Operating Instruction SR 590 Welding shield

General information

The Sundström SR 590 welding shield is used together with the Sundström SR 500 battery-powered fan unit and is designed for protecting the user against inhaling harmful and irritating air pollutants and against radiation and weld spatter during arc welding, MAG welding and TIG welding.

SR 590 is in one size.

The SR 590 welding shield together with fan SR 500 is approved in accordance with EN 12941:1998, TH3.

When selecting equipment for SR 590 some of the factors that should be taken into account are as follows:

- Type of pollutant
- Concentrations
- Work intensity
- Protection requirements in addition to respiratory protective advice.

Risk analysis should be carried by a person who has suitable training and experience in the area.

Instructions for use for SR 590 should be read before use.

4.1 Check flow

Before the check, also read the user instructions for fan SR 500.

Start fan the fan

Connect the hose from the visor to the fan unit (or compressed air equipment) turn the coupling 1/8 of a turn.

Place the head top in the flow meter and start the fan unit.

Grip the lower part of the bag to seal around the breathing hose.

Grip the flow meter tube with the other hand so that the tube points vertically upwards from the bag.

Read the position of the ball in the tube. This should hover at a level with or slightly above the upper marking on the tube.
If minimum flow is not achieved, check that:

– The flow meter is held upright.
– The ball moves freely.
– The bag seals well around the hose.

4.2 Putting the shield on

See also the user instructions for the SR 500 fan.

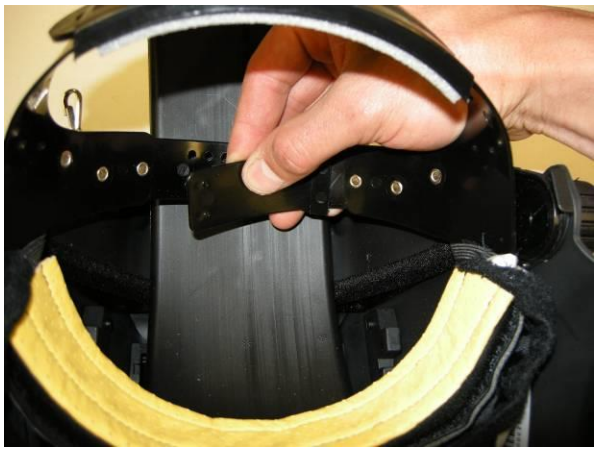
Check that the scale number of your lens is correct for your work.

The shield is delivered with a welding lens with scale No. 10.

Put the fan on your waist and adjust the belt so that the fan is located firmly and comfortably at the back of your waist.

Start the fan and adjust the air flow to suit your work intensity.

Raise the front piece and put the welding shield on.



If necessary, adjust the head harness in height by lengthening or shortening the strap for the top of the head.

The sweatband should be fitted just above the eyebrows.

If necessary, adjust the circumference of the head harness by means of the rear knob. The head harness should be fixed tight around your head.

Lower the front piece by pulling the face seal down under your chin.

Adjust the neck size of the face seal by means of the elastic neck strap.

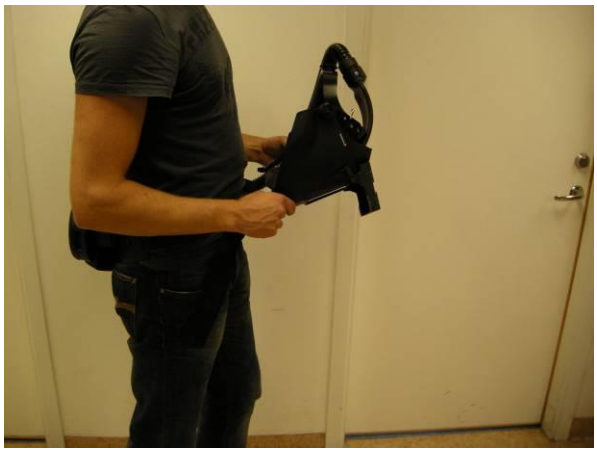
Insert a finger between your cheek/chin and the face seal and run the finger long the contact surface of the face seal all the way round to check that it fits well against the face.

Check carefully that no escaping air comes out around the cheek and chin.

Check that the front piece is in the fully down position, no air should be coming out from the part above the forehead.

Make sure that the breathing hose runs along your back and that it is not twisted.

4.3 Taking the shield of



Leave the polluted area before taking off the equipment.

- Take the welding shield off.
- Switch off the fan. Release the belt and remove the fan.
- After use, clean and check the equipment.

5.1 Maintenance schedule

	Before use	After use	Annually
Visual inspection	•	•	•
Functional check	•		•
Clean		•	
Change the hose			•

The schedule specifies the minimum maintenance routine requirements to ensure that the equipment is always in good working order.

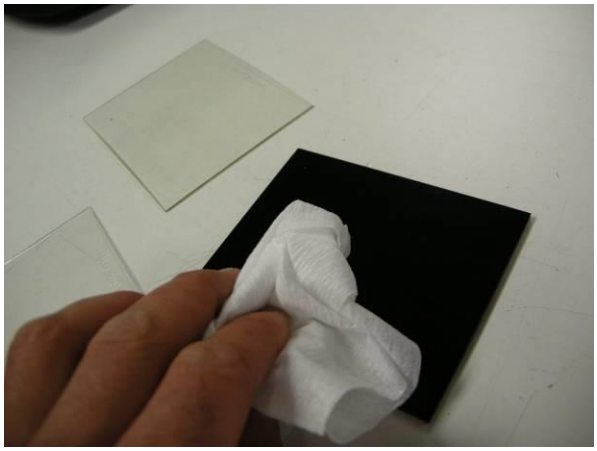
5.2 Cleaning

Remove the fan filter, battery and belt, and remove the welding lens and protective lens from the shield before cleaning.

Sundström cleaning wipes SR 5226 that clean and disinfect are recommend for daily maintenance.

If more heavily soiled, the equipment can be carefully blown clean with compressed air.
However, make sure that dirt particles do not end up in the air intake of the fan.

The equipment can then be cleaned with a soft brush or sponge, moistened in a solution of washing-up liquid or the like in lukewarm water.



!! Wipe the plastic protective lens carefully, since they are sensitive to scratching.

!! Automatic welding lenses are very sensitive to moisture. Use only a dry polishing cloth.

!! N.B. Never clean with a solvent.

5.3 Storage

After cleaning, store the equipment in a dry and clean place at room temperature.
Avoid direct sunlight or other sources of heat.

The fan filters should best be stored in a tight plastic bag.

The battery can be stored in the Sundström charging station SR 506.

6.1 Changing the welding lenses

The welding lens should be marked with the scale number and approval symbol.

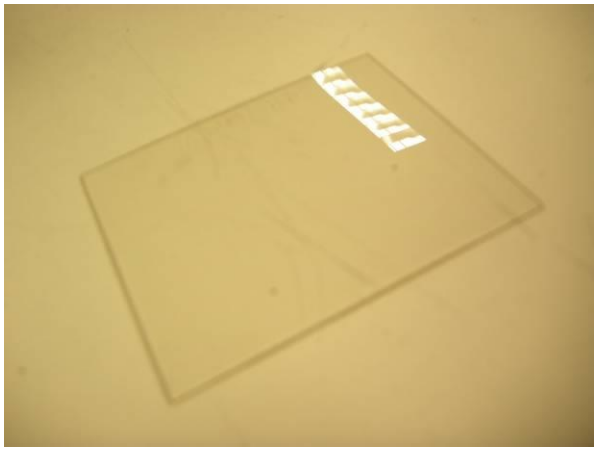
Raise the welding lens flap.

Use your fingers to release the spring.

Change the welding lens.

Fold the spring back.

6.2 Changing the inner protective lens



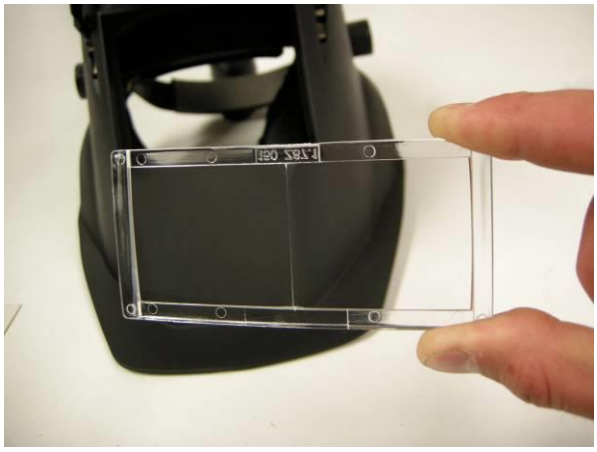
The inner protective lens is fitted in the front piece behind the welding lens flap.

Raise the welding lens flap.

Press the protective lens out with your fingers from the inside of the shield.

Fit the new protective lens from the outside.
Never use an inner protective lens made of glass - risk of injury
by glass splinters.

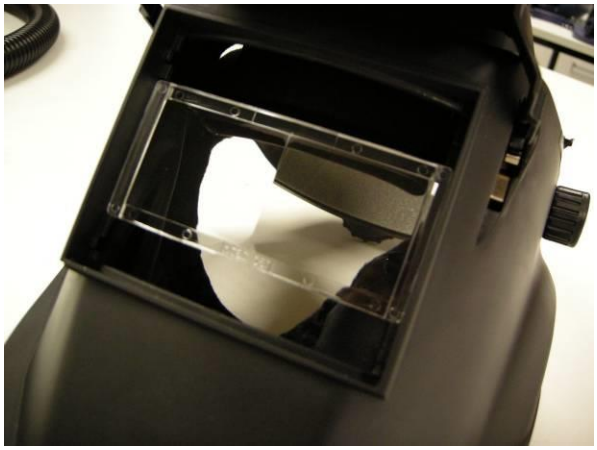
6.3 Fitting the correction lens



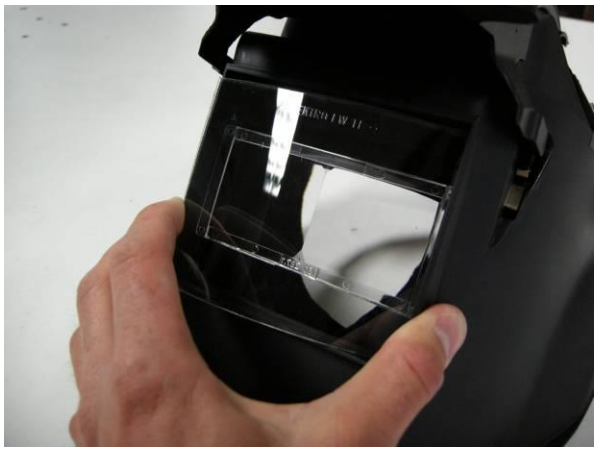
Correction lenses are available as accessories in four strengths ranging from 1.0 to 2.5 dioptres.

Raise the welding lens flap.

Press the protective lens out with your fingers from the inside of the shield.



Place the correction lens so that it rests in the groove on the sides of the opening.



Fit the protective lens.

6.4 Changing the outer protective lens

The outer protective lens is located in front of the welding lens.

Use a blunt object to press the short side of the protective lens so that the lens is bowed and can be removed from its mountings.

Fit a new protective lens.

6.5 Changing the face seal

The face seal is secured to the front piece by means of Velcro tape and four rubber bands, two on each side.

Remove the head harness by releasing the two side knobs. Save the mounting parts (knob/screw/washer*)

Release the rubber bands from the head harness and from the front piece.

Carefully pull off the face seal.

Secure the new face seal to the Velcro tape, starting in the centre of the front edge of the front piece.

Secure the narrow rubber band to the slot on the front piece.

Fit the head harness back to the front piece, but before securing it in position, secure the wider rubber band around the side arms of the head harness.

Screw the head harness in position. Make sure that the pin on the special washer fits into the hole in the front piece.

The washer on the right-hand side of the shield also determines the end positions when the front piece is raised and lowered.
This is the reason for its design.

6.6 Changing the sweatband

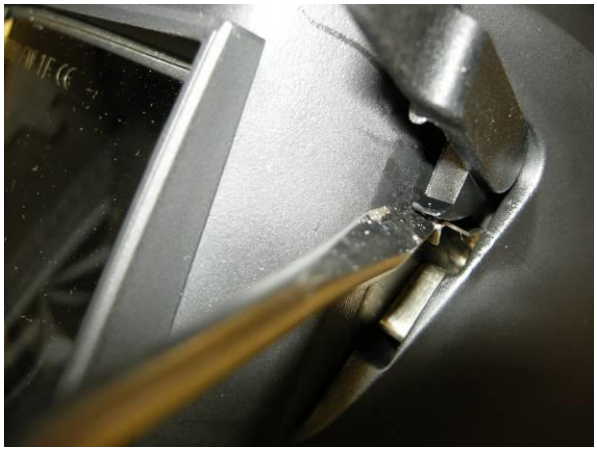
Carefully pull the old sweatband off the Velcro tape.

Fit the new sweatband, starting from the centre.

6.7 Changing the welding lens flap

Raise the flap

Press the arms of the flap out of their mountings, one at a time. Use your fingers or a screwdriver.



Hold the new flap at right angles to the shield.
Insert one of the arms through the hole in the shield, at the same time moving away the metal spring in the hinge of the shield, using a screwdriver.

Repeat the procedure on the other side.

Fit the welding lens and the protective lens.

6.8 Changing the breathing hose

Check that the O-rings of the hose are in place.

Connect the hose and turn it clockwise about 1/8 of a turn.

Check that the hose is firmly secured.

6.9 Changing the head harness

Release the two side knobs. Save the mounting parts (knob/screw/washer*)

Release the rubber bands of the face seal from the side arms of the head harness

Fit the new head harness, but before screwing it in position,
secure the rubber band around the side arms of the head
harness.

Secure the head harness. Ensure that the pin in the special washer* fits into the hole in the front piece.

