



Retrofit option

**ON SAFEGUARD S**  
**ON SAFEGUARD M**

Insulating protective cover

# General instructions

## CAUTION



### **Read the operating instructions!**

**The operating instructions provide an introduction to the safe use of the products.**

- Read the operating instructions for all system components!
- Observe accident prevention regulations!
- Observe all local regulations!
- Confirm with a signature where appropriate.

## NOTE



**In the event of queries on installation, commissioning, operation or special conditions at the installation site, or on usage, please contact your sales partner or our customer service department on +49 2680 181-0.**

**A list of authorised sales partners can be found at [www.ewm-group.com](http://www.ewm-group.com).**

Liability relating to the operation of this equipment is restricted solely to the function of the equipment. No other form of liability, regardless of type, shall be accepted. This exclusion of liability shall be deemed accepted by the user on commissioning the equipment.

The manufacturer is unable to monitor whether or not these instructions or the conditions and methods are observed during installation, operation, usage and maintenance of the equipment.

An incorrectly performed installation can result in material damage and injure persons as a result. For this reason, we do not accept any responsibility or liability for losses, damages or costs arising from incorrect installation, improper operation or incorrect usage and maintenance or any actions connected to this in any way.

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## 2 Safety instructions



### DANGER



**Do not carry out any unauthorised repairs or modifications!**

**To avoid injury and equipment damage, the unit must only be repaired or modified by specialist, skilled persons!**

**The warranty becomes null and void in the event of unauthorised interference.**

- Appoint only skilled persons for repair work (trained service personnel)!



### WARNING



**Validity of this document!**

**This document is only valid in combination with the operating instructions for the power source being used (welding machine)!**

- Read the operating instructions, in particular the safety instructions for the power source (welding machine)!



**Risk of accidents if these safety instructions are not observed!**

**Non-observance of these safety instructions is potentially fatal!**

- Carefully read the safety information in this manual!
- Observe the accident prevention regulations in your country.
- Inform persons in the working area that they must observe the regulations!

### CAUTION



**Obligations of the operator!**

**The respective national directives and laws must be observed for operation of the machine!**

- National implementation of the framework directive (89/391/EEG), as well as the associated individual directives.
- In particular, directive (89/655/EEG), on the minimum regulations for safety and health protection when staff members use equipment during work.
- The regulations regarding work safety and accident prevention for the respective country.
- Setting up and operating the machine according to IEC 60974-9.
- Check at regular intervals that users are working in a safety-conscious way.
- Regular checks of the machine according to IEC 60974-4.

## 2.1 Overview

## 2.2 Proper usage

### WARNING



#### **Hazards due to improper usage!**

**Hazards may arise for persons, animals and material objects if the equipment is not used correctly. No liability is accepted for any damages arising from improper usage!**

- The equipment must only be used in line with proper usage and by trained or expert staff!
- Do not modify or convert the equipment improperly!

### 2.2.1 SAFEGUARD S

These instructions apply only for the conversion of the following machines:

- Pico 162 (090-002040-00502)
- Pico 162 VRD (090-002050-00502)
- Pico 162 MV (090-002042-00502)

### 2.2.2 SAFEGUARD M

These instructions apply only for the conversion of the following machines:

- Pico 180 (090-002003-00502)
- Pico 180 VRD (090-002051-00502)
- Pico 180 VRD 12V (090-002051-00503)
- Pico 220 cel puls (090-002057-00502)
- Picotig 180 TGD (090-002046-00502)
- Picotig 200 5P TG (090-002058-00502)

## 3 Conversion

### 3.1 Parts list

#### 3.1.1 SAFEGUARD S

#### NOTE



Before conversion, check that the retrofit kit is complete (see parts list).

