

Belt Skimmer Flex

Operating Manual



Our Liquid Tool. **Your Success.**

Validity of this operating manual:

Blaser Swisslube Belt Skimmer Flex

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Confirmation

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

Company stamp:

Place and date:

Signature:

This operating manual is intended to make it easier to familiarize yourself with the Belt Skimmer Flex and its accessories and use them as intended.

The operating manual contains important information on how to operate the Belt Skimmer Flex safely, properly and economically. Observing them helps to avoid hazards, reduce repair costs and downtimes and increase the service life of the Belt Skimmer Flex. This operating manual is an integral part of the Belt Skimmer Flex 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 Belt Skimmer Flex, 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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1. Safety

1.1 Basic safety instructions

The person responsible for the safety of the skimmer must ensure the following:

- Only qualified personnel should be authorized to work on the skimmer.
- 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 machine 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 skimmer.

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 skimmer 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 skimmer

The skimmer and assemblies are built 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 skimmer or other property. The skimmer 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 before the skimmer is used.
- Protective devices may only be removed after the skimmer has been shut down and locked out.
- The locking door lever and the operating controls 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 skimmer, as it 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 skimmer may only be used under the intended operating conditions. The skimmer is to be used exclusively for removing tramp oils in coolant tanks.

Any use other than in the coolant tank (e.g. in the machine processing room or the chip conveyor) is prohibited. For more detailed information on the application, see chapter 2.1. in this operating manual.

Any other or additional use is considered 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 skimmer. Improper use includes among other things:

Improper use includes:

- Use for removal from other media and from other containers.
- Connection and operation with other voltage sources.
- Any use of the skimmer on living organisms.

1.7 Hazard, mandatory, 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, and 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 power supply must be disconnected and locked out.
- Ensure that all screw and fitting connections are tight.

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

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 Belt Skimmer Flex is to be used exclusively for removing tramp oils from the coolant tank.

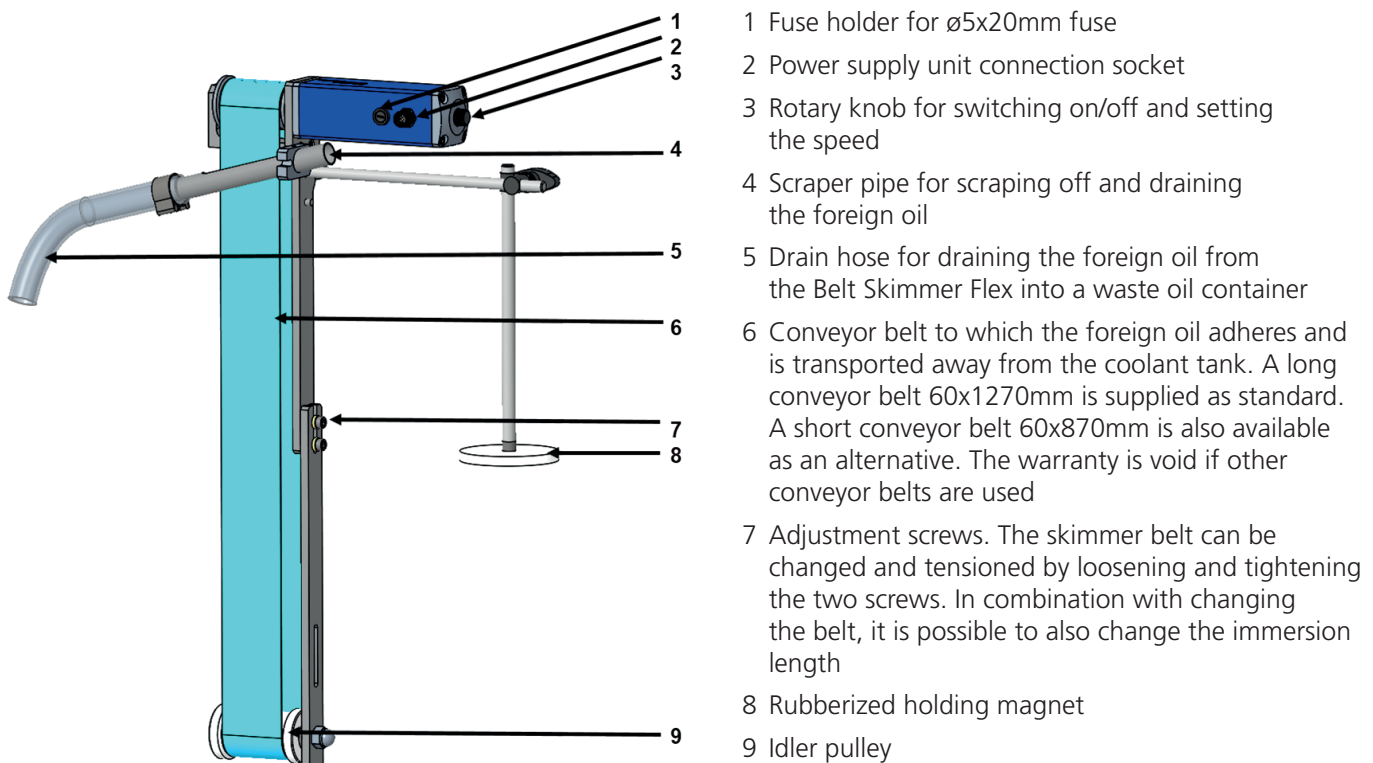


Any other use of this machine may result in personal injury and damage to property.

2.2 How the Belt Skimmer Flex works

The belt of the Belt Skimmer Flex is immersed in the metalworking fluid. The belt is set in motion by a speed-controlled drive. Tramp oil that floats on the coolant sticks to the belt and is separated from the coolant. Tramp oil is scraped off the belt by a scraper and discharged into a waste oil container.

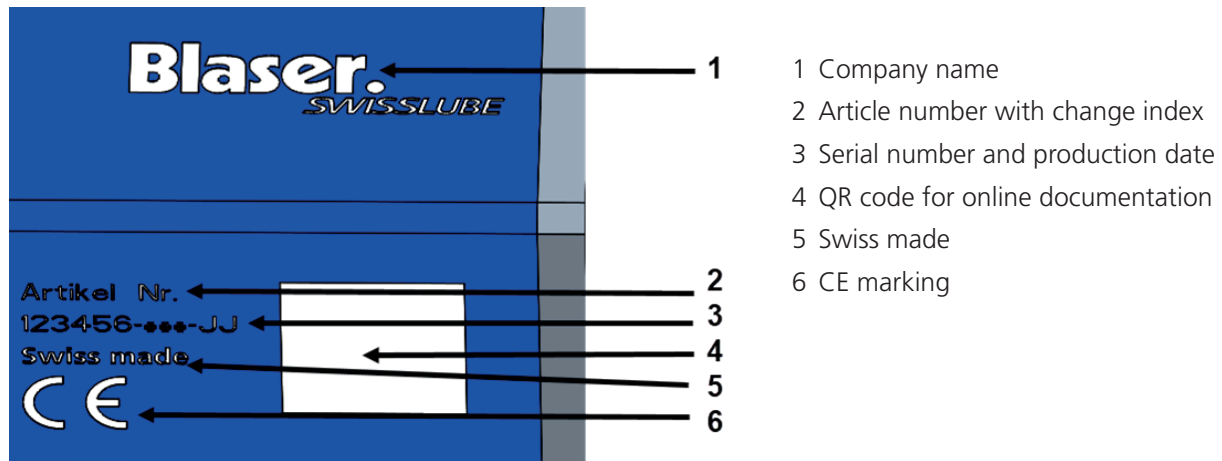
2.3 General view / operating elements



2.4 Labeling

The Belt Skimmer Flex is labeled as follows. These contain important information for the exact identification of the skimmer.

Labeling:



NOTICE

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

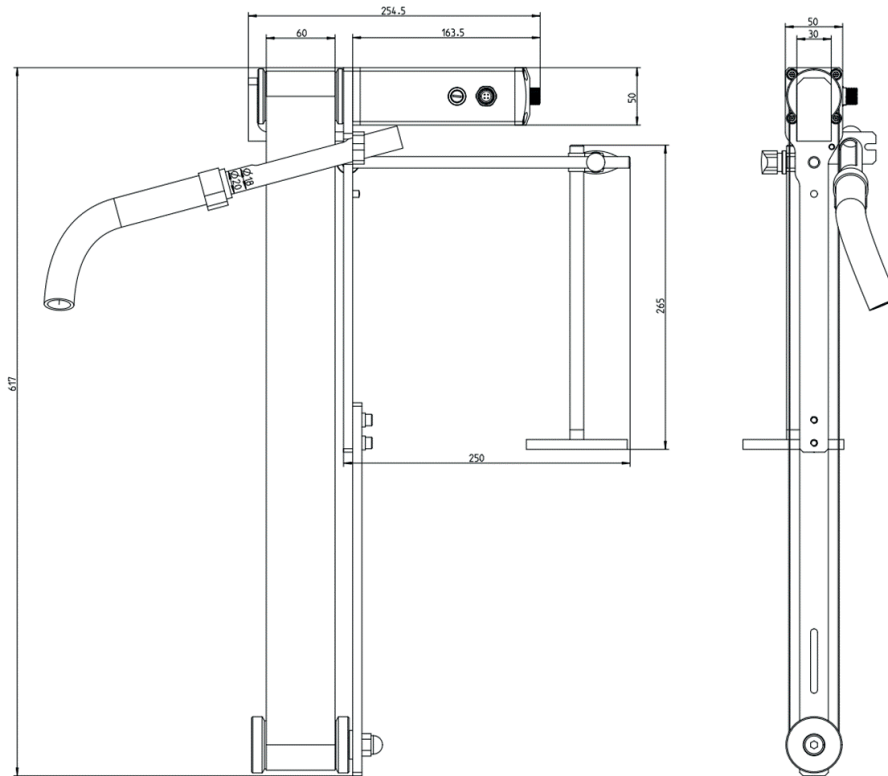
2.5 Scope of delivery

- 1 pc. Belt Skimmer Flex
- 1 pc. Connection cable with power supply unit and interchangeable machine plug Schuko CEE 7/ VII and plug type 12 (CH) or NEMA 5-15 (see also section 5)
- 1 pc. Original operating instructions
- 1 pc. Packaging



People with pacemakers and implanted defibrillators are advised not to be in the vicinity of magnets, as these devices can be affected by the magnetic force. Therefore, always keep sufficient distance when using such devices.

2.6 Technical data



Designation	Belt Skimmer Flex	Unit
Electric motor	Brushed DC motor	-
Torque	0.45	Nm
Tension	3-24	VDC
Performance	6	W
Speed	up to 53	U/min
Main connection (power supply unit)	100-240V / 50-60 HZ	-
Holding magnet strength	~ 549	N
Weight machine complete	3.5	kg
System dimensions L x W x H	260 x 617 x 80	mm
Packaging dimensions L x W x H	550x350x120	mm
Tank access	Min. ø120	mm
Device plug	Schuko CEE 7 / VII Stecker Type 12 (CH) NEMA 5-15	-
Ambient temperature	10° to + 40°	°C
IP protection class	IP54	-
Emission level L _{pa}	< 70	dB (A)
Earth leakage current	<10 *1	mA

*1 Machine complies with product standard DIN EN 60204-1, has an earth leakage current of less than 10 mA and can therefore be operated without additional precautions.

3. Packaging, transport and storage

The skimmer is prepared by Blaser for transport 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 / assembly

All legal requirements must be clarified on site and in compliance. The floor and space conditions must be clarified before setting up the skimmer in order to ensure safe operation for personnel and skimmer for the long term. The Belt Skimmer Flex must be installed in such a way that safe and continuous operation is guaranteed. The drive unit with motor and power connection must not be immersed in liquid.

The skimmer may only be installed, commissioned and/or stored by qualified personnel. The skimmer must be mounted and operated on a clean, flat, magnetic surface using the holding magnet. Before mounting, the holding magnet and the contact surface must be cleaned in order to achieve optimum stability. Pay attention to the leverage force on the magnet. A secure, firm stand is essential for trouble-free operation. The Belt Skimmer Flex should be installed at a location near the tank where the coolant is at a standstill, as this will achieve the best results. The skimmer 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. Connection specifications are described in the following chapters.

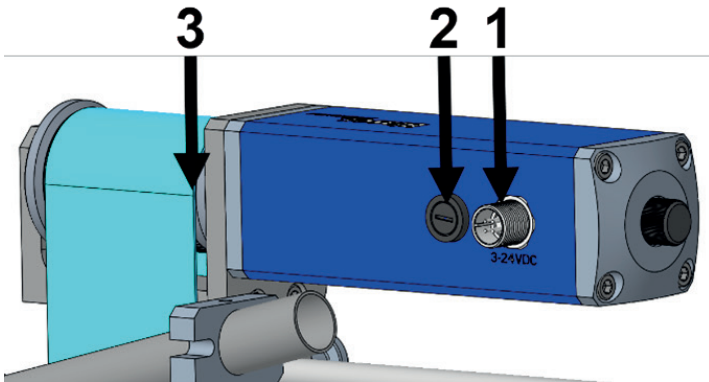


Only connect the skimmer to the power supply once it has reached a stable position. This is an important measure to prevent a defect in the device due to a short circuit and personal injury due to electric shock.



The connection cable must be situated in such a way that it does not cross any footpaths and does not pose a tripping hazard.

5. Interface definition



1 Input

The Belt Skimmer Flex is driven by a 24 VDC motor. The connection for the power supply unit is located on the side of the Belt Skimmer Flex. Only the original power supply unit may be used.
Input: 100-240 VAC 50-60 Hz and output: 24VDC / 1.5 A.

2 Fuse holder

To prevent an overload, the device is protected by a $\varnothing 5 \times 20$ mm 100 mA F fuse.

3 Output

The 24 VDC motor drives a drive shaft, which in turn sets the skimmer belt in motion to remove the tramp oil.

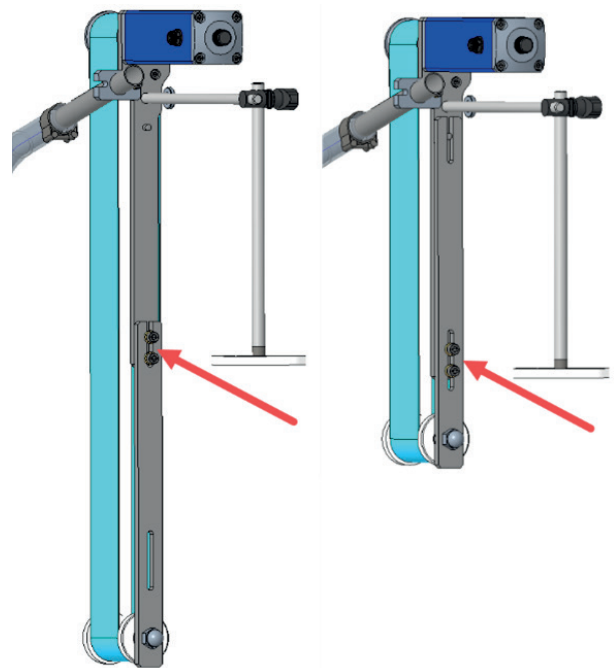
The use of a residual current device recommended (FI/RCD). Local or national regulations on upstream protection by a residual current device must be taken into account.

6. Initial commissioning

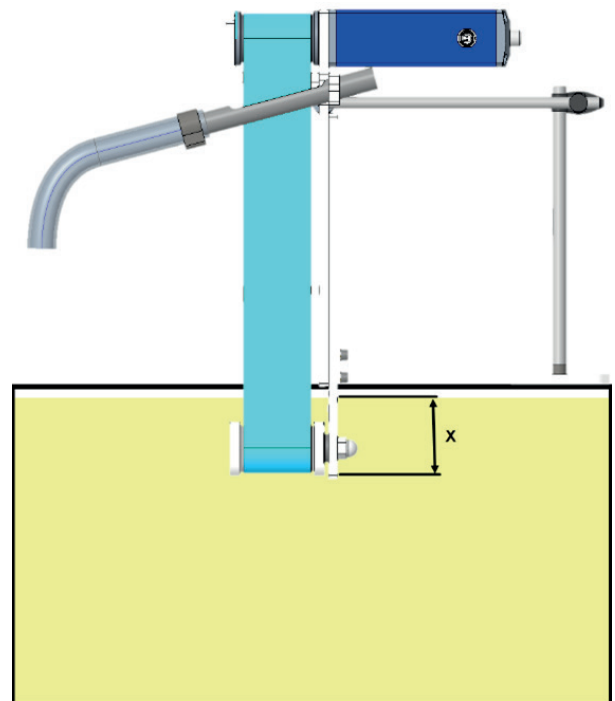
Before initial commissioning, the skimmer must be completely removed from its packaging.

If necessary, insert the belt and check the belt tension. The belt tension should only be set high enough for the belt to turn and be scraped off at the drainpipe. A higher belt tension has no benefit and leads to higher wear. It is recommended to hold the skimmer with the belt inserted on the deflection roller downward, to adjust the belt tension using the gravity of the skimmer and to tighten the two-cylinder screws.

A 1270x60mm belt is supplied as standard. A shorter 870x60mm skimmer belt can be purchased as an option. The struts can be pushed together to use the shorter belt.



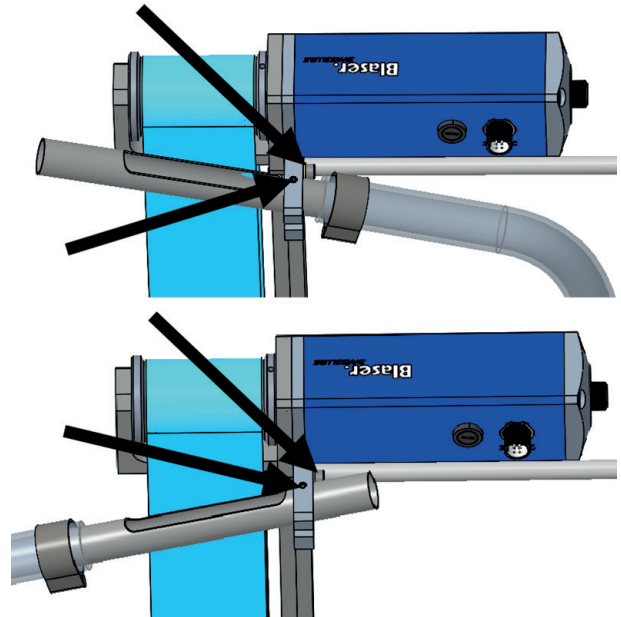
With the magnetic base installed, the Belt Skimmer Flex should be attached to the coolant tank or to the machine so that the lower roller is immersed in the coolant. Immersion depth x approx. 45-100mm. The skimmer belt must not be blocked and must not touch the machine or the coolant tank.



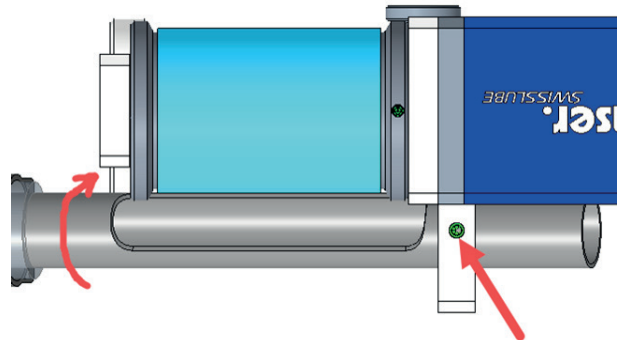
The magnet has a strong attraction force. Fingers or skin can be pinched if handled carelessly.

The direction of the outlet pipe can be rotated by 180° by loosening the 4.0mm hexagon socket screw and the 2.5mm stud screw.

The separated oil should be channelled through the hose into a collection container. The hose must not be kinked. The collection container should be positioned below the drainpipe so that the tramp oil can drain off.



If the Belt Skimmer Flex is placed on the machine, the drainpipe with scraper should be adjusted. By loosening the SW 2.5mm stud screw, the drainpipe can be rotated so that the edge of the recess serves as a wiper.



The universal power supply unit should be fitted with the required plug. The power supply unit is designed for connection to a voltage of 100-240 V and a mains frequency of 50-60 Hz. The Belt Skimmer Flex must be connected to the power supply unit via the screw plug.

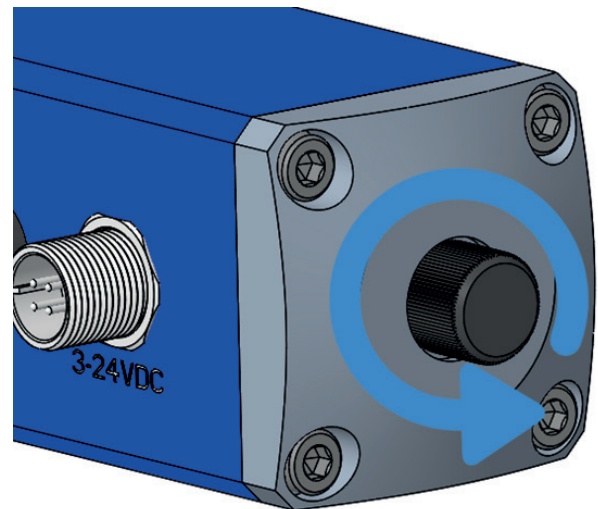
NOTICE

The connection cable must be situated in such a way that there is no risk of tripping. The skimmer is firmly connected to the cable, tripping over the connection cable can damage the skimmer.

7. Operation

The Belt Skimmer Flex can be switched on and the rotation speed of the skimmer belt adjusted using the rotary knob.

The duty cycle of the Belt Skimmer Flex varies from application to application. Depending on the machine running time, contamination, coolant, tank size, machine, ambient conditions, etc., a longer or shorter running time of the Belt Skimmer Flex may make sense. A combination with a timer is possible.



The setting of the belt's rotational speed also depends on the application.

NOTICE

The collection container for the tramp oil should be sufficiently large enough for the speed and duty cycle.

If the coolant is heavily contaminated, ensure that the drainpipe and hose are not blocked by the contamination. Dirt should be removed periodically when the skimmer is at a standstill.



The belt should be able to rotate freely during operation. Blocking and touching must be avoided due to the risk of jamming, motor overload and injuries caused by moving parts and dirt.

The collection container should be emptied when the skimmer is at a standstill. The separated tramp oil must be disposed of properly in accordance with local regulations.

8. Decommissioning / disassembly

8.1 Short-term interruption

In the event of a short-term interruption, e.g. overnight or at the weekend, the rotary knob must be turned off or the power supply unit unplugged. The use of a timer can be considered for regular use.

8.2 Long-term interruption

The following points should be observed if the Belt Skimmer Flex is not used for a longer period of time or during maintenance:

- The Belt Skimmer Flex can be switched off using the rotary knob.
- The main plug must be disconnected.
- The skimmer should be cleaned, and the collection container emptied.

8.3 Decommissioning, disassembly and/or transport of the skimmer

The following points should be observed when decommissioning and/or transporting the skimmer:

- The Belt Skimmer Flex can be switched off using the rotary knob.
- The main plug must be disconnected.
- The skimmer should be cleaned and the collection container emptied.



Risk of accidents and environmental hazards: Do not spill any oil.
The oil must be disposed of properly (hazardous waste).

9. Troubleshooting, fault correction

NOTICE

The faults described below may only be corrected by a trained specialist.



WARNING

All work on the skimmer must only be carried out when it is at a standstill.
The main switch must be switched off and the main plug disconnected.

Error	Possible cause/remedy
The belt of the Belt Skimmer Flex does not rotate.	Belt is insufficiently tensioned or blocked. Checking the belt and belt tension according to point 6. Initial commissioning.
	Check the fuse. If necessary, replace the fuse and correct the cause of the failure (probably a blocked drive or moisture).
	The belt does not rotate due to excessive fouling. Cleaning the skimmer.
Belt curls, cannot be tensioned correctly and/or does not run cleanly on the drive shaft.	The skimmer belt swells in combination with the coolant. Replace the skimmer belt according to the service description.



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

10. Maintenance, servicing

This chapter tells you how to maintain the skimmer. This overview shows you what needs to be serviced or checked and when. The plug must always be disconnected when servicing the skimmer.

NOTICE

This chapter does not describe how to repair the machine after damage. This work should only be carried out by a trained specialist or by customer service.

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 skimmer	With a soft cloth and all-purpose cleaner	Specialists of the operator
Monthly	Check the condition of the skimmer belt	Visual inspection, checking the sources and tension of the belt	Specialists of the operator



WARNING

All work on the skimmer must only be carried out when it is at a standstill. The main switch must be switched off and the main plug disconnected.



CAUTION

Risk of accidents and environmental hazards: Do not spill any oil. The oil must be properly collected and disposed of (hazardous waste).

10.2 Fuse

In the event of a short circuit or if the drive is blocked, the fuse may blow. The fuse holder can be opened with a screwdriver and the fuse replaced.

Fuse Ø 5x20 mm
F 100mA



10.3 Service description for Belt Skimmer Flex

10.3.1 Safety



Caution: Risk of injury!

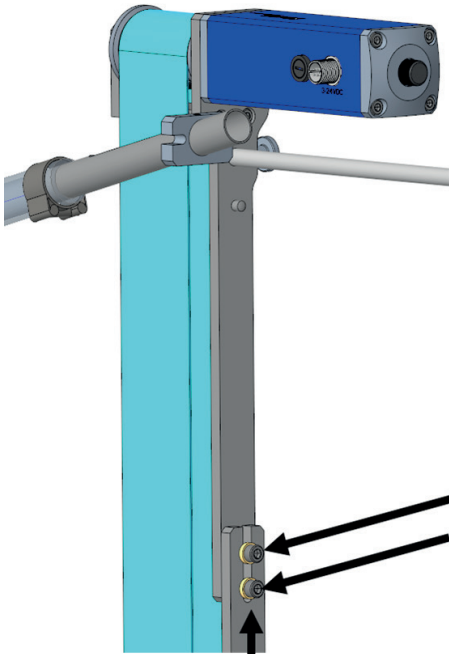
The Belt Skimmer Flex must be switched off and disconnected from the power supply every time it is serviced.

10.3.2 General information

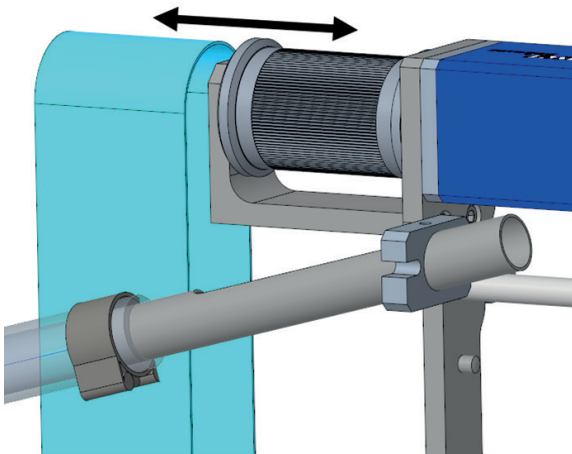
Maintenance and servicing may only be carried out by authorized specialist (plant mechanics) or adequately trained personnel. Attention must be paid to cleanliness during disassembly and assembly. Dirt particles and moisture must not get into the skimmer. No sharp-edged tools may be used for dismantling and fitting the seals.

Only original spare parts for the Belt Skimmer Flex may be used.

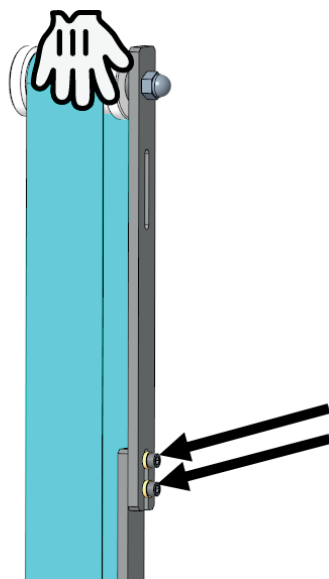
10.3.3 Changing the conveyor belt and adjusting the tension



Once the skimmer has been disconnected from the power supply, loosen the two-cylinder screws. The lower strut can then be pushed upwards, and the tension removed from the belt.



The skimmer belt can be removed from the side of the Belt Skimmer Flex and replaced with a new skimmer belt.



To tension the new skimmer belt, it is recommended to hold the Belt Skimmer Flex on the deflection pulley, tension the belt using gravity and tighten the two cap screws.

11. Waste disposal



All work on the skimmer must only be carried out when it is at a standstill.
The main plug must be disconnected.

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

Product	Material	Waste disposal
Housings, struts, rods, tubes	Steel and aluminium	Separation of metals, feeding for recycling
Hoses, skimmer belt, seals, etc.	Rubber, plastics	Separation of materials, feeding for recycling
Drive, plug, power supply unit	Electronics	Disposal in electronic waste in accordance with local waste legislation
Tramp oil	Hydraulic oil, lubricants	Treatment or disposal in accordance with the waste law of the local legislator

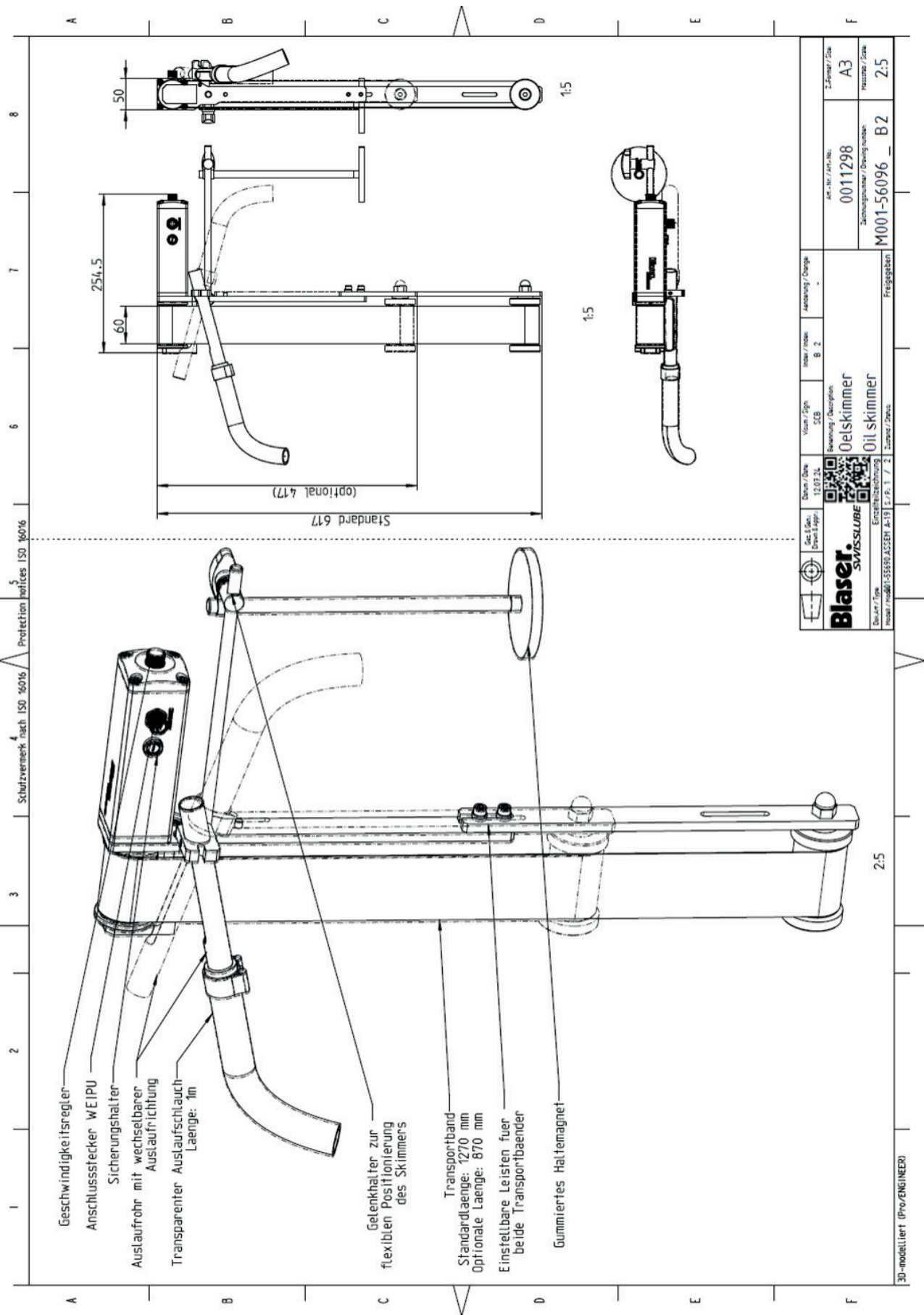


Make sure that you do not spill any foreign oil. Take appropriate precautions in advance to collect any spilt foreign oil.



13. Drawings and diagrams

13.1 Belt Skimmer Flex Dimension sheet



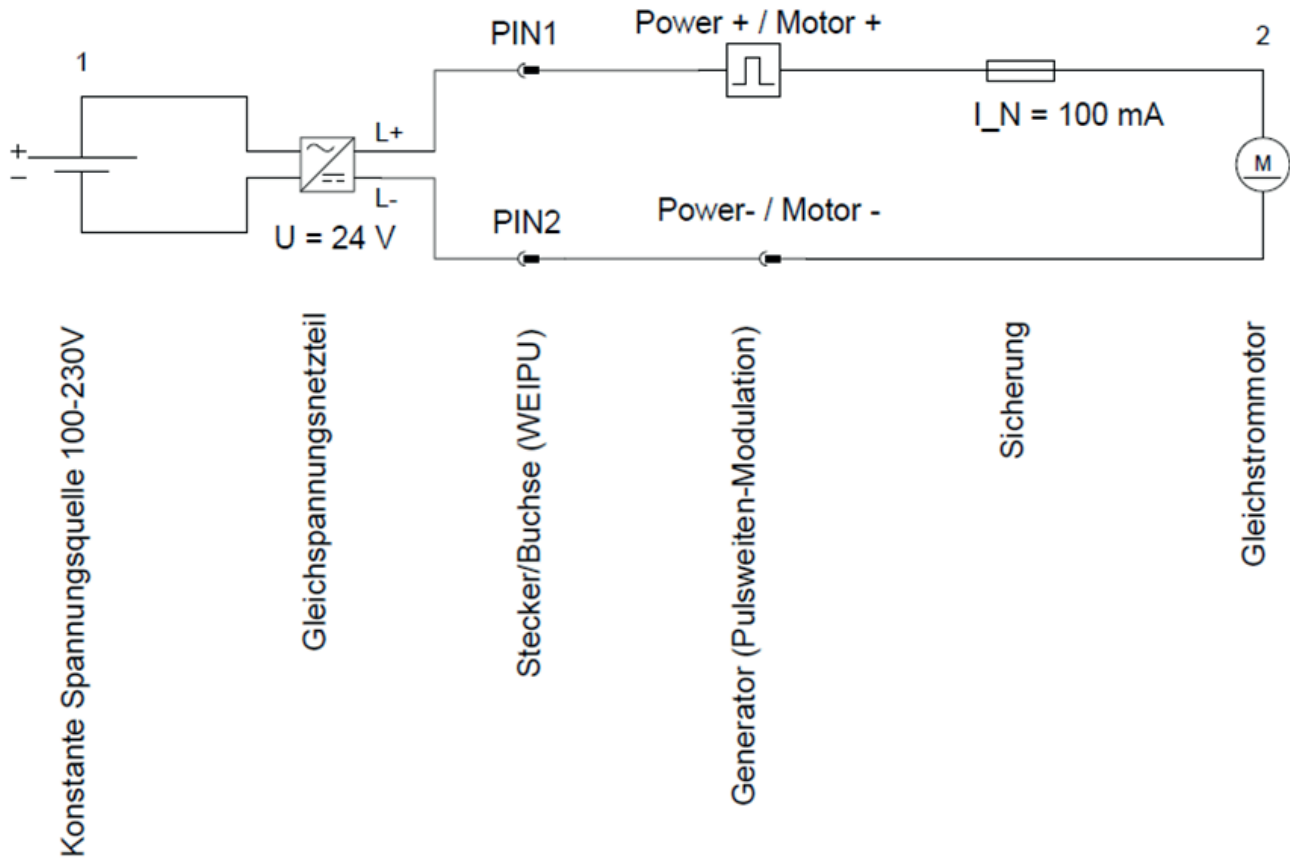
Schutzvermerk nach ISO 16016

Protection notices ISO 16016



Modell: Model:		Oelskimmer Oil Skimmer					
Bauform: Construction type:		Lang & klein Long & short					
Ausführung: Version:		Transportband Belt					
Transportband: Belt:		1270 x 60 mm 870 x 60 mm					
Eintauchtiefe: Submergence:		500 mm (320 mm)					
Tanköffnung: Container hole:		ø130 mm					
Netzteilungs Spannung: Power supply:		100-240 VAC / 50-60 Hz					
Gerätespannung: Device supply voltage:		24 VDC					
Anschlussstecker: Connector:		WEIPU SP1213-P4					
Magnet: Magnet:		ø88mm / 549N / gummiert ø88mm / 549N / rubber-coated					
Gewicht [kg]: Weight [kg]:		3.5					
Einsatztemperatur (°C): Operation temperature (°C):		10 bis 40					
		Gez. & Gen.: Drawn & Appr.:	Datum / Date: 12.07.24	Vision / Sign: SCB	Index / Index: B 2	Änderung / Change: -	
Blaser. SWISSLIFE		Benennung / Description: Oelskimmer Oil skimmer				Art.-Nr. / Art.-No.: 0011298	Z-Format / Size: A4
Dok.Art / Type: Einzelteilzeichnung		Zustand / Status: Freigegeben				Zeichnungsnummer / Drawing number: M001-56096 _ B2	Maßstab / Scale: 2:5
Modell / Model: 01-56096.ASSEM A-18		S. / P.: 2 / 2					

13.2 Electrical Diagram Belt Skimmer Flex



14. 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

Blaser Swisslube AG

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

Rolf Schneider

Blaser Swisslube AG

Winterseistrasse 22

CH - 3415 Hasle-Rüegsau

Beschreibung und Identifizierung der Maschine

Produkt	Belt Skimmer Flex
Typ	langes Transportband
Seriennummer	PA.Nr.- Serie Nr.- JJ
Maschinennummer	siehe Seriennummer
Projektnummer	PRJ-002189
Handelsbezeichnung	Belt Skimmer Flex
Auftrag	VA068587
Modell	Belt Skimmer Flex
Zusatzangaben	-
Chargennummer	-
Funktion	Fremdoelabscheider für Kühlschmierstoffe

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
2014/35/EU	Richtlinie 2014/35/EU des Europäischen Parlaments und des Rates vom 26. Februar 2014 zur Harmonisierung der Rechtsvorschriften der Mitgliedstaaten über die Bereitstellung elektrischer Betriebsmittel zur Verwendung innerhalb bestimmter Spannungsgrenzen auf dem Markt Veröffentlicht in 2014/L 96/357 vom 2014-03-29
2011/65/EU	Richtlinie 2011/65/EU des Europäischen Parlaments und des Rates vom 8. Juni 2011 zur Beschränkung der Verwendung bestimmter gefährlicher Stoffe in Elektro- und Elektronikgeräten Veröffentlicht in 2011/L 174/88 vom 2011-07-01

Hasle-Rüegsau, 2024-08-28

Ort, Datum


Unterschrift
Iseli Benjamin
Product Manager ABNOX AG


Unterschrift
Rolf Schneider
Project Manager Services Blaser

Test us. It's worth it.
blaser.com



Our Liquid Tool. Your Success.