

SHEET FILTER

SFT 40X40



FILTER WORKS INC.



MODEL	SFT-40x40
CODE	SFT00000000088
SERIAL NUMBER	180507
YEAR	2018
VOLTAGE	/

Filter Works Inc.

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RESPONSIBILITY

Filter Works Inc. does not assume any responsibility for typographical errors contained here or for incidental damages to the equipment, use or performance of the machine due to:

1. negligence on the part of the consumer to acknowledge the warnings listed in the manual.
2. improper use of the machine.
3. modifications not approved by the Manufacturer and/or with replacement parts not original to the same.

GENERAL WARRANTIES

Filter Works Inc. garrants the functioning of its own new materials (excluding the electrical components and the parts with normal wear) for the term of 12 (twelve) months from the date of purchase. During this period, Filter Works Inc. will replace, at factory cost, either at the factory or at an authorized manufacturer, all items that result defective due to factory negligence. The replacement parts will be returned to the consumer at free port.

Incorrect connections, installation and improper use causing consequential damage to the apparatus constitute in automatic termination of the warranties set forth in this warranty statement.

The warranty will, likewise, not be recognized in cases where there has been obvious tampering with the machinery during the period stated in the warranty.

The warranty has value only if recognized by the Company.

NOTE

FOR FURTHER INFORMATION AND CLARIFICATIONS ON THE WARRANTIES, PLEASE SEE THE PURCHASING CONTRACT OF THE MACHINE.

THE CUSTOMER MUST ENSURE THAT ITS ELECTRICAL SYSTEM MATCH THE CURRENT REGULATIONS AND HAVING PASSED THE "FAULT LOOP IMPEDANCE" TEST, BEFORE STARTING THE MACHINE.

Due to graphic standardization, the photographs, drawings and/or graphic information here included may not correspond exactly to the machine purchased by the client.

This fact, however, does not jeopardize, in itself, the operators when they use of the machine following security measures. It does not jeopardize any obligation to modify the machine or the present manual on the part of the Manufacturer, if it is not expressly stated in the purchase contract (including the relative overcharge).



ATTENTION

READ THIS MANUAL THROUGHOUT CAREFULLY AT LEAST ONCE BEFORE CARRYING OUT ANY OPERATION ON THE MACHINE.

NON OBSERVANCE OF THE RULES SET OUT HERE COULD CAUSE DAMAGE TO PERSONS, ANIMALS, THINGS AND EVEN TO THE MACHINERY. LWE RENEW THE WARNING THAT EVENTUAL DAMAGE TO THE MACHINES CAUSED BY NON OBSERVANCE OF THE RULES SET OUT IN THIS MANUAL WILL CANCEL THE FORESEEN GUARANTEES.

Safety signs and conventional graphic symbols



Generic danger



Electric shock



Danger of injuries



Danger of pneumatic explosion for residual pressure



Danger of machine's breakdown



Warning overhang loads



Skilled personnel chosen by the customer



Qualified electrician according to current laws



Qualified repairer according to current laws



Earthing system



Use of lubricants

Residual hazard definition

By residual hazard are meant all the hazards implied in the use of the machine "in spite of all the measures adopted or any unforeseeable hazard (for ex.: electric cabin, radioactive sources, hydraulic circuit drain, not visible hazardous parts, etc.), for which "the manufacturer must provide instructions" (abstract of EEC guide line 2006/42/CE, annex I, item 1.7.2).

The last are shown on plates and labels placed on the machine, of which they form an integral part, and on this manual.



Residual hazards

HAZARD	COMPETENT PERSONNEL	REQUESTED DPI
Crushing risk during the unloading	Skilled personnel	Safety shoes
Risk of electric shock during maintenance of the electrical parts of the machine	Qualified electrician	-
Risk of physical damage during maintenance using chemical detergents	-	Gloves for chemical hazards
Risk of injury due to contact with hot surfaces (>50°C)	-	Gloves for thermal hazards

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1. INTRODUCTION

1.1. General information about the machine

1.1.1. Type of product

The sheet filters of SFT series have been designed for filtering alimentary and industrial liquids, and especially for the refining and clearing of wines and liquors that have already been prefiltered.

This is done by means of filtering layers (cartons) resting against the plates: by passing through these layers the product releases all solid particles.

These machines consist of trailer-mounted block units made entirely of AISI 304 STAINLESS STEEL (Optional: AISI 316-304 L - 316 L); however, the plates which make up the filtering pack, and which give support to the filtering layers (cartons), may be made of plastic material (usually) or of AISI 304 or AISI 316. These filters are specifically designed for products containing a low percentage of suspended solids; they may be utilized both autonomously and as an integrating part of a processing plant.

This type of filters are normally equipped with:

- ball valves
- vision probes
- manometers
- sampling tap
- drip pan in stainless steel
- plates in noryl/rilsan
- manual closing (auger)

OPTIONALS:

- stainless steel plates
- feed pump
- inversion plate (only for double-pipe type filter versions)
- manual or automatic hydraulic closing
- hollow frames in AISI 304 or 316 stainless steel

The machines described in this manual differ from each other mainly from a manufacturing, rather than a functional, point of view, since their function is basically to obtain the separation from a liquid of the suspended solids contained in it through the use of filtering cartons. The substantial differences between the types of filters presented here consist of the larger or smaller filtering surface (determined by the number and size of the filtering elements), of the number of feed and discharge pipes (one or two) and of the possibility of in-series filtering by means of an inversion plate, i.e. with two types of filtering cartons installed together (refining or clearing).

