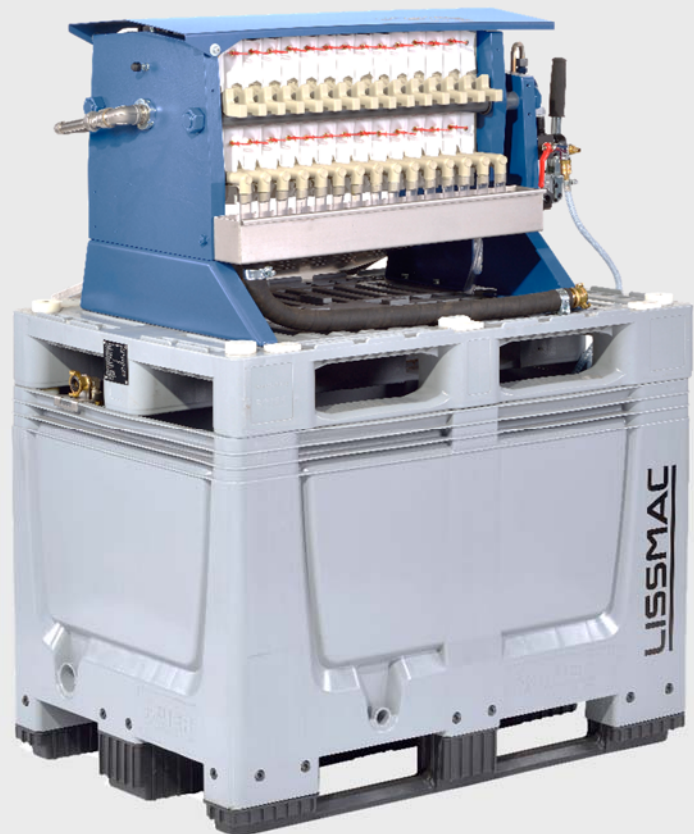


OPERATING MANUAL WASTE WATER FILTER UNIT

SFA 900



LISSMAC Maschinenbau GmbH
Lanzstrasse 4
D-88410 Bad Wurzach
Telephone +49 (0) 7564 / 307- 0
Fax +49 (0) 7564 / 307 - 500
lissmac@lissmac.com
www.lissmac.com





Imprint

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LISSMAC Waste Water Filter Unit

- SFA 900

Company headquarters:




LISSMAC Maschinenbau GmbH
Lanzstraße 4
D - 88410 Bad Wurzach
Phone: +49 (0) 7564 / 307 – 0
Fax: +49 (0) 7564 / 307 – 500
lissmac@lissmac.com
www.lissmac.com

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BASIC SAFETY INSTRUCTIONS

Warning notices and symbols in this operating manual


	Danger!	Indicates that failure to comply could lead to severe injury or even death.
	Caution!	Indicates that failure to comply could sometimes lead to injuries.
	Note	Indicates that failure to comply leads to damage to the machine or other property.

Handling information for operators






The defined sequence of the handling steps makes proper and safe handling of the machine easier.

- Handling instructions for the operator

The following warning and safety symbols were attached on the machine:

	This symbol indicates the reference to the operating manual
--	---

Warning and safety symbols

	Warning of health-hazardous or irritating substances
	Warning of corrosive substances
	Warning of a danger of crushing
	Warning of hand injuries
	Warning of slip danger

OPERATING MANUAL

Preface

This operating manual should make it easier to get to know the machine and make use of its intended applications.

The operating manual contains important information on how to operate the machine safely, properly and economically. Your close attention helps avoid risk, repair costs and downtime, and increase the reliability and lifetime of the machine.

The operating manual is to be supplemented by directives for accident prevention and environmental protection, according to applicable national requirements.

The operating manual is to be kept permanently available at the machine location.

The operating manual must be read and used by each person assigned to work with the machine, e.g.:

- Operating, including tooling, troubleshooting during operating, correction of production rejects, service, disposal of operating and auxiliary materials
- Maintenance (service, inspection, repair) and/or
- Transport

Along with the operating manual and the valid legal regulations for accident prevention in the country of use and the place of use, also recognised technical regulations for safety and proper work are to be observed.

Additional documents

Additional documentation of the respective manufacturers of individual components of the machine are available as supplements to this operating manual.

LISSMAC assumes no responsibility or liability for the completeness of any additional documents.

Changes and reservations

We attempt for this operating manual to be correct and up-to-date. To maintain our technological lead, it can be necessary to change the product without advance notice and to perform their operation. We accept no liability for malfunctions, breakdowns and damage caused by this.

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1. DESCRIPTION OF PERFORMANCE

The SFA waste water filter unit ensures an environmentally responsible cleaning and disposal of contaminated water due to drilling and cutting slurry.

- The chamber filter press is closed by a hydraulic unit
- Sturdy construction and thus can be installed anywhere
- Simple and fast cleaning of the system
- Compact filter unit for long and uninterrupted operation
- Cleaned water can be supplied back to the machining equipment for cooling of the machining tools
- Significantly reduced fresh water consumption and reduced water transport costs
- Enormous reduction of disposal costs for pressed cutting slurry due to the separation of solids from water and the reduction of disposal volume to the pure solids
- Sludge cakes can be disposed of quickly and easily using building material recycling



1.1. Basics of intended use

1.1.1	The warranty obligation of the manufacturer and supplier is voided for improper or non-intended use. Any change to the machine which is not carried out by the manufacturer is prohibited. Changes, removal or addition of parts to the machine only with the written approval of the manufacturer.
1.1.2	The machine is constructed according to the state of the art and recognised technical safety rules. However, danger to life and limb of the user or third parties, and/or damage to the machine or other property may still arise from its use.
1.1.3	Only use the machine in technically faultless condition and for intended use, aware of safety and danger complying with the operating manual. You should particularly handle malfunctions which can compromise safety immediately, or have them addressed by experts.
1.1.4	The LISSMAC waste water filter unit is used exclusively for the preparation of contaminated water due to mineral drilling and cutting slurry. Any other use or use above and beyond is not considered intended use. Intended use also includes compliance with the operating manual and observance of inspection and maintenance manual.

1.2. Organisational measures

1.2.1	The operating manual must be easily accessible for each person at the location of the machine.
1.2.2	All additions to the operating manual, all generally valid legal and otherwise binding regulations for accident prevention and environmental protection are to be followed and instructed! Such obligations may also apply, for example, to the handling of hazardous materials or the wearing of personal protective gear or traffic regulations.
1.2.3	Personnel assigned to jobs must have read and understood the operating manual, particularly the Safety Instructions chapter, before starting work. In the middle of work it is too late. This particularly applies to personnel only occasionally engaged with the crane, such as those involved in tooling and maintenance.
1.2.4	At least occasionally, perform checks for safe and hazard awareness work by operators while following the operating manual!
1.2.5	Use personal protection equipment if necessary or required by regulations!
1.2.6	Observe all safety instructions and danger warnings and keep them in legible condition! Replace safety and danger instructions that are damaged or non-readable any more.
1.2.7	For safety-related changes to the machine or its running behaviour, stop the machine immediately and mark it accordingly. Report the problem to the responsible post/person!
1.2.8	No changes, removal or addition of parts without the written approval of the manufacturer! The instructions of the tool maker must be followed.
1.2.9	Only use tested original replacement parts from the manufacturer!
1.2.10	Observe required or prescribed deadlines given in the operating manual for inspection.

1.3. Personnel choice and personnel qualification; basic responsibilities

1.3.1	Only qualified personnel 18 years of age or older may operate the masonry saw independently. All personnel must be trained in the operation and be explicitly authorized by the company to operate the machine.
1.3.2	Establish responsibilities of the personnel for operating, changeover, servicing, and repairing the machine!
1.3.3	Make sure that only authorized personnel works at the machine.
1.3.4	The operator must wear personal safety equipment according to the safety regulations, such as safety shoes, safety gloves and safety glasses.
1.3.5	Remaining in the working area of the machine unnecessarily is prohibited! Direct unauthorised personnel, who are not working on the machine, away from the work area. Block off the working area, if necessary.
1.3.6	During all movements, operating personnel must ensure that they and other people are not endangered. All obstacles which may hinder the operation or implementation of the machine at the location of use must be moved out of the way.
1.3.8	Any personnel training, learning, being instructed, or currently involved in general education may only work with the machine under the continual supervision of an experienced person!

1.4. Safety instructions for operation phases

1.4.1. Danger for the operator by the machine

1.4.1.1	The operator can get fingers pinched when clamping the filter elements. Use special caution when clamping the filter elements!
1.4.1.2	The operator must make sure that the waste water filter unit is installed securely and disconnected from power.
1.4.1.3	All cables must be checked for damage before every commissioning.

1.4.2. Transport, assembly and installation

1.4.2.1	The transport may only be done, as long as all machine parts are tightened on the machine and individual parts cannot fall.
1.4.2.2	During transport, the waste water filter unit must be connected with a light pretension.
1.4.2.2	Transport must only take place when all water hoses are removed.

1.4.3. Commissioning

1.4.3.1	All lines must be inspected for damage before commissioning and operation.
1.4.3.2	Before commissioning the filter cloth of the filter plates must be inspected for damage.

1.4.4. Operation

1.4.4.1	Refrain from working in any manner that is questionable in regard to safety!
1.4.4.2	Take measures to ensure that the machine is operated only in a safe, functional condition!
1.4.4.3	At least once per shift check the machine for externally recognisable damage and deficiencies! Any changes which occur (including operating behaviour) must be reported immediately to the responsible post/person! If necessary, immediately stop the machine and secure it against restart!
1.4.4.4	Immediately stop and secure the machine in case of malfunctions! Immediately correct malfunctions! Electrical work may only be carried out by qualified electricians.
1.4.4.5	Only suitable and tested tools must be used.

1.4.5. Special work while using the machine

1.4.5.1	Follow all setup, maintenance, and inspection activities and schedules prescribed by the operating manual, including all information about the replacement of parts / assemblies! These activities may only be carried out by technical personnel.
1.4.5.2	Inform operating personnel before beginning special and maintenance work! Name a supervisor!
1.4.5.3	If the machine is turned off during maintenance and repair work, it must be secured against unexpected application of power.
1.4.5.4	Before cleaning all openings in which no cleaning agent should penetrate due to safety and/or functional reasons must be covered and glued. Electric motors, switches and plugs are especially at risk. After cleaning, remove the covers/tape completely!
1.4.5.4	During service and repair work, always tighten loose bolt joints!
1.4.5.5	If dismantling is required for fitting, servicing and repair, the safety fittings must be remounted and checked immediately following the service and repair work!

1.5. Packaging and Storage

To ensure sufficient protection during shipping and transport, the machine and its components are carefully packaged. When receiving the machine, the machine must be checked for damage. The packaging of the device consists of materials which can be recycled. Put these by type into the relevant recycling containers, so that they can be recycled properly.

In the case of damage, the machine must not be put into operation. Even damaged cable and plugs represent a safety risk and must not be used. In this case, please contact the manufacturer.

If the machine is not immediately put into operation after unpacking, it must be protected from moisture and dirt.

1.6. Environmental protection

Packaging material, cleaning agents, used or residual operating materials, as well as removed wear parts, such as drive belts or motor oils must be taken to recycling corresponding to the valid regulations for environmental protection at the place of use.

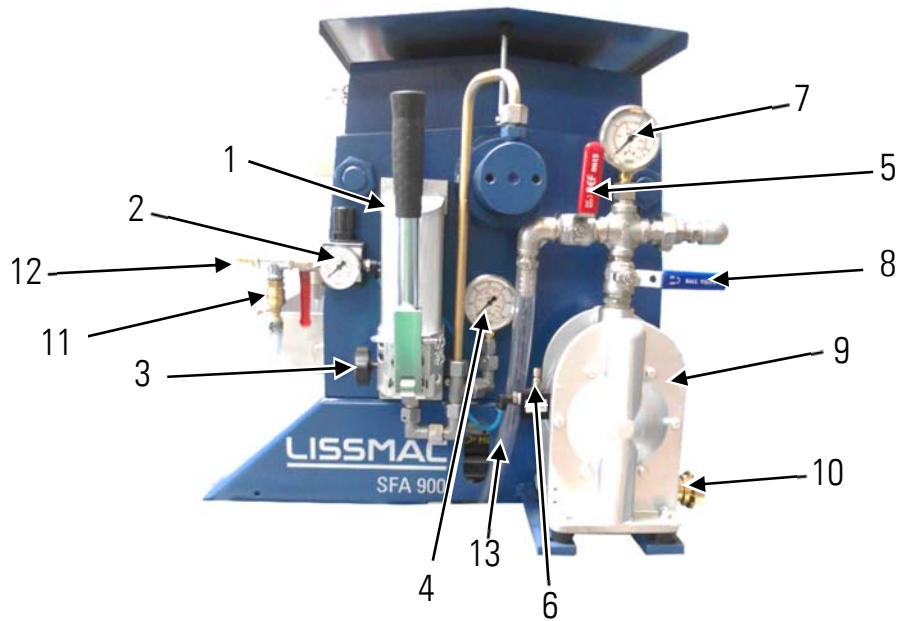
1.7. Disposal

If the expiry date of the device has been reached, in particular if functional errors happen, make the machine unusable.

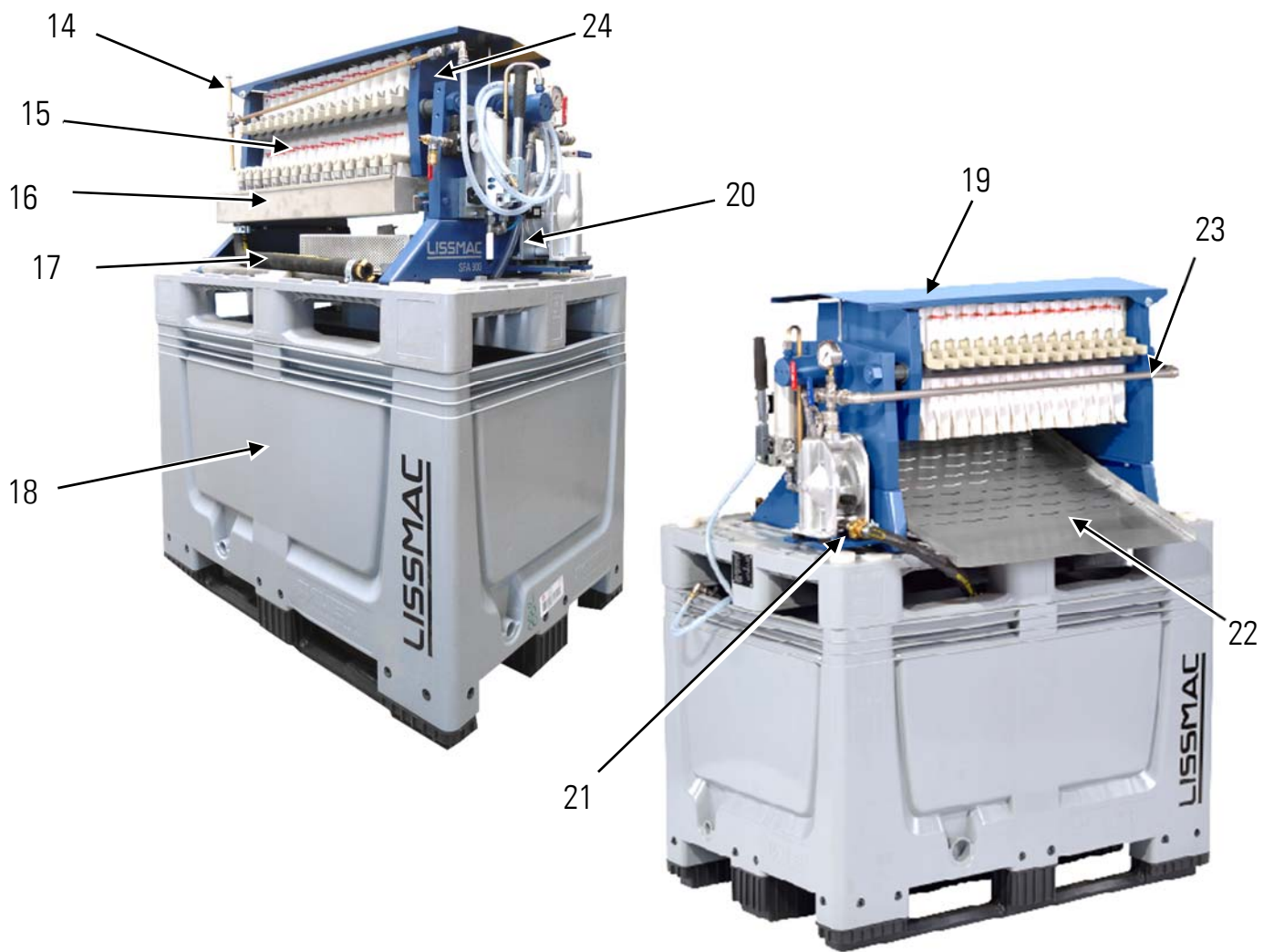
Dispose of the device according to the valid regulations for environmental protection of your country. Electrical waste may not be disposed of in household waste. Take the used device to a central rubbish collection centre.

2. DESCRIPTION OF THE DEVICE

2.1. Name of machine parts



- | | |
|---------|---|
| Pos. 1 | Hand pump (Hydraulic assembly) |
| Pos. 2 | Manometer - compressed air operating pressure |
| Pos. 3 | Hand pump pressure release valve |
| Pos. 4 | Manometer - Hydraulic operating pressure |
| Pos. 5 | Waste water line pressure release valve |
| Pos. 6 | Needle throttle valve |
| Pos. 7 | Manometer - Waste water operating pressure |
| Pos. 8 | Water valve output regulation |
| Pos. 9 | Diaphragm pump |
| Pos. 10 | Connection for suction hose |
| Pos. 11 | Connection for compressed air stirrer |
| Pos. 12 | Connection for compressed air supply |
| Pos. 13 | Pressure release line |



- Pos. 14 Compressed air stirrer
- Pos. 15 Filter plates
- Pos. 16 Water trough
- Pos. 17 Drainage hose for cleaned water
- Pos. 18 Bigbox
- Pos. 19 Cover
- Pos. 20 Pressure release hose
- Pos. 21 Waste water suction line
- Pos. 22 Chute for filter cakes
- Pos. 23 Waste water pressure line
- Pos. 24 Pressure plate

2.2. Technical data

	SFA 900
Recycling capacity	approx. 900 l/h
Plate size (LxW)	300 x 300 mm
No. of plates	15 pcs. (13+1+1)
Chamber volume	18.9 l
Closing pressure	400 bar
Operating pressure	8 bar
Operating mode	Pneumatic / hydraulic
Dimensions L/W/H	1200 / 800 / 980 mm
Weight (with tank)	260 kg (290 kg)

Technical changes may be made!

3. COMMISSIONING

3.1. Connections and operating materials

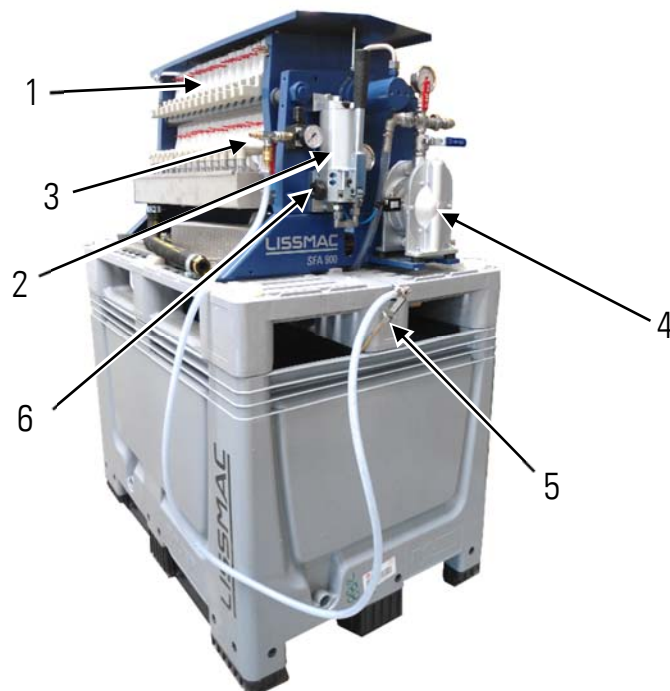
Compressed air connection

The compressed air source must consist of oil-free compressed air and must not exceed a maximum pressure of 8 bar.

Water hose

All water hoses must be inspected for damage before commissioning.

3.2. Closing the waste water filter unit



Danger!

When closing the waste water filter unit, the machine must only be operated by one person. Risk of crushing in the area of the filter plates!



Note

All lines must be inspected for damage and leaks before commissioning.

- Insert the filter plates (pos. 1) correctly and close the cover of the waste water filter unit
- Close the pressure release valve (pos 6) of the hand pump (pos. 2)
- Pump on the hand pump (pos. 2) until the closing pressure has reached 400 bar
- Connect compressed air (pos. 3) for the diaphragm pump (pos. 4) and the compressed air stirrer (pos. 5)

3.3. Connections of the waste water filter unit



Note

All lines and connections must be inspected for damage and leaks before commissioning.

Waste water feed (Pos. 1).

The waste water is pumped via the quick coupling from the sludge pump into the waste water filter unit.

Pressure release valve (pos. 2)

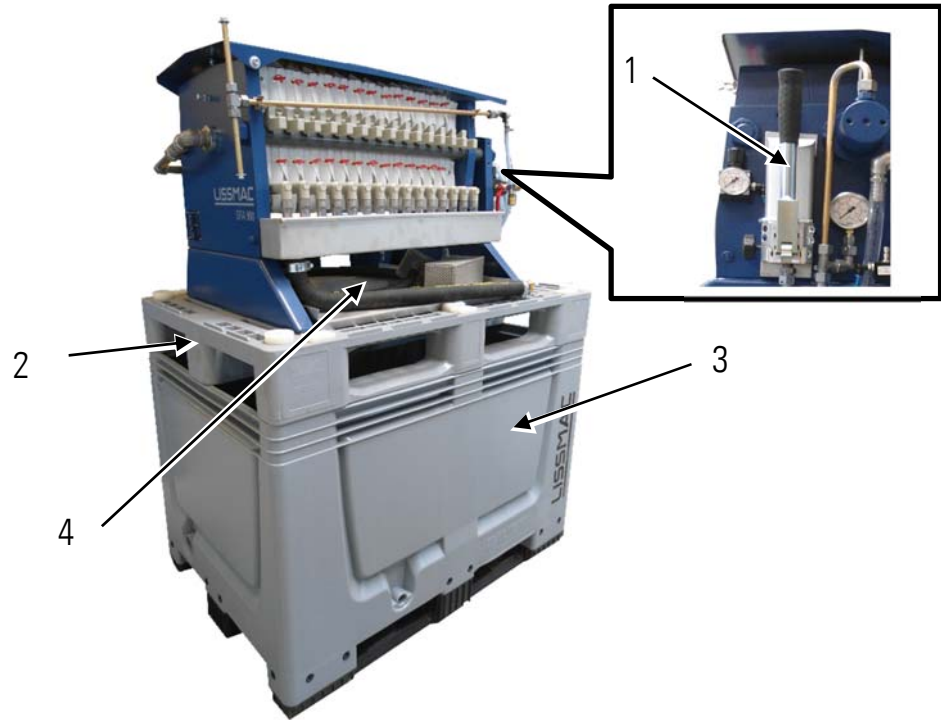
After filtering the compression of the waste water unit must be opened. The waste water filter unit must not be opened until the waste water pressure line is depressurised. To do this slowly open the pressure release valve (pos. 2). Excess waste water that is still in the line runs out through the pressure release line (pos. 3).

Waste water hose (pos. 4)

The filtered water runs via the waste water hose.

4. TRANSPORT

➔ Caution!	During transport, the waste water filter unit must be connected with a light pretension of 100 bar.
! Note	To ensure that no deposits of mineral drilling and cutting slurry can form in the unit, the waste water filter unit must be thoroughly rinsed.



The waste water filter unit must be pretensioned for transport:

- Insert the filter plates correctly and close the cover of the waste water filter unit
- Close the pressure release valve of the hydraulic pump so that the pressure is maintained
- Pump the waste water filter unit via the hand pump (pos. 1) to 100 bar
- Disconnect all hose connections and place under the filter unit (pos. 4)
- Lift down the pallets (pos. 2) from the big box (pos. 3) with the forklift
- Clean the big box
- Turn over the big box and place over the filter unit

5. OPERATION

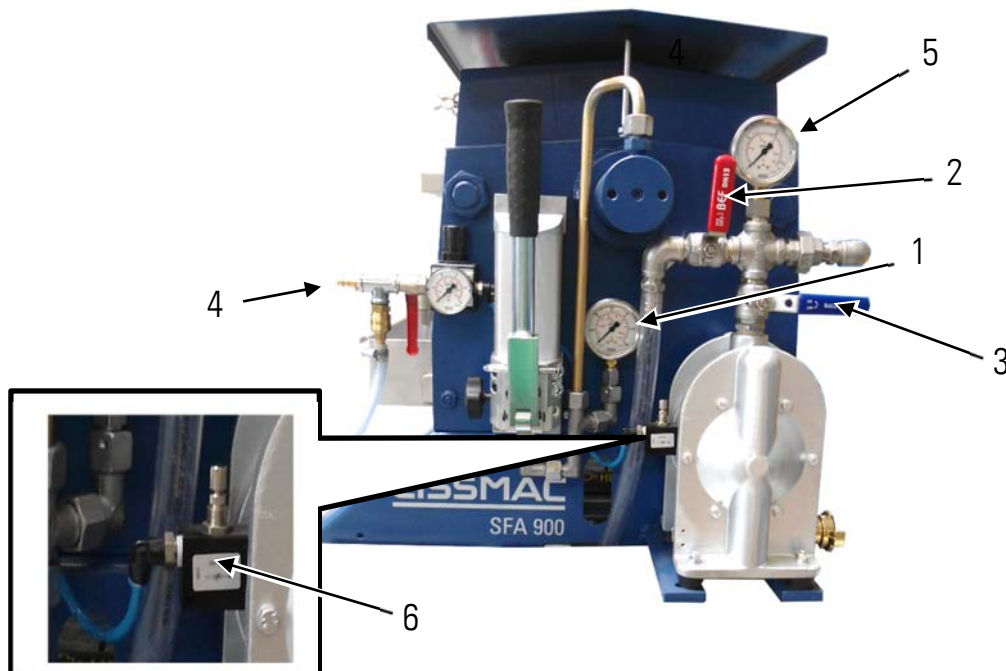
5.1. Filter operation



Note

Before operation the following requirements must be met:

- Connect compressed air supply and check operating pressure (max. 8 bar)
- All water hoses must be connected at the correct position
- The closing pressure (400 bar) of the waste water filter unit must be reached (check manometer)



Note

The waste water filter unit must be closed before operation!

- The closing pressure is indicated on the manometer (pos. 1)
- Close the pressure release valve (pos. 2)
- Close the water valve for the output regulation (pos. 3)
- The mixer is activated by the connection to compressed air (pos. 4)
- Open the valve (pos. 3) approx. 45° using the sludge pump
- Close lid (pos. 4) on the waste water filter unit
- The stroke speed of the compressed air diaphragm (Pos. 6) pump can be regulated by the throttle valve. Adapt the setting using the throttle valve



Note

During running operation the waste water filter unit fills with filtered particles. If the filling pressure of approx. 8 bar is reached, the filter unit must be opened and cleaned

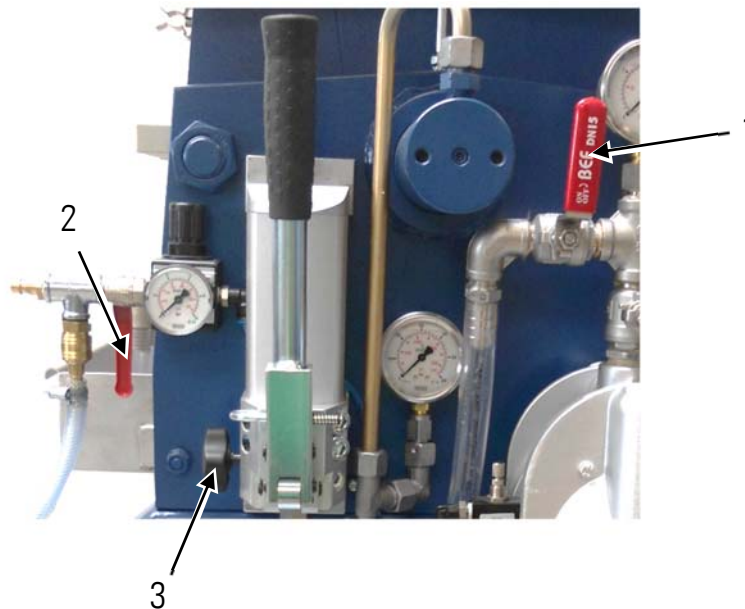
5.2. Opening the waste water filter unit



Note

The waste water filter unit must only be opened if there is no more pressure on the waste water line

- Switch off the mixer using the valve
- Switch off the sludge pump via the valve for compressed air (pos. 2)
- Slowly open the pressure release valve (pos. 1) to release the pressure
- Only open the drain valve of the hydraulic hand pump (pos. 3) when the pressure is drained to 0 bar
- Now tip the cover to the side and slide the pressure plate forward



6. MAINTENANCE

6.1. Cleaning of the filter press after end of use



Note

When there is danger of frost the water must be removed from the waste water filter unit. The complete waste water filter unit must be rinsed thoroughly when doing this.

- All parts that come into contact with waste water must be thoroughly cleaned with clean water before end of use
- Remove the suction hose of the sludge pump from the waste water container and rinse the waste water filter unit thoroughly with clean water.
- Clean the filter cloths of the filter plates with a washing brush. Steam and high-pressure washers are prohibited!

6.2. Service



Danger!

Maintenance and repair works must only be carried out by qualified personnel. The machine must be secured against turning on by other people. Maintenance and repair works may only be carried out when the machine is turned off.

Cleaning

To protect painted surfaces no aggressive cleaning agents may be used.

	before each use	daily	weekly	monthly	annually
Visual inspection for recognisable damage and deficiencies	●				
Thoroughly clean the machine		●			
Check hydraulic assembly for leaks	●				
Check oil level in hydraulic hand pump			●		
Hydraulic oil change					●
Screw connections	Retighten all screw connections after 20 operating hours see 7.7				

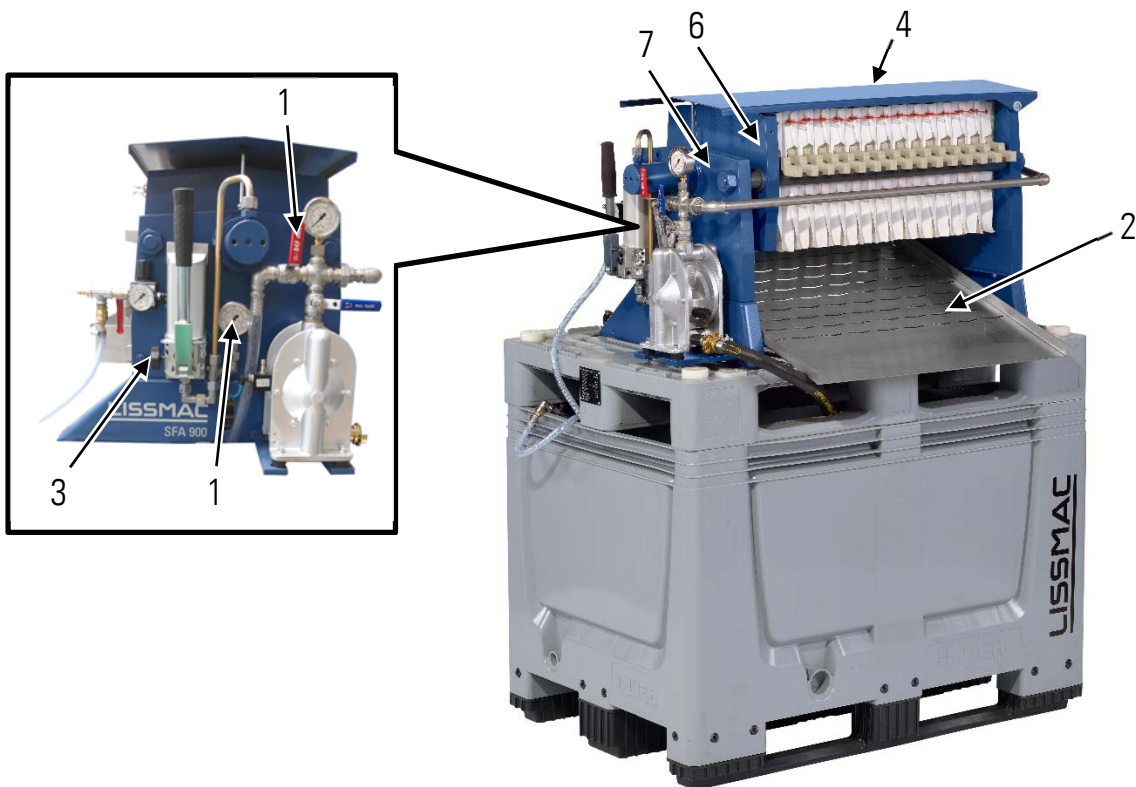
6.3. Cleaning the filter



Note

When the manometer (pos. 1) of the waste water indicates 8 bar, the filter plates are full.

- Latch the discharge plate (pos. 2) to the cross braces of the water trough
- Set the collection pan for the filter cakes under the discharge chute
- Lower the pressure of the hydraulic pump to 0 bar using the pressure release valve (pos. 3)
- Tip the cover (pos. 4) to the side
- Push the pressure plate (pos. 6) in the direction of the front plate (pos. 7), so that the filter plates are without contact pressure
- Shift the filter plates individually so that all filter cakes also fall out
- Clean the edges of the filter plates of dirt and sludge residue, so they again seal well in the continuing work flow
- Slide the pressure plate (pos. 6) back to the filter plates and press lightly
- Close the pressure release valve (pos. 3) of the hydraulic pump and by pumping again establish the working pressure of 400 bar



6.4. Filter cloths of the filter plates

The waste water filter unit is equipped complete with filter plates and filter cloths when delivered from the factory. If you are performing the first filtration, this section can be omitted and commissioning can be done.

However, if you are in continuing system operation, and want to put filter cloths on or off, the following is an example of putting on a filter cloth with instructions that must be followed.



Note

The filter cloth change on the pass-through filter cloths for chamber filter plates is described in the following.

First take the filter plate vertically upwards out of the plate package and set it on a solid surface.

- Place the double-layer filter cloth on a level surface and fold one half of the cloth together from the middle.

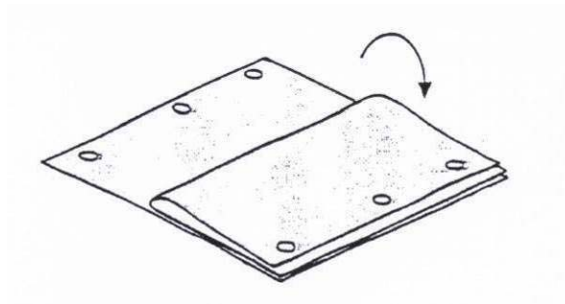


Fig. 3

- Now roll this half of the cloth together in a roll, as shown in Figures 4 and 5.

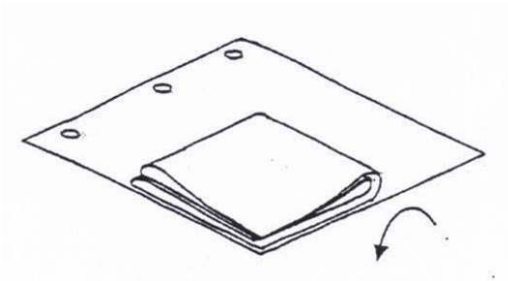


Fig. 4

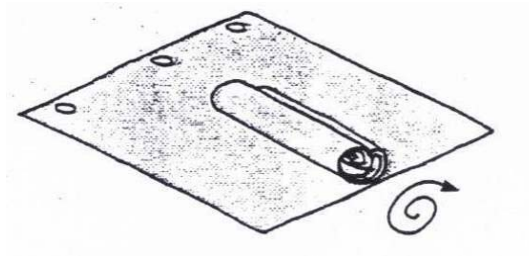


Fig. 5

- Now stick this cloth roll up to the throat of the cloth through the hole in the filter plate (Fig. 6).

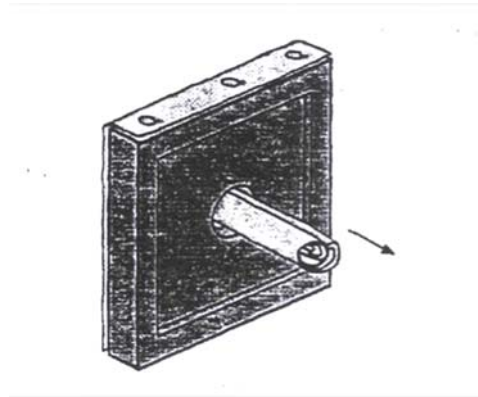


Figure 6

- Unroll the cloth and align it so that the cloth side with the large eyes, $d= 12\text{ mm}$, is on the top side of the filter plate.
- Now smooth out the cloth in the area of the centre hole and make sure that it sits on the entire surface and the edges with no creases.
- There are small eyes on the side of the filter cloth, to connect the halves of the cloth together. Plastic closures must be used for this. These must not become loose during the pressing operation.
This prevents a part of the filter cloth from being folded in, which can negatively influence the filtering properties of the press significantly.



Note

Remove the cloth in the corresponding reverse sequence!

7. HANDLING INSTRUCTIONS FOR CHAMBER FILTER PLATES MADE OF POLYPROPYLENE (MANUFACTURER'S INSTRUCTIONS)

7.1. General

There are chamber filter plates available in a large range of variants, in different sizes and cake thicknesses:

- for high and low filtration pressure
- with slurry feed centralised, decentralised or in the corner
- slurry exit open, via valves or closed
- for pass through cloths or cloth screwed connections
- for good washing results or only for clear filtration
- for automatic transport or manual operation
- for side beam pressing or pressing with suspensions
- for sealed cloths or in liquid-tight design

Therefore there is always the option to design the chamber filter plates so that the user achieves optimum filtration results.

The special design of the chamber filter plates and the high quality materials thoroughly guarantee a high service life. However, the durability of the chamber filter plate is not only dependent on the construction design and the material, but also on correct treatment and service.

7.2. Treatment before the initial operation

Chamber filter plates must be protected against mechanical damage and against temperatures below 0°C, since the polypropylene material (PP) loses its elasticity at low temperatures.

It is recommended to store chamber filter plates in closed areas. The filter plates should be stored vertically for longer storage times.

Permanent ultraviolet radiation (e.g., sun, bright daylight, etc.) is damaging to PP; it can discolour. The chamber filter plates are protected against radiation by covering with black plastic film.

Chamber filter plates must absolutely be protected from welding splatter during welding work.

Also, uneven heat should be avoided, since the filter plates can warp with exposure to uneven temperatures.

7.3. Inspection before every commissioning

- Are the filter plates arranged in the proper sequence?
- Is the handle centring correct?
- Are the filter cloths seated correctly and taut?? The holes for the flow must be exposed. The filter cloths must not make any creases on the sealed edge.
- Is the closing pressure set correctly?

7.4. Chamber filter plates during operation

- The slurry should be conditioned uniformly and without clumps. Clumps can lead to stoppages, i.e., to uneven chamber filling. Differential pressures then result, which can lead to plate fracture.
- The cloths must not filter in the slurry channel. It must be ensured, that the slurry channel has liquid up to the end of the filtration in the entire plate package, and thus a problem-free filling of the individual chambers is guaranteed. Plugged slurry channels and plugged chamber feeds lead to differential pressures and can lead to plate deformation with differing cake thicknesses and plate fractures.
- The filter cloths should be uniformly clean, so that varying filtration is avoided. Damaged filter cloths must be immediately replaced.
- A filtration cycle should never be interrupted for a long period of time, because the cake sags and the subsequent filtration becomes uncontrollable.
- It is practical to inspect the nap surface of the chamber filter plates in specified intervals and, if necessary, to clean them so that there is free drainage.
- After emptying, the sealed edge of the cloths should be inspected for cleanliness and the slurry channel of the filter plates for residues (cake / sludge). Insufficiently cleaned slurry channels can lead to uneven filling and cake thickness in the individual chambers and thus the risk of bending of the plates exists. Cake residue on the sealed edges leads to leaks and can cause warpage of the pressing frame.
- Chamber filter plates are light and easy to handle. However, dropping of the chamber filter plates on the beams must be avoided, because this impact can damage the plates.
- Polypropylene is sensitive to the continual exposure to free chlorine. Therefore, for example, no bleaching lye should be used for cleaning.

7.5. Post treatment of the filter plates

After the filtration is completed, the filter plates and the filter cloths should be inspected and cleaned. The seat and the condition of the filter cloths should be checked.

7.6. Troubleshooting table



Danger!

Before service or repair work the hydraulics of the waste water filter unit must be depressurised. Maintenance and service works may only be carried out by qualified personnel.

Error	Cause	Remedy
Waste water filter unit does not run properly	Operating pressure too low	Check operating pressure
	Filter plates full	Empty filter plates
	Inlet filtrate plugged	Check inlet filtrate
	Filtrate too thick	Thin filtrate with water
Filter plates leak	Closing pressure not reached	Check closing pressure
	Contact surface not clean	Clean contact surfaces
Closing pressure is not reached	too little hydraulic oil	Check level of hydraulic fluid

7.7. Torque of screw connections

Strength class: Dimensions	8.8 Max. tightening torque in Nm	10.9 Max. tightening torque in Nm	12.9 Max. tightening torque in Nm
M4	3.3	4.8	5.6
M5	6.5	9.5	11.2
M6	11.3	16.5	19.3
M8	27.3	40.1	46.9
M10	54	79	93
M12	93	137	160
M14	148	218	255
M16	230	338	395
M18	329	469	549
M20	464	661	773
M22	634	904	1057
M24	798	1136	1329
M27	1176	1674	1959
M30	1597	2274	2662

8. WARRANTY

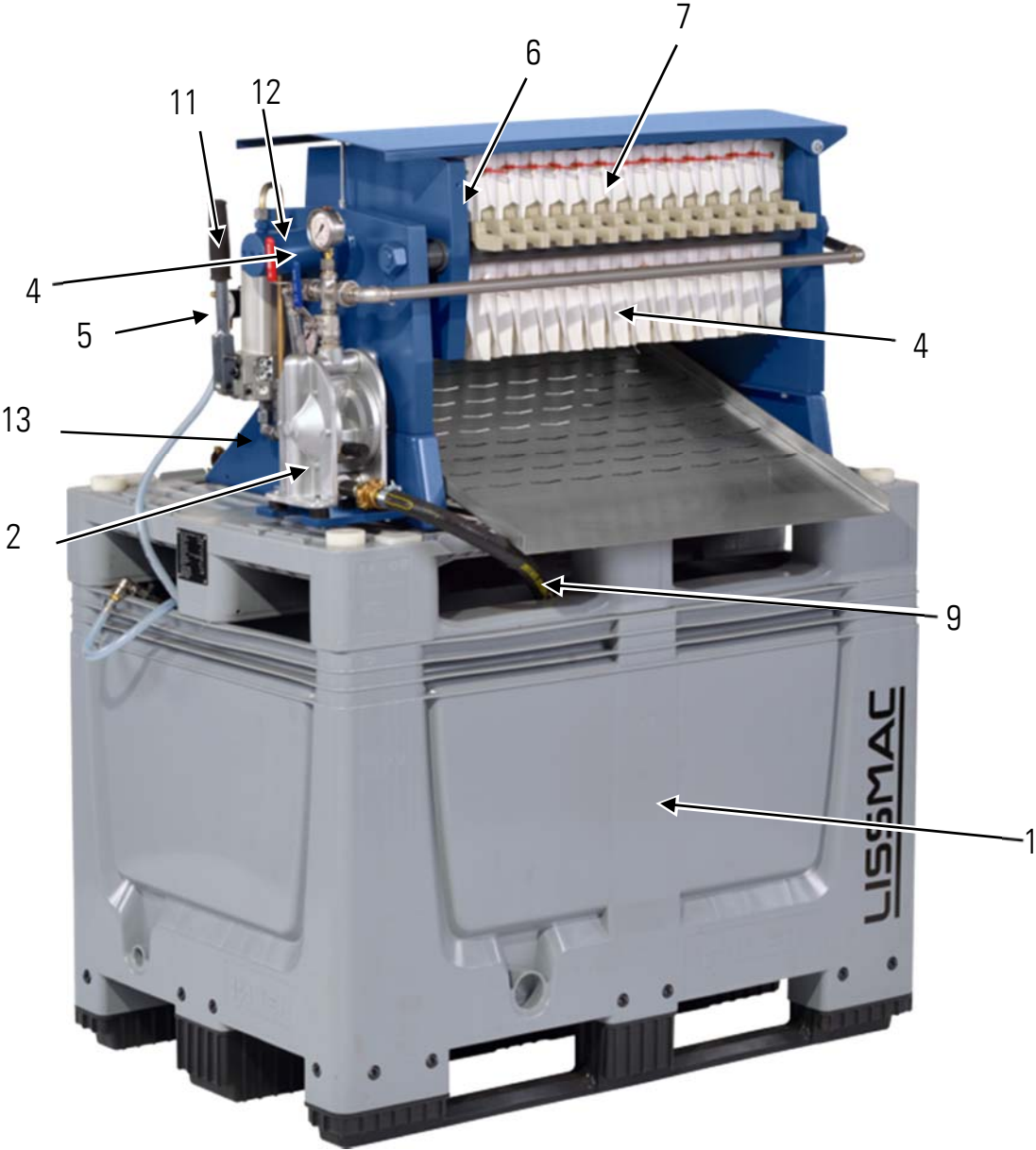
The warranty for this machine is 12 months. For the following listed wear parts the warranty only applies if the wear is not caused by operation.

Wear parts are parts that with intended use of the machine have limited operational wear. The wear time is not uniformly specified, it differs according to intensity of use. Wear parts are device specific and are to be maintained, adjusted and if required exchanged according to the manufacturers' operating manual.

Wear caused by operation does not qualify for warranty claims.

- Feed and drive elements, such as toothed racks, gears, pinions, spindles, spindle nuts, spindle bearing, cables, chains, chain wheels, belts
- Seals, cable, hoses, collars, connectors, couplings and switches for pneumatics, hydraulics, water, electrical, fuel
- Guide elements, such as guide strips, guide bushings, guide rails, rollers, bearings, anti-slide plating
- Tension elements from quick-coupling systems
- Flushing head seals
- Plain and roller bearings, which do not run in oil bath
- Shaft sealing rings and sealing elements
- Friction and overload couplings, braking equipment
- Carbon brushes, collectors
- Easily dissolvable rings
- External potentiometer and manual switching elements
- Fuses and lamps
- Auxiliary and operating materials
- Fastening elements, such as pegs, anchors and screws
- Bowden cables
- Lamella
- Diaphragms
- Spark plugs, glow plugs
- Parts of reversing starters, such as crank cable, crank handle, crank roller, crank spring
- Sealing brushes, sealing rubber, splash guard cloths
- All types of filters
- Drive and deflector rollers and bracings
- Cable laying protection elements
- Running and drive wheels
- Water pumps
- Cut goods transport rollers
- Drilling, separating and cutting tools
- Transport belt
- Rubber scrapers
- Needle felt protection
- Energy storage

9. SPARE PARTS LIST



Item	Item no.	Designation	Specification	Units	Spare part Recommendation
1	818189	SFA Big-Box 535 litres		1	
2	210917	Compressed air diaphragm pump	tapflo	1	
3	212248	Complete unit assembly		1	
4	212236	Pressure gauge	0-16 bar	1	
5	212235	Pressure gauge	0-600 bar	1	X
6	212299	Filter cloth - end		1	
7	212297	Filter cloth - pass through		13	
8	212298	Filter cloth - head		1	
9	213176	Suction hose		1	
10	213203	Strainer assembly		1	X
11	213190	Hydraulic hand pump		1	
12	213191	Hydraulic cylinder		1	
13	213192	Compressed air unit	0-25 bar adjustable	1	
without figure	213195	HD T piece		1	
without figure	213196	HD angle		1	
without figure	213197	HD union nut		1	
without figure	213198	HP cutting ring		1	
without figure	213199	HP pipe		1	
without figure	213200	Water hose	transparent	1	



Note

To prevent incorrect deliveries, when ordering spare parts, indicate the complete model designation, year of manufacture and the machine number!

We make it explicitly clear that parts not supplied by us are also not tested and released by us. The installation and use of such products can therefore, in certain conditions, modify your equipment negatively and thus affect safety. For damages caused by the use of non-original parts and accessories, there is no liability!

Translation of the original declaration of conformity



This EC Declaration of Conformity is valid for the following machine:
LISSMAC waste water filter unit SFA 900.

This declaration relates exclusively to the machine in the state in which it was placed on the market, and excludes components which are added and/or operations carried out subsequently by the final user. It is confirmed that the machine conforms to the relevant provisions of Directive 2006/42/EC and 2000/14/EC.

Manufacturer:

LISSMAC Maschinenbau GmbH
Lanzstrasse 4
D-88410 Bad Wurzach

Technical documentation retained by LISSMAC Maschinenbau GmbH, D-88410 Bad Wurzach

Machine description:

Waste water filter unit for the preparation of contaminated water due to mineral drilling and cutting slurry.

	SFA 900
Recycling capacity	approx. 900 l/h
Plate size (LxW)	300 x 300 mm
No. of plates	15 pcs. (13+1+1)
Chamber volume	18.9 l
Capacity of filter cake container	48 l
Closing pressure	350 bar
Operating mode	Pneumatic / hydraulic
Dimensions L/W/H	1200 / 800 / 980 mm
Weight	260 kg (290 kg)

Harmonised standards:

EN ISO 12100 Corrigendum 1:2013-08

Legally binding representative:

LISSMAC Maschinenbau GmbH
Lanzstrasse 4
88410 Bad Wurzach
Tel.: +49 (0) 7564 / 307 - 0
Fax: +49 (0) 7564 / 307 - 500
E-mail: lissmac@lissmac.com
www.lissmac.com
Bad Wurzach, 01.02.2016


ppa. Benjamin Mayer
(Head of Development Construction Technology)

