

Shockfiller 4S4L

User manual V1.2



© All rights reserved

The information provided herein may not be reproduced and/or published in any form, by print, photo print, microfilm or any other means whatsoever (electronically or mechanically) without the prior written authorization of Revival Engineering B.V.

User manual



Product: Shockfiller 4S4L

Version: 1.2

Date: 13-08-2025

Title: User manual

Foreword

This user manual has been compiled for anyone who works with this machine. Before working with or on the machine, this manual should be read.

The user manual contains important instructions / information on how to use the machine in a safe, professional and economical manner and must always be available at the place where the machine is used.

The user manual should be supplemented with information based on existing national regulations on accident prevention and environmental protection.

Revival Engineering B.V. is not responsible for errors in this manual, or for the consequences thereof.

Revival Engineering B.V. is not liable for damage and indirect damage as a result of operating errors, lack of expert maintenance and any other use than described in this manual.

The liability of Revival Engineering B.V. also lapses as soon as adjustments or extensions to the machine are made by you or by third parties without prior written permission.

This machine is only suitable for process and environmental conditions as listed in section "Technical Specifications" of this manual. Any other use is not permitted by Revival Engineering B.V. and may endanger the operator and/or his environment

User manual



Version: 1.2
Date: 13-08-2025

Product: Shockfiller 4S4L

Title: User manual

Table of contents

Foreword..... 1

Technical specifications..... 3

Safety..... 4

Description of the machine 5

Installation..... 6

Risks 6

Personal protective equipment..... 6

Legend of the icons 6

Using the machine 7

Maintenance and malfunctions..... 15

Document history..... 15

Address..... 15

EC Declaration of Conformity 16

Product: Shockfiller 4S4L

Version: 1.2

Date: 13-08-2025

Title: User manual

Technical specifications

This machine is only intended to fill shock absorbers with shock absorber oil by vacuum filling process. This process consists of evacuating the air from the shock absorber. This is then filled with oil and pressed. The detailed operation of the machine is described in section "Description of the machine".



Do not use this machine for purposes other than those for which Revival Engineering B.V. has made it. This can lead to damage and danger to the operator and his environment.



This machine may only be used within the specifications specified in this manual. If the machine is used outside of these specifications, Revival Engineering B.V. can no longer take responsibility for this machine.



This machine cannot be used in combination with magnetorheological, abrasive and aggressive oils.



Only use oils intended exclusively for shock absorbers.



This machine must be used level on a solid surface so that the internal sensors work properly.

Specifications	230V variant	115V variant
Input voltage and frequency	230Volt 50-60Hz L+N+PE	115V 50-60Hz L+N+PE
Machine connection	230V 5A 3Pin C13	115V 10A 3Pin C13
Rated power	800W	800W
Fuse	2x 5A Slow Blow L+N	2x 10A Slow Blow L+N
Weight	±55kg	±55kg
Width x height x depth	500 x 770 x 430mm	500 x 770 x 430mm
Number of shock absorbers	1 – 4	1 – 4
Max. capacity per shock absorber	2000cc	2000cc
Max. total capacity of shock absorbers	4000cc	4000cc
Noise emission	75dB	75dB
Temperature range	0 to +40C	0 to +40C
Pressure range	-1 to 5 bar relative	-1 to 5 bar relative

User manual



Product: Shockfiller 4S4L

Version: 1.2

Date: 13-08-2025

Title: User manual

Safety



The machine is built according to the latest state of the art and the recognized safety technical rules. Nevertheless, its use may endanger the life and limb of the user or third parties. Damage to the machine or other goods may also occur when it is used.

1. Operation and maintenance of this machine must be carried out by qualified personnel in accordance with warnings on the machine and in accordance with the operator's manual. Keep children and other (unauthorized) persons away while using the machine.
2. This machine is only suitable for process and environmental conditions as stated in section "Specifications and Tolerances" of this manual. Any other use is not permitted by Revival Engineering B.V. and may endanger the operator and/or his environment.
3. It is forbidden to modify this machine without the prior written approval of Revival Engineering B.V.
4. This machine must be installed in such a way as to leave sufficient service space for the safe provision of instructions and/or the performance of maintenance and/or inspections.
5. Keep the work environment clean and well-lit. A cluttered or unlit work environment can lead to accidents.
6. This machine is not suitable for outdoor use. Keep this machine away from rain and moisture.
7. Wear suitable clothing without loose parts. Wear non-slip work shoes.
8. Never move the machine while the power cable is still connected.
9. Move the machine without vibration only in an upright position.
10. Prescribed or specified in the user manual for periodic checks and maintenance must be observed.
11. Have the machine serviced and repaired only by qualified and skilled personnel and only with original replacement parts.
12. In addition to the user manual, generally applicable legal and other binding regulations with regard to accident prevention and environmental protection must be observed. This also includes, for example, the regulations for the handling of personal protective equipment.
13. Inform operating personnel before starting maintenance work. If possible, disconnect the power supply (mains) voltage before examining or servicing the machine by switching off the main switch and removing the mains plug from the wall socket. If work is to be done with power supply (mains) voltage on the machine, call in an extra person who can operate the emergency stop.
14. If a machine part is damaged or no longer works as intended, work must be interrupted immediately. Resumption is only allowed when the machine part has been repaired or replaced and checked. Consult your dealer if the machine is not functioning properly.
15. Machine and/or parts must be disposed of in accordance with local laws and regulations.
16. Always check and use the information stated on the SDS/MSDS of the shock absorber oil used to fill the shock absorbers with this machine.

Product: Shockfiller 4S4L

Version: 1.2

Date: 13-08-2025

Title: User manual

Description of the machine

This machine is only intended to fill shock absorbers with shock absorber oil by vacuum filling process. This process consists of evacuating the air from the shock absorber. This is then filled with oil and pressed with an oil pump.

Functional:

- The machine can fill 4 shock absorbers at once with shock absorber oil.
- The total maximum volume per cycle is 4 liters of shock absorber oil
- The system automatically refills itself with shock absorber oil from an external drum after each cycle
- The nominal time per filling cycle is about 3-5 minutes (4 pieces of shock absorbers at a time).
 - Based on two air evacuations and two after-pressure operations with a maximum of ± 5 bar oil pressure and standard settings (5 seconds of delay time and 2 cycles). The time also depends on the total damper volume.
- When evacuating air, the negative pressure is measured and negative pressure is switched
- When filling and pressing the oil, a delay time starts when a pressure of ± 3 bar has been achieved
- The duration of the oil compression is adjustable from 5 to 80 seconds and is a maximum of ± 5 bar.
- The number of repetitions of evacuating the air and filling with oil is adjustable from 2 to 4 times.

Process:

The goal is to fill the shock absorber with shock absorber oil by evacuating the air from the damper, filling with oil and post-pressing with about 3-5 bar:

- Connecting shock absorbers (1 to 4 pieces)
- Process start button press
 - Evacuating air from oil and shock absorbers
 - Aerate system to atmospheric pressure
 - Oil pressing with 3-5 bar in shock absorbers

Repeat the above cycle automatically 2 to 4 times, depending on setting.

Control buttons on cabinet:

- Main switch.
- Emergency stop
- Touchscreen
- Starter

The signaling:

- Acoustic signal to indicate the end of a cycle or a malfunction'
- Indicated on display

Recommended hoses and quick couplings:

See bill of materials in the maintenance manual

Product: Shockfiller 4S4L

Version: 1.2

Date: 13-08-2025

Title: User manual

Installation

To prepare the machine for use, please refer to the document "Installation Instruction".

Risks



The machine must be properly positioned so that it cannot fall. If the machine is installed improperly, there may be a danger to the user or third parties when using the machine. Damage to the machine or other goods may also occur.



If the hoses, quick couplings and/or shock absorbers are improperly attached, these parts can leak, crack or come loose under pressure when the shock absorbers are pressed with oil. If the machine is not properly fastened, there may be a danger to the user or third parties when using the machine. Damage to the machine or other goods may also arise



If the shock absorbers have manufacturing/assembly defects, they can leak, burst or come loose under pressure. This may result in danger to the user or third parties. Damage to the machine or other goods may also occur

Personal protective equipment

When operating the machine, wear at least safety goggles and non-slip work shoes. Refer to the SDS/MSDS of the shock absorber oil used for additional safety requirements and personal protective equipment.