1.1.2. Validity of the product

All Filter Works Inc. machines are tested and inspected before they leave the factory and comply with the current standards of functionality and accident prevention. Because of transportation problems, the accessories (vats for conveying product, exhausted discharge conveyors, frame supports, etc.) are delivered apart from the machine. Machine assembly and connection to the supply mains will be of customer's care, with the assistance of authorized and skilled personnel.

We remind you that in case the machines object of this manual were assembled or included in a process plant, the assembler and/or supplier will have to declare it, in compliance with 2006/42/CE guidelines and following modifications, by means of a written notice; otherwise the starting of the machine will not be allowed.

1.1.3. Foreseen and unforeseen conditions of use

The machines referred to in the present manual can be used in the following areas:

- **oenological and alimentary:** for the filtration or clearing of wines, oils or liquors.

The use in other areas is not foreseen, as neither is the use of the machine for the refrigeration of flammable, corrosive or venomous liquids that have not been accounted for in the negotiation phase during purchase with the Manufacturer. The Manufacturer declines any responsibility to damages caused due to improper use of its machines.

1.2. Machine characteristics

1.2.1. Dimensions and technical data

In the following, we state the general technical characteristics of the machine that is in your possession and that falls within this type category. We remind you that the machines described here, following technological advances, can undergo technical developments and revisions. Therefore, the data and the illustrations stated in the manual are indicative and subject to modifications without obligatory notice from the Manufacturer, but not jeopardizing, in any case, the safe use of the machine itself by the operator.

PLATES		SFT-40x40	
NR.	LENGHT	WIDTH	HEIGHT
20	1821	700	950
30	1985	700	950
40	2160	700	950
50	2325	700	950
60	2500	700	950
80	2880	910	1180
100	3230	910	1180

1.2.2. Noise level data

The overall acoustic pressure measured is below 70 dB.

1.2.3. Overall view of the machine



SFT-40x40

2. DELIVERY AND INSTALLATION

2.1. Delivery

2.1.1. Unloading from the means of transport

The machines described in this manual are delivered to our customers through authorized carriers and installers, which know the exact procedure for the unloading of the machines from the means of transport.



BEING THE UNLOADING OPERATION DIFFICULT, IT SHOULD BE CARRIED OUT BY AUTHORIZED PERSONNEL ONLY.



ATTENTION!

HANDLE WITH CARE, IN ORDER TO AVOID ANY DAMAGE OR DANGER TO THE MACHINERIES OR THE PERSONS NEARBY THE UNLOADING AREA.

TO INCREASE SAFETY, PREVENT THE ACCESS OF NOT AUTHORIZED PERSONS TO THE UNLOADING AREA MAKING USE OF PROPER MEANS AND MEASURES.

The unloading of the machine from the means of transport can be carried out by means of a forklift with the proper dimensions and power, making use of the packing pallet. In this case:

1. Lift the machine ONLY from one of the longer sides, making sure that weights are well balanced.
2. Drive the trailer slowly, keeping the forklift at a proper height from floor.
3. Take care not to turn over or unintentionally damage the machine.
4. Lower the machine to the floor carefully.

Otherwise you can use a movable crane or a bridge crane or similar means (either for small or big machineries) making use of the hook-up points provided on the machine.

ATTENTION!

ROPES OR ROUGH MANEUVERS COULD DAMAGE OR DENT THE EXTERNAL FINISHING OR OTHER PARTS OF THE MACHINE.

If necessary, put some air-foam or similar materials (non abrasive) between the ropes and the parts of the machine which could be in contact with them.

NOTE: The instructions given above apply also to the accessories that could be delivered with the machine.

ATTENTION!

THE MACHINE MUST BE LIFTED MAKING USE OF PROPER POLYESTER BELTS OR CHAINS WITH THE RIGHT LENGTH FOR THIS KIND OF LOAD.

2.1.2. Unpacking

The machine that is presented in this manual is supplied with its own protective packing, made of plastic shrink-wrap that can easily be removed.

ATTENTION!

DURING THE UNLOADING AND UNPACKING OPERATIONS TAKE CARE NOT TO CUT HANDS OR TO WOUND OTHER PARTS OF THE BODY UNINTENTIONALLY.



ATTENTION!

TAKE CARE NOT TO DAMAGE THE MACHINE UNINTENTIONALLY.



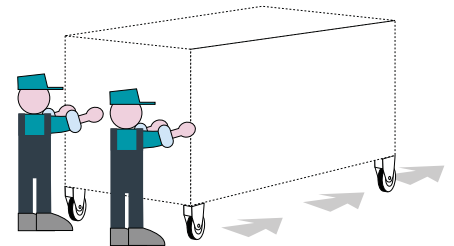
Therefore the only precautions for correctly unpacking the machine are:

1. Make sure that the goods have not been damaged during transportation and, in case of damage, advise carrier immediately and write a note on the freight bill of the machine. In case of damage, advise the manufacturer and/or your agent too.
2. Refer to the shipping list and make sure that all the accessory parts of the machine are accounted for; Otherwise follow the indications given above.
3. Remove the plastic shrink-wrap from the machine making use of a cutter, avoiding in any case to tear it with hands; do the same in case of metallic straps, taking care that during cutting they do not whip out suddenly.
4. Take care to dispose packaging materials according to the type of waste they belong to (for example recycling or non recycling material, etc...).

2.1.3. Handling

For the wheeled machines (i.e. provided with two fixed and two revolving wheels), the right way to handle these machines is the following:

1. First of all, to carry out this operation are required two persons, one of the two for controlling the right carrying out of the operation.
2. Push the machine from the side provided with revolving wheels.
3. Once reached the place of working make sure the machine is stable; otherwise provide to fix it using the proper means and measures.



ATTENTION!

ALWAYS PUSH THE MACHINE, NEVER PULL IT SO AS TO AVOID CRUSHING A FOOT WITH WHEELS.



ATTENTION!

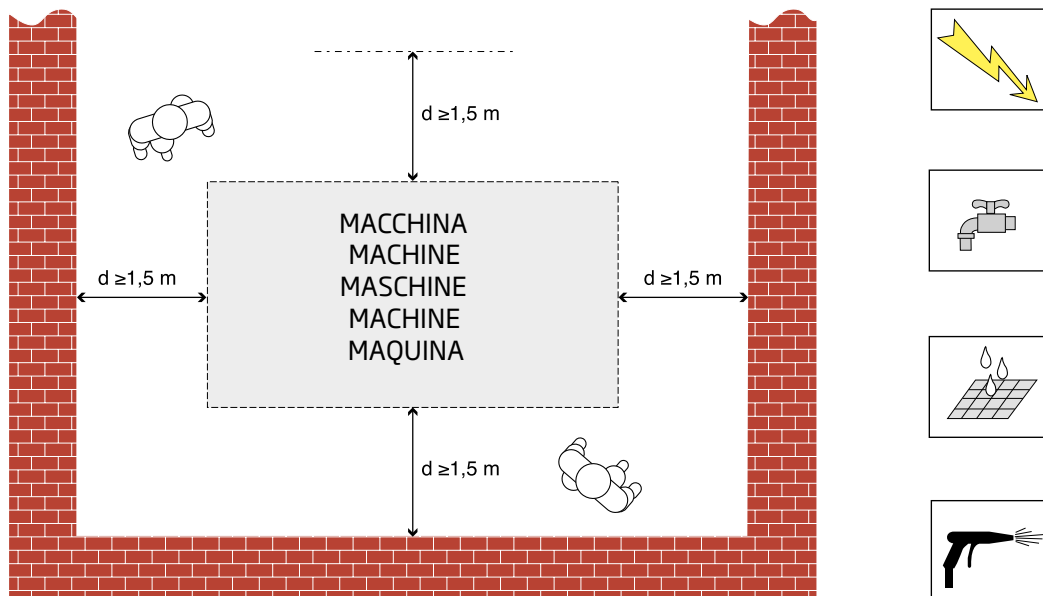
MAKE SURE THAT THE MACHINE'S BASEMENT IS PERFECTLY HORIZONTAL (BY MEANS OF A WATER LEVEL) SO AS TO AVOID ITS OVERTURNING.

2.2. Installation

2.2.1. Place of use

The following are some general instructions for the installation of the machines:

1. Make sure that the site of installation is flat and that the pavement is not yielding, slippery or unstable, as this could compromise the safe and good operation of the machine.
2. Make sure there is enough room in order to allow the safe operation and maintenance of the machine, that is:
 1. At least 1,5 - 2 mt. around the machine, the electric board and the accessories.
 2. The right distance for the connection of the piping system to pumps, tanks, accessories, etc...
3. Make sure that all supply mains are easily accessible, in particular:
 1. POWER SUPPLY
 2. WATER SUPPLY
 3. WASHING DRAINS
 4. COMPRESSED AIR



2.3. Connections

ATTENTION!

BEFORE STARTING UP THE MACHINE, CARRY OUT AND TEST THE CONNECTIONS SET OUT BELOW.

2.3.1. Electric connections



CONNECTION TO THE MAINS WILL BE THE RESPONSIBILITY OF THE USER WHO WILL HAVE IT CARRIED OUT BY A COMPETENT PERSON IN CONFORMITY WITH THE REGULATIONS IN FORCE.



ATTENTION!

BEFORE CARRYING OUT ANY KIND OF CONNECTION, CHECK THAT THE MAINS SUPPLY VOLTAGE CORRESPONDS TO THAT INDICATED ON THE RATING PLATE PLACED OVER THE CONTROL PANEL.

According to the model of the machine, the electric board can be provided with a cable for the electrical connections, without plug for the connection to the supply mains.

Therefore, it is care of the installer to:

1. Make sure that the general switch on the control panel is on position "0".
2. Make the necessary extensions for the connection to the supply mains making use of a cable with the right diameter and length for covering the distance from the electric board and for supporting the electrical input of the whole system, in compliance with the regulations in force.
3. Carry out the proper and compulsory earthing of the machine.
4. Check that the outlet is provided with a cutout and fuses.
5. Connect the cable to a plug fit for the plant and the electrical input.
6. Check if the above operation must be carried out also for other devices which can be connected directly to the electric board that, in this case, will be provided with one or more outlets on one of its sides.

ATTENTION!

FOR A CORRECT OPERATION OF ALL THE OPTIONAL ACCESSORIES MAKE SURE THAT THEY ARE CONNECTED ONLY AND EXCLUSIVELY TO THE PROPER OUTLET ON THE ELECTRIC BOARD; SHOULD THEY BE CONNECTED OUTSIDE THE FILTER, IT WILL BE CARE OF THE OPERATOR TO SYNCHRONIZE THEIR OPERATION TO THE WORKING PHASES OF THE MACHINE.

2.3.2. Hydraulic connections

ATTENTION!

ONLY FOR MACHINES WITH A WASHING PROGRAM (SEMI-AUTOMATIC OR AUTOMATIC).

The following connections shall have to be provided for:

1. Cold water for washing the filtering plant.
2. Hot water (40°C) for washing the filtering plant.
3. Outlet for draining the wash water.

2.3.3. Pneumatic connections

ATTENTION!

ONLY FOR MACHINES WITH VALVES WITH PNEUMATIC ACTUATOR.

Connect the pneumatic circuit to the compressed air supply.

2.3.4. General test and inspection

After the connection to electric voltage it is necessary to:

1. Check machine's earthing.
2. Check the correct rotation of motors (indicated by an arrow on the casing).

ATTENTION!



