lower part of the big-bag and the ground must be compensated by the proper adjustment of the extensible frame or by the interposition of a pallet or any other supporting structure.

Forbidden incorrect use

It is prohibited to hang the big-bag on the EASYFILL™ structure.

Notices

Check so that the big-bag filling takes place symmetrically in order to avoid the turnover of the big-bag.

Noise level

The noise level of the EASYFILL™ device is not higher than 75 dB(A) measured at 1 meter from the most unfavourable position.

Danger - Attention

Depending on the assembling site, the fitter must adopt appropriate systems, if need be, (barriers, etc.) in order to keep the noise level within the legal limits.

Environmental operation limits

If not otherwise indicated, the device must be used within the specified limits

- Ambient temperature: between - 20 and + 70 °C
- Cold climate: temperatures below 5 °C the compressed air used must be properly dehumidified in order to avoid condensation.

Overall dimensions and technical features

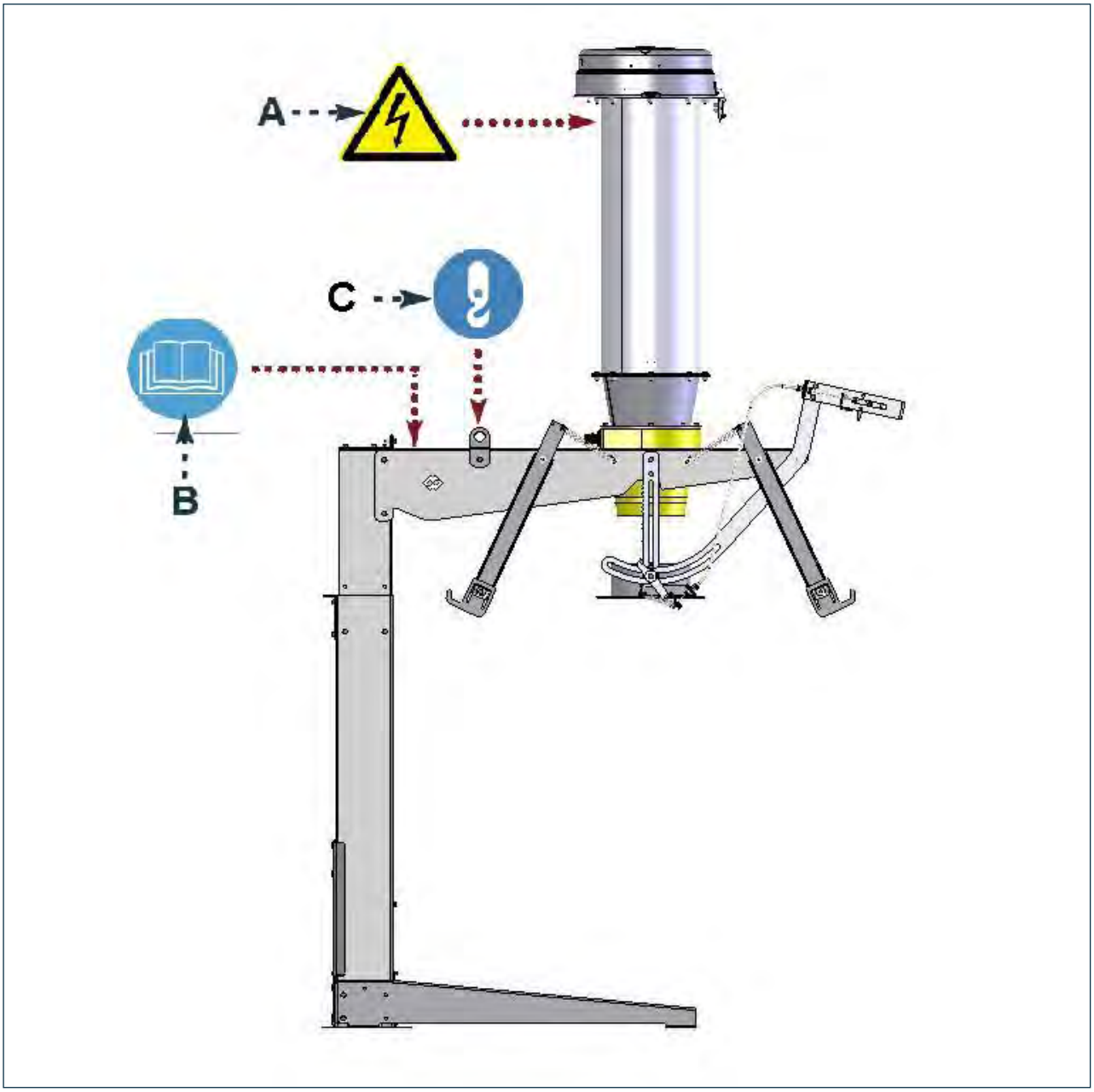
For the correct identification of the device, please see the identification plate.

The shipment document contains the serial number and the identification code as well as the weight and overall dimensions of the device.

Safety and information signals

Danger - Attention

Observe the warning signs.
Check that the plates are legible; in case they aren't, clean them and in case they are damaged, replace them, placing them in the original position.



A) Danger warning: it indicates electrocution danger due to the parts under voltage inside the box.

B) Compelling signs: read this handbook before performing any interventions on the device.

C) Compelling signs: they indicate the grasping points for lifting the device.

Safety devices

It is not necessary to open the sealing system during normal operation. It is necessary to open it only when replacing the bag, after having disconnected the system from the power and pneumatic energy sources.

In order to prevent unauthorised staff from accidentally opening the system, the handle of the unjamming device must be locked according to the standards and the instructions in this handbook.

Residual risks

Dust equipment: do not unblock the sealing system before disconnecting the EASYFILL™ and the RECOFIL™ from all power and pneumatic energy sources.

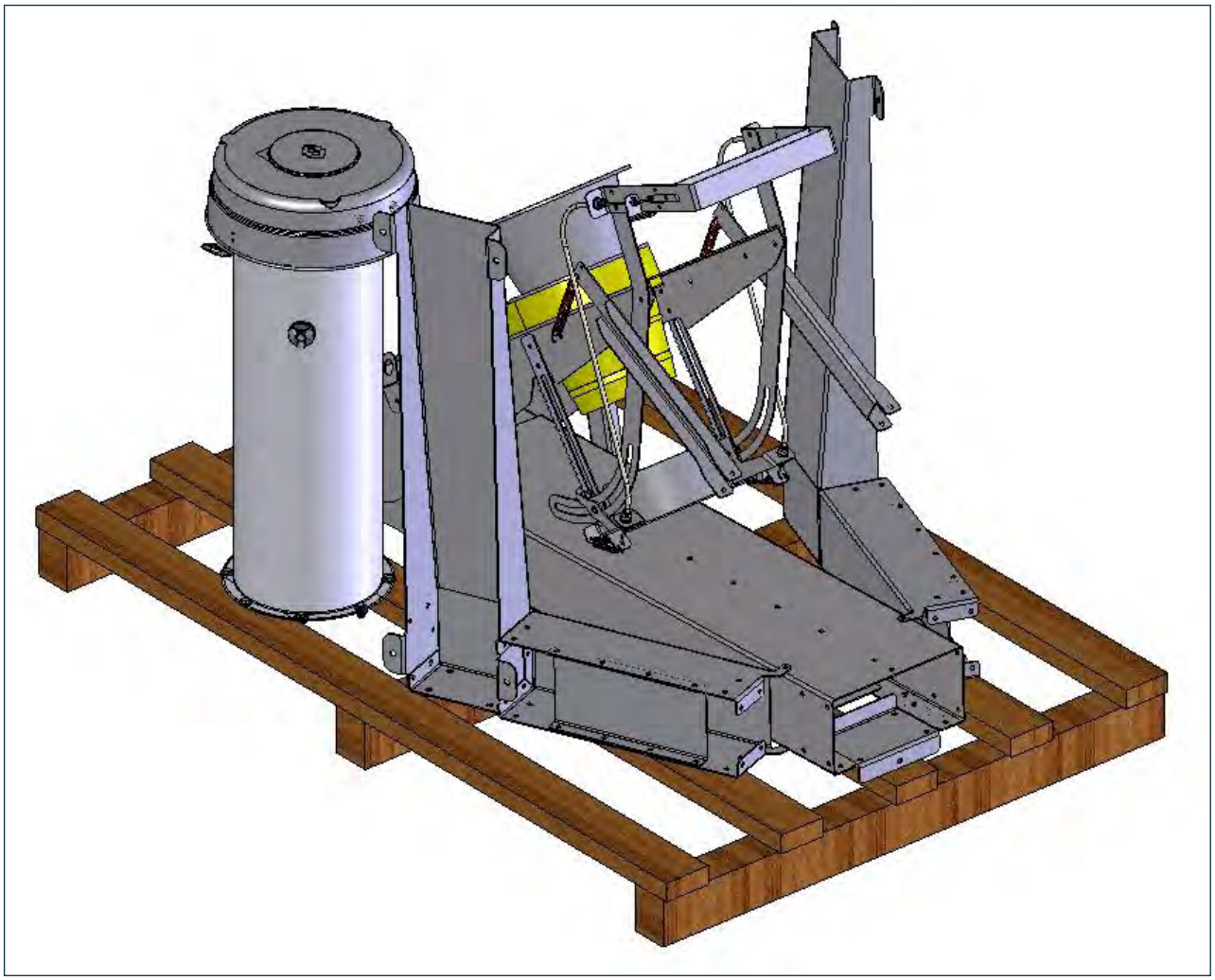
Crushing risk

The bag closing device implies only one operator's activity; the handle must be activated with both hands. Never put your hands on the bag hole during handle activation.

The device implies that the big-bag must rest on the ground during the filling phase. The weight of the big-bag must never lean against the body of the device since it would cause structural failures.

Wrapping

This picture illustrates the type of packaging used for shipment in most cases.



The packaging material shall be disposed of or recycled according to the legislation.

Delivery

When the product is delivered, check if the product type and quality comply with data in the order confirmation.

Any possible damages must immediately be notified in writing in the appropriate section of the waybill.

The carrier is bound to accept such complaints and shall hand you over one copy of the waybill.

If delivery is “carriage paid” you shall send the manufacturer of the carrier a copy of the waybill containing the complaint.

If the damages are not requested immediately upon the delivery of the goods, your claim might not be approved.

Lifting and unloading methods

Before assembly, the device must be handled on the pallet it has been delivered on and which is positioned on.

Pay attention to the balancing movement of the load.

The authorised unloading staff must adopt all necessary measures in order to safeguard his own safety as well as the safety of the directly involved individuals.

Use appropriate tools and accessories for the load to be lifted.

During lifting pay attention and balance the load in order to avoid any uncontrolled movements that might injure the persons around.

Do not pile up the packaging material since it is not dimensioned for stacking.

Do not drag or push the packaging material in order not to damage it.

Before lifting and handling the load, read the related pertinent information presented in the chapter “Safety Information”.

As soon as the entire system is assembled, lifting and handling must take place by means of the indicated lifting lugs, using the appropriate ropes.

Follow the instructions in the chapter “Installation and fastening” for the assembly of the device.

Recommendations for installation

Danger - Attention

The installation operations must be performed by a skilled technician trained in the field.
Adopt appropriate and suitable safety measures and use suitable tools in order to avoid injuring the staff involved in these operations as well as the individuals in the vicinity of the device.
Move the device as indicated and shown in the section "Lifting and unloading methods".

Before starting the installation phase, define a safety plan that would contain the observance of the legislation in force concerning safety on the working sites.

The skilled technician authorised either by the fitter or the owner shall assess whether the area has correctly been prepared and whether the equipment needed for installation are available (crane, etc.).

Define the assembly methods according to the configuration of the system.

Check that the supporting surface is even, flat and stable.

Instructions for the assembly, installation and connection of the device

ASSEMBLY AND DISASSEMBLY

- **Skilled staff**

All assembly, disassembly, use and maintenance operations must be performer by skilled staff, wearing the individual protective equipment indicated herein, after having read all the assembly information.