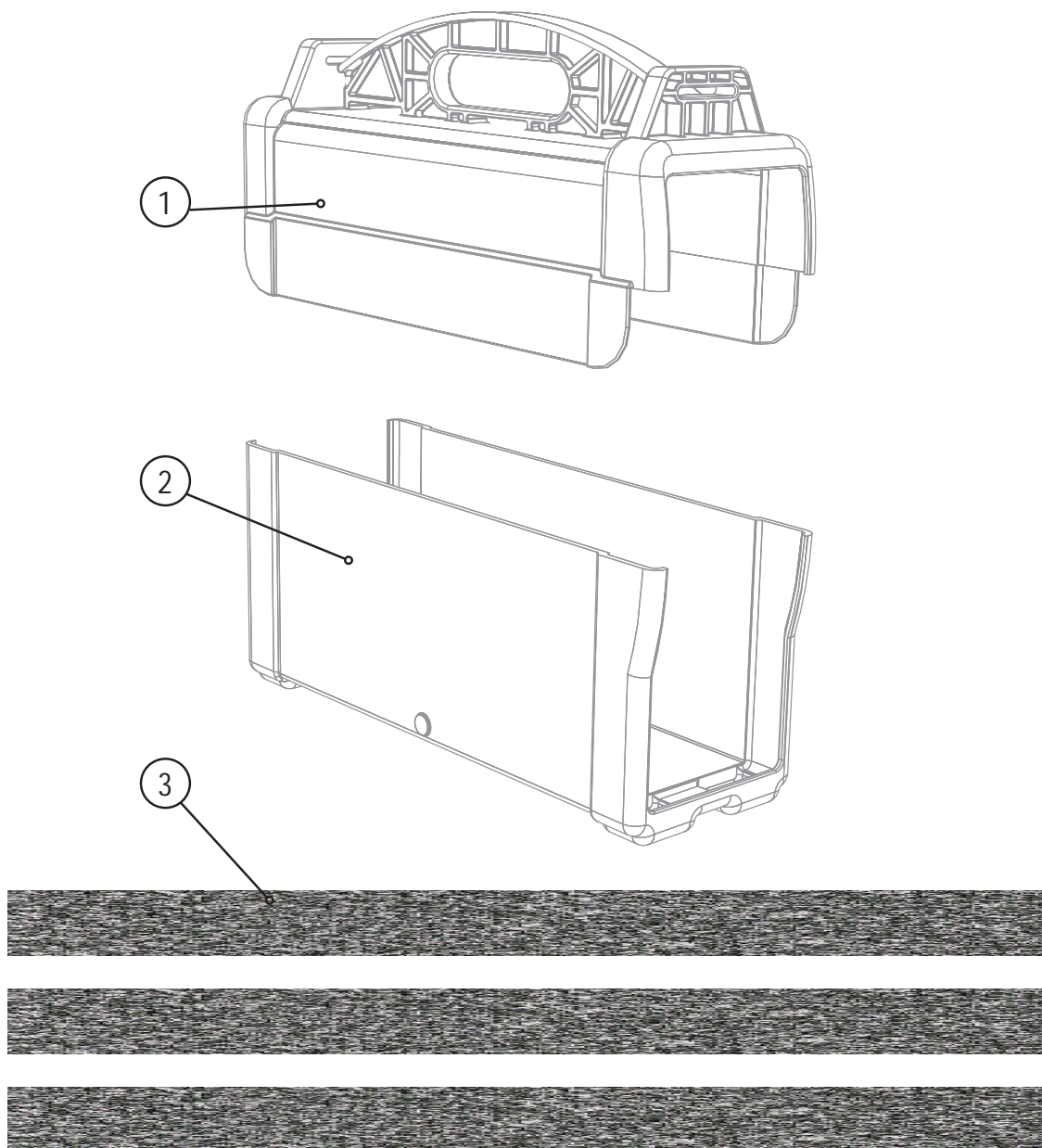


Figure 3-1

Item 0	Quantity	Description	Item number
1	1	Upper shell	094-017025-00003
2	1	Lower Shell	094-017026-00003
3	3	Hook-and-loop fastener	094-017257-00001

**3.1.2 SAFEGUARD M**
**NOTE**

Before conversion, check that the retrofit kit is complete (see parts list).

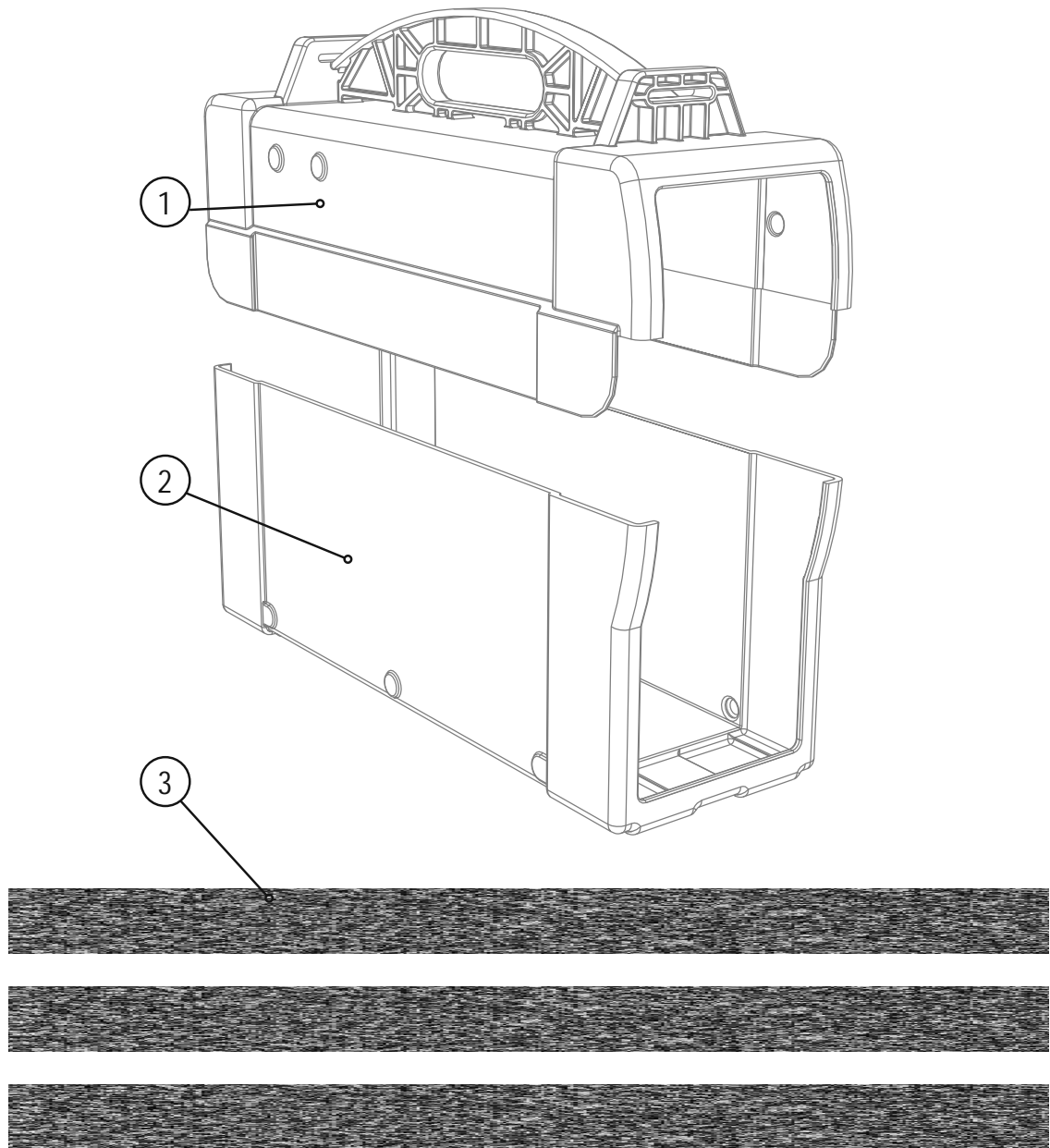


Figure 3-2

Item 0	Quan- tity	Description	Item number
1	1	Upper shell	094-018095-00001
2	1	Lower Shell	094-018096-00001
3	3	Hook-and-loop fastener	094-017257-00002

## 3.1.3 Preparations

- Dismantle the transportation strap (if existing) from the machine.
- Dismantle dirt filter (if existing) at the back side of the machine

## 3.2 Assembly

### NOTE

 The illustration serves as an example only.

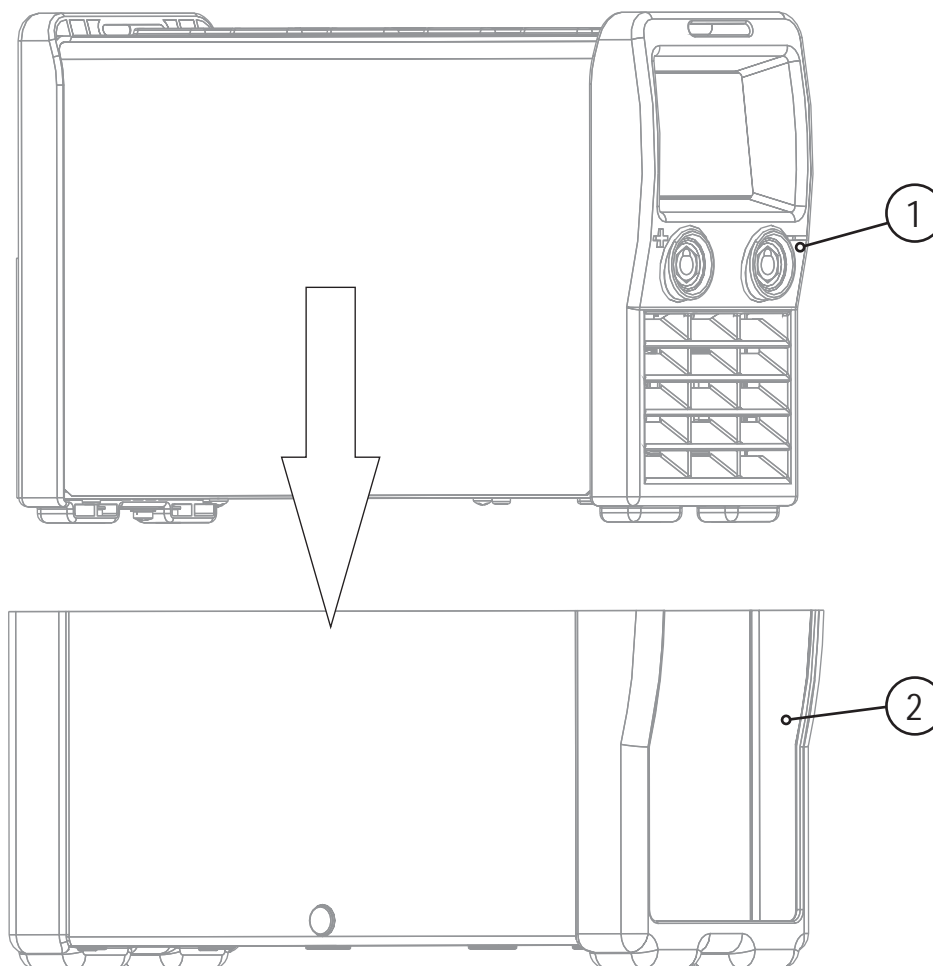


Figure 3-3

Item	Symbol	Description
1		Welding machine
2		Lower Shell

- Position welding machine in the lower shell



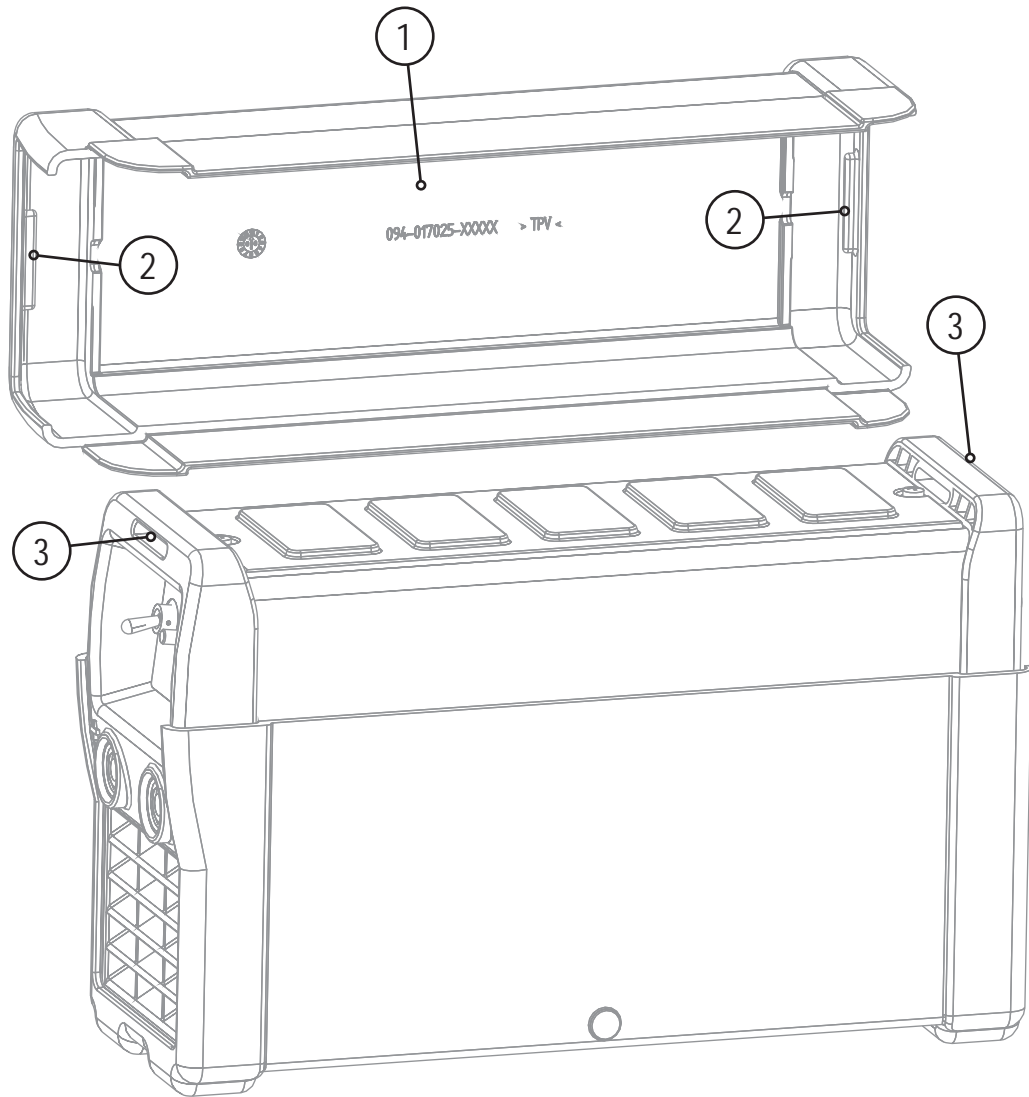
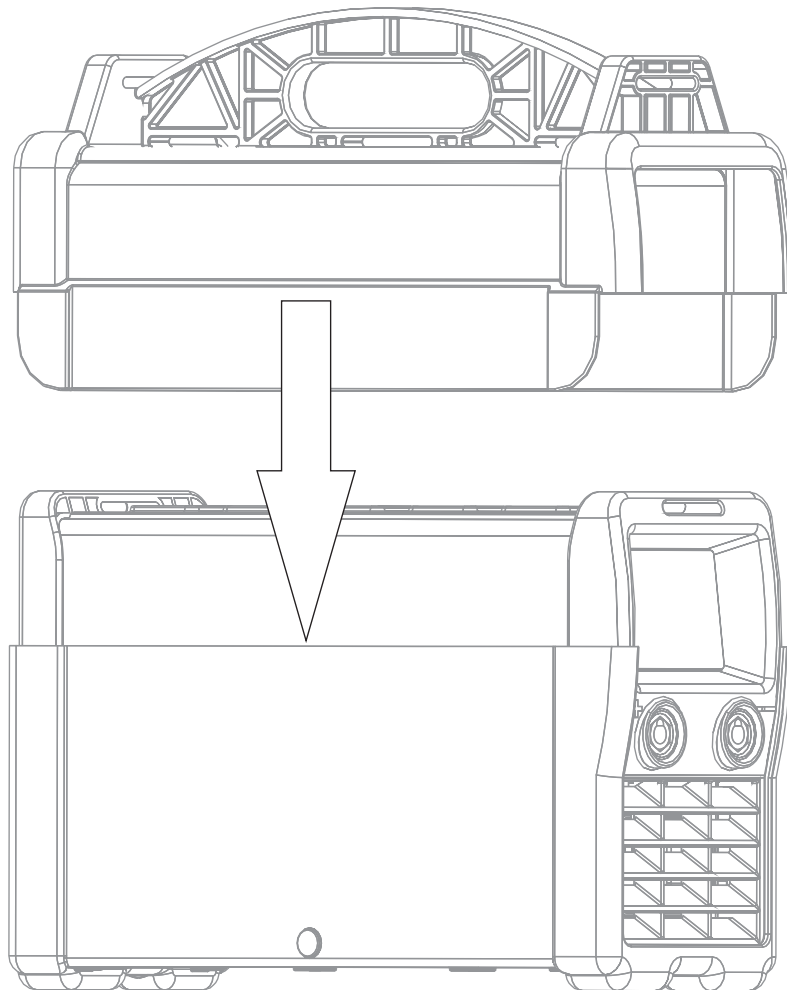


Figure 3-4

Item	Symbol	Description
1		Upper shell
2		Spring
3		Slot

**NOTE**

-  **Make sure that the springs of the upper shell engage with the slot of the power source during assembly of the upper shell.**



*Figure 3-5*

- Assemble the upper shell on the power source.

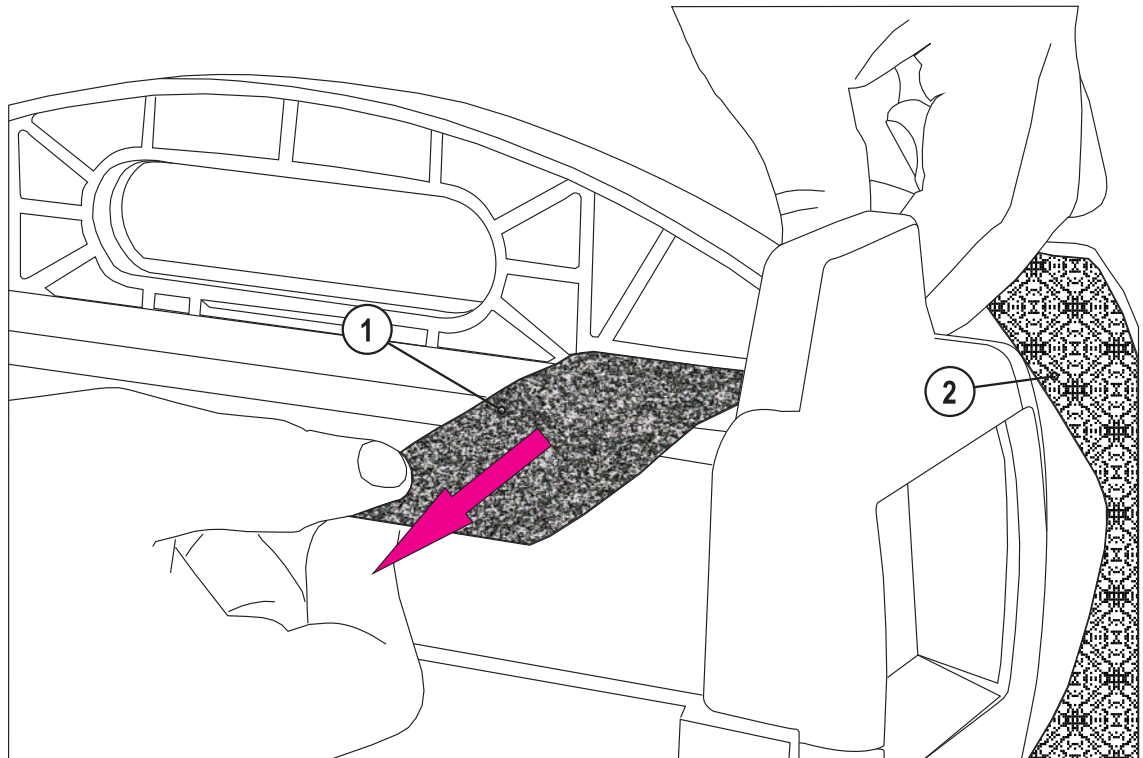


Figure 3-6

Item	Symbol	Description
1		Strap side of the hook-and-loop fastener
2		Barbed hook side of the hook-and-loop fastener

#### SAFEGUARD S

- Thread the hook-and-loop fastener and pull it out to 260mm from the handle of the upper shell

#### SAFEGUARD M

- Thread the hook-and-loop fastener and pull it out to 300mm from the handle of the upper shell

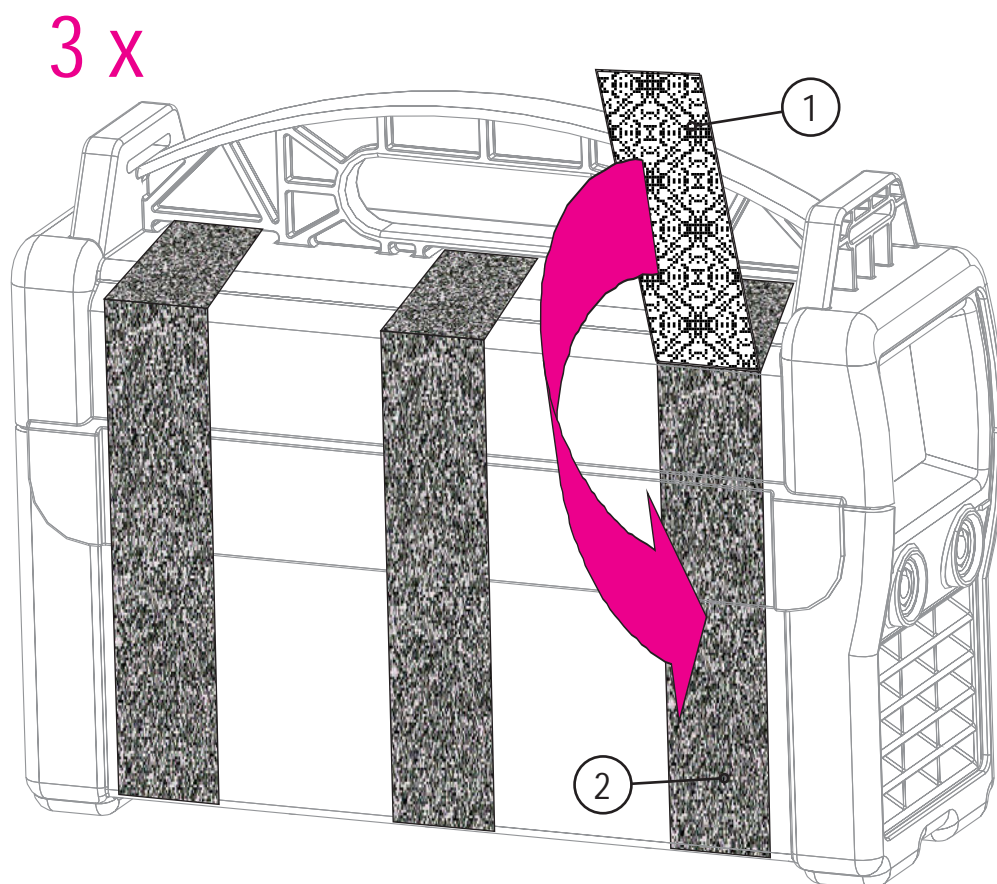



Figure 3-7

Item	Symbol	Description
1		Barbed hook side of the hook-and-loop fastener
2		Strap side of the hook-and-loop fastener

- Close the hook-and-loop fastener.

### 3.2.1 Adjusting the length of the carrying strap

**NOTE**

 To demonstrate adjustment, lengthening the strap is shown in the figure. To shorten, the strap's loops must be inched in the opposite direction.

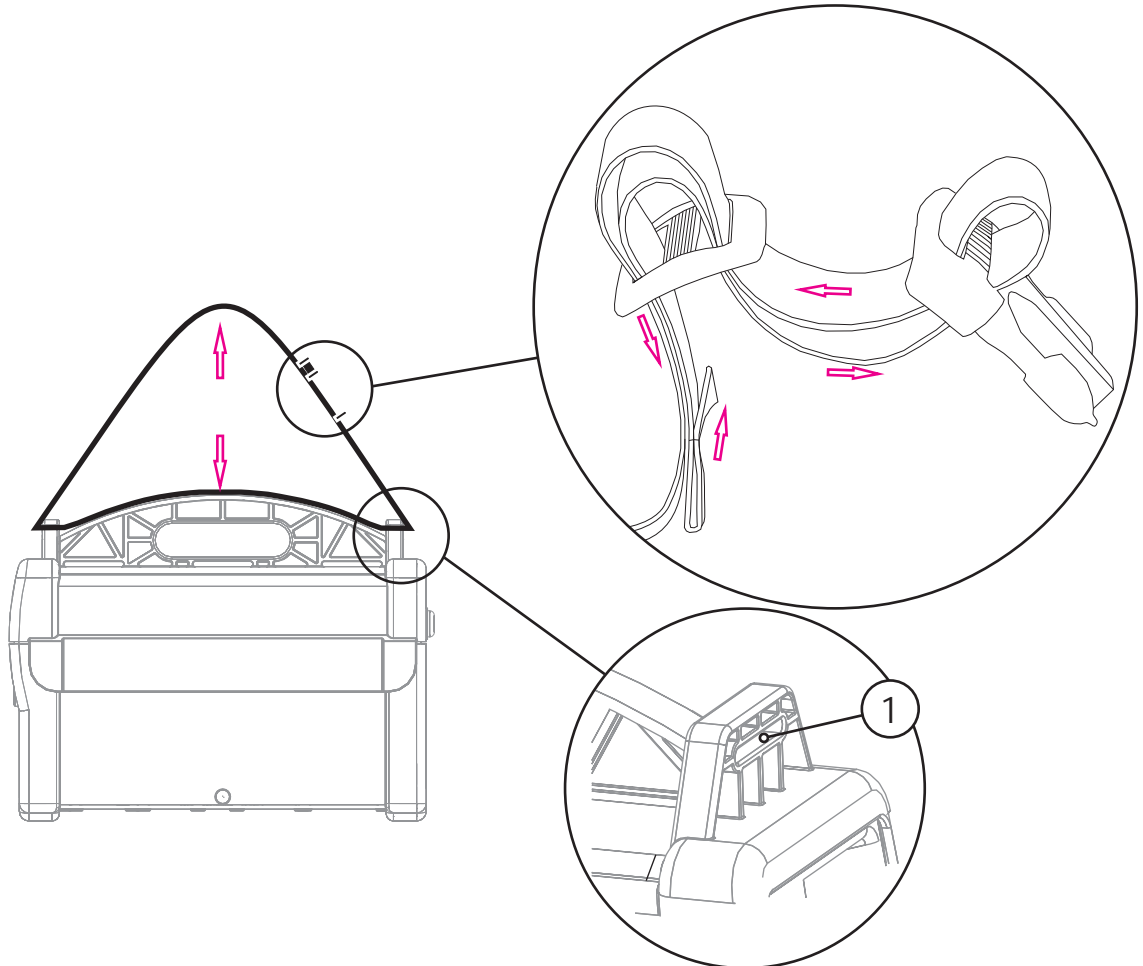




Figure 3-8

Item	Symbol	Description
1		Pass-through opening for carrying strap

- Insert carrying strap as shown.

## 3.3 Accessories

### NOTE

-  The illustration serves as an example only.
-  These accessory components can be retrofitted as an option, see Accessories chapter.