TO CARRY OUT THIS TEST THE CENTRIFUGAL PUMP MUST NOT OPERATE WITHOUT LIQUID, OTHERWISE, IS NEGLECTED IF THIS PRECAUTION, THE MECHANICAL SEAL OF THE CENTRIFUGAL FEED PUMP WILL BE IRREPARABLY RUINED.

2.3.5. Preliminary washing

Before starting to connect the product pipes to the machine, it would be advisable to wash the machine first, and that is:

1. Use a detergent and sanitizing solution prepared with specific products found on the market and recommended by specialized dealers.
2. Drain the solution at the end of the cycle.

2.3.6. Connecting the product to be filtered

Per effettuare i collegamenti del prodotto da filtrare bisogna:

1. Connect the pipes (either flexible or not flexible, made of stainless steel or plastic) to filter's inlet or outlet, using pipes with the right diameter in order to avoid any leakage in filter's inlet or excessive pressure in filter's outlet.
2. Connect the supply tank containing the product to be filtered to the inlet valve of the filter.
3. Connect the outlet valve of the filter to the receiving tank for the stocking of filtered product.

ATTENTION!

PIPES SHOULD NOT HAVE NARROW ELBOWS, NARROWING AND/OR DIAMETER REDUCTIONS.

3. START-UP OPERATION AND STOPPING

3.1. How to proceed

3.1.1. Introduction

The mechanical and electrical parts of the machine have been calibrated by Filter Works Inc. technicians and should not be varied in any way, for no reason, by operator unless otherwise provided by manufacturer.

ATTENTION!

IN CASE OF EMERGENCY OR MALFUNCTION PUSH IMMEDIATELY THE EMERGENCY PUSH BUTTON PLACED ON THE ELECTRIC BOARD OF THE MACHINE.

ATTENTION!

AVOID ANY INTERVENTION ON THE MACHINE OR ITS PARTS WHEN THIS IS RUNNING.

ATTENTION!

ALL THE MANEUVERS GENERALLY, AND VALVE OPENING AND CLOSING IN PARTICULAR, MUST NOT BE DONE ABRUPTLY DURING THE TEST PHASES OF THE MACHINE.

3.1.1.1. Preventive checks

Before starting machine make sure that:

1. All screws and bolts are properly tightened.
2. The inlet pipe is properly connected to filter's dosing pump.
3. The outlet pipe is properly connected to the receiving tank of filtered product.
4. All moving parts have been carefully oiled and the filter has been washed properly.
5. All the closing clamps of the different unions are properly tightened.

3.1.2. Starting the machine

3.1.2.1. Insertion of filtering layers

The filtering layers (or sheets) are manufactured in such a way as to have an inlet side (usually the rough side with the trademark) and a side for the outlet of the liquid (the smooth side). The filtering layers must be so placed in the filtering pack that the liquid penetrates from the marked side (the rougher one) and comes out from the smoother side, i.e. the one that must necessarily lay against the outlet plate.

The intermediate plates of the filtering pack, on the other hand, being the same on both sides, differ only as regards the direction in which they are positioned, i.e. with the holes on the collectors matching the side of the inlet valve or of the outlet valve; the smooth side of the sheets, therefore, must always lay against the two surfaces of the outlet plates

1. Carefully insert the filtering layers starting from the fixed head with an end plate (i.e. with an ungrooved surface), making sure that the blind collector, that is, the one without inlet holes for the liquid, is on the side of the inlet valve.
2. Now insert the first sheet on the outlet side, then the first plate with the blind collector on the side of the outlet valve, and so on following this sequence; sheet, outlet plate, sheet, inlet plate, etc. and finish with the other end plate.
3. Proceed following the instructions in paragraph 3.1.2.4.

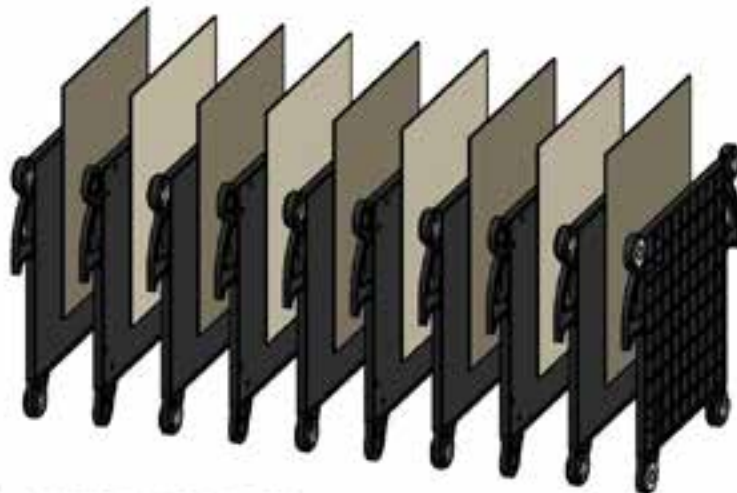
NOTE FOR THE OPERATOR: in order to have this concept quite clear please refer to the diagrams contained herein, and observe the position of the plates, the way they are mounted on the filter at the time of delivery.

ATTENTION!

THE OPERATOR MUST PAY ATTENTION TO THE MANNER IN WHICH HE INSERTS THE SHEETS, SINCE THEY COULD BE IRREPARABLY DAMAGED IF THEY ARE POSITIONED IN AN INCORRECT MANNER.

ATTENTION!

IN ORDER NOT TO DAMAGE THE SHEETS, AVOID WATER HAMMERING WHEN PASSING FROM ONE TANK TO ANOTHER OR WHEN RE-STARTING TO FILTER.



