

Emulsion mixing device Mini-Jetmix

Operating Manual



Our Liquid Tool. **Your Success.**

Validity of this operating manual

Blaser Swissslube emulsion mixer Mini-Jetmix EU

Art. Nr. 09264-01-0000

Blaser Swissslube emulsion mixer Mini-Jetmix US

Art. Nr. 09264-03-0000

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Confirmation

As the end customer, we hereby confirm that we have read and understood this operating manual and have instructed all employees who work with the device described below:

Company stamp:

Place and date:

Signature:

The operating manual is intended to make it easier to familiarize yourself with the Mini-Jetmix and its accessories and to use them as intended.

The operating manual contains important information on how to operate the Mini-Jetmix safely, properly and economically. Observing them will help to avoid hazards, reduce repair costs and downtimes and increase the service life of the Mini-Jetmix. This operating manual is an integral part of the Mini-Jetmix and is included in the scope of delivery on resale.

The operating manual must be read and used by any person who is authorized to work with the Mini-Jetmix, e.g.

- Operation including set-up, troubleshooting in the work process, maintenance, disposal of operating and auxiliary materials
- Maintenance (servicing, inspection, repair) and/or
- Transportation and storage

In addition to the operating manual and the binding regulations for accident prevention applicable in the country of use and at the place of use, the recognized technical rules for safe and professional work must also be observed.

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Table of contents

1.	Safety	5
1.1	Basic safety instructions	5
1.2	Dangers when handling the Mini-Jetmix	5
1.3	Safety and protective equipment	5
1.4	Personal protective equipment and supplementary measures	6
1.5	Intended use	6
1.6	Improper use	6
1.7	Hazard, and information symbols	7
1.8	Maintenance, servicing, troubleshooting	7
1.9	Warranty and liability	7
2.	Device description	8
2.1	Intended use	8
2.2	How the Mini-Jetmix works	8
2.3	General view / operating elements	8
2.4	Labeling	9
2.5	Scope of delivery	9
2.6	Technical data / dimension sheet	10
3.	Packaging, transportation and storage	11
4.	Installation	12
5.	Interface definition	13
6.	Initial commissioning	14
7.	Operation	15
8.	Decommissioning	16
8.1	Short-term interruption	16
8.2	Long-term interruption	16
9.	Troubleshooting, fault correction	17
10.	Maintenance, servicing	18
10.1	Maintenance schedule	18
11.	Waste disposal	19
12.	Spare part	20/21
13.	EC Declaration of Conformity	22

1. Safety

1.1 Basic safety instructions

The person responsible for the safety of the Mini-Jetmix must ensure that:

- Only qualified personnel should be authorized to work on the Mini-Jetmix.
- Personnel must always have the operating instructions and the other product documentation available for all work and to observe these documents on a regular basis.
- Unqualified personnel are prohibited from working on this equipment.
- The rules and regulations for accident prevention applicable to the place of use and compliance with maintenance and servicing work must be observed.

Only qualified personnel who have been authorized by the person responsible for the safety of the device to carry out the required activities and who are able to recognize and avoid potential hazards in the process based on their training, experience and as well as knowledge of the relevant standards, regulations, accident prevention regulations and operating conditions may work on the Mini-Jetmix.

The responsibilities of the personnel for assembly, commissioning, operation, set-up, maintenance, storage and repair are clearly defined.

Personnel to be trained may only work on the Mini-Jetmix under the supervision of qualified personnel.

The following pages describe the safety instructions and safety requirements. These safety instructions do not claim to be all encompassing.

1.2 Dangers when handling the Mini-Jetmix

The Mini-Jetmix is built according to the state of the art and in accordance with recognized safety regulations. Nevertheless, improper use or handling may result in danger to the user or third parties or damage to the system or other property. The Mini-Jetmix is only to be used as follows:

- For the intended use.
- In a safe and technically flawless condition. Any faults that could impair safety must be rectified immediately.

1.3 Safety and protective equipment

- All safety devices must be properly installed and functional order before the Mini-Jetmix is used.
- Protective devices may only be removed after the device has been taken out of operation.
- The operating elements must be freely accessible.

1.4 Personal protective equipment and supplementary measures

- The required personal, country-specific protective equipment must be provided by the operator.
- All existing safety equipment must be checked regularly.

We recommend wearing gloves and safety goggles when working with the Mini-Jetmix as the device is used with metalworking fluids and in mechanical workshops.



Use hand and eye protection (in accordance with EN ISO 7010)

1.5 Intended use

The Mini-Jetmix may only be used under the intended operating conditions. The Mini-Jetmix is to be used exclusively for mixing water-miscible coolants (emulsions). Any use other than for mixing emulsion is prohibited. For more detailed information on the application, see chapter 2.1 in this operating manual.

Any other or additional use is considered as improper use. The manufacturer is not liable for damage resulting from improper use. Intended use also includes the following:

- Observe and comply with all instructions and warnings in these operating instructions.
- Compliance with inspection and maintenance work.

1.6 Improper use

The manufacturer is not liable for damage caused by improper use of the Mini-Jetmix. Improper use includes:

- Use for mixing other media and from other containers.
- The connection and operation of the Mini-Jetmix to other energy sources.
- Any use of the Mini-Jetmix on living creatures.

1.7 Hazard, and information symbols

All relevant safety points in this operating manual are marked with a warning triangle, which together with the key words „DANGER“, „WARNING“, „CAUTION“ stands for the warning of personal injury. A symbol without a warning triangle with the key word NOTICE indicates a warning of possible material damage.



Indicates a hazardous situation which, if not avoided, could result in death or serious injury.



Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.



Indicates situations that are not associated with a risk of personal injury, but which could damage the product or an object in the vicinity.

1.8 Maintenance, servicing, troubleshooting

- Prescribed adjustment and maintenance in accordance with the maintenance schedule must be carried out on timely basis.
- Inform operating personnel before carrying out adjustment and maintenance work.
- The water supply must be switched off and disconnected from the device.
- Protection against unintentional water supply must be provided.
- Ensure that all screws and fittings are tight.

After completion of the work, all safety equipment and all operating functions must be checked and documented.

1.9 Warranty and liability

Warranty and liability claims for personal injury and damage to property are excluded if they are attributable to one or more of the following causes:

- Improper use of the product.
- Work not carried out by qualified persons.
- Improper transport, storage, assembly, commissioning, operation and maintenance of the product.
- Failure to observe the instructions in the operation manual regarding safety, transport, storage, installation, operation, maintenance and set-up of the product.
- Operating the product with defective safety devices or improperly installed or non-functional safety and protective devices.
- Structural changes to the product.
- Inadequate monitoring of machine parts that are subject to wear.
- Improperly carried out repairs and use of third-party parts.
- Catastrophes and force majeure events.

2. Device description

2.1 Intended use

The Mini-Jetmix is to be used exclusively for preparing emulsions. The Mini-Jetmix ensures the preparation of a homogeneous, finely dispersed emulsion. Correct preparation is the prerequisite for the emulsion to be fully stable.



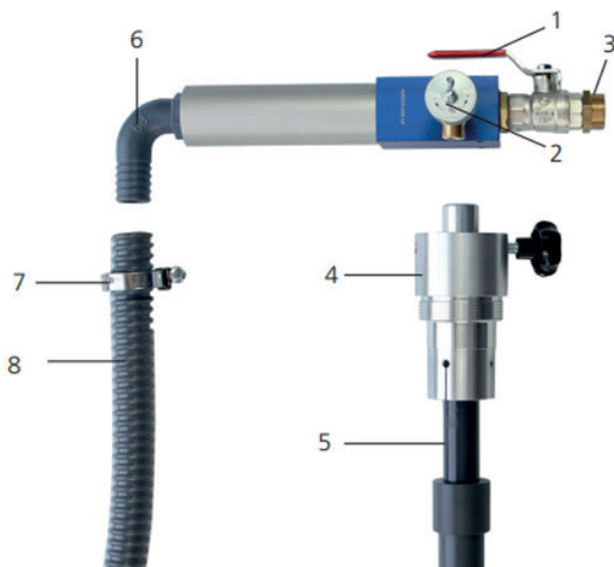
Any other use of this device may result in personal injury and damage to property.

2.2 How the Mini-Jetmix works

The Mini-Jetmix is an ideal mixing device for emulsions.

The device can be used to ensure a constant concentration of the metalworking fluid. The water flow draws in the concentrate according to the Venturi principle and mixes it. The special design keeps the emulsion droplets small and the emulsion finely dispersed. The Mini-Jetmix, with an emulsion mixing volume of up to 960 l/h, is recommended for individual, smaller machines.

2.3 Gesamtansicht / Bedienungselemente

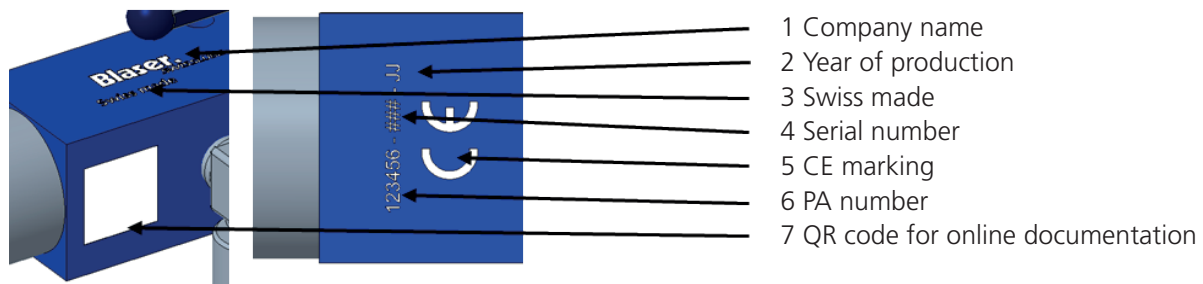


- 1 Water tap
- 2 Concentration regulating valve
- 3 Water connection G3/4"
- 4 Adapter
- 5 Telescopic concentration suction tube with non-return valve
- 6 Pipe bend 90°
- 7 Bridge
- 8 Flexible hose

2.4 Labeling

The following markings are affixed to the Mini-Jetmix. These contain important information for precise identification of the Mini-Jetmix.

Labeling:



NOTICE

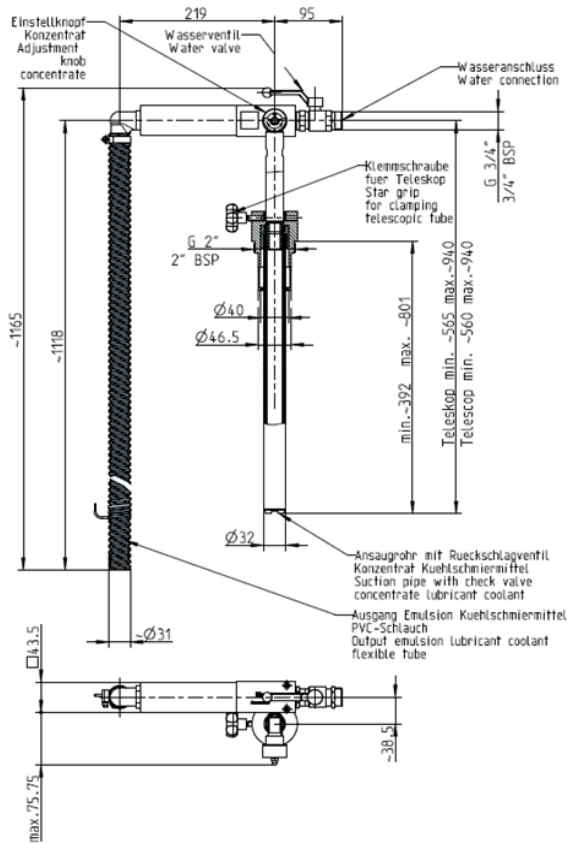
To order spare parts and for technical support, the data entered on the Mini-Jetmix must be provided.

2.5 Scope of delivery

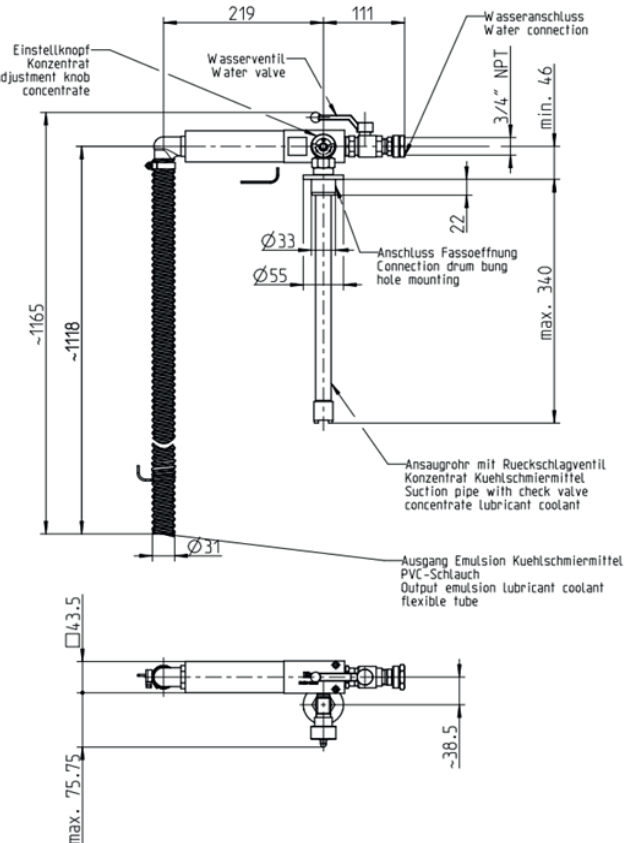
- 1 pc. Mixer Mini-Jetmix
- 1 hose with hose holder and clamp
- 1 pc. Immersion tube
- 1 pc. Operating Manual
- 1 pc. Packaging

2.6 Technical data / dimension sheet

Mini-Jetmix EU



Mini-Jetmix US



Designation	Mixer Mini-Jetmix	Unit
Model	EU / US	-
Version	Drum mounting	-
Concentration range	approx. 0.5 – 25	%
Required dynamic water pressure	2 - 6	bar (dynamic)
Output at 3 bar water pressure	960	l/h
Water connection	AG G 3/4" / IG 3/4" NPT	-
Housing material	Aluminum	-
Drum size	20 - 200	lt
Weight gross	2.7	kg
Application medium	Water-miscible cooling lubricants	-
Emission level L_{pa}	< 70	dB (A)

3. Packaging, transportation and storage

The product is prepared by Blaser for transportation to its first destination. The packaging unit must not be exposed to overloading. The packaging and its contents must be protected from the effects of moisture. The transport temperature between -20°C and +40°C must be maintained.

If transport damage is discovered during the incoming goods inspection, proceed as follows:

- Notify the deliverer (carrier, etc.)
- Record damage report
- Inform supplier

Storage and temporary storage in a damp environment or outdoors can lead to corrosion and other damage.

4. Installation

All legal requirements must be clarified on site and in compliance. The floor and space conditions must be clarified before setting up the Mini-Jetmix in order to ensure safe operation for personnel and Mini-Jetmix for the long term.

NOTICE

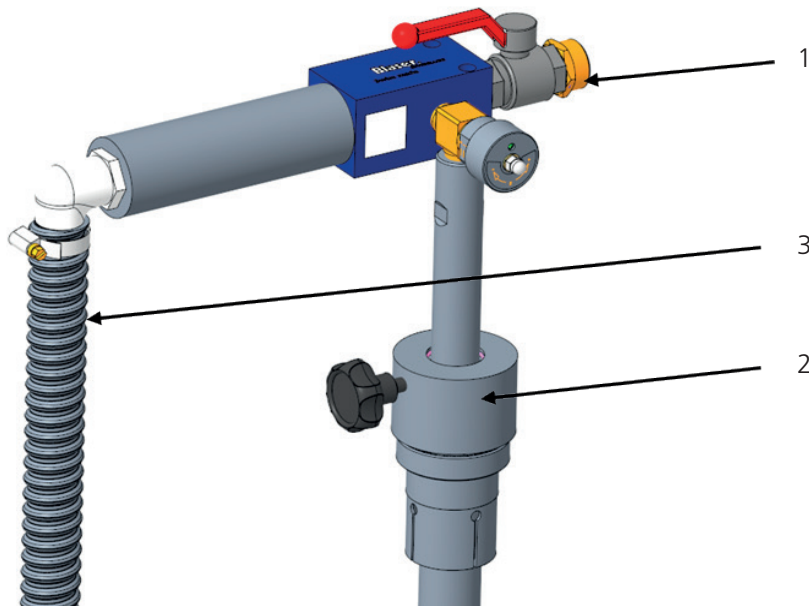
Ensure that the center of gravity of the Mini-Jetmix is positioned above the container so that the unit does not tip over even when the container is empty.



The connection to the water pipe and the location of the Mini-Jetmix should be selected so that there is no contact with electrical installations or connections.

The Mini-Jetmix has been built for indoor operation only. Operation and storage in an excessively humid environment or outdoors can lead to damage for which we accept no liability. Interfaces are described in the following chapters.

5. Interface definition



1 Water connection

Use high-pressure hose with swivel screw coupling, type EU male thread G 3/4".

The water connection must not drip. The water connection must be protected in accordance with regional regulations to prevent emulsion from flowing back into the water network. In Europe, the water connection must be protected by a type BA system separator in accordance with EN 1717.

2 Immersion tube with drum adapter

The Mini-Jetmix is supplied with a telescopic pipe and a universal drum adapter.

Depending on which container is used, the universal adapter is screwed, inverted, clicked or plugged onto the container.

Der Mini-Jetmix US wird mit einem Tauchrohr aus Edelstahl rostfrei und einem einfachen Fassadapter versendet. Der Adapter mit dem Tauchrohr wird in die Öffnung des Gebindes eingefügt.

3 Output

The flexible hose is attached to the pipe bend with the hose clamp. The 90° pipe bend must not be removed. The hose must not be tapered or kinked.

6. Initial commissioning

- Before using the Mini-Jetmix for the first time, it must be completely removed from its packaging.
- The telescopic tube must be pulled apart according to the container size.

NOTICE

Pulling the telescopic tube apart requires some force. To avoid damaging the tube, only pull axially. Excessive radial load can cause the tube to break.



- Screw the telescopic tube/immersion tube onto the regulating valve and tighten.
- Adjust the position of the Mini-Jetmix with the star grip so that the center of gravity is such that the system is stable even when the container is empty.
- The universal adapter can be used for all Blaser container sizes. The adapter is either screwed onto the container, slipped over, plugged in or clicked on.

NOTICE

The adapter must be firmly attached, otherwise the container will not be ventilated correctly.

- Connect the water hose with a swivel screw coupling. The water connection must not drip and must be secured in accordance with regional regulations to prevent emulsion from flowing back into the water network.



In Europe, the water connection must be protected by a system separator type BA in accordance with EN 1717.

NOTICE

When working with concentrate and emulsion, the manufacturer's instructions and safety regulations must be observed. Use personal protective equipment in accordance with the manufacturer's instructions.



Use hand and eye protection (in accordance with EN ISO 7010)

7. Operation

- After connecting the water pipe and immersing the dip tube in the container with concentrate, the tap can be opened. Emulsion flows out of the flexible hose.



When opening and closing the tap, make sure that your hand is not trapped between the housing and the lever.

- The desired concentration can be set between 0.5 and 25% using the regulating valve. The respective concentration depends on the viscosity of the metalworking fluid concentrate, the water pressure and the water temperature. The concentration must be set using a calibrated refractometer.
- • Once the desired amount of emulsion has been prepared, close the tap.



To avoid pressure surges on the water supply system, the tap must always be closed slowly.

- Do not leave the water hose under pressure and disconnect the Mini-Jetmix from the main water supply.



Use hand and eye protection (in accordance with EN ISO 7010)

8. Decommissioning / disassembly

8.1 Short-term interruption

The following should be observed when the Mini Jetmix is not in use:

- Turn off the tap and disconnect the Mini-Jetmix from the main water supply.
- Reduce the residual pressure in the system by opening and closing the tap.

8.2 Long-term interruption

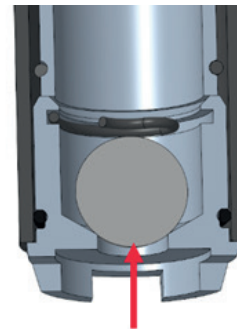
The following points should be observed if the Mini-Jetmix is not used for a longer period of time or during maintenance:

- Turn off the tap and disconnect the Mini-Jetmix from the main water supply.
- Reduce the residual pressure in the system by opening and closing the tap.

NOTICE

Make sure that no water gets into the container with the concentrate. Water in the concentrate leads to reverse emulsion and makes the concentrate unusable.

- Remove the Mini-Jetmix with telescopic tube/immersion tube from the container and clean it with a cloth. When removing the telescopic tube/immersion tube from the container, there is concentrate in the tube. The non-return valve prevents the concentrate from leaking out. To prevent the concentrate from running out in an uncontrolled manner, the concentrate should be drained in a controlled manner by pressing back the ball in the non-return valve.



CAUTION

Risk of accident and environmental hazard: Do not spill any concentrate or emulsion. The concentrate and emulsion must be disposed properly (hazardous waste).

9. Troubleshooting, fault correction



All work on the Mini-Jetmix must only be carried out when it is at a standstill. The water supply must be switched off and the Mini-Jetmix must be disconnected from the supply.

Error	Possible cause / remedy
Insufficient dynamic water pressure (<2 bar)	Remove constrictions in the supply line. Open the tap completely. Check the pressure conditions at the water connection.
Concentration regulating valve set to 0	Open the concentration regulating valve.
Universal adapter not firmly connected to the container	Place the universal adapter correctly on the container. Use original Blaser containers.
Container with concentrate empty	Change the container.
Telescopic tube / immersion tube blocked	Clean the pipe so that it can be sucked in correctly again.
Intake of air in the intake area of the concentrate	Check the seals and replace if necessary. Pull the telescopic tube out completely so that it reaches to the bottom of the container.
Unauthorized modification of the device (disassembly, attachment of third-party accessories, alterations, etc.)	Remove modifications.



Use hand and eye protection (in accordance with EN ISO 7010)

10. Maintenance, servicing

This describes how to maintain the system. The overview shows what is needed to be serviced or checked and when.

NOTICE

This chapter does not describe how to repair the Mini-Jetmix after damage. This work should only be carried out by a trained specialist or by the manufacturer's customer service department.

10.1 Maintenance schedule

The specified maintenance intervals refer to single-shift operation. Maintenance may need to be carried out more frequently depending on the area of application or in the case of multi-shift operation. Additional influences such as the cleanliness of the working environment must also be taken into account.

WHEN	WHAT	HOW	WHO
Weekly	Cleaning the device	With a soft cloth and all-purpose cleaner	Specialists of the operator
Monthly	Check the condition of the hoses and seals	Visual check for leaks	Specialists of the operator



All work on the Mini-Jetmix must only be carried out when it is at a standstill. The water supply must be switched off and the Mini-Jetmix must be disconnected from the supply.



Risk of accident and environmental hazard: Do not spill any concentrate or emulsion. The concentrate and the emulsion must be disposed of properly (hazardous waste).

11. Waste disposal



All work on the Mini-Jetmix must only be carried out when it is at a standstill. The water supply must be switched off and the Mini-Jetmix must be disconnected from the supply.

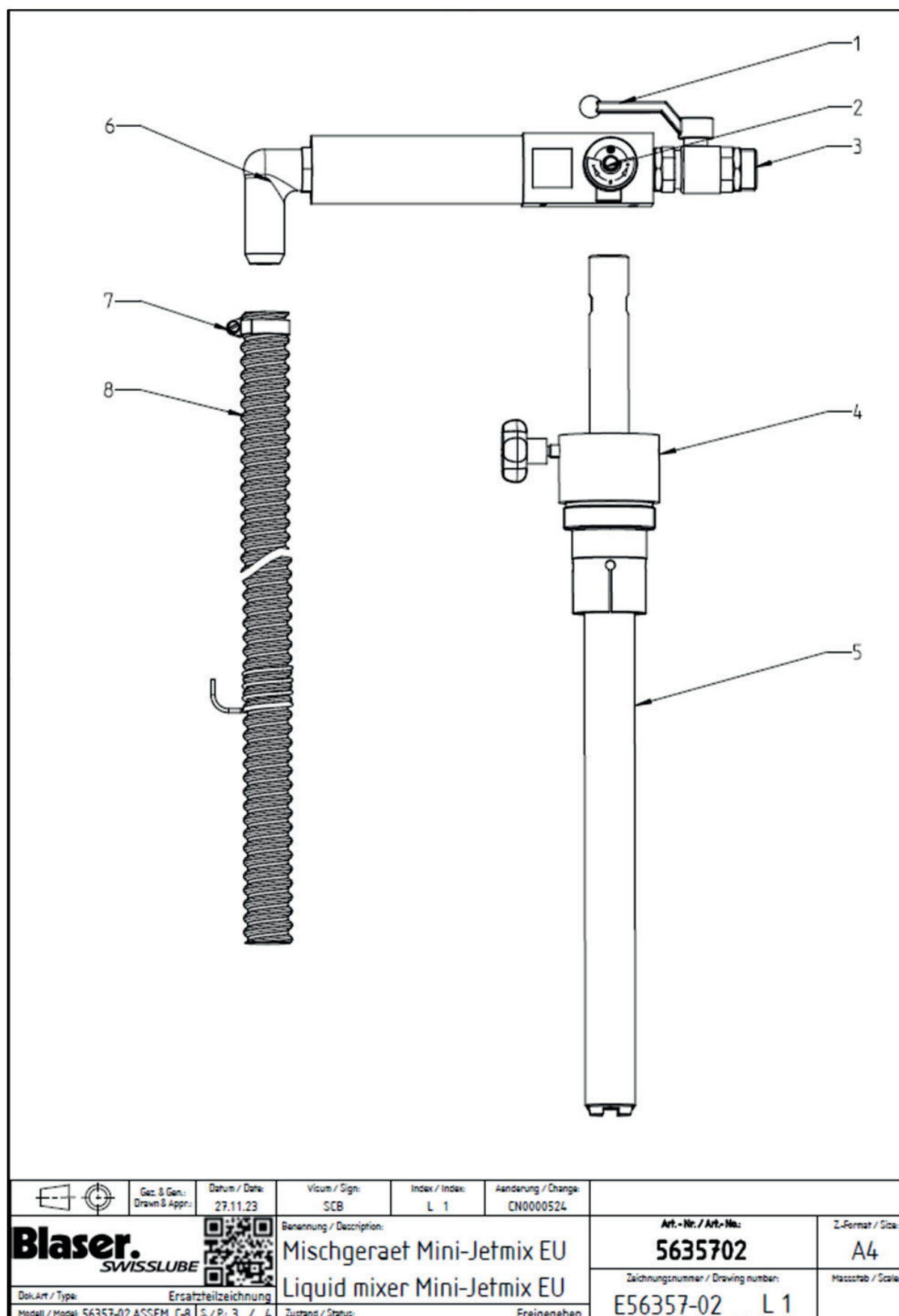
The various materials/liquids must be handled properly and separately in accordance with the relevant national regulations and disposed of.

Product	Material	Waste disposal
Casing, rods, tubes, dip tube	Steel and aluminum	Separation of metals, feeding for recycling
Hoses, seals, etc.	Rubber, plastics	Separation of materials, feeding for recycling
Telescopic tube	PVC	Separation of metals, feeding for recycling
Concentrate, emulsion	According to manufacturer's safety data sheet	Disposal instructions of the metalworking fluid manufacturer must be followed



Make sure that you do not spill any concentrate or emulsion. Take appropriate precautions in advance to collect any spilled concentrate or emulsion.

12. Spare parts



Position	Article	Designation	Info
1 & 3	09264-01-2300	Replacement adjustment set	
	09264-01-2400	Replacement adjustment set US	
2	09264-01-2000	Fine adjustment angle valve R3/8"	
4	09264-01-2100	Spare clamping part for immersion tube	not for USA
4 & 5	09278-01-0000	Telescopic immersion tube set	Incl. clamping part
6	09264-01-2600	Replacement pipe bend 3/4"	
7 & 8	09264-01-2700	Replacement hose kit	Incl. clamp and hook
	09264-01-2200	Nozzle spare parts set	
	09264-01-2500	Replacement housing	Blue workpiece

13. EC Declaration of Conformity

EG-Konformitätserklärung

im Sinne der Maschinenrichtlinie 2006/42/EG, Anh. II 1. A

Original



Die alleinige Verantwortung für die Ausstellung dieser Konformitätserklärung trägt der Hersteller

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In der Gemeinschaft ansässige Person, die bevollmächtigt ist, die relevanten technischen Unterlagen zusammenzustellen

Rolf Schneider

Blaser Swissslube AG

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Beschreibung und Identifizierung der Maschine

Produkt	Mischgerät Mini-Jetmix
Typ	EU / US
Seriennummer	Produktionsauftragsnummer - fortlaufende Nummerierung (neu startend bei jedem PA) - zweistellige Jahreszahl
Maschinennummer	diverse
Projektnummer	O-017
Handelsbezeichnung	Emulsionsmischgerät
Modell	Mini-Jetmix
Funktion	Emulsionsmischgerät. Das Gerät wird an das Wasserleitungsnetz angeschlossen. Im Betrieb wird durch den Wasserstrom ein Unterdruck erzeugt und Kühlschmierstoff angesaugt. Über ein Regulierventil kann die Konzentration / das Mischverhältnis von 0 - ca.25% eingestellt werden.

Es wird ausdrücklich erklärt, dass die Maschine allen einschlägigen Bestimmungen der folgenden EG-Richtlinien bzw. Verordnungen entspricht:

2006/42/EG	Richtlinie 2006/42/EG des Europäischen Parlaments und des Rates vom 17. Mai 2006 über Maschinen und zur Änderung der Richtlinie 95/16/EG (Neufassung) Veröffentlicht in L 157/24 vom 2006-06-09
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Hasle-Rüegsau, 2024-11-15

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