- **Checks to perform**

Before starting the device assembly operations, check if all the parts exist and their integrity, as indicated in the "Main Parts" section on page 12.

- **Positioning the device**

EASYFILL™ must be positioned on a flat and solid surface, maximum 10 meters away from the RECOFIL™ device, farther away.

EASYFILL™ must be positioned in such a way as to allow the easy access and exist of the forklift or of any other big-bag lifting equipments.

The installation area must allow the filter cap to be opened wide as well as the removal of the filtering element during maintenance (See the drawing presented in the "TECHNICAL DATA" chapter).

For the correct and safe use of the machine, EASYFILL™ must suitably be fastened to the ground, by means of appropriate holes (See the drawing presented in the TECHNICAL DATA" chapter).

- **Individual protective equipment**

The following individual protective equipment must be worn during assembly and disassembly:

Protective gloves

Protective footwear

Helmet

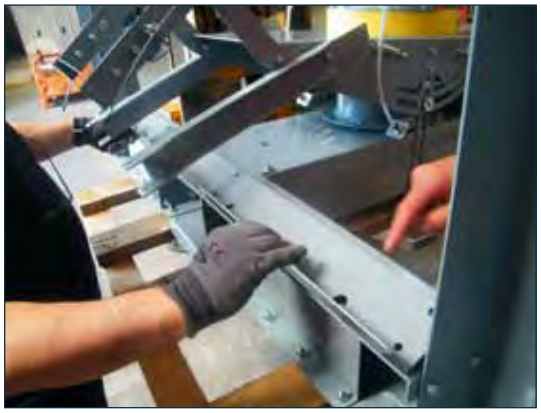
- **Assembly and disassembly sequence**

1) Place the pallet near a suitable lifting equipment, then remove the heat shrink using a cutter or another suitable cutting tool, paying attention not to damage any of the machine parts.

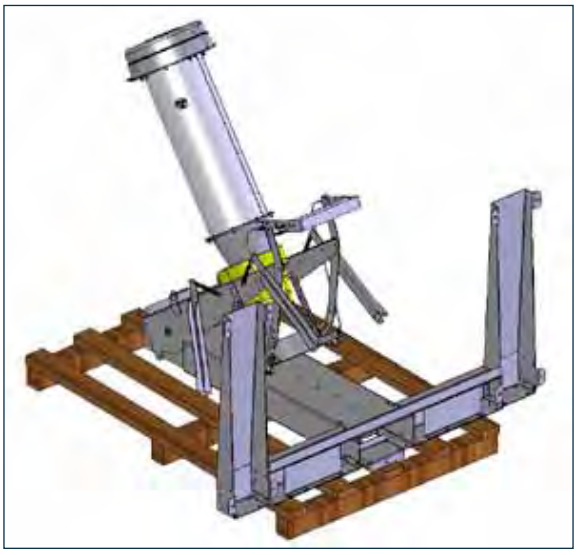
2) Remove the filter by unscrewing the screws on the bottom; then remove the 5 crosspieces fastened to the pallet.

3) Open the legs as illustrated by the picture and fasten them with the bolts from the supplied nuts and bolts kit.

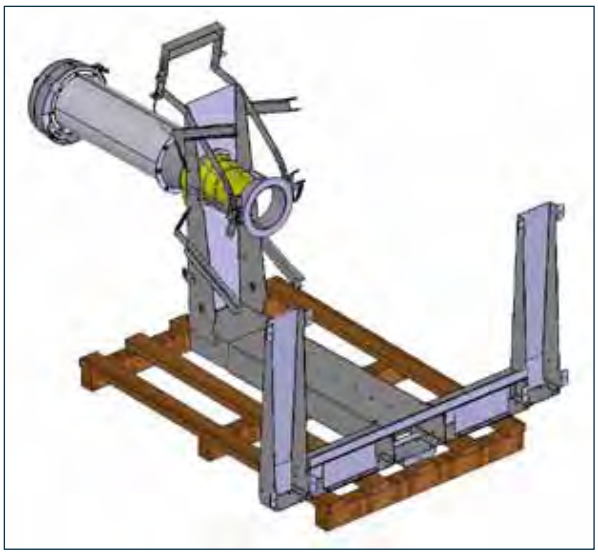
4) Position the L crosspiece as illustrated in the following picture, paying attention to match the holes on the crosspiece with the suitable crews; then fasten the crosspiece with the supplied screws.



5) Place the filter on the appropriate section and fasten it with the supplied screws.



6) By means of a suitable lifting device hooked to the lifting lugs of the filter, rotate the fastening base of the filter around 90° until it stops; by the end of this operation, the filter shall be positioned horizontally.



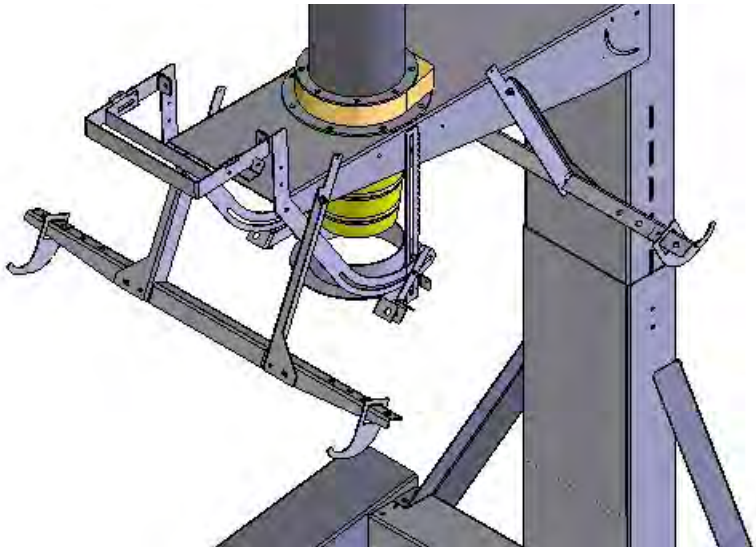
7) Fasten the filter leaning base to the appropriate bracket tightening all the bolts properly.

Insert and fasten the two bolts on the sides of the filter leaning base.