CARTONE LATO LISCIO
SMOOTH SIDE PAPER



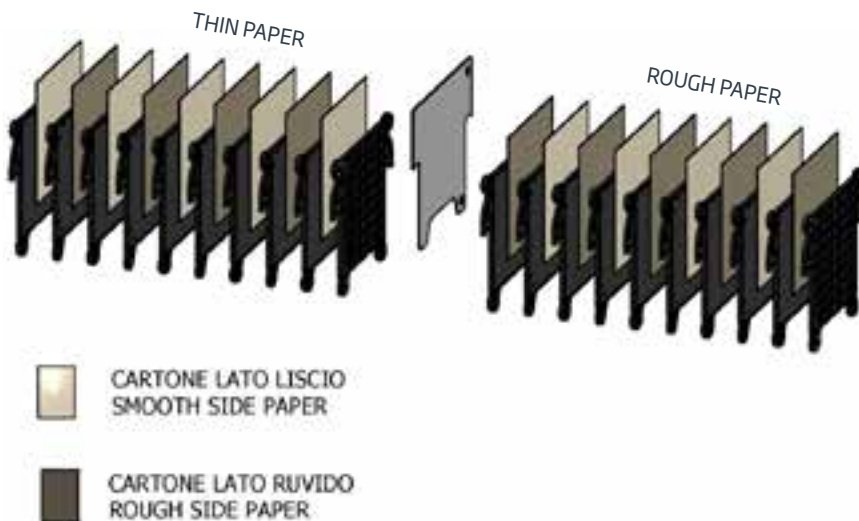
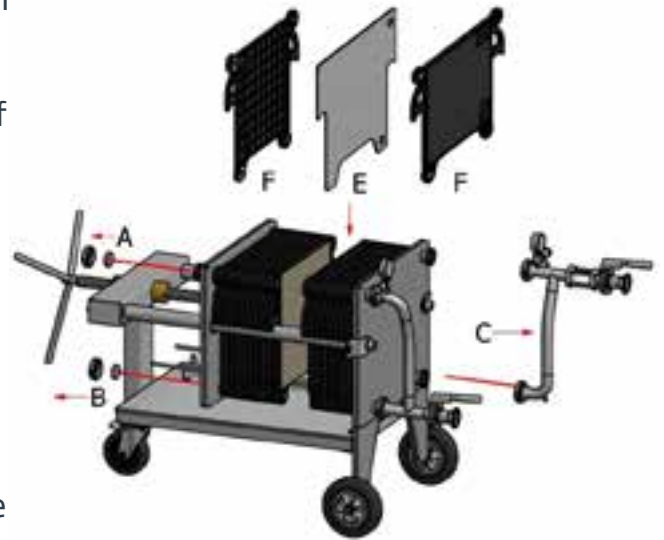
CARTONE LATO RUVIDO
ROUGH SIDE PAPER

3.1.2.2. Double filtering with double-pipe filter

The filters that can execute the double filtering operation are only those equipped with double piping. By requesting the so called "inversion plate" (OPTIONAL) and inserting it in the middle of the filtering pack it is possible to obtain, with a single run, a refining and clearing filtration by utilizing two different types of filtering sheets.

Set out the filter in the following manner:

1. Invert the position of the inlet piping with enclosed valve (A) and of the two bleed cocks (C, D) of the large mobile plate (see diagram), loosening the unions by means of a suitable wrench.
2. Insert the first series of plates and sheets (ex.: 10 plates and 10 sheets for filters consisting of 20 plates), following the directions mentioned in the paragraph above, and starting this time with the mobile head.
3. Now insert the inversion plate with the blind collector (in this type of plate the collector is wholly closed) on the side of the outlet valve and continue with the second series of plates and sheets.
4. Now proceed according to the instructions in paragraph 3.1.3.



3.1.3. Closing the filter

ATTENTION!

DURING THE CLOSING PHASE CAREFULLY CHECK THAT THE LONGITUDINAL MEMBERS DO NOT SUFFER DISTORTIONS. IF THIS SHOULD HAPPEN, INTERRUPT THE CLOSING OPERATION IMMEDIATELY.

ATTENTION!

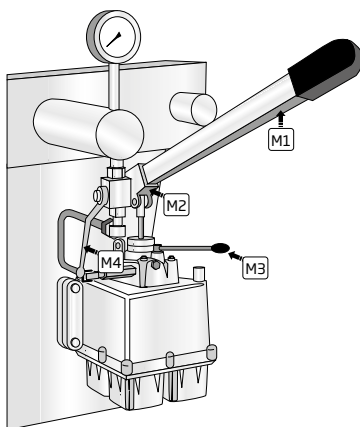
BEFORE PROCEEDING TO THIS PHASE, IN THE CASE OF FILTERS WITH HYDRAULIC CLOSING, CHECK THE PRESENCE ON THE PLATE PACK OF ALL THE REQUIRED FILTERING ELEMENTS (WHICH ALSO ACT AS COUNTERWEIGHT FOR THE SUPPORT OF THE MOBILE PLATE). THE LACK OF EVEN ONE OF THESE ELEMENTS WOULD CAUSE THE CYLINDER ROD, IN CASE OF HYDRAULIC CLOSING, TO PERFORM A LONGER STROKE THAN DESIGNED, WHICH WOULD INEVITABLY CAUSE ITS BREAKAGE.

3.1.3.1. For filters equipped with auger

Make the fastening auger very tight by exercising great pressure, using only the power of your arms.

ATTENTION!

DO NOT USE LEVERS OR OTHER MEANS TO INCREASE THE PRESSURE APPLIED TO THE AUGER; THIS WOULD CAUSE UNDUE STRESS ON THE STRUCTURE OF THE FRAME AND ON THE SCREW ITSELF, CAUSING IT TO BREAK.

3.1.3.2. For filter equipped with hydraulic jack

1. Insert the pumping lever (M1) in the specific slot (M2).
2. Turn the inversion valve positioning the lever (M3) to the right.
3. Pump hard until you obtain a pressure of 200/250 bar, which can be read on the manometer, then close the lock valve (M4).

ATTENTION!

USE ONLY THE LEVER SUPPLIED WITH THE MACHINE TO CLOSE THE FILTER, NOT OTHER LONGER OR SHORTER ONES, SINCE EXCESSIVE PRESSURES COULD BE ORIGINATED WHICH MAY CAUSE DAMAGE TO THE FILTER COMPONENTS.

ATTENTION!

DO NOT, FOR ANY REASON, GO BEYOND THE 250 BAR VALUE.

3.1.3.3. For filters equipped with automatic hydraulic closure

1. Switch on the machine by means of the main switch on the control board.
2. Close the filtering plates using the switch on the control board.

3.1.4. Filtration

ATTENTION!

FOR FILTERS EQUIPPED WITH MANUAL BAR HYDRAULIC CLOSING, BEFORE STARTING THE FILTERING PROCESS MAKE SURE THAT THE LOCK VALVE (M4) IS CLOSED CORRECTLY, OTHERWISE THE PRESSURE EXERCISED BY THE INLET PRODUCT, WHICH TENDS TO OPEN THE FILTERING PACK, COULD DAMAGE THE CLOSING HYDRAULIC PUMP.

During filtration the liquid passes through the filtering devices (sheets), and is separated from the impurities which remain trapped. At the beginning of the filtering process an increased dripping of the filtering pack may occur, caused by a drop of pressure on the cylinder, which is a consequence of the settling of the filtering pack. In this case, stop the feed pump and repeat the closing operation. The clogging of the filtering device increases together with the loss of load and, consequently, the filtering capacity decreases.

ATTENTION!

THE FILTER CAN FUNCTION REGULARLY UP TO A PRESSURE OF 2.5 BAR (MAXIMUM FEEDING PRESSURE SUGGESTED FOR THE SHEETS).

1. Now connect the filter to the various tanks for the filtering process.
2. Slightly open the bleed cock/s (so that they let the air out slowly) and start the product feed pump by means of the electrical panel; the filtering phase starts here.
3. As soon as it is certain that the pressure remains stable, you can operate the product outlet valve in a slow and gradual manner, remembering to make sure that also the stocking tank valve is open.
4. As previously mentioned, during the filtering process a leaking of the product through the filtering layers will occur, which will collect in the drip pan; this product can be recovered by means of the pump by-pass valve, and then filtered.
5. Now, the filtering phase can be considered completed when the pump maximum feeding pressure required for the filtering, and consequently the minimum delivery of filtered product, are maintained for some time.
6. When the filtering process is over stop the feeding pump and close all the valves.

3.1.5. Preliminary washing and cleaning of the filter

Before opening the filter, you can proceed to a first wash in the following manner:

1. Connect a pipe having suitable diameter and length to the filter discharge valve by means of a clamp, and arrange it so that this pipe discharges the filtration residues and the wash water directly into a drain well connected with a piping system leading to a cleaner.
2. Pour clean water inside the drip pan.
3. Open the filter product inlet valve and outlet valve.
4. Start the pump and set the water circulating so that it cleans the filter thoroughly.
5. When the washing is done turn off the pump, close the several valves and disconnect the pipes.

3.1.6. End of filtration

ATTENTION!

BEFORE PROCEEDING, CHECK ON THE MANOMETER THAT THE WASTE FEED PRESSURE HAS DROPPED TO 0 (ZERO) BAR, SO AS TO AVOID THE EJECTION OF FOULING SPRAYS AGAINST THE PLATES PACK.

ATTENTION!

FOULING ON THE EDGES CAUSES AN IRREGULAR PARALLELISM AND MISALIGNMENT OF THE PLATES AND, CONSEQUENTLY, AN ABNORMAL STRESS ON THE FRAME.

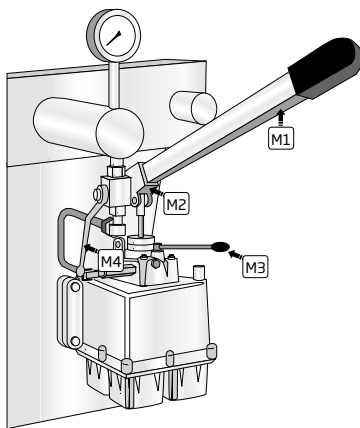
ATTENTION!

WE REMIND YOU THAT ALL THE RESIDUES DERIVING FROM AGRICULTURAL OR INDUSTRIAL ACTIVITIES, WHICH, BECAUSE OF THEIR QUANTITY OR QUALITY ARE NOT CONSIDERED PART OF ORDINARY CITY WASTE, SHOULD BE COLLECTED AND DELIVERED TO AUTHORIZED PLANTS OR SPECIFIC ORGANIZATIONS FOR THEIR DISPOSAL.

3.1.6.1. For filters equipped with auger

Loosen the closing auger.

3.1.6.2. For filter quipped with hydraulic jack



1. Turn the inversion valve (M3) by positioning the lever to the left.
2. Gradually open the lock valve operating the specific handle (M4) and gradually release the pressure.
3. Pump by means of the lever (M1) until the filtering pack is fully open.
4. Pull out the exhausted filtering layers and abundantly rinse the plates and pan with clean water.
5. When the discharge is completed, and the edges of the plates have been checked to make sure that they are free of any residual oil cake, you can proceed to a new closing and filtering cycle.
6. Clean the various pipes thoroughly before their next utilization by inserting the nozzle of a water cleaner.

3.1.6.3. For filters equipped with automatic hydraulic closure

1. Open the filtering plates using the switch on the control board.
2. Pull out the exhausted filtering layers and abundantly rinse the plates and pan with clean water.
3. When the discharge is completed, and the edges of the plates have been checked to make sure that they are free of any residual oil cake, you can proceed to a new closing and filtering cycle.
4. Clean the various pipes thoroughly before their next utilization by inserting the nozzle of a water cleaner.

4. MAINTENANCE

After a certain period of use, the mechanical parts most subject to wearing have to be checked and set up, in order to preserve the perfect working order of the machine during its whole life and prevent any problem which could jeopardize it during the periods of major need and urgency.

Should these checks, maintenance operations and/or repairs need the intervention of skilled personnel, please advise the manufacturer or your agent in good time so that they can provide you the required assistance.

4.1. Routine maintenance

ATTENTION!



IT IS ABSOLUTELY FORBIDDEN TO CARRY OUT ROUTINE AND/OR SPECIAL MAINTENANCE OPERATIONS WITH THE MACHINE CONNECTED TO THE ELECTRIC VOLTAGE. ALWAYS MAKE SURE TO TURN "OFF" THE GENERAL SWITCH ON THE ELECTRIC BOARD (POSITION "0") AND TO REMOVE THE PLUG FROM THE OUTLET.

Maintenance is fundamental for keeping the plant's efficiency as it prevents malfunctioning or damages of parts due to their constant use.

Maintenance consists of simple operations that, in order to be really efficient, have to be carried out regularly. It is important, therefore, to schedule these checks, reporting them on machine's or plant's cards, and to carry out these operations in compliance with the instructions hereby given.

Warranty does not cover all the repairs due to non maintenance, which should be carried out regularly by authorized personnel.

Not only at the beginning but also periodically, check that all the connections (hydraulic, electrical, pneumatics) necessary for start up and use of the machine have been carried out correctly and that conditions of use of the machine have been respected, whether technical (voltage, etc.) or environmental (temperature, pressure, etc.).

4.1.1. Periodical washing

The filter should be cleaned and washed at regular intervals; special attention and care must be given to all the mobile parts, such as the closing piston and the thrust lock. Eliminate sprays or drops of filtering liquid, filtered liquid and oil cake residues after every filtering cycle. This recommendation is especially important in the case of corrosive or abrasive substances. Hardened filtration residues may cause the early wear of the mobile elements. Frequent washings by water spray are best (use warm water, if possible). You can use compressed air to clean hard to reach nooks or crevices. If water or compressed air cleaning is not possible, the filter must be thoroughly cleaned by hand with the help of rags.

The hydraulic system must be kept thoroughly clean, including the piston guides. Weekly cleanings of all the hydraulic components are absolutely necessary to ensure perfect functioning. The local existing safety regulations (wearing protective clothing and goggles) must be observed even during cleaning and maintenance operations.

ATTENTION!



USE ONLY DETERGENTS COMPATIBLE WITH STAINLESS STEEL AND FIT FOR MACHINE'S USE, I.E. FOOD INDUSTRY OR MACHINE'S SPECIFIC PRODUCTS. AVOID ABSOLUTELY THE USE OF SUBSTANCES CONTAINING CHLORINE, AS HYDROCHLORIC ACID (MURIATIC ACID) AND HYPOCHLORITES (CHLORINE WATER).



ATTENTION!

USE PROTECTIVE GLOVES FOR HANDLING DETERGENTS.



ATTENTION!

TO WASH MACHINE OUTSIDE, MAKE SURE NOT TO DIRECT THE JET OF WATER TO THE ELECTRIC BOARD, THE MOTORS AND ALL THE ELECTRIC PARTS, AS WATER INFILTRATIONS COULD DAMAGE THEM.

4.1.2. Washing filtering plates

ATTENTION!

IF HOT WATER IS USED ITS TEMPERATURE MUST NEVER EXCEED 65/70 °C.



ATTENTION!

THE MAXIMUM PERMANENT TEMPERATURE (NOT TEMPORARY, FOR STERILIZATION PURPOSES) THE NORYL PLATES CAN WITHSTAND MUST NOT EXCEED 80 °C. THE NORYL PLATES MUST NOT BE EXPOSED TO PERMANENT TEMPERATURES BELOW -10 °C.



ATTENTION!

IF THE FILTER IS IN STORAGE FOR SOME TIME OR REMAINS INACTIVE, MAKE SURE THE PLATES ARE NOT EXPOSED TO DIRECT SUNLIGHT, WHICH COULD DAMAGE THEM. CONSEQUENTLY, COVER THE WHOLE WITH A PROTECTIVE CLOTH.

When washing the plates you should also make sure they are not worn out. An important recommendation concerns the thermal stress to which the NORYL plates may be subject; thermal stress can in fact cause them irreparable damage.

4.1.3. Electrical parts and control panel

The electrical panel and all connections of the machine are built using a technology that allows the use of the filter in extreme situations; however, this fact does not eliminate the need for a visual and at least weekly monitoring of all instruments, to verify proper operation.

4.1.4. Lubrification

At least once a month, lubricate the following points provided for that purpose oiler:

- Compensator carries supporting wheels and sliding movable plate.

The following instruments need to change oil:

- The hydraulic power device filter close (OPTIONAL).
- The geared motor of the conveyor belt (OPTIONAL).

4.1.5. General controls hydraulic closure

4.1.5.1. Oil filter

ATTENTION!

THE VERIFICATION OF OIL FILTER IS VERY IMPORTANT AND MUST BE MADE AT A MONTHLY FREQUENCY.