6.10 Fitting the ear protectors

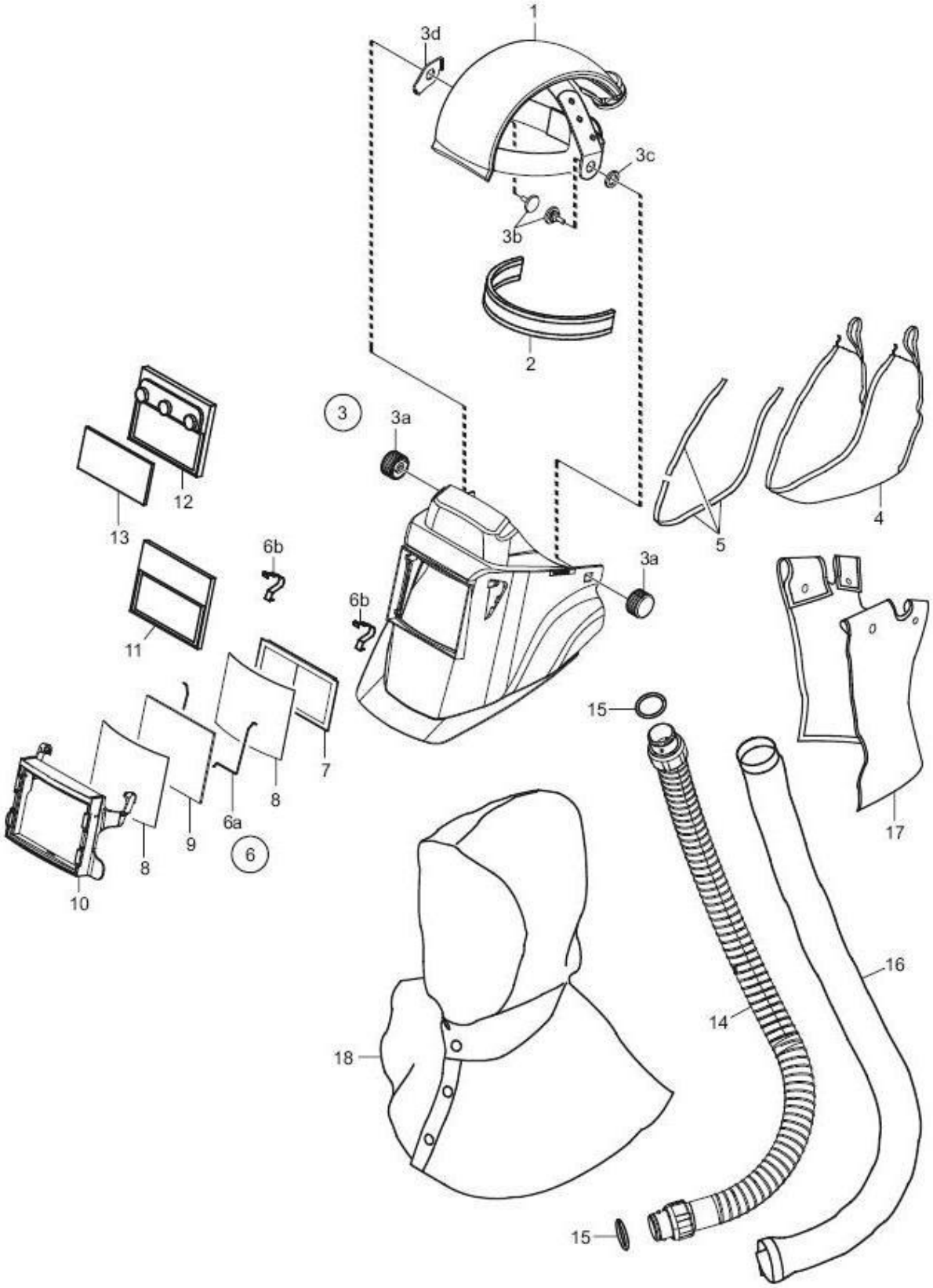
The ear protectors must be of yoke type, e.g. Peltors Optime, H4, Alert or FM Radio.

The ear protectors are worn on the outside of the head harness but under the air passage.

The front yoke of the ear protectors is hooked onto the spring hooks on the head harness.

SR 590

Spare parts / Accessories



No.	Description	Ordering No.
1.	Head harness with air passage	R06-4001
2.	Sweatband	R06-4007
3.	Set of knobs	R06-4003
3a.	Knob	-
3b.	Screw	-
3c.	Washer	-
3d.	End position washer	-
4.	Face seal	R06-4005
5.	Velcro tape set	R06-4006
6.	Spring for welding lens flap	R06-4004
6a.	Retaining clip	-
6b.	Spring	-
7.	Correction lens, 1.0 dioptres, SR 59014	T06-4010
	Correction lens, 1.5 dioptres, SR 59015	T06-4011
	Correction lens, 2.0 dioptres, SR 59016	T06-4012
	Correction lens, 2.5 dioptres, SR 59017	T06-4013
8.	Protective lens, PC	R06-4008
9.	Welding lens EN 8, SR 59008	T06-4001
	Welding lens EN 9, SR 59009	T06-4002
	Welding lens EN 10, SR 59010	T06-4003
	Welding lens EN 11, SR 59011	T06-4004
	Welding lens EN 12, SR 59012	T06-4005
	Welding lens EN 13, SR 59013	T06-4006
10.	Welding lens flap	R06-4002
11.	Automatic welding lens, EN 3/10, SR 59005	T06-4007
	Automatic welding lens, EN 3/11, SR 59006	T06-4008
12.	Automatic welding lens, EN 4/9-13, SR 59007	T06-4009
13.	Inner protective lens for auto lens	R06-4009
14.	Breathing hose, SR 59022	R06-4010
15.	O-ring for breathing hose	R06-0202
16.	Protective hose for the breathing hose, SR 59021	T06-4016
17.	Neck cover, SR 59020	T06-4015
18.	Protective hood, SR 59018	T06-4014