By means of a suitable lifting device, lift the EASYFILL™ up to its working position, hooking the two lifting lugs to the sides of the filter leaning base, rotating it around at about 90°.

While supporting EASYFILL™ constantly, assemble the two rear diagonal crosspieces, observing the assembly direction as indicated in the following image.

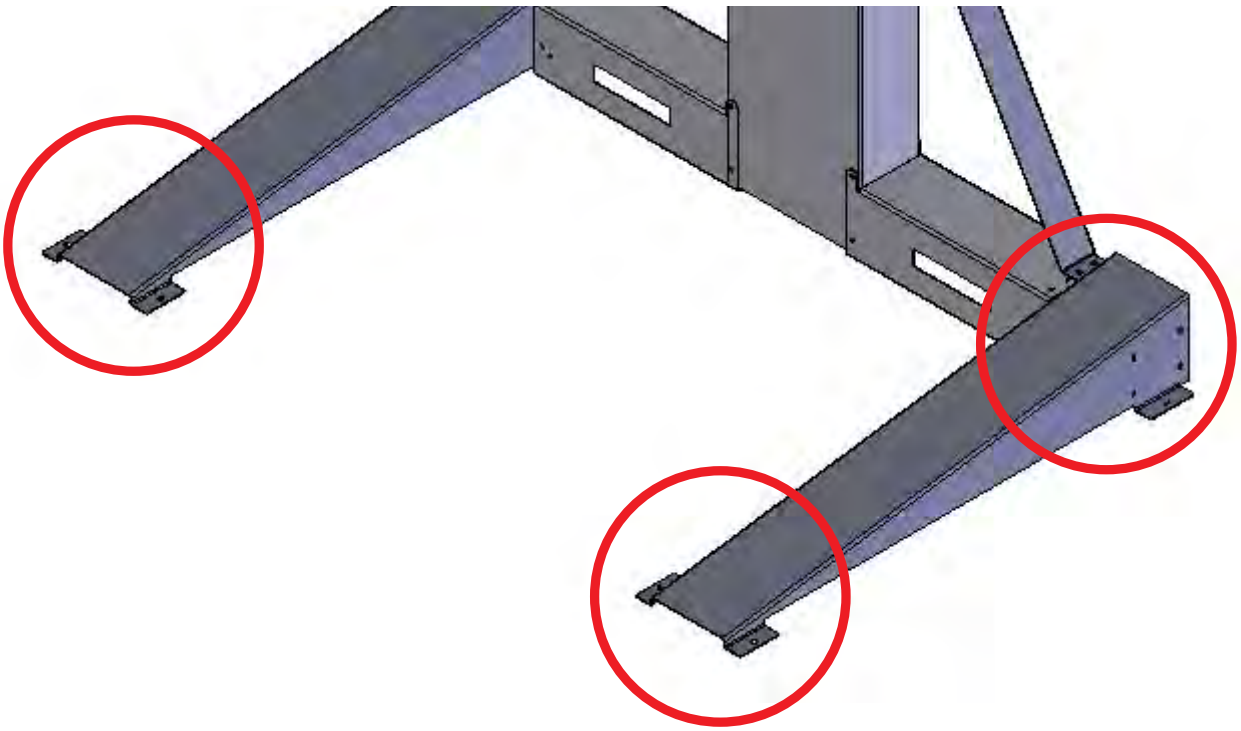
Then, assemble the two opening arms of the big-bag according to the direction of the hooks, as shown in the following picture.



Before removing the lifting system, double check the correct tightening of all screws.

Using the two lifting lugs on the filter leaning base as a lifting point, lift the entire device in order to position it to its final working location.

Fasten the legs of EASYFILL™ to the ground in order to avoid the risk of turnover. In order to fasten it, use the appropriate holes in the 4 existing points in the supporting legs.



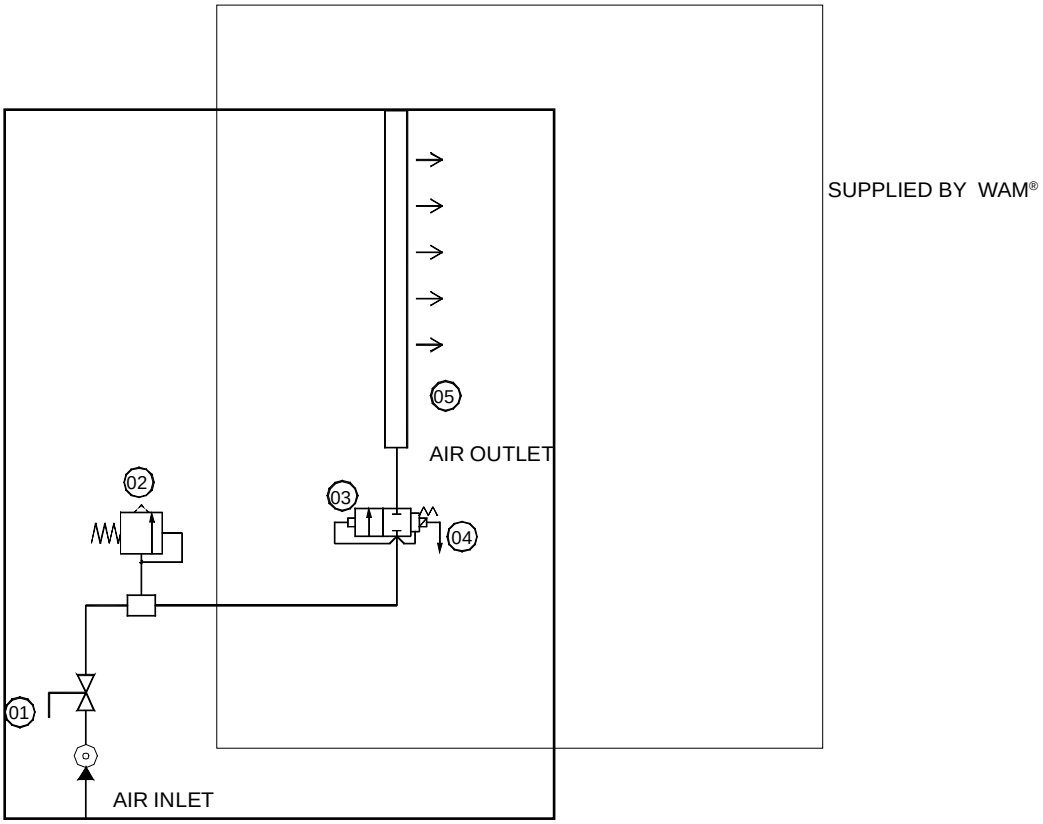
In case of any possible disassembly, follow the previous steps in reverse order.