This operation is greatly facilitated by the filters provided with indicator for this purpose. The replacement of the filter element has to be done with one having the same characteristics as that originally mounted.

4.1.5.2. Central cleaning

Clean externally with monthly frequency, to allow easy location of leaks and immediate intervention.

4.1.5.3. Oil level

The control has to be made at weekly intervals.

Oil filling has to be done exclusively through the filter element of filler whenever the level drops to values close to the minimum, using the same type of oil present in the system. The type of oil of the original charge is Mobil Nuto H46

Total number load: 60 kg approx

4.1.5.4. Oil replacement

It has to be made about every 2,000 hours.

Oil replacement must be accompanied by a careful cleaning of the tank, the cartridge replacement of the filter elements and optionally washing installation.

ATTENTION!



WHEN IT COMES TO THE OPERATION OF CLOSING, MUST BE PRESENT ALL PLATES FILTER PACKAGE THAT MAKES MOBILE SUPPORT PLATE. TO LACK OF ONE OF THESE ELEMENTS, FORCING THE CYLINDER ROD MAKE A BETTER HOUSING PLANNED AND CAUSE INEVITABLY BREAK.

The operations to be performed when the complete replacement of oil to discharge air from the cylinder is made are as follows:

1. Download deteriorated through the drain plug located to effect deep oil deposit.
2. Put new oil in the reservoir using the drain plug to the effect in the upper lid.
3. Turn the switch of the hydraulic unit in position CLOSURE
4. The piston stroke causes the air outlet in the cylinder through the return oil in the reservoir union.
5. The closing operation has to be interrupted when the pressure in the cylinder, indicated by the pressure gauge reaches about 50 bar.
6. Put the selector switch OPENING.
7. Begins the return stroke of the piston, discharging the air to the tank through the supply piston binding.
8. Anyway, the above cycle to be repeated at least twice.
9. Should excessive noise or white foam in the tank, or an irregular movement of the piston, the cycle above notice must be repeated, because it means that it has been air in the circuit.
10. To remove this air, thus repeating the above operations, loosening seams on the highest parts of the circuit to eliminate the disadvantages found.

4.1.5.5. Temperature control

It must be done in conditions of maximum rate; fluid temperature must remain standard between 40 and 50 ° C, and never exceeding 70 ° C.

4.1.6. Machine inactivity

To ensure the efficiency of the machine at every start of the operating cycle after a pause, especially if this is prolonged, it will be necessary to:

1. Unplug the machine from the electric voltage.
2. Clean the machine thoroughly, especially the plates; wait for all the parts to dry and then follow the instructions below.
3. Completely cover the machine with a dry and whole tarpaulin so as to protect it from dust, water and weather; make sure that the storage place is not accessible to rodents that could damage parts of the machine; if it is, take the necessary measures and precautions.
5. Avoid also storing the machine for long periods in premises that are not closed or, worse, in the open air.

ATTENTION!



WE SUGGEST PERFORMING THE OPERATIONS MENTIONED ABOVE WITH ACCURACY, OTHERWISE FREEZING TEMPERATURES MAY DAMAGE THE PERFORMANCE OF THE MACHINE.

5. DISPOSAL AND DEMOLITION

5.1. Disposal of worn parts and working waste

5.1.1. Types

Parts most subject to wearing or consumption and working wastes are:

1. The lubricant of the motors.
2. The components of the electric board.
3. Rubber and plastic seals and pipes.
4. The sewage resulting from machine washing with detergents and sanitizers.

5.1.2. Disposal methods

The substances indicated above have to be treated separately as special or urban waste (see relevant laws in force).

Their classification should be carried out by the competent authorities, as for example authorized dumps or special consortiums.

The waste producer, i.e. the machine user, should care about the separation of waste according to the different types (for ex. the separation of rubber from plastic) in order to send it, where possible, to special treatment systems.

5.2. Demolition

When the machine becomes outdated (i.e. unserviceable because of ageing) or damaged by its use, it is necessary to arrange its demolition and disposal.

The machine must be considered as a special waste, therefore it should be sent to scrapping, after carrying out the reclamation of the polluting substances (as for example the oils indicated above) or of the recyclable ones.

This operation can be carried out autonomously, subject to authorization, if provided by law, and/or if there are no binding destinations provided for special waste. Anyway, it is better to ask the competent authorities (scrapers or dumps of the area) which will suggest the best way to carry out this operation and will provide to dismantle the machine according to laws in force.

6. DECLARATION OF CONFORMITY



IDENTIFICATION	SHEET FILTER
MODEL	SFT-40x40
CODE	SFT00000000088
SERIAL NUMBER	180507
CONSTRUCTION YEAR	2018

The machinery to which this declaration refers has been designed and manufactured in compliance with the current health and safety standards; for this reason, those we have signed this declaration hereby declare under their own responsibility, that the product complies with that which is prescribed by the following Directives, as well as with their subsequent amendments and modifications:

- 2006/42/CE
- 2014/30/UE
- 2014/35/UE
- 2014/34/UE

The product complies with that which is prescribed by the following regulations:

- EN12100
- EN60204-1
- EN13643-1
- EN13463-5

It is hereby declared that the machinery in question, supplied by ourselves, is manufactured in compliance with the European Standards regarding "MATERIALS AND ARTICLES INTENDED TO COME INTO CONTACT WITH FOODSTUFFS" EC 1935/2004, Reg 2023/2006.

It is also hereby declared that the machinery in question complies with the EC 10/2011 Regulation, as well as with its subsequent modifications and amendments, regarding "PLASTIC MATERIAL AND ARTICLES INTENDED TO COME INTO CONTACT WITH FOODSTUFFS".





Filter Works Inc.

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