Legend of the icons

In this manual, on the display and on the machine, various icons are used to clearly indicate functions, warnings and settings. Below is an overview of all the symbols used and their meanings.

115 ~	115 volts		Serial number
230 ~	230 volts		Shock absorber running time
	Shock absorber connection		Vacuum pump running time
	Oil supply		Start process
	Oil drain		Standby
	Machine running time		Refilling
	Oilpump running time		Warming up
	Number of cycles		Error

User manual

Product: Shockfiller 4S4L



Version: 1.2

Date: 13-08-2025

Title: User manual

Using the machine



Connect the machine with a 230 Volt AC 16A C13 plug.



Make sure that the emergency stop is in its neutral position with a green border visible.



Set the main switch to I

User manual

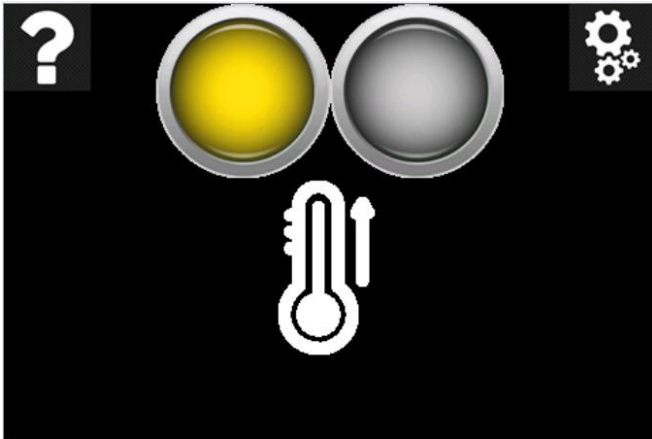
Product: Shockfiller 4S4L



Version: 1.2

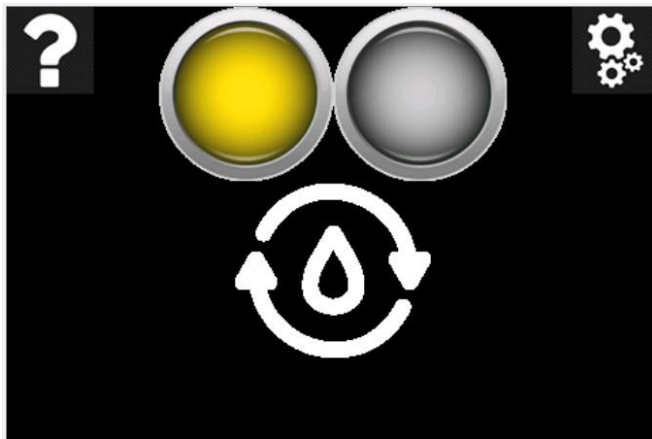
Date: 13-08-2025

Title: User manual



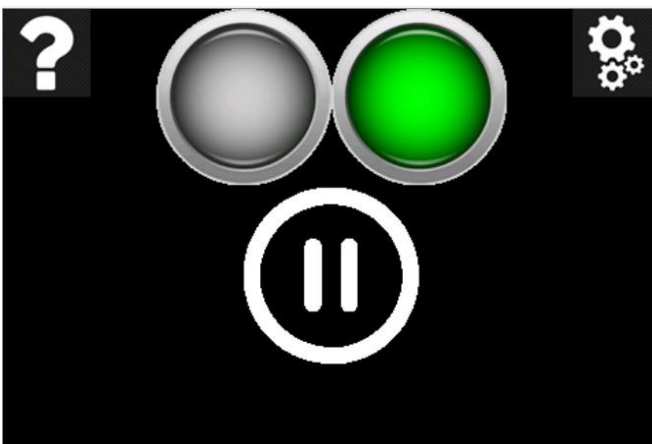
The machine turns on, shows a logo and then heats up for 10 seconds.

During heating, the yellow lamp is continuously on.



The machine will then fill its internal tank. This can take up to 3 minutes the first time, depending on the supply used.

During the filling of the tank at start-up, the yellow lamp flashes.



The machine is now ready for use. The green light is continuously on.

User manual

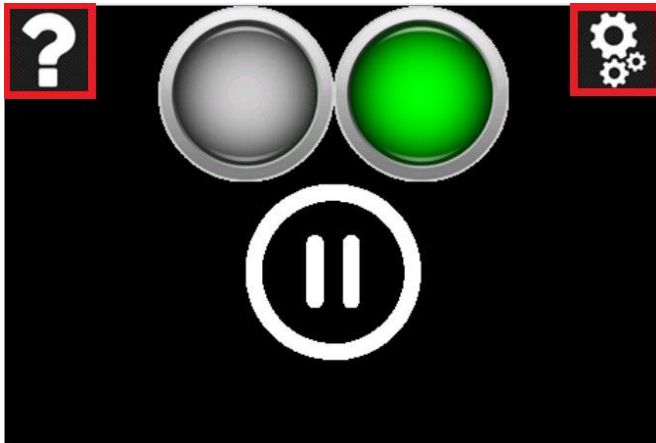
Product: Shockfiller 4S4L



Version: 1.2

Date: 13-08-2025

Title: User manual

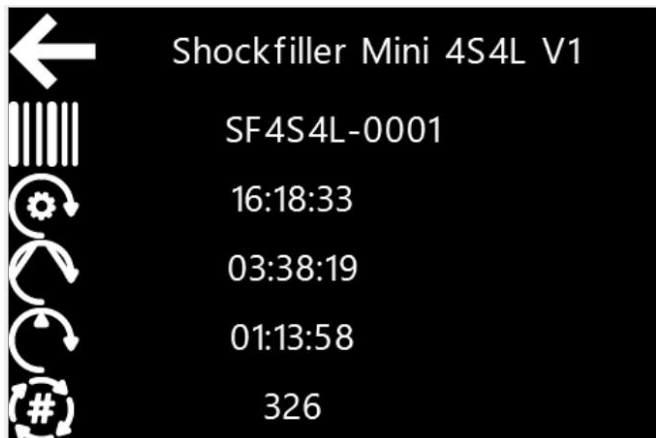


When the machine is on standby, there are 3 different options.

Option 1 (Question mark) : Show version number, serial number, run times and number of cycles

Option 2 (Gears) : Show the machine settings

Option 3 (Green start button) : Start damper filling process



Option 1 (Question Mark): When the question mark is clicked on the touchscreen, the system information is displayed such as serial number, total running times of the machine and the total number of cycles of the machine.

If the left arrow is pressed, the standby screen will be shown again.

User manual

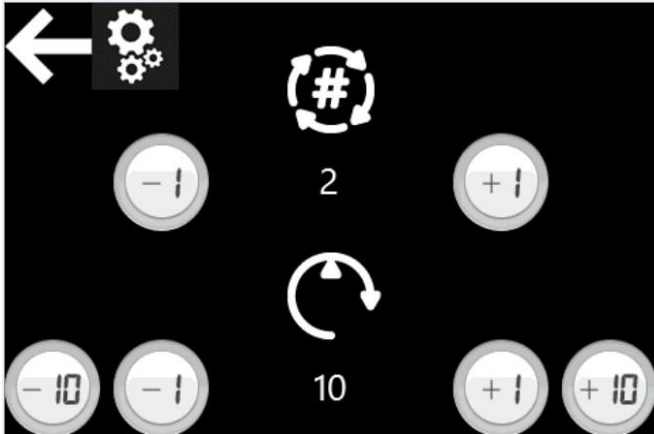
Product: Shockfiller 4S4L



Version: 1.2

Date: 13-08-2025

Title: User manual



Option 2 (gears) : When the gears are clicked on the touchscreen, the available settings are displayed.

Setting 1 (number of cycles): How often the vacuuming and oil filling are repeated. This setting is set to 2 by default and is adjustable between 2 and 4 cycles.

Setting 2 (Oil pump running time) : The delay time of the oil pump after 3 bar pressure has been achieved. This setting is set to 5 by default and is adjustable between 5 and 80 seconds.

If the left arrow is pressed, the standby screen will be shown again.



Option 3 : Filling dampers.

Take the shock absorber specific adapters* and connect it to the included 8x6 hose with quick coupling.