Connection to the power supply

Connection to the pneumatic circuit:

The air inlet of the filter clearing system must be connected to the compressed air circuit, according to the following instructions:

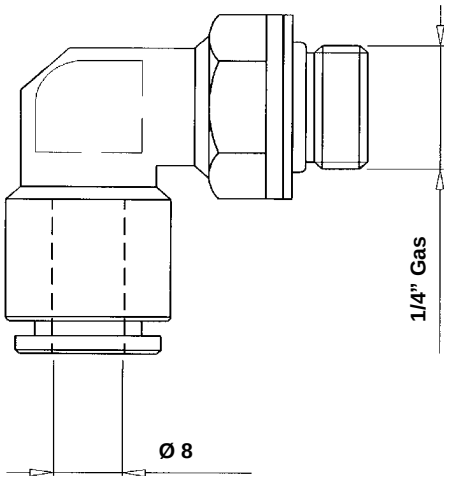
PNEUMATIC CONNECTIONS



CODE	DESCRIPTION
01	MANUAL BALL VALVE (NOT SUPPLIED BY WAM®)
02	SAFETY VALVE (NOT SUPPLIED BY WAM®)
03	QUICK-EXHAUST VALVE 1”
04	COIL
05	AIR OUTLET

PNEUMATIC CONNECTIONS

- The connection of compressed air on the filter is made by means of a rapid fitting joint with an 8-mm tube.



P MAX (bar)	SHOOTING RANGE*	SHOOTING DURATION	Nm3/h
4	Depending on the settings of POWERFIL™	100 msec	4.5

* The preset shooting duration for pleated fabric is 100ms. For further information, please see the page regarding the configuration of the control panel diagram.

Before assembling the tubes coming from various RECOFIL™ they must be connected to the EASYFILL™ collector as presented in the following picture; each tube must be tightened to its joint by means of the supplied metal collar. All possible unused joints shall be replaced by suitable caps supplied with the EASYFILL™ .

Connection to the power supply

The coil of the EASYFILL™ filter cleaning system must exclusively be connected to the POWERFIL™ power panel; for the electrical connection of the coil of filter electric valve, see the POWERFIL™ catalogue.

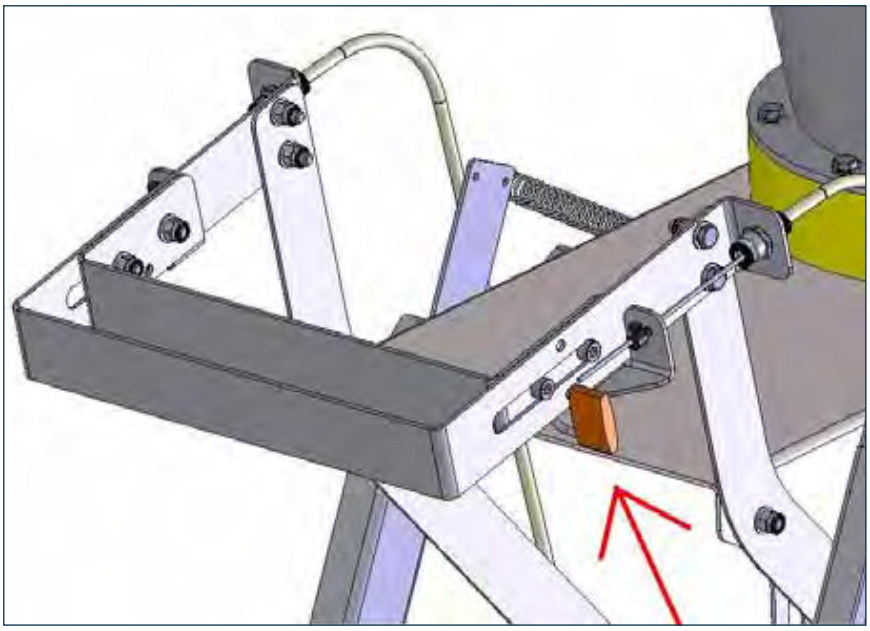
The length of the coil electric cable depends on the position of POWERFIL™ and is not included in the product supplied.

Testing

Important

As soon as the installation is over, the authorised staff shall perform a general check in order to verify the compliance with the safety conditions.

The authorised staff shall also check:
- that the fastening screws have been tightened indicated torque;
- that the system rests solidly on the ground
- that the feeding tubes of the device are solidly anchored to the sleeves, while the unused holes are appropriately closed
- that the inlet pressure of the filter is 4 bars
- that the sealing system work properly
- perform a big-bag tightening test for the preset dimensions by actuating the RECO-FIL™ system and check for air leaks.
- that there is a blocking lock on the handle of the sealing system



Production start

Before turning the device on, the operator skilled and authorised for production processes must check that there are safety devices mounted on the equipment, that they operate and the working conditions are complied with (sealing system).

Allow the system to idle by progressively and sequentially opening the valves of RECOFIL™.

In case the big-bag swells excessively and air leaks out of the system, check the air feeding of RECOFIL™ is correctly set.

Danger - Attention

The authorised staff must strictly apply all the laws in the field of labour safety and adopt the appropriate protective measures against accidents and injuries.

Instructions for equipment startup and use

Important

The big-bag must be fastened before starting up the connected RECOFIL™ . Whenever it is necessary to replace the big-bag (or remove the inlet hole of the big bag) it is compulsory to cut off the electrical and pneumatic supply of 'EASYFILL™ and POWERFIL™.

EASYFILL™ is equipped with an adjustable at a height that allows it being used with the majority of big-bags found on the market.

When using EASYFILLT™ for the first time, make sure that you adjusted the height of the frame according to the dimensions of the used big-bags or, alternatively, set a proper rise plan in order to prevent the weight of the big bag from leaning on the structure.

Position the big bag by attaching the straps to the hooks of the spring balancers after having adjusted them properly.

Hold the handle and push the unjamming lever; then push the handle upwards in order to open the sealing system.

Insert the filling hole of the big-bag into the sealing collar as shown in the following picture.

Grasp the lever as well as the unjamming lever with both hands, pull it down hard until it stops, then release the lever in such a way that the triggering system ensures the adhesion of the bag to the EASYFILL™ filling head.

When starting the system for the first time, check that the height of the big-bag is appropriate in such a way as to prevent the weight of the big bag leans against the EASYFILL™ structure during the filling process.

Activate the electrical and pneumatic supply of POWERFIL™ in order to start the filling process.

Block the opening system by applying the supplied lock.

Check that there are no pneumatic leaks along the line; in case there are any leaks, disconnect the electrical and pneumatic supply and recheck the pneumatic connections.

Check that there are no product leaks at the hole of the big-bag. Should there be any, disconnect the electrical and pneumatic supply, remove the lock and reconnect correctly the big-bag hole.

Check the big-bag filling level daily, so that the capacity of the big-bag is not exceeded.

If the maximum capacity of the bag is attained or it is necessary to remove the bag, proceed according to the following:

PLEASE NOTE: The operator must wear all individual protective equipment suitable to withstand the type of recovered dust.

Before performing any intervention on the device, make sure that each device (EASYFILL™, RECOFIL™ and POWERFIL™) is turned off and disconnected from all power sources, while preventing them from turning on inadvertently by means suitable devices.

Remove the lock holding it by the lever and the unjamming lever, while lowering the sealing collar.

Tie the filling hole of the big bag with the appropriate rope.

Unhook the straps of the EASYFILL™ big-bag using a forklift truck or any other suitable lifting system, remove the big-bag as shown in the following picture.

Instructions on protective measures to be observed by the user

During the assembly of the device, the operators must wear the appropriate individual protective equipment such as:

Gloves
Protective footwear
Helmet

During the operator of EASYFILL™, the operators in charge with the replacement of the big-bag and the maintenance of EASYFILL™, must wear the appropriate individual protective equipment (Mask, gloves and goggles) that shall protect them against the dust recovered inside the big-bag, according to the instructions of the safety plans.

End-of-operation stopping

Before performing any intervention on the device, make sure that each device (EASYFILL™, RECOFIL™ and POWERFIL™) is turned off and disconnected from all energy sources, while preventing them from turning on inadvertently via suitable devices.

In order to restart the device, please refer to the “Production start” section.

Longer idleness

If the device is not used for a longer time, proceed according to the following:

1) Clean and lubricate the sheaths of the tightening system;
2) Disable the electrical and pneumatic supply of EASYFILLT™, RECOFIL™ and POWERFIL™

Restart

Before restarting the equipment after a longer time, proceed according to the following:

1) Check the fastening of the main bolts.
2) Start the equipment (see “Production start”).

Danger - Attention

Before performing any maintenance intervention, enable all safety devices in order to protect the safety of people involved in the operations as well as those working in the vicinity of the device.
Secure the device.
Wear appropriate individual protective equipment; please refer to the safety manager for any instructions in this respect.

- Scheduled maintenance

Parts	Operations to be performed	Daily	Monthly	Every six months	Every year
Safety devices	Check integrity	•			
Big Bag filling	Degree of filling	•			
Bag tightening mechanism	Check tightness	•			
Ratchet handle	Check operation		•		
Safety and warning signs	Check integrity			•	
Filter	Check integrity and clogging			•	
Balancers	Check operation			•	
Main bolts	Check fastening				•

Cleaning the device

Clean the outer part of the device using a vacuum cleaner in order to prevent dust from scattering into the environment and in the neighbouring areas; or use a wet cloth.

Do not use compressed air.

Wash the device (after having vacuumed the dust) with a low pressure water jet.

Maintenance of the ratchet handle

- Lubrification of the handle sheath: Proceed to the lubrication of the rod sliding sheaths using a lubricating spray.

- **Adjusting the ratchet hook:** In case the lever drive is insufficient, adjust the rod lock with the suitable wrench.

Maintenance of the filtering element

- Remove the lock and open the hook

- Open the lid

1) Unfasten the 2 fastening screws
2) Pull out the clearing system

- Unfasten the cartridges (anticlockwise – seen from above)

- Pull out the worn filtering elements completely and put them aside, paying attention so that they do not fall

- For reassembling, repeat the extraction operations in reverse order.

The cartridges are made of highly resistant **NON-WOVEN** fabric that can be cleaned several times with a normal steam cleaner. Observe the following instructions:

1) Adjust the high pressure cleaner

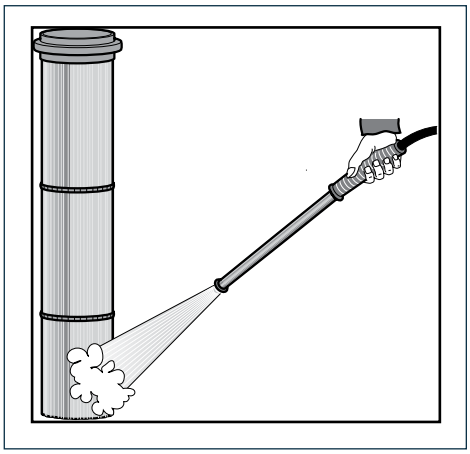
- Max. pressure.: 100 bar
- Max. temperature = 80°C
- Fat-free detergent (pH between 5 and 7).

2) Clean the element directly from an approximately 40-cm distance, as shown in the picture, proceeding slowly from the top to the bottom.

3) Once the clearing has been completed, **turn the element over** so that the opening is directed downwards in order to pour all the water out.

4) Let it dry at room temperature for about one week or put it into the oven for approximately 20 hours at max. 80°C.

Please note: For other types of NON-WOVEN fabric, please contact their manufacturer.



