

## OIL SKIMMER

### SK1



### SK2



## Contents

1. Application area.....	2
2. Certificates & product testing .....	3
3. Safety instruction.....	3
4. Preparation.....	3
5. Start up.....	4
6. Scope of supply .....	5
Oil skimmer SK1 – part no. 10090.2-00 .....	5
Oil skimmer SK2 – part no. 10091.2-01 .....	5
7. Technical specifications.....	6
8. Faults and remedies .....	6
9. Spare parts .....	7
Oil skimmer type SK1 part no. 10090.2-00 .....	7
Oil skimmer type SK2 part no. 10091.2-01 .....	8
Skimmer belts .....	9
10. Instruction Manual for the timer SK 2.....	10



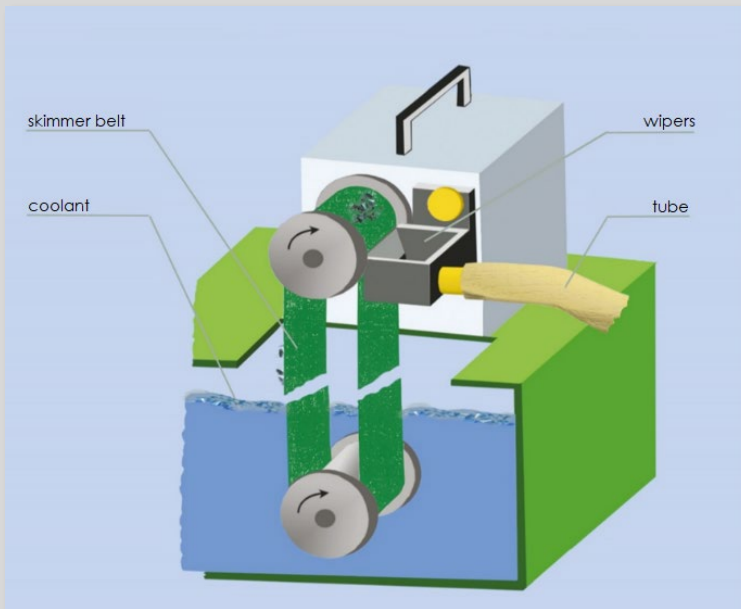
**See for yourself and visit our shop:**

**<http://eds-maschinenbau.de/shop/>**

## 1. Application area

An oil skimmer is a device that is designed to remove oil floating on a liquid surface. The oil skimmer SK1 and SK2 will help removing oil and other soiling from machine tool coolant without pumping out the coolant.

The adhesive properties of the skimmer belt in the coolant tank make the soiling stick to it. The soiling will be separated by the wipers and piped into the collection tank.



The periodic use of the oil skimmer will increase the service life of the coolant substantially.

### Oil skimmer SK1:

The skimmer is controlled manually by a toggle and can be supplemented with a standard timer.

### Oil skimmer SK2:

The SK2 is controlled by a digital timer with a weekly

program.

The oil skimmer is delivered ready for operation. Because of a magnetic clamp on the bottom there is no need for a fix installation. Therefore one skimmer can be used on different machines. Changing the belt is very easy. The whole skimmer is made of corrosion-resistant material.

## 2. Certificates & product testing



The **EDS Maschinenbau GmbH** is certified to DIN EN ISO 9001:2015 .

### Quality Management

All oil skimmers are checked in material quality, dimensional accuracy and functionality.

The skimmers bear the CE marking.

## 3. Safety instruction

The skimmer is powered with 230 V. If there is the possibility for the device to fall into the tank it needs to be permanently installed to the machine or fitted with a FI switch for security reasons.



## 4. Preparation

The oil skimmer is delivered ready for operation.

Please place the provided weight roller in the belt.

## 5. Start up

After placing the belt with the weight roller on the drive drum the oil skimmer can be placed on a clean surface of the tank. For the belt the opening in the tank needs to have a **minimum size of 80x50mm**.

The adhesion is given by the magnet in the bottom or can be bolt to the tank with M6 screws on to the provided holes.

**Please note:** The weight roller needs to immerse totally and must not touch the ground of the tank.

Plug in power plug and you can use the on/off switch to turn it on (see page 7 - SK1-Bild 1 - Pos. 13). A correction of the distance between belt and wiper can be justified by releasing the knurled screw (see page 7 - SK1-Bild 2 - Pos. 7).

To exchange the skimmer belt, you also release the knurled screw to move the collection tray backwards.

### **How to choose the gap distance**

To reduce the abrasion of the belt the gap distance should not be too small. The benchmark is between **0,2 - 0,3 mm**.

## 6. Scope of supply

### Oil skimmer SK1 – part no. 10090.2-00

- ◆ Oil skimmer with belt 600 mm (stretched length)
- ◆ Toggle switch with signal lamp
- ◆ fine wire fuse for the engine
- ◆ 2 m spiral cable for plug in

### Oil skimmer SK2 – part no. 10091.2-01

- ◆ Oil skimmer with belt 600 mm (stretched length)
- ◆ Digital timer with a weekly program
  - functions for programming blocks
  - 16 memory locations
  - 140 h battery life when unplugged
  - Manual start all time with timer-button
- ◆ fine wire fuse for the engine
- ◆ 2 m spiral cable for plug in

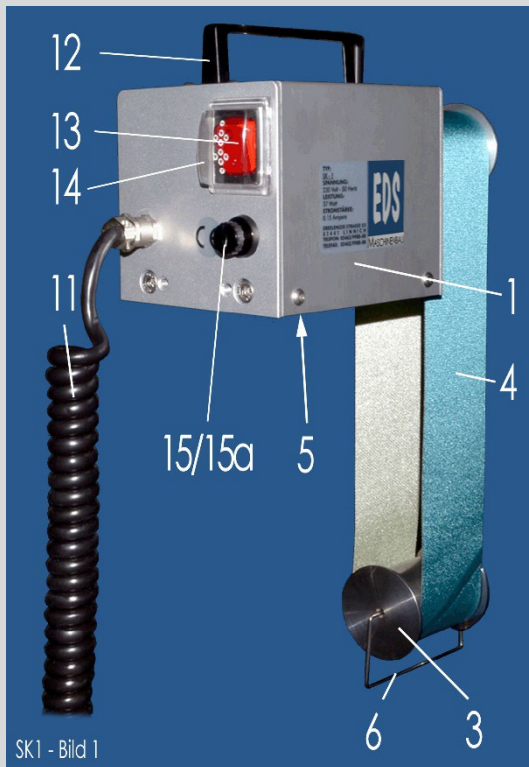
## 7. Technical specifications

- ◆ Compact, reliable and corrosion-resistant device
- ◆ Opening in the tank: 80x50 mm
- ◆ Quick assembly of the oil skimmers by a magnetic clamp
  - ➔ Flexible use on different machines
- ◆ Measuring (WxLxH): 120x120x100 mm
- ◆ Weight: 4 KG
- ◆ Voltage: 230 V / 50 Hz
- ◆ connected load: 37 W

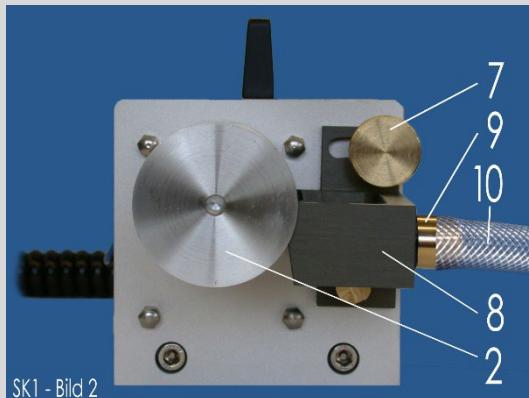
## 8. Faults and remedies

The skimmer belt is not moving	
Please check!	Remedy
fuse is defective	replace the fuse
gap width to collection tray is too small	readjust collection tray
drive drum is not centric to the collective tray	1. Remove skimmer belt 2. Release screw, that keeps the drive drum on the motor shaft 3. Move drive drum in axial direction
coarse contamination (chips)	Remove skimmer belt and clean or change it

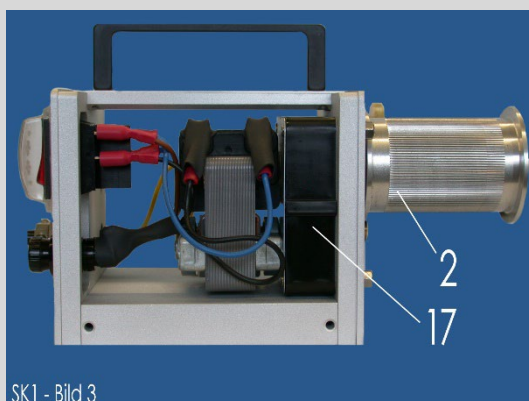




SK1 - Bild 1



SK1 - Bild 2



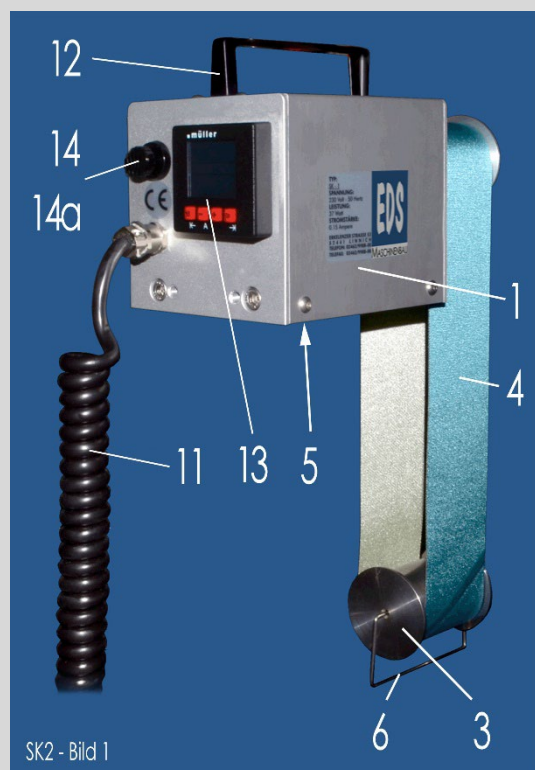
SK1 - Bild 3

## 9. Spare parts

### Oil skimmer type SK1 part no. 10090.2-00

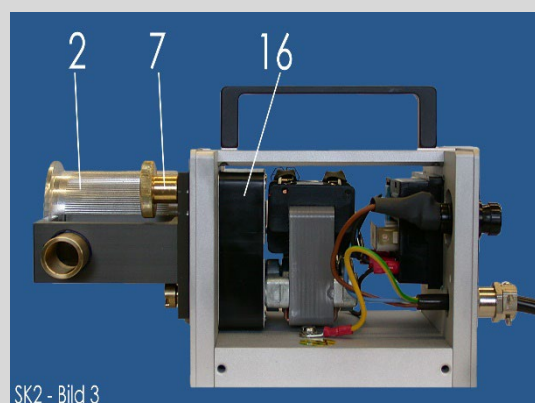
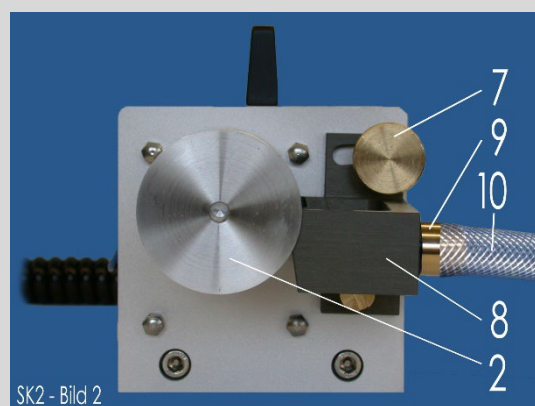
Pos.	name	Qty.	part no.
1	cover plate	2	10097.3-00
2	drive drum	1	10100.4-00
3	weight roller	1	10101.4-00
4	skimmer belt	1	see page 9
5	magnet	1	KT000031
6	locking bow for weight roller	1	10130.3-00
7	knurled screw	1	DIN464 M6x12 MS
8	collection tray	1	10096.3-00
9	pipe section	1	10099.4-00
10	tube	1	KT000213
11	spiral cable for plug in	1	KT000036
12	handle	1	KT000030
13	On/Off switch	1	KT0000321
14	protection cap	1	KT000342
15	fuse holder	1	KT000035
15a	fuse	1	KT005091
16	rotary shaft seal	1	KT000042
17	gear motor	1	KT000029





Oil skimmer type SK2  
part no. 10091.2-01

Pos.	name	Qty.	part no.
1	cover plate	2	10097.3-00
2	drive drum	1	10100.4-00
3	weight roller	1	10101.4-00
4	skimmer belt	1	see page 9
5	magnet	1	KT000031
6	locking bow for weight roller	1	10130.3-00
7	knurled screw	1	DIN464 M6x12 MS
8	collection tray	1	10096.3-00
9	pipe section	1	10099.4-00
10	tube	1	KT000213
11	spiral cable for plug in	1	KT000036
12	handle	1	KT000030
13	timer	1	KT003085
14	fuse holder	1	KT000035
14a	fuse	1	KT000034
15	rotary shaft seal	1	KT000042
16	gear motor	1	KT000029



## Skimmer belts

**Information:** The measure of length of the skimmer belts is the stretched length.  
**More belt length on request.**

name	dimensions (LxB)	immersion depth	part no.
Skimmer belt 600	600 x 58 mm	210 mm	KT002746
Skimmer belt 800	800 x 58 mm	310 mm	KT002747
Skimmer belt 1000	1000 x 58 mm	410 mm	KT002748
Skimmer belt 1200	1200 x 58 mm	510 mm	KT002891
Skimmer belt 1400	1400 x 58 mm	610 mm	KT002908
Skimmer belt 1600	1600 x 58 mm	710 mm	KT002909
Skimmer belt 1800	1800 x 58 mm	810 mm	KT002910
Skimmer belt 2000	2000 x 58 mm	910 mm	KT002911
Skimmer belt 2500	2500 x 58 mm	1160 mm	KT002912
Skimmer belt 3000	3000 x 58 mm	1410 mm	KT002913
Skimmer belt 3200	3200 x 58 mm	1510 mm	KT002914
Skimmer belt 3700	3700 x 58 mm	1760 mm	KT002915
Skimmer belt 4000	4000 x 58 mm	1910 mm	KT002916
Skimmer belt 4200	4200 x 58 mm	2010 mm	KT002917
Skimmer belt 4400	4400 x 58 mm	2310 mm	KT002918



### Definition immersion depth:

The immersion depth of the skimmer belt is measured from the contact surface of the skimmer to the lower edge of the locking bow of the weight roller.

# Instruction Manual

## Time switch

**Connection diagram**

**1. Safety instructions**

- The installation and assembly of electrical equipment must be only carried out only by a skilled Person! Otherwise fire danger or danger of an electric shock exists!
- Connect the supply voltage/frequency as stated on the product label!
- Warn anyone void if housing opened by unauthorised person!
- The electronic circuit is protected against a wide range of external influences. Incorred operating may occur if external influences exceed certain limits!

**2. Initial operation**

- The time switch is delivered in sleep-mode, the display is switched off.
- Press **[ON]** button for 1 second.
- The current date and time is already programmed and European daylight savings time is activated.
- Select the desired language by pressing **[F]** buttons and confirm it by pressing **[OK]**. (*Remark: By pressing **[F]** you move one step backwards from the current position*)
- If required, date, time and daylight savings time mode can be adjusted also by pressing **[F]**-buttons and a subsequent confirmation with **[OK]**.

**3. Menu overview**

**4. Symbol legend**

	Channel is switched ON
	Channel is switched OFF
	For the current date the "holiday program" / permanent by date" is activated
	Standard programming step
	Current state is based on a manual over-ride. The state will be cancelled with the next programming step.
	Current state is based on a manual over-ride. The state is permanent until terminated manually (7).
	Days of the week Monday, Tuesday, ... Sunday. The underscores indicate if the program is active for the days above.
	Current state is based on a switching time with pulse function
	Element within sub-menu "program delete"
	The time switch is locked; to unlock the device the PIN has to be entered (12).

**5. Key function**

Key	Function
<b>[M]</b>	To access the Enter-mode (program, adjustments, options) from the automatic-mode.
<b>[←]</b>	To revert to the beginning of the current (sub-) menu.
<b>[→]</b>	To scroll through a choice
<b>[AB]</b>	Automatic-mode: To switch the channel ON or OFF until the next programming step occurs. Automatic-mode: A push longer than 3 sec. = Permanent switching status (7).
<b>[OK]</b>	To activate the time switch when operated without power supply. To confirm the selection or the entered data.

**6. Handling advice**

- The time switch is programmable without external power supply after pressing the **[M]**-button.
- To revert one step or one level back while in the Enter-Mode press **[←]**-button.
- After completion of a (sub-) menu confirming end will return the device into the automatic-mode.
- With **[AB]** the choice changes from end to continue. By confirming continue the time switch returns to the beginning of the current (sub-) menu.
- When confirming end before completion, the time switch returns to the automatic-mode without saving the entered data.

**7. Channel ON / OFF / Permanent P**

**Channel ON / OFF:**

By pushing **[A]**/**[B]** buttons (**[AB]**-buttons) a manual switch of the channels take place. The resulting switching status is marked with the hand-symbol and remains until the next programming step occurs. (Temporary over-ride)

**Permanent switching status P:**

By pressing the corresponding channel button **[A]**/**[B]** for more than 3 sec. the channel is permanently switched ON or OFF. The status remains until the next manual switching occurs (> 3 sec.). (permanent over-ride)

**8. New Program (See also the example ③)**

Step A to C please refer to point 3. (Example "New Program")

**9. Example „New Program“ (For a regular switching time)**

- If power supply is disconnected press **[M]** for one second. The display appears in Automatic-Mode.
- Press **[M]**, the time switch is now in the Enter-Mode.
- Confirm Program with **[OK]**.
- Confirm new program with **[OK]**.
- Choose the desired channel with **[←]** and confirm with **[OK]**.
- For regular switching times choose on or off with **[AB]**-buttons and confirm with **[OK]**.
- Within this level you activate the days of the week (1...7) on which the switching time should happen. With **[AB]** you activate "yes" or deactivate "no" the corresponding date. Confirm each day with **[OK]**.
- Adjustment of the time: Hours **[H]** and Minutes **[M]** and **[OK]**.
- Verify the entered switching time. If the flashing summary of the programming step is correct, verify once off with **[OK]**. After verification you have the choice between edit/delete and end with **[AB]**.
- If you want to proceed with programming, confirm next switching with **[OK]**. To leave the programming menu confirm end.

**10. Pulse**

Program → New program → Channel A/B → I

The pulse function provides you the opportunity of programming a switching time with a defined duration. As soon as the pulse-duration has expired the time switch switches OFF automatically (the duration of the pulse is up to 59:59 mm:ss). The programming is carried out like a standard switching time (see point 3 / 9) with following differences:

- Choose Pulse-function (9F)
- Define the duration of the pulse (pulse/time minute/pulstime second).
- Program the days of the week
- Program the switching time (time hour/ time minute)

Additional: Confirm the blinking summary of the pulse program

**11. Program permanent**

Program → New program → Channel A/B → Permanent → ...

- One permanent by date programming step (holiday function) for each channel is possible. During the designated period (The function is valid for the whole days) the channel can be switched off (permanent off) or on (permanent on).
- The programming of this function is as described in (8 / 9).
- The choice permanent will not be offered anymore within the menu new program when already in use. The switching time can be modified and deleted within Program modify (13) and Program delete (12) respectively.

**12. Additional adjustments**

Menu	Main menu	Application
Program query	Program	To query the programming steps and remaining memory locations
Program copy	Program	Copy from one channel to another. Memory of the channel won't be overwritten, the copied switching steps appear additionally. <b>Δ</b> Permanent by date function is not copied!
Program delete	Program	Deletion of switching time(s). The program for all channels, single channels and single programming steps within on channel can be deleted.
Date-Time	Adjustment	Adjustment of date and time
Sunrise-time	Adjustment	Adjustment of the daylight saving time mode (ON/OFF)
Language	Adjustment	Choice of languages
Factory Defaults*	Adjustment	Reset to the state of delivery. <b>Δ</b> Date, time and switching program will be lost!
Counter	Options	Displays the hour counter and pulse counter for each channel and the time switch itself.
PIN-Code	Options	The time switch can be locked with a 4-digit PIN-Code. The code can be adjusted, activated and deactivated. If you have forgotten the Code please call customer service.
Reset-Function		Press all front keys for 2 seconds. The time switch is reset. The values for date and time will be deleted and have to be re-entered. The switching program has not been deleted!

**13. Program modify**

Program → Program modify → I

Within Program modify each single switching time can be modified.

**14. Data-Key\***

With a Data-key following activities are possible:

- Save data: Writes the data from the time switch into the memory of the Data-key.
- Program TimeSwitch: Writes the data located inside the key into the memory.
- Key Function: The time switch will solely apply programming steps of the Data-key. The switching program of the time switch is suppressed.
- Key readout: To query the switching program of the Data-Key.