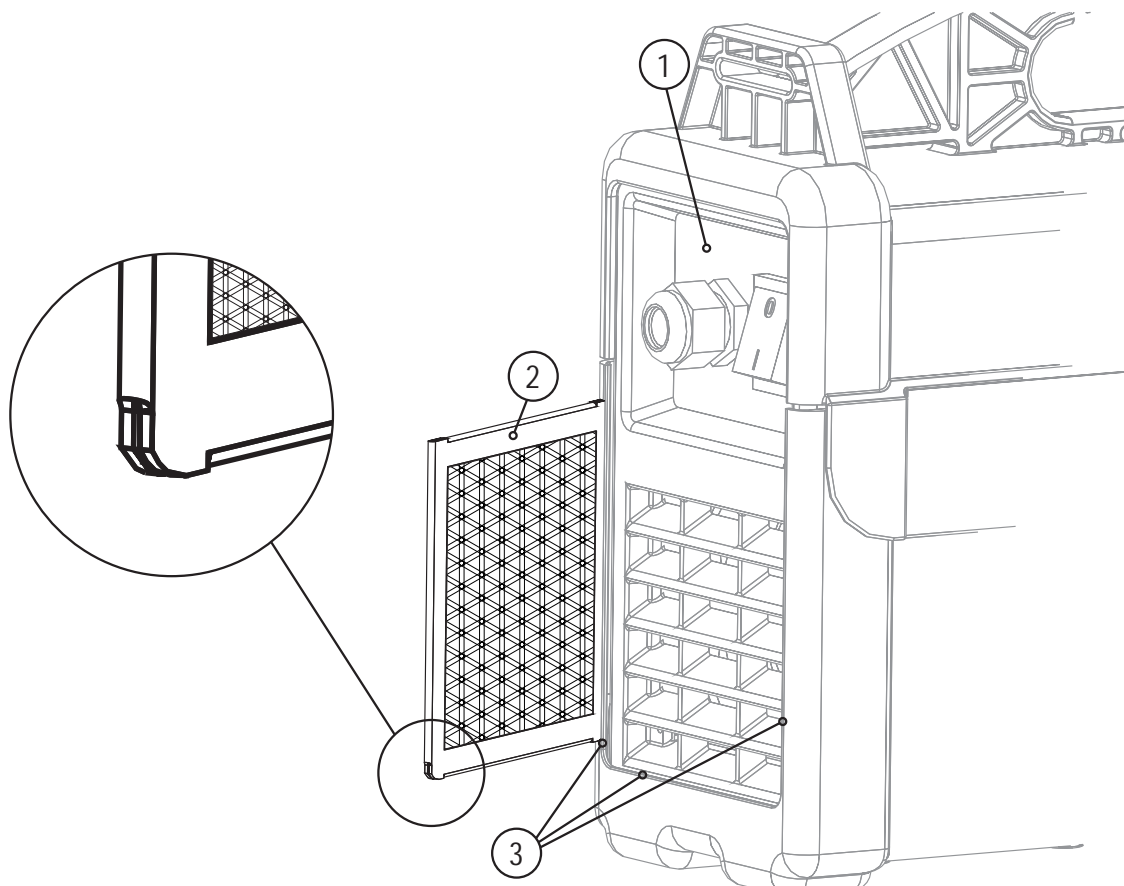


Figure 3-9

Item	Symbol	Description
1		Rear view, Welding machine
2		Filter cartridge
3		Rubber sealing, Safeguard

- Insert filter cartridge into machine as shown

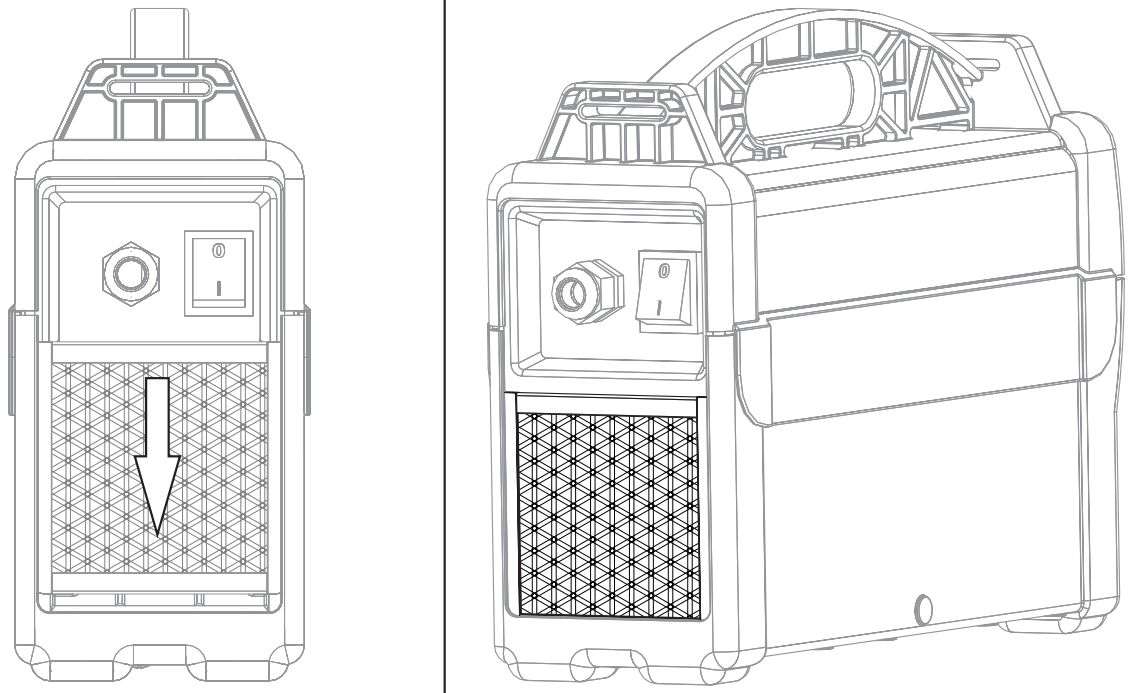


Figure 3-10

- Close the filter and push it behind the rubber sealing of the Safeguard.
- Push down the filter in direction of arrow

### 3.3.1 SAFEGUARD S

Type	Designation	Item no.
ON Filter SG S	Dirt filter for air inlet	092-007878-00000

### 3.3.2 SAFEGUARD M

Type	Designation	Item no.
ON Filter SG M	Dirt filter for air inlet	092-008768-00000

## 4 Final assembly

### WARNING



**Danger due to failure to carry out the final inspection!**

**Parts that are incorrectly fitted or that become loose are a source of danger.**

- Check all mechanical connections to ensure that they are fitted correctly!
- Carry out the final inspection!
- Carry out the functional test!

### NOTE



- Keep the conversion instructions with the machine documentation!
- When ordering spare parts, ensure that the item number and serial number of the machine are quoted!

## 5 Technical data

### NOTE



The technical data given here completes or replaces the respective values in the standard operating instructions.

### 5.1 SAFEGUARD S

Dimensions L x W x H in mm	370 x130 x 290
Weight in kg	+1,6 kg

### 5.2 SAFEGUARD M

Dimensions L x W x H in mm	437 x 152 x 320
Weight in kg	+1,9 kg