Returning the equipment

- In order toh ave the device returned, please use the original packaging if available. Otherwise, fasten the equipment on a pallet, covering it with a heat-shrink nylon in order to protect it from shock during transportation. Make sure every time that the device does not contain material waste.

Reccomendations of replacement safety

Danger - Attention

All replacement operations must be carried out by skilled and authorised staff with relevant knowledge in the intervention field (mechanical, electrical, etc.).
Before performing any interventions, adopt all the necessary safety measures and use suitable equipment in order to avoid injuring the personnel involved in the operations and the ones in their vicinity.
Activate all safety necessary device and prevent the access to the control switches in order to avoid their activation and injuring the staff involved in the operations.

Replacing the filter

See the “Maintenance of the filtering element” section.

Replacing the springs of the balancers

By means of pincers, remove the spring first from the screw and then from the hole side.

In order to assemble a new spring, repeat the above-mentioned operation in reverse order.

Wrecking and scrapping

The wrecking of the device must be entrusted to staff properly trained in the field, endowed with the necessary skills.

Disassemble the device components; if it is necessary please refer to the manufacturer for further information.

The parts must be disassembled depending on the nature of the materials they are made of, in compliance with the legislation in force concerning “selective waste collection and disposal”.

In compliance with the WEEE-RAEE directives, the electrical and electronic components marked with the proper symbol, must be disposed of in the suitable authorised waste collection The abusive scrapping of the “Waste of Electrical and Electronic Equipment” (WEEE) is punished by the sanctions provided for by the legislation in force.

Troubleshooting

Minor problems may be solved without seeing a specialist.

The following table contains the most commonly encountered failures, their possible causes and possible remedies.

For highly complicated interventions that the table does not contain, please refer directly to the manufacturer’s business office.

Danger - Attention

Prior to any operation “secure” (see “Glossary and terminology”) the device, act according to the instructions in the “Operation and maintenance” handbook and in compliance with and in observance of the legislation concerning safeguarding health and accident-prevention.

Failure	Possible cause	Possible remedy
Product leaks at the joint between the filling head and the big-bag hole	Failure of the mechanical sealing system	Check that the ratchet springs allow blocking the system Check that the drive allows the sealing ring to approach the conical head.
	Incorrect fastening of the closing system	Check that after the activation of the manual handle, the ratchet trigger is unblocked; If not, register the steel cables; if positive, repeat the manual fastening operation
	Damaged in SINT® filling head	Replace the SINT® filling head
Product leaks at the joint between the collector and the filling head	One of the collector's connections is worn/damaged	Replace the damaged connection
	Incorrectly fastened tubes	Check the correct fastening of the straps
Product leaks at the filter discharge	Incorrectly assembled filter	Check the correct positioning and fastening of the cartridge in its place
	Damaged filter	Replace the filtering element
Lack of big-bag tensioning at the spring balancers	One of the tensioning hooks of the balancers got unhooked	Restore
	Permanent deformation of one or more springs	Check that the weight of the big-bag does not weigh down on the balancers, then replace the damaged springs
Malfunctioning of the ratchet blocking system lever	Incorrect lubrication	Lubricate as indicated on page 37 of this operation and maintenance handbook
	Loose clamps	Adjust as indicated on page 38 of this handbook
	Unhooked ratchet springs	Reattach or replace the springs as indicated on page 43 of this handbook
Excessive swelling of the big-bag with product leaks at the big-bag hole	Clogged filtering element	Perform maintenance on the filtering element as indicated on page 38 of this operation and maintenance handbook
	Excessive air flow from RECOFIL™	Adjust the RECOFIL™ valves

Check-list in case of failures

In case you cannot manage to solve the problems occurred on your device, although having performed all the operations suggested in the “Troubleshooting” section, please refer to your fitter or to the manufacturer.

When asking for technical assistance, besides the identification data of the device, your fitter or the manufacturer needs information regarding the equipment which the device was assembled on, its assembly and operation in order to indentify the failure of the equipment better.

It is to be noted that several checks that are asked for must have already been carried out during the installation, testing and startup of the device. .

Danger - Attention

Prior to any operation “secure” (see “Glossary and terminology”) the device, act according to the instructions in the “Operation and maintenance” handbook and in compliance with and in observance of the legislation concerning safeguarding health and accident-prevention.

1) Necessary information

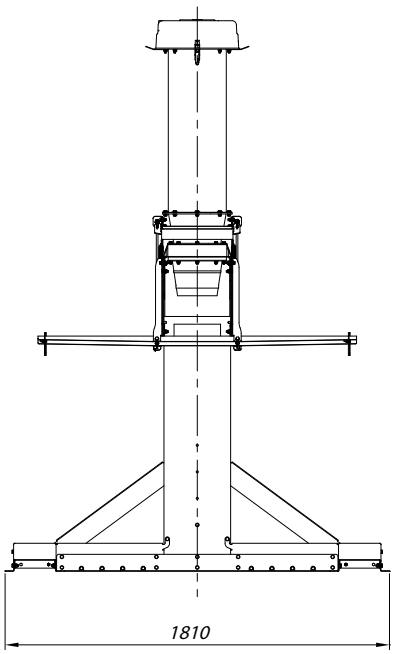
a) Failure description
b) Photos representing the entire device and the way it is assembled
c) Number of connected RECOFIL™
d) Big-bag filling level
e) Pressure used in RECOFIL™
f) Condition of the input tubes (empty or clogged)
g) Deposits on the SINT®sealing cone

2) System check

a) The system has been fastened correctly
b) The system has been assembled correctly

3) Name of the product?

a) Density? (kg/dm3)
b) Grain size? (µm/mm)
c) Moisture? (%)
d) Flow?
e) Compressibility?
f) Abrasiveness?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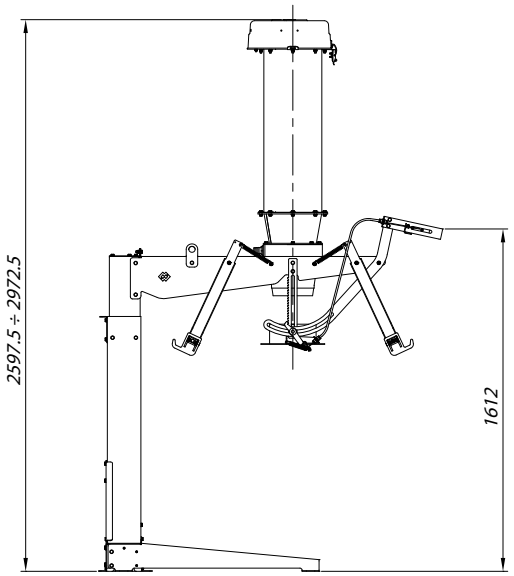
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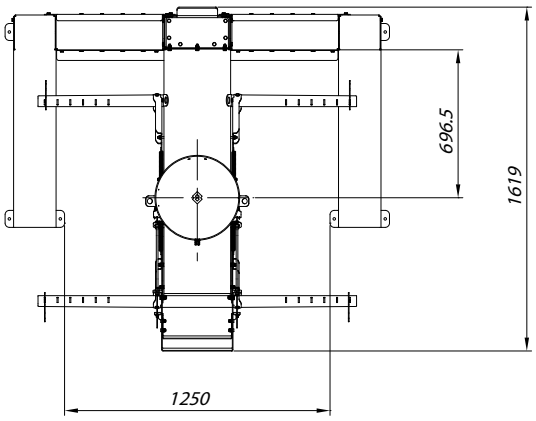
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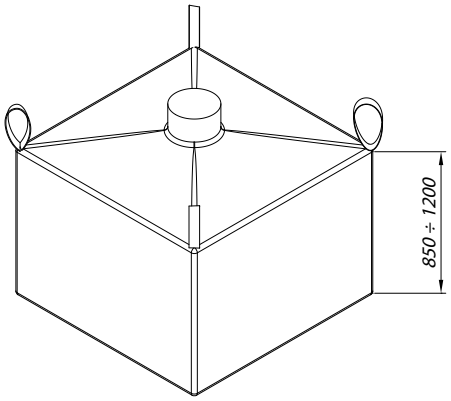
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Revarnishing

Important

Before repainting the device, please protect and "mask" all safety warning signs on your device.
Having completed the repeating operation, restore the visibility of all safety warning signs, checking their number as indicated in the "Safety and information sigs" section.
In case one or more such signs are even partially covered, ask the manufacturer for new warning signs and apply them directly on their original position (see "Safety and information sigs").

- Revarnishing the surfaces painted in powder primer

In case painting must be completed by an Epoxy 2K (bicomponent), Epoxy vinyl 2K (bicomponent) and Polyurethane 2K (bicomponent) paints it is sufficient to clean the repaintable powder primer-painted surface from the dirt deposited during transportation and storage.
Other finishing products may be applied as well but the surface to be repainted shall be cleaned with a scotch brite cloth. After this operation, it is recommended to clean the surface with a clean cotton cloth and ethyl alcohol or nitro solvent.
The surface of the device may thus be painted with in the preselected finish.

- Revarnishing the surfaces painted in finishing poweder

In order to obtain a perfect adhesion of the liquid paint over the existing powder-based paint, please perform the following operations.

- Pass over the device with a cloth soave in an "anti-silicone agent" defined as "naphta solvent"
- Pass over with a Scotch Brite sponge (3M or similar) and clean the nitro solvent.
- Dry the surface with a cloth.
- Revarnish in liquid paint.

Integration statement

WAM®
Powder Handling - Dust Filtration - Flow Control - Components

WAMGROUP®

The manufacturer:

WAMGROUP S.p.A.

located in

Strada degli Schiocchi, 12 - I-41100 Modena (Mo) - Italy

under its own responsibility declares that:

EASYFILL™ RC

Declaration Of Incorporation Of Partly Completed Machinery Annex II B 2006/42/CE Directive

comply with the RES Directive 2006/42/EC
of the European Parliament and the Council of 17 May 2006 on machinery

1.1.1. - Definitions
1.1.2. - Principles of safety integration
1.1.3. - Materials and products
1.1.5. - Design of machinery to facilitate its handling
1.3.1. - Risk of loss of stability
1.3.2. - Risk of break-up during operation
1.3.3. - Risks due to falling or ejected objects
1.3.4. - Risks due to surfaces, edges or angles
1.3.7. - Risks related to moving parts
1.3.8. - Choice of protection against risks arising from moving parts
1.3.9. - Risks of uncontrolled movements
1.5.4. - Errors of fitting
1.5.5. - Extreme temperatures
1.5.6. - Fire
1.5.7. - Explosion
1.5.8. - Noise
1.5.9. - Vibrations
1.5.13. - Emissions of hazardous materials and substances
1.5.15. - Risk of slipping, tripping or falling
1.6.1. - Machinery maintenance
1.6.2. - Access to operating positions and servicing points
1.6.4. - Operator intervention
1.6.5. - Cleaning of internal parts
1.7.1. - Information and warnings on the machinery
1.7.2. - Warning of residual risks
1.7.4. - Instructions

and, where applicable, the requirements imposed by the following EC Directives
Directive 2004/108/EC of the European Parliament and the Council of 15 December 2004 on the approximation of the laws of the Member States relating to electromagnetic compatibility.
Directive 2006/95/EC of the European Parliament and the Council of 12 December 2006 on the approximation of the laws of the Member States relating to electrical equipment designed for use within certain voltage limits.

The relevant technical documentation is compiled in accordance with Annex VII B of the Machinery Directive 2006/42/EC
Harmonized standards, national standards and technical regulations in question:
EN ISO 12100-1: 2005 EN ISO 12100-2: 2005

The signing company is committed to provide, in response to a reasoned request by national authorities, relevant information on products covered by this declaration, without prejudice to the rights of intellectual property of the manufacturer. The information will be transmitted directly to the national authorities having requested.

It's forbidden to operate all these products before the machine, in which they will be installed, is declared in conformity with 2006/42/EEC AND SUBSEQUENT AMENDMENTS

Strada degli Schiocchi, 12 - I-41100 Modena (Mo) - Italy, 01.01.2010

The person authorized to provide the technical documentation:
Vainer Marchesini

The legal representative:
Vainer Marchesini