Operating instruction
SR 90 Airline

General information

The Sundström SR 90 Airline is a breathing apparatus which is supplied with a continuous flow of air and is designed for connection to a compressed air supply in accordance with European Standard EN 14594: 2005 and AS/NZS 1716:2003.

The unique feature of the SR 90 Airline is the scope it provides for filter back-up. The SR 90 Airline is available with the face piece made of two different materials, i.e. silicone or TPE, and in two sizes, i.e. M/L or S/M.

If you feel uncertain about the selection and care of the equipment, consult your work supervisor or get in touch with the sales outlet. You are also welcome to get in touch with the Technical Service Department at Sundström Safety AB.

Use of a respirator must be part of a respiratory protection program. For advice see EN 529:2005 or AS/NZS 1715:1994.
The guidance contained in these standards highlights important aspects of a respiratory protective device program but does not replace national or local regulations.

2.1 Unpackning
2.2 Packing list

Check that the equipment is complete in accordance with the packing list and that no transport damage has occurred.

- Face piece with breathing hose
- Control valve threaded onto a belt
- Sealing cover
- Pre-filter holder
- Test disc
- Flow meter
- User instructions

2.3 Functional check
Check before use

Check that the mask is complete, correctly assembled, thoroughly cleaned and undamