

Operating manual

PFT Horizontal Screw Mixer LOTUS XS Overview – Operation - Spare Parts Lists



Item number of operating manual: 00 41 43 58

LOTUS XS 230 V 1.3kW 280 rpm 1-ph. RAL2004, item number 00246057 LOTUS XS 230 V 1.3kW 280 rpm 1-ph. RAL2004 with booster pump, item number 00266950 LOTUS XS 230 V 1.3kW 280 rpm gauge, item number 00282613



Read the operating manual prior to beginning any work!

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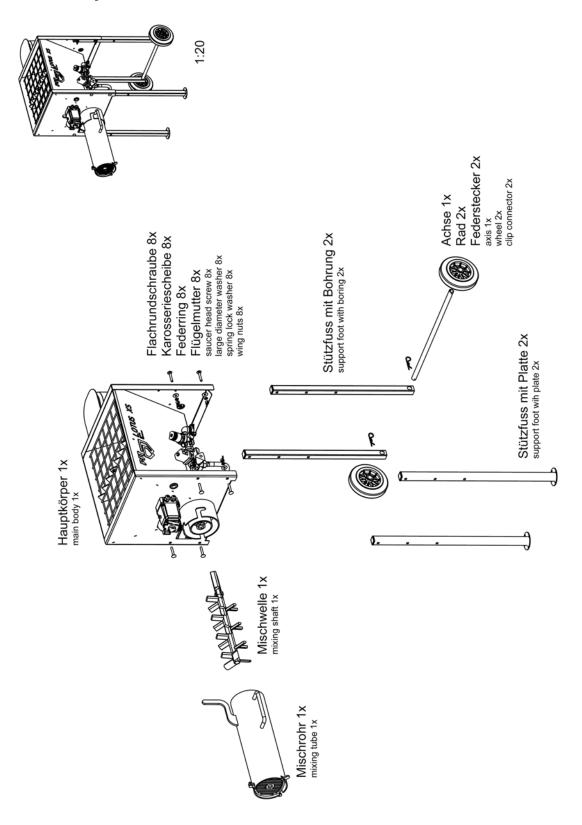
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1 Assembly



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EC Declaration of Conformity



2 EC Declaration of Conformity

Company: Knauf PFT GmbH & Co. KG

Einersheimer Straße 53

97346 Iphofen

Germany

declares, with exclusive responsibility, that the machine

Machine model: LOTUS XS

Device type: Horizontal screw mixer

Serial number:

Guaranteed sound power level: 78 dB

conforms to the following CE regulations:

- Outdoor Noise Directive (2000/14/EC),
- Machine Directive (2006/42/EC),
- Directive on Electromagnetic Compatibility (2004/108/EC).

Applied conformity assessment procedure according to Outdoor Noise Directive 2000/14/EC: Internal manufacturing inspection as per Article 14, Section 2 in conjunction with Appendix V.

This declaration applies only to the machine in the condition it was in when sold. Components attached or modifications undertaken by the end customer after purchase remain unconsidered. This declaration becomes invalid if the product is converted or altered without approval.

Agent responsible for putting together the relevant technical documentation:

York too lee bay

Dipl.-Wirtsch.-Ing. Michael Duelli, Einersheimer Straße 53, 97346 Iphofen, Germany.

The technical documentation is held at:

Knauf PFT GmbH & Co.KG, Technische Abteilung, Einersheimer Straße 53, 97346 Iphofen, Germany.

Iphofen, Germany

Dr. York Falkenberg General Manager



EC Declaration of Conformity

General information



3 General information

3.1 Information regarding the operating manual

This manual provides important information and instructions on the correct use of the equipment. Adherence to all defined safety and handling instructions is a prerequisite for a safe working environment.

Additionally, the on-site accident prevention regulations and general safety guidelines for the equipment must be followed at all times.

Read the manual carefully before starting any work! It is an integral part of the product and must be kept near the machine and accessible to operators at all times.

Always include the operating manual when transferring the machine to third parties.

The diagrams and illustrations shown in the manual are intended for better understanding of tasks and descriptions. They are not necessarily shown to the correct scale and may vary slightly from the actual equipment used.

3.2 Keep the manual for later use

The operating manual must be available during the entire service life of the product.

3.3 Layout

The operating manual is comprised of two booklets:

■ Part 1: Safety

General safety instructions for HSM

Item number: 00 14 63 78

Part 2: Overview, operation, servicing and spare part lists (this booklet).

Both parts must be read and adhered to in order to ensure safe operation of the equipment. Together, they are valid as one operating manual.

Technical data

4 Technical data

4.1 General specifications

Specification	Value	Unit
Weight approx.	66 – 73.5	kg
Length	1215	mm
Width	645	mm
Height	1020 / 880	mm

Hopper dimensions

Specification	Value	Unit
Filling height	1020 / 880	mm
Hopper capacity	50	1
Granulation max.	4	mm

4.2 Connection values for water



Fig. 1: Water connection

Specification	Value	Unit
Operating pressure, min.	2.5	bar
Connection	1/2	inches

Technical data



Electrical, 230 volts

Specification	Value	Unit
Voltage, AC current 50 Hz	230	V
Max. current consumption	8.2	Α
Max. power consumption	1.3	kW
Fuse	16	Α
Mixer motor speed	280	rpm

4.3 Operating requirements

Ambient conditions

Specification	Value	Unit
Temperature range	2–45	°C
Relative humidity (maximum)	80	%

Operating period

Specification	Value	Unit
Maximum continuous operating period	8	hours

4.4 Sound power level

Guaranteed sound power level Lwa 78 dB (A)

4.5 Vibrations

Weighted effective acceleration value to which the upper limbs are exposed = < 2.5 m/s²

Dimensions

5 Dimensions

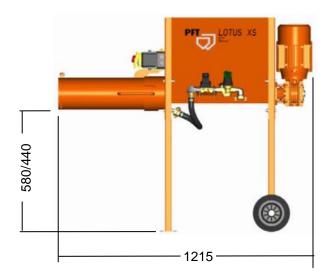




Fig. 2: Dimensions

5.1 Type plate



Fig. 3: Type plate

The type plate contains the following information:

- Manufacturer
- Type
- Year built
- Machine number

5.2 Quality control sticker



Fig. 4: Quality control sticker

The quality control sticker contains the following information:

- CE confirmed in compliance with EU directives
- Serial number
- Controlled by / signature
- Date of control

Design LOTUS XS



6 Design LOTUS XS

6.1 Overview of the 00266950 LOTUS XS 230V with booster pump

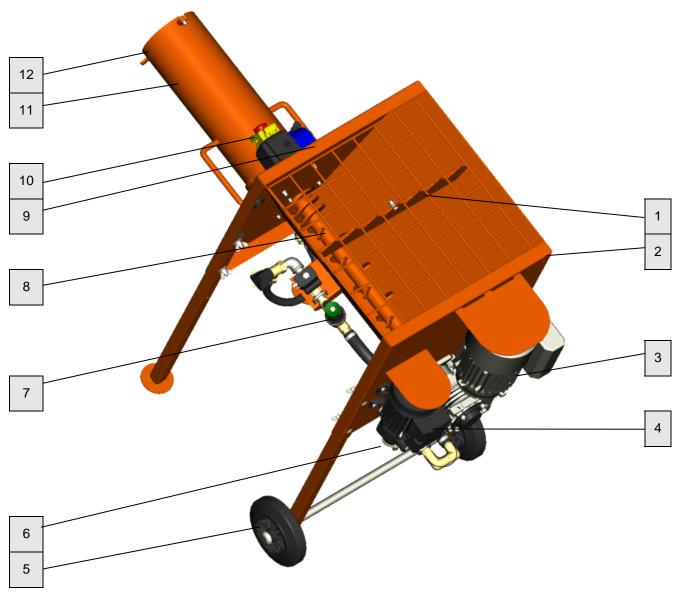


Fig. 5: Overview of LOTUS XS

- 1 Protective grille with bag opener
- 2 Material hopper
- 3 Mixer motor
- 4 Water pump (for 00 26 69 50 only)
- 5 Whee
- 6 Water inlet, water connection from water supply
- 7 Water manifold
- 8 Dosing shaft
- 9 ON/OFF switch
- 10 Main power supply connection, 230 volts
- 11 Mixing tube
- 12 Mortar outlet

Subassemblies

7 Subassemblies

7.1 Material hopper with frame

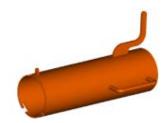


The horizontal screw mixer PFT LOTUS XS is comprised of the following components:

■ Material hopper with frame and gear motor

Fig. 6: Material hopper subassembly

7.2 Mixing tube



Mixing tube

Fig. 7: Mixing tube

7.3 Mixing shaft



Mixing shaft

Fig. 8: Mixing shaft

7.4 Water manifold



Water manifold

Fig. 9: Water manifold

Description of assemblies



8 Description of assemblies

8.1 Overview of the water manifold

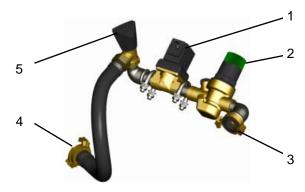


Fig. 10: Water manifold LOTUS XS 00 24 60 57

- 1. Solenoid valve
- 2. Pressure reducer
- 3. Connection to water supply network
- 4. Water to middle body
- 5. Needle valve for water quantity



Fig. 11: Water manifold LOTUS XS 00 26 69 50

- 6. Booster pump
 - 7. Water connection from water supply

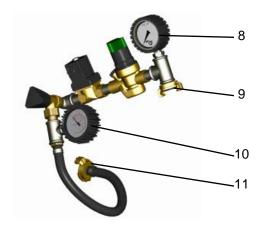


Fig. 12: Water manifold LOTUS XS 00 28 26 13

- 8. Gauge for water inlet pressure
- 9. Water connection from water supply
- 10. Gauge for water operating pressure
- 11. Water to middle body

Connections

9 Connections

9.1 Electrical connection



Fig. 13: Electrical connection

1. AC current connection (1) 230 volts

9.2 Water connection



Fig. 14: Water connection without a booster pump

Water connection (1) from water supply, or water barrel, without a booster pump.



Fig. 15: Water connection with a booster pump

Water connection (2) from water supply

Accessories



10 Accessories



Fig. 16: Power cable, 3 x 2.5, 25 m with safety plug and coupling, item number 20423400



Fig. 17: Water/air hose, 1/2" x 40 m, item no. 20212000



Fig. 18: Booster pump AV3000 with handle 230V/50Hz cpl., item no. 00130205



Fig. 19: Inlet strainer with filter screen, stainless steel, cpl., item no. 00136619



Fig. 20: Spraying jet 3/4" with Geka coupling, item no. 20215700

Brief description

11 Brief description

This is the small and compact screw mixer PFT LOTUS XS for bagged material with an AC power connection. It mixes all lime and cement-based dry mortars with a maximum granulation of 4 mm continuously and fully automatically.

The innovative special mixer shaft ensures homogeneous mixing at low motor speeds.

The optimally placed water inlet prevents most deposits from forming, making the mixer virtually self-cleaning.

12 Material

12.1 Areas of application

For all dry mortars with a maximum granulation of 4 mm, such as:

- Masonry mortar
- Light masonry mortar
- Bonding and reinforcing mortar
- Scratchwork
- Cement plaster
- Insulating plaster
- Screed mortar
- Levelling material
- Facing mortar
- Float and set plasters
- Lime plaster
- Reconstruction plaster
- Patent plaster
- Tiling and grouting mortar

... and much more

Safety regulations



13 Safety regulations



Important!

When performing any work, observe the locally applicable safety regulations for mortar conveying and spraying machines!

14 Transport, packaging and storage

14.1 Safety instructions for transport

Improper transport



CAUTION!

Damage can be caused by improper transport!

Significant damage may occur if the equipment is transported incorrectly.

- Proceed with care when unloading packages and transporting goods on-site. Always observe the symbols and instructions on the packaging.
- Only use the suspension points provided.
- Only remove packaging shortly before assembly.

Suspended loads



WARNING!

Danger of death due to suspended loads!

Falling or swinging parts can pose a fatal hazard when heavy loads are lifted.

- Never step underneath suspended loads.
- Follow instructions regarding the suspension points provided.
- Do not attach lifting tackle to protruding machine parts or to eyelets of add-on components. Ensure the lifting gear is fastened securely.
- Only use approved lifting gear and accessories with a sufficient load-bearing capacity.
- Do not use torn or frayed ropes and belts.
- Do not attach ropes and belts to sharp edges and corners. Do not knot or twist the ropes.

Transport, packaging and storage

14.2 Transport checklist

Inspect the goods for damage and missing parts immediately after delivery.

If external transportation damage can be seen, proceed as follows:

- Do not accept the delivery, or accept it only under reservations.
- Note the damage on the transportation documents or the delivery note of the carrier.



NOTE!

Always submit a claim for the defects as soon as they are detected. Damage claims can only be accepted within the applicable deadlines for submission.

14.3 Transport in individual parts



Fig. 21: Transport

To make transport easier, disassemble the machine into its individual components:

- 1. The mixing tube and mixing shaft units.
- 2. Material hopper with support feet and frame.
- **3.** Screw the support feet off the frame.

14.4 Transportation of machines already operating

Carry out the following steps before transporting:

- 1. First unplug the main power cable.
- 2. Remove the water supply lines.
- 3. Begin transport.

Packaging



15 Packaging

Packaging information

Individual packages are packed according to the applicable transportation requirements. Only environmentally-friendly materials were used for the packaging.

The packaging is intended to protect individual components from harm during transportation, corrosion and other damage up to the point of assembly. Do not destroy the packaging and only remove it shortly before assembly.

Handling the packaging materials

Provided no agreements for the return of the packaging have been made, separate the materials according to type and size and reuse or recycle them accordingly.



CAUTION!

Environmental damage can result from improper disposal of materials!

Packaging materials are valuable resources and can often be reused or recycled.

Therefore:

- Dispose of packaging materials in an environmentally sound manner.
- Observe locally applicable waste disposal guidelines. If necessary, contract a specialist waste disposal company.



Operation

16 Operation

16.1 Safety

Basic information

Personal protective equipment

All machine operators must wear the following protective equipment:

- Protective work clothing
- Safety goggles
- Safety gloves
- Safety shoes
- Ear protection



NOTE!

The warning signs illustrated in this chapter relate to additional protective equipment that must be worn for particular working conditions.



WARNING!

Danger of injury due to improper operation!

Improper operation can lead to serious injuries or equipment damage.

Therefore:

- Carry out all operating steps according to this operating manual.
- Before starting any work, ensure that all covers and protective devices are installed and functioning properly.
- Never disable protective devices during operation.
- Keep the operating area clean and tidy. Components and tools that are stacked on one another or left lying around can cause accidents.
- An increased noise level can cause permanent hearing loss. Operation can result in noise that exceeds 78 dB (A) in close proximity to the machine. Close proximity is defined as the area within 5 metres of the machine.

Preparation of the machine



17 Preparation of the machine



Fig. 22: Protective grille



Fig. 23: Set-up

Before operating the machine, carry out the following preparations:



DANGER! Rotating dosing shaft

Reaching into the material hopper poses a risk of injury.

- The protective grille (1) should not be removed while preparing or operating the machine.
- Never reach into the machine while it is running.
- The controls must be freely accessible.
- Install the machine on stable and even ground and secure it against accidental movements.
- Do not tilt or roll the machine away.
- Place the machine where it cannot be hit by any falling objects.

Adjusting the height of the support feet 17.1



Fig. 24: Height adjustment

The height of the machine can be adjusted:

Remove the nuts (1) and screws from the support feet and adjust the machine to the respective height (880 mm or 1020 mm).

Mains voltage connection



Fig. 25: Electrical connection

Only connect the machine (1) to 230-volt AC current.



DANGER!

Danger of death due to electric current!

The electrical connection must be fused

Only connect the machine to a power source with an approved FI circuit breaker (30 mA) RCD (residual current device) of type "A".



17.3 Water supply connection





Fig. 26: Water inlet screen

- 1. Check whether the dirt trap sieve in the water inlet (1) is clean.
- **2.** If necessary, remove the dirt trap sieve from the water inlet and clean it.

Dirt trap sieve for Geka coupling: Item number 20152000

3. Clean and bleed the water hose for the water mains supply.

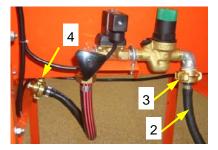


Fig. 27: Water connection

- Connect the water hose (2) to the water inlet (3) or booster pump.
- **5.** Check whether the water hose (4) is connected to the middle body water inlet.



NOTE!

Only use clean water that is free of particulates. The minimum pressure is 2.5 bar when the machine is running.

17.4 Water from a water barrel



Fig. 28: Booster pump



Fig. 29: Inlet strainer with filter screen, cpl.

Booster pump AV3000 (1) item number 00130205

The booster pump which is connected ensures the required water pressure of minimum 2.5 bar.

NOTE!



When working with water from the barrel, the inlet strainer must be fitted with a filter strainer (item no. 00136619) (bleed booster pump).

Setting the water factor



18 Setting the water factor

18.1 Presetting the water flow rate



Fig. 30: Water outlet valve

To adjust the expected water volume at the needle valve (1):

- 1. Close the needle valve.
- 2. Then open the needle valve by two rotations.
- 3. The water flow rate totals approx. 200 l/h in this position.
- **4.** The consistency of the material can be adjusted using the needle valve.



NOTE

Turning the needle valve clockwise reduces the water flow rate, while turning it anti-clockwise increases the water flow rate, making the material more viscous or more fluid.

Observe the specifications of the material manufacturer.



NOTE!

Every interruption to the mixing process causes a slight irregularity in the consistency of the material. This irregularity will normalise itself as soon as the machine has been operating for a short period.

It is therefore unnecessary to change the water flow rate with each irregularity. Wait until the consistency of the material has returned to normal.

Putting the machine into operation

19 Putting the machine into operation

19.1 Hazardous dust



Fig. 31: Dust mask



WARNING!

Danger of health problems due to dust!

Inhaled dust can lead to long-term lung damage or other health problems.



NOTE!

The machine operator or the person working in the dusty area must always wear a dust mask when filling the machine.

The decisions of the Committee for Hazardous Materials (AGS) can be read in the Technical Rules for Hazardous Substances (TRGS 559).

19.2 Switching on the machine



Fig. 32: Filling the material hopper

1. Fill the material hopper with bagged material.



Fig. 33: Switching on

2. Switch on the machine using the green pressure switch "ON".



Fig. 34: Material consistency

3. Check the material consistency at the mortar outlet.

Applying mortar



20 Applying mortar



DANGER! Danger of injury due to leaking mortar!

Escaping mortar can lead to injuries to the eyes and face

- Always wear protective goggles.
- Always position the machine so that you cannot be hit should mortar escape.

21 Interruption of work



NOTE!

Generally, the setting times of the materials to be processed must be observed:

Clean the mixing tube as appropriate for the setting time of the material and the length of the interruption (take outdoor temperature into account).

Observe the guidelines of the material manufacturer regarding interruptions.

22 Cleaning

22.1 Securing against restarting



DANGER!

Danger of death due to unauthorised restarting!

When working on the machine, there is a danger of unauthorised switching on of the electrical supply. This puts those in the danger area at extreme risk.

 Before starting work, switch off all electrical power supplies and secure them against being switched back on again.



NOTE!

When everyday operation is regular, the machine is only cleaned when work has finished.

22.2 Switching off the machine



1. Switch off the machine at the red "OFF pressure switch.

Fig. 35: Switching off the machine

22.3 Removing the mixing tube

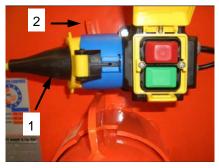
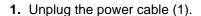


Fig. 36: Unplug the power cable.





NOTE!

The safety catch (2) on the mixing tube only allows the mixing tube to be removed once the power cable (1) has been unplugged on the machine.



Fig. 37: Removing the mixing tube

- 2. Hold the mixing tube by the two holders (3) and turn it to the left.
- **3.** Remove the mixing tube with the mixing shaft by pulling it forwards.

Cleaning



22.4 Cleaning the mixing tube and mixing shaft



1. Clean the mixing tube and mixing shaft.

2. If there is residual dry material in the material hopper, this should only be cleaned on the outside using a brush or a dry cloth.

Fig. 38: Cleaning

22.5 Cleaning the material hopper

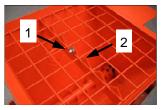


Fig. 39: Cleaning the material hopper

- 1. Only clean the material hopper when it is completely empty, and only clean it with water.
- 2. Undo the nut (1) and the screw.
- 3. Remove the protective grille (2).

22.6 Cleaning the dosing shaft

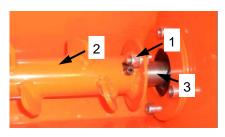


Fig. 40: Cleaning the dosing shaft

- 1. Undo the nut (1) and the screw.
- 2. Remove the dosing shaft (2) and clean it.
- **3.** Lightly grease the drive shaft (3) and replace the cleaned dosing shaft.
- 4. Secure the dosing shaft using the screw and nut.
- **5.** Replace the protective grille and also secure it using a screw and nut.

22.7 Inserting the mixing shaft

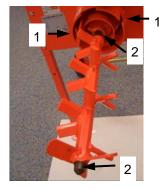


Fig. 41: Mixing shaft

- 1. Only install parts which are clean and dry.
- 2. Keep the bayonet lock (1) on the middle body clean.
- 3. Lightly grease the bearing journal (2) on the mixing shaft.
- 4. Connect the cleaned mixing shaft to the dosing shaft.
- **5.** Wipe of any excess grease.
- **6.** Push the mixing tube over the mixing shaft and close the bayonet lock on the middle body.

Measures to be taken if there is a risk of frost

23 Measures to be taken if there is a risk of frost



CAUTION! Damage due to frost!

Water that expands on freezing inside the machine can cause serious damage.

 Carry out the following steps when the pump is not operating and there is a danger of frost.



Fig. 42: Disconnecting the water supply

- 1. Remove the water hose (1) from the water inlet (2).
- 2. Remove the hose (3) from the water inlet on the middle body.
- 3. Connect an air hose with an air compressor to the water inlet(2) and use low pressure to blow out the water manifold.

24 Switching off in an emergency

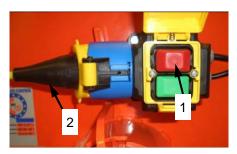


Fig. 43: Switching off

Machine movements and the energy supply must be disabled as quickly as possible in dangerous situations.

Proceed as follows in the event of an emergency:

- 1. Press the pressure switch "Off" (1) immediately.
- 2. Disconnect the power supply (2).
- 3. Inform supervisors at the site.
- 4. If necessary, call emergency services.
- Remove persons from the danger zone and carry out first-aid measures.
- **6.** Keep access roads free for emergency service vehicles.
- 7. If the seriousness of the emergency warrants this, inform the responsible authorities.
- **8.** Assign specialist personnel to begin rectifying the fault.



After the emergency response



WARNING!

Danger of death due to premature restarting!

All persons in the danger zone are at extreme risk when the machine is switched back on.

 Ensure that the danger zone is clear before switching the machine back on.



NOTE!

Check the equipment before switching it back on and ensure that all safety devices are in place and functioning properly.

25 Troubleshooting

25.1 Handling malfunctions

Handling malfunctions

Generally, the following applies:

- **1.** For all malfunctions which present a risk of material damage or personal injury, perform an emergency stop immediately.
- 2. Determine the cause of the malfunction.
- **3.** If troubleshooting requires working in the danger zone, switch off the machine and secure it against being switched back on again.
- **4.** Immediately inform supervisors at the site regarding the malfunction.
- **5.** Depending on the malfunction, either rectify it yourself or have authorised specialists do so.



NOTE!

A table below lists particular malfunctions and who is authorised to handle them.



25.2 Malfunctions

The following chapter details the possible causes of malfunctions and how to solve them.

Shorten maintenance intervals according to the actual load if malfunctions keep reoccurring.

Contact your dealer if malfunctions occur that cannot be solved using this manual.

25.3 Safety

Personnel

- Unless otherwise stated, the troubleshooting methods detailed here can be carried out by the machine operator.
- Some tasks may only be carried out by specialist personnel or the manufacturer. These are specially indicated in the description of the individual malfunctions.
- Work on electrical systems should only be carried out by qualified electricians.

Personal protective equipment

Wear the following protective equipment for all maintenance work:

- Protective work clothing
- Safety goggles
- Safety gloves
- Safety shoes



25.4 Table of malfunctions

Malfunction	Possible cause	Solution	Performed by
Machine does not start	Water pressure too low	Check the water supply, clean the dirt trap sieves	Operator
Water	The water pressure is too low	Install booster pump	Operator
Machine does not start	Power cable is defective	Repair the power cable	Service technician
Power	Pressure switch "On" not pressed	Press the pressure switch	Operator
	FI circuit breaker triggered	Reset the FI circuit breaker	Service technician
Machine does not start Material	Too much thickened material in the mixing tube	Drain the mixing tube and restart machine	Operator
wateriai	Material in mixing tube too dry	Drain the mixing tube and restart machine	Operator
Water is not flowing	Solenoid valve (bore hole in membrane blocked)	Clean the solenoid valve	Service technician
J	Solenoid coil defective	Replace the solenoid valve	Service
	Water inlet on middle body blocked	Clean the water inlet on middle body	Operator
	Needle valve closed	Open the needle valve	Operator
	Cable to solenoid valve defective	Replace the cable to solenoid valve	Service technician
Mixer motor will not start	Mixer motor defective	Replace the mixer motor	Service technician
Will Flot Glair	Defective connection cable	Replace the connection cable	Service technician
Machine stops after a	Water inlet screen dirty	Clean or replace the screen	Operator
short period	Hose connection or water line too small	Enlarge the hose connection or water line	Operator
	Water intake line too long or intake pressure too weak	Connect an additional booster pump, if necessary	Service technician
No mortar flow	Poor mixing in mixing tube	Add more water	Operator
	Material clogs and narrows the water inlet	Remove the material and clean the water inlet	Operator
	Material in the material hopper has become wet	Remove the wet material and dry the material hopper	Operator
	Mixing shaft defective	Replace the mixing shaft	Operator



Malfunction	Possible cause	Solution	Performed by
"Thick-thin" mortar flow	Not enough water	Increase water supply by 10% for approx. ½ minute and then reduce it slowly	Operator
	Mixing shaft defective; not an original PFT mixing shaft	Replace mixing shaft with an original PFT mixing shaft	Operator
	Pressure reducer incorrectly set or defective	Set the pressure reducer correctly, or replace it	Service technician

Dealing with a power failure



26 Dealing with a power failure



Fig. 44: Power failure

Following a power failure, the machine can be started up again by pressing the pressure switch "ON" (1).

NOTE!

Generally, the setting times of the materials to be processed must be observed:

Clean the mixing tube as appropriate for the setting time of the material and the length of the interruption (take outdoor temperature into account).

27 Dealing with a water supply failure



NOTE!

The machine can be supplied with clean water from a container using an inlet strainer (item number 00136619) (see page 20, fig. 25 & 26).

28 Maintenance

28.1 Safety

Personnel

- Unless otherwise stated, the maintenance work detailed here can be carried out by the machine operator.
- Some tasks may only be carried out by specially trained personnel or only by the manufacturer.
- Work on electrical systems must always only be carried out by qualified electricians.

Basic information



WARNING!

Danger of injury due to improperly performed maintenance work!

Improper maintenance can lead to serious injuries or equipment damage.

Therefore:

- Ensure there is sufficient space to carry out the work before beginning.
- Keep the work area clean and tidy. Unattached components or tools left lying around or stacked on one another can cause accidents.
- If components have been previously removed, ensure that they are mounted again correctly, reattach all fastening elements and adhere to the specified screw tightening torques.



Maintenance

Electrical system



DANGER! Danger of death due to electric current!

Contact with live components can lead to death or serious injury. Live electrical components can move uncontrollably and cause serious injury.

Therefore:

 Before starting work, switch off the electrical power supply and secure it against being switched back on again.

Environmental protection

Observe the following environmental protection guidelines when carrying out maintenance work:

- Remove used, leaking or excess grease from all manual lubrication points and dispose of it correctly according to the applicable local regulations.
- Collect used oil in suitable containers and dispose of it according to the applicable local regulations.

28.2 Cleaning

■ The material hopper can be cleaned using a water hose once all material has been removed.



CAUTION! Water can enter sensitive machine parts!

- Before cleaning the machine, seal all openings where water could enter and impair the safety and functions of the machine (e.g. electric motors).
- Remove all coverings completely after cleaning.

Maintenance tasks



28.3 Maintenance plan

The next sections describe the maintenance tasks required for optimal, problem-free operation.

Provided no increase wear can be identified during regular inspections, reduce the required maintenance intervals as appropriate for the actual signs of wear.

For questions regarding maintenance tasks and intervals, contact the manufacturer (see service address on page 2).

Interval	Maintenance task	To be performed by
Daily	Clean/replace the dirt trap sieve in the water inlet	Operator

29 Maintenance tasks

29.1 Dirt trap sieve



Fig. 45: Dirt trap sieve in the water inlet

Check the dirt trap sieve in the water inlet on a daily basis:

- 1. Remove the dirt trap sieve from the Geka coupling.
- 2. Clean the dirt trap sieve.
- 3. Replace the sieve if dirt is severe.
- 4. Replace the dirt trap sieve.

Dirt trap sieve for Geka coupling:

Item number 20152000

Performed by operator.

29.2 After performing maintenance

After maintenance has been completed, carry out the following steps before switching on.

- **1.** Check that all previously loosened screw connections have a tight fit.
- **2.** Check that all previously removed protective devices and covers have been properly reattached.
- **3.** Ensure that all tools, materials and other equipment have been removed from the work area.
- **4.** Clean the work area and remove any traces of escaped material (e.g. liquids, processing material etc.).
- **5.** Ensure that all safety devices are functioning properly.



Disassembly

30 Disassembly

The machine must be disassembled and disposed of in an environmentally sound manner after reaching the end of its useful life.

30.1 Safety

Personnel

- Disassembly may only be performed by specially trained personnel.
- Work on electrical systems may only be carried out by qualified electricians.

Basic information



WARNING!

Danger of injury due to improper disassembly!

Residual energy, sharp-edged components and corners on and around the device or on the tools required can cause injuries.

Therefore:

- Ensure there is adequate space before starting any work.
- Exercise caution when working with open, sharp-edged components.
- Keep the work area clean and tidy. Components and tools that are stacked on one another or left lying around can cause accidents.
- Disassemble components properly. Bear in mind that individual components can be heavy. Use lifting equipment if necessary.
- Secure components so they do not fall or tip over
- Consult the manufacturer if questions arise.

Electrical system



DANGER!

Danger of death due to electric current!

Contact with live components can lead to death or serious injury. Live electrical components can move uncontrollably and cause serious injury.

Therefore:

 Switch off and completely disconnect the power supply before starting disassembly.

Disassembly



30.2 Disassembly

When decommissioning, clean the device and dismantle it according to the applicable work safety and environmental protection regulations.

Before beginning with disassembly:

- Switch off the machine and secure it against being switched on again.
- Disconnect the entire energy supply from the machine and discharge the residual energy.
- Remove operating and auxiliary materials as well as residual processing materials and dispose of them in an environmentally sound manner.

30.3 Disposal

Provided no return or disposal agreements have been made, recycle the disassembled parts:

- Metallic parts are scrapped.
- Plastic elements are recycled.
- Remaining components are disposed of sorted by individual material.



CAUTION!

Environmental damage can result from improper disposal of materials!

Electrical scrap and components, lubricants and other process materials are subject to special guidelines and may only be disposed of by approved waste disposal specialists!

Local authorities and waste disposal specialists can provide more details on the correct disposal of materials.

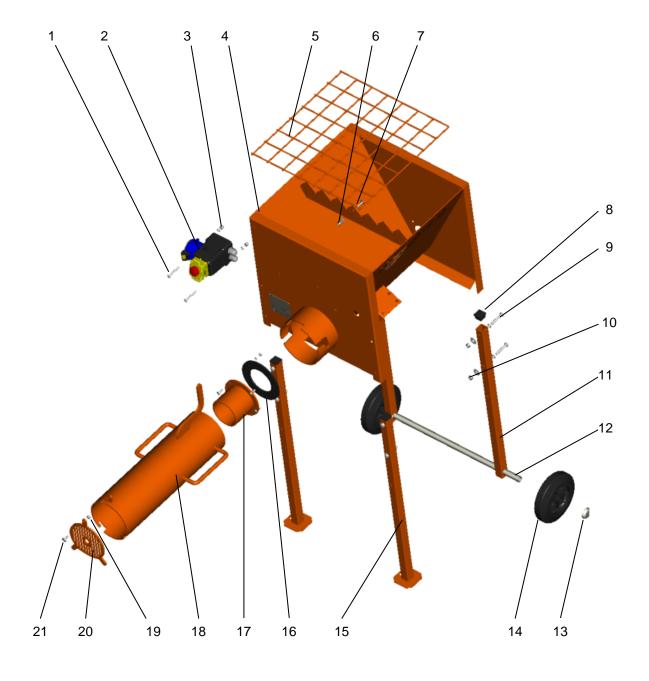


Disassembly



31 Spare part drawing / spare part list LOTUS XS

31.1 Material hopper and mixing tube



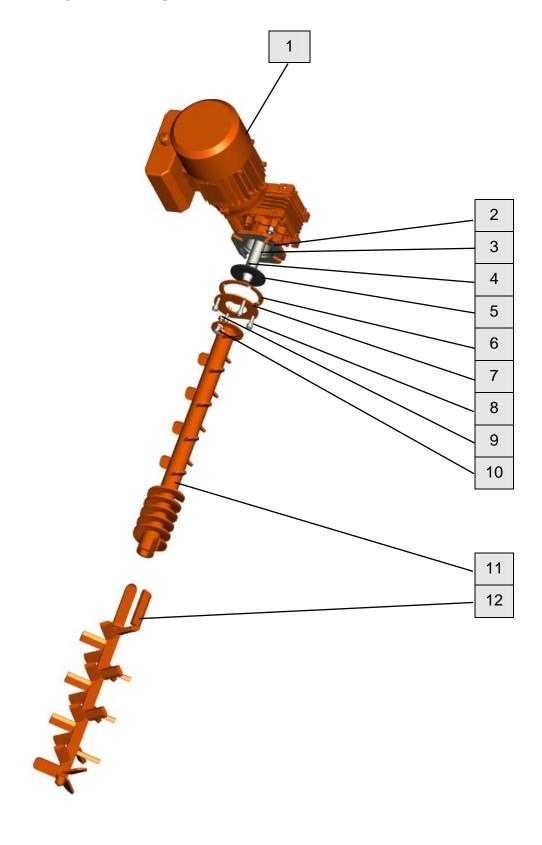


31.2 Material hopper and mixing tube

Pos.	Qty.	Item no.	Item description
1	2	00 02 32 33	Hex screw, M6 x 50, DIN 931, zinc-plated
2	1	00 24 87 50	ON/OFF switch LOTUS XS 230V complete with connection cable and thermal protection 9A
3	2	20 20 62 01	Locking cap nut M6, zinc-plated (pack of 10)
4	1	00 24 61 20	Material hopper HM XS RAL2004
5	1	00 24 61 74	Protection grille XS RAL2004
6	1	20 20 65 00	Hex. nut M6, zinc-plated
7	1	20 20 71 05	Hex screw M 6 x 25, zinc-plated
8	4	20 44 47 03	Cap (PVC), 30 x 30
9	8	00 00 27 20	Round head screw M8 x 50, zinc-plated
10	8	20 20 58 69	Winged nut M8, zinc-plated
11	2	00 24 61 85	Support foot with bore hole RAL2004
12	1	00 24 61 88	Steel pipe 20x2x623, alloyed
13	2	20 20 86 03	Quick fastener with cap, 20s x N 2 7
14	2	20 54 83 10	Wheel 180 x 50 x 90
15	2	00 24 61 78	Support foot with plate RAL2004
16	1	00 24 63 06	Rubber seal D154xD91x5 with hole
17	1	00 24 63 08	Dosing wear tube LOTUS XS RAL 2004
18	1	00 24 62 23	Mixing tube LOTUS XS RAL 2004
19	1	20 20 62 00	Lock nut M6, zinc-plated
20	1	00 24 63 04	Dosing tube face plate LOTUS XS RAL2004
21	1	00 02 26 01	Round head screw M6 x 20, zinc-plated



31.3 Gear motor, mixing and dosing



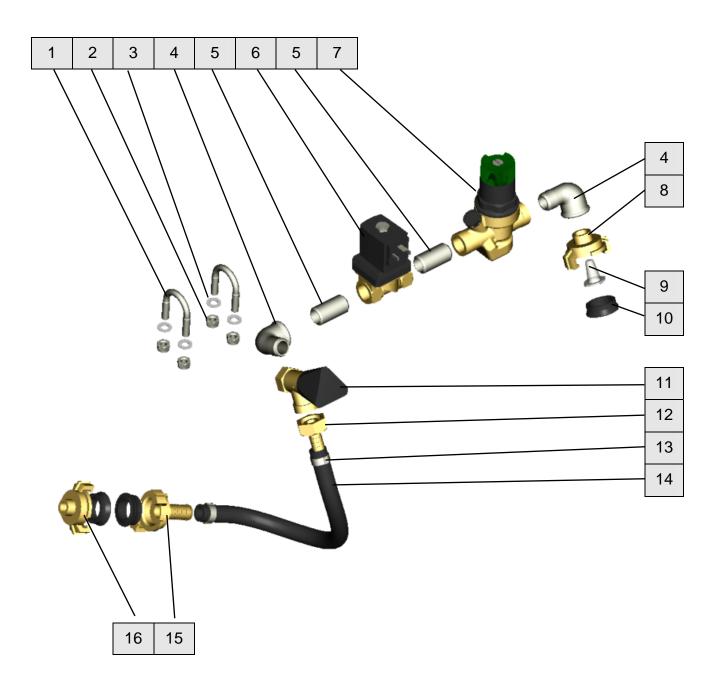


31.4 Gear motor, mixing and dosing

Pos.	Qty.	Item no.	Item description
1	1	00 24 60 58	Gear motor LMRV 230V, 1.3 kW, 280 rpm RAL2004
2	1	00 29 00 31	Paper gasket for gearbox LOTUS XS
3	1	00 24 63 19	Drive shaft LOTUS XS
4	1	20 54 76 01	Dowel pin 8 x 36
5	1	00 24 61 92	Rubber gasket D 79x24x4
6	1	00 24 62 21	Spacer LOTUS XS RAL2004
7	1	00 24 61 89	Sealing ring with grease seal RAL2004
8	4	20 20 97 03	Cylindrical screw with hex. socket M8 x 30, zinc-plated (pack of 10)
9	4	20 20 72 00	Lock nut M8, zinc-plated (pack of 10)
10	4	20 20 87 02	Hex screw M8 x 10, zinc-plated
11	1	00 24 62 05	Dosing shaft LOTUS XS RAL2004
12	1	00 24 61 94	Mixing shaft LOTUS XS RAL2004



31.5 Water manifold LOTUS XS item no. 00246057



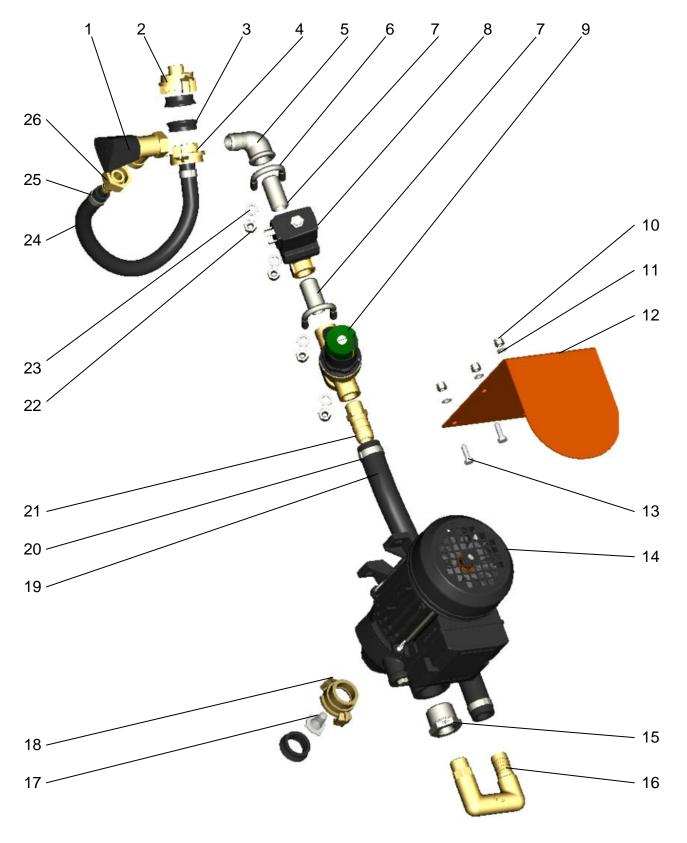


31.6 Water manifold LOTUS XS item no. 00246057

Pos.	Qty.	Item no.	Item description
1	2	20 20 99 85	Round steel bracket, M8 x 3/4" x 35, zinc-plated
2	4	20 20 72 00	Lock nut M8, zinc-plated
3	4	20 20 93 13	Washer B 8.4, zinc-plated
4	2	20 20 36 10	Elbow, 1/2" internal/external thread, zinc-plated
5	2	20 20 34 00	Double nipple, 1/2" x 40, zinc-plated
6	1	20 15 03 01	Solenoid valve, 1/2", 230V type 6213 A
7	1	00 06 82 56	Pressure reducer D05 1/2"
8	1	20 20 09 00	Geka coupling, 1/2" male thread
9	1	20 15 20 00	Dirt trap sieve for Geka coupling, pack of 10
10	3	20 20 17 00	Geka coupling gasket (pack of 50)
11	1	20 15 77 00	Needle valve, 1/2", type 6701
12	1	20 20 37 80	Hose fitting, 1/2", conical with 3/4" reducer nut, female thread
13	2	00 05 91 96	Hose clip 19-21
14	1	20 21 36 02	Water/air hose, 1/2" x 420mm
15	1	20 20 15 00	Geka coupling, 1/2" fitting (pack of 10)
16	1	00 04 36 18	Geka coupling, 1/4" female thread



31.7 Water manifold LOTUS XS item no. 00266950



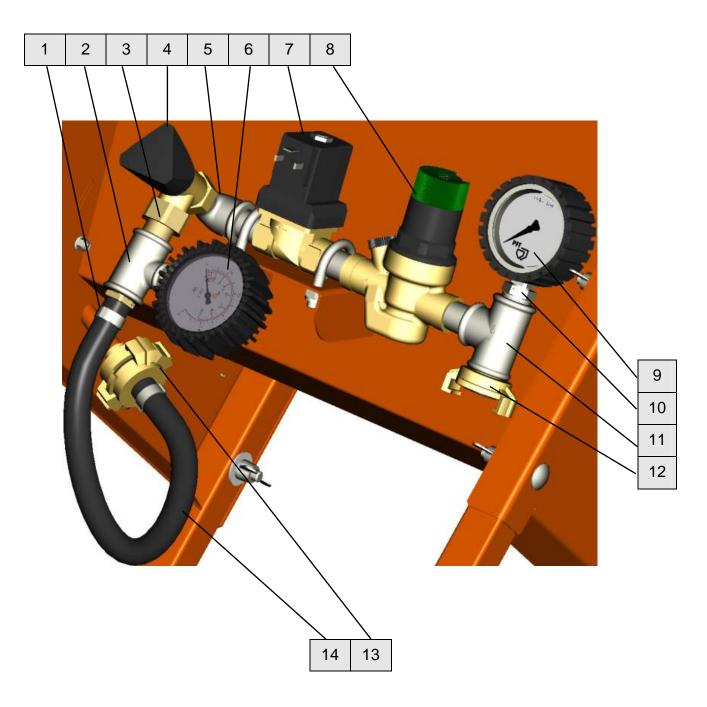


31.8 Water manifold LOTUS XS item no. 00266950

Pos.	Qty.	Item no.	Item description
1	1	20 15 77 00	Needle valve, 1/2", type 6701
2	1	00 04 36 18	Geka coupling, 1/4" female thread
3	3	20 20 17 00	Geka coupling gasket (pack of 50)
4	1	20 20 15 00	Geka coupling, 1/2" fitting (pack of 10)
5	2	20 20 36 10	Elbow, 1/2" internal/external thread, zinc-plated
6	2	20 20 99 85	Round steel bracket, M8 x 3/4" x 35, zinc-plated
7	2	20 20 34 00	Double nipple, 1/2" x 40, zinc-plated
8	1	20 15 03 01	Solenoid valve, 1/2", 230V type 6213 A
9	1	00 06 82 56	Pressure reducer D05 1/2"
10	3	20 20 62 00	Lock nut M6, zinc-plated
11	3	20 20 93 00	Washer B 6.4, zinc-plated
12		00 26 65 30	Water pump cover Lotus XS RAL 2004
13	3	20 20 71 03	Hex. screw M6 x 20, zinc-plated (pack of 10)
14	1	00 23 13 67	Booster pump SL-Ondina, 0.37W, 230V, 1-phase suction line at front, bronze pump head
15	1	20 20 54 00	Reduction nipple, 1" male thread, 1/2" female thread
16	1	00 14 87 08	U-shaped connection, 1/2" male thread, 3/4" fitting
17		20 15 20 00	Dirt trap sieve for Geka coupling, pack of 10
18	1	20 20 08 00	Geka coupling, 1" male thread
19	1	00 26 77 53	Water/air hose, 3/4" x 380mm
20	2	20 20 29 01	Hose clip 28-31
21	1	20 19 04 10	Hose screw connection, 1/2" male thread, 1/2" fitting for the water manifold
22	4	20 20 72 00	Lock nut M8, zinc-plated
23	4	20 20 93 13	Washer B 8.4, zinc-plated
24	1	20 21 36 02	Water/air hose, 1/2" x 420mm
25	2	00 05 91 96	Hose clip 19-21
26	1	20 20 37 80	Hose fitting, 1/2", conical with 3/4" reducer nut, female thread



31.9 Water manifold for LOTUS XS item no. 00282613





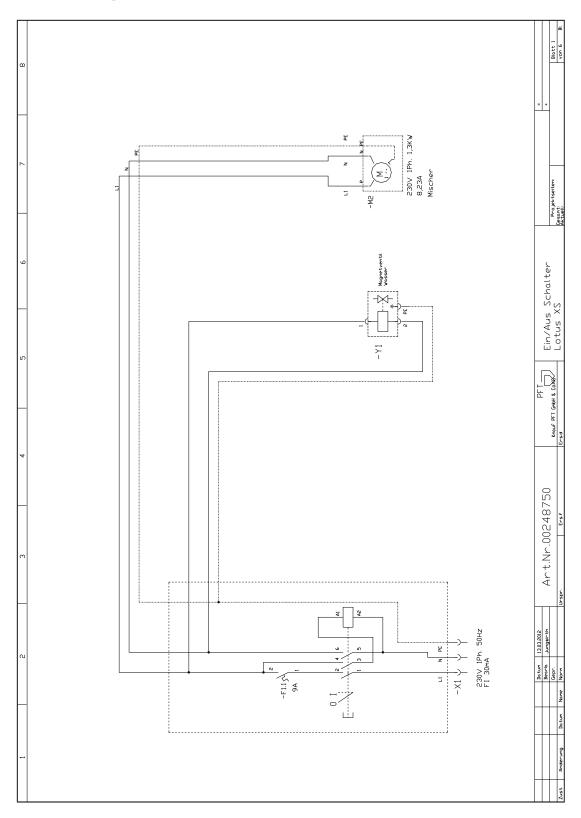
31.10 Water manifold for LOTUS XS item no. 00282613

Pos.	Qty.	Item no.	Item description
1	2	00 05 91 96	Hose clip 19-21
2	1	20 20 43 01	T-piece 1/2" female thread, 1/4" female thread, 1/2" female thread
3	1	20 20 31 05	Nipple, 1/2" male thread, conical, with reducer nut
4	1	20 15 77 00	Needle valve, 1/2", type 6701
5	1	20 20 36 10	Elbow, 1/2" internal/external thread, zinc-plated
6	1	20 21 64 07	Gauge 0-1 bar, glycerine-filled, 1/4" bottom, D = 63mm
7	1	20 15 03 01	Solenoid valve, 1/2", 230V type 6213 A
8	1	00 06 82 56	Pressure reducer D05 1/2"
9	1	20 21 60 00	Gauge 0-16 bar, 1/4" bottom, D = 63mm
10	1	20 20 52 00	Reduction nipple, 1/2" male thread, 1/4" female thread
11	1	20 20 45 20	T-piece 1/2" female thread, zinc-plated
12	1	20 20 09 00	Geka coupling, 1/2" male thread (pack of 10)
13	1	20 20 15 00	Geka coupling, 1/2" fitting (pack of 10)
14	1	20 21 36 02	Water/air hose, 1/2" x 420mm

Circuit diagram, ON/OFF switch



32 Circuit diagram, ON/OFF switch





Check list for annual inspection by specialist (master copy)

33 Check list for annual inspection by specialist (master copy)

This inspection must be carried out once a year by a specialist in accordance with BGR 183 (German Association for Health and Safety at Work). The machine and control box receive an inspection label as verification of this inspection. The inspection protocol is to be presented on demand.

Date of inspection:	Inspector:	Signed:	Machine number:

Component	Inspection criterion	OK OK	Rework / replace
Material hopper	Check all welded seams		
Material hopper	Damage due to corrosion or deformation?		
Mixing area	Check dosing wear tube for wear		
Dosing shaft	Check for wear		
Mixing shaft	Check for wear		
Protective grille	Is the protective grille still flat?		
Frame	Check all welded seams		
Frame	Check whether all screwed joints are firmly seated.		
Frame	Check for deformation Stability must be ensured		
Rollers	Do the rollers turn easily?		
Solenoid valve	Functional test		
Pressure reducing	Functional test		
valve			
Type plate	Present and legible		
Operating manual	Present		

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