*Manufacturer specific, not included

User manual

Product: Shockfiller 4S4L



Version: 1.2

Date: 13-08-2025

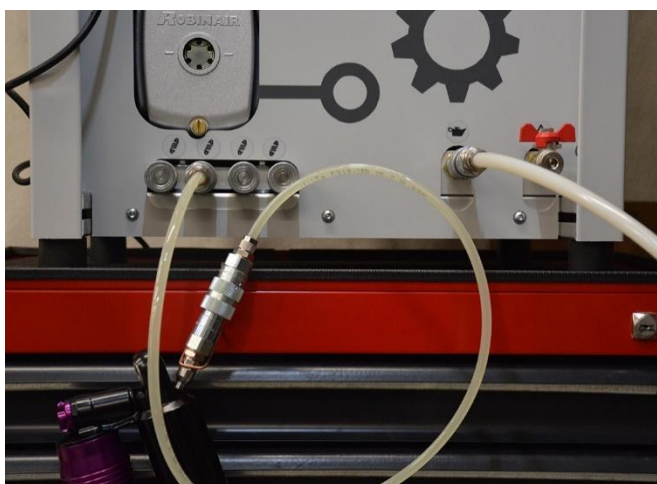
Title: User manual



Attach the quick coupling to the machine. It doesn't matter which connection is used.



Make sure that the filler connection is at the highest point of the damper so that no air pocket can remain in the damper.



1 to 4 dampers can be connected at the same time. If less than 4 dampers are connected, the other quick couplings must be disconnected.



Do not connect open hoses or other quick couplings if no damper is connected.



The combined oil volume of dampers should not exceed 4 liters



Press the start button for approx. 2 seconds to start the process. When the machine is started, it is checked whether the internal tank is up to standard and replenished if necessary.

When the internal tank is at the right level, the damper filling process is started automatically.

At the default settings, the process is done in about 3-4 minutes.

User manual

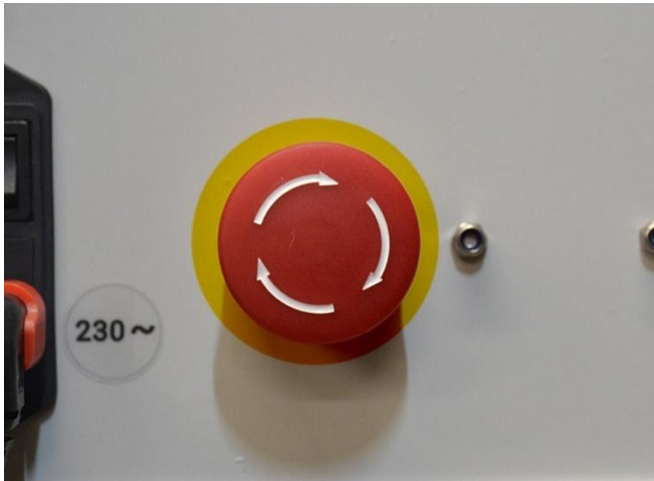
Product: Shockfiller 4S4L



Version: 1.2

Date: 13-08-2025

Title: User manual



In the event of an emergency, press the emergency stop and call in a competent person to restart the machine safely.



When the machine is busy with the damper filling process, the screen shows that the machine is busy, the running time and the current cycle are also shown.

When the machine is busy with the damper filling process, the green light will flash.



During vacuuming, the pressure gauge will slowly point towards -1 bar

User manual



Product: Shockfiller 4S4L

Version: 1.2

Date: 13-08-2025

Title: User manual



During oil filling, the pressure gauge will point towards +4 bar



When the oil pump has finished running after the last cycle, there is still a waiting time in the machine to level the dampers again so that the dampers are not under pressure after disconnection.

When the damper filling process is finished, a beep will be sounded.

The dampers can be disconnected after the beep.

User manual

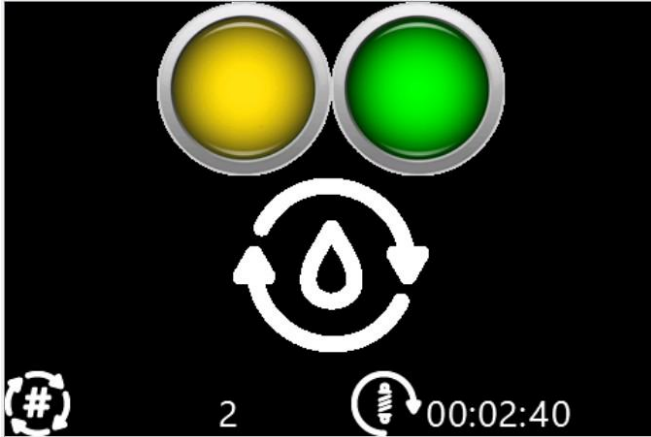
Product: Shockfiller 4S4L



Version: 1.2

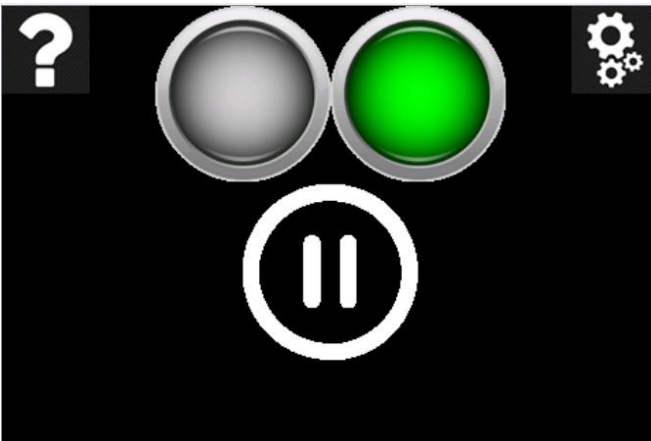
Date: 13-08-2025

Title: User manual



After each damper filling process, the machine will immediately refill its internal tank with oil.

During the refilling of the tank, the green light illuminates to indicate that the damper filling process is complete and the yellow light flashes to indicate that the internal tank is being refilled.



When the machine is back on standby, it is ready for the next damper filling process. The green light is continuously on.



At the end of the working day or when the work is finished, the machine can be switched off by setting the main switch to position 0.

User manual



Product: Shockfiller 4S4L

Version: 1.2

Date: 13-08-2025

Title: User manual

Maintenance and malfunctions

For maintenance and malfunctions, please refer to the document "Maintenance Instruction".

Document history

Version	Date	Author	Comments
1.0	12-Jan-2025	M/P	First version
1.1	23-Jan-2025	M/P	115V variant added Added warning that machine should be used level Added pressure range
1.2	13-July-2025	M/P	Legend added EC statement added End-of-cycle steps adjusted

Address

Revival Engineering B.V.

Hooihaarsweg 5, 7156 SE Beltrum

The Netherlands

User manual

Product: Shockfiller 4S4L



Version: 1.2

Date: 13-08-2025

Title: User manual

EC Declaration of Conformity

The form is titled "EC DECLARATION OF CONFORMITY" and is enclosed in a decorative green border. It contains several sections: "Manufacturer" with details for Revival Engineering B.V., "Description and Identification of the machinery" for the Shockfiller 4S4L, and "Compliance" with various EU directives and standards. It also includes a signature line for Mr. M. Meijer, Director, dated February 14, 2025.

EC DECLARATION OF CONFORMITY

This Declaration of Conformity is issued under the sole responsibility of the manufacturer

Manufacturer

Company name: Revival Engineering B.V.
Full address: Euroweg 27 Hal C
Postal code: 7051 EB
Place: Varsseveld
Country: The Netherlands
Person authorized to compile the Technical File: Mr. M. Meijer

Description and Identification of the machinery

Generic name: Shockfiller
Function: This machine is intended to fill shock absorbers with shock absorber oil by means of a vacuum filling process.
Model: 4S4L
Serial number: SF4S4L-xxxx

Compliance

The manufacturer declares that the above mentioned machinery fulfils all relevant provisions of

Machinery Directive 2006/42/EG
EMC Directive 2014/30/EU

In conjunction with the following harmonised standards and where appropriate other technical standards and specifications

EN ISO 12100:2010; EN 55011:2016/A1:2017; EN 61000-3-2:2019
EN 61000-4-2:2009; EN 61000-4-4:2012; EN 61000-4-5:2014
EN 61000-4-11:2020; EN 62368-1:2023

Place: Varsseveld Name: Mr. M. Meijer
The Netherlands Function: Director

Date: February 14, 2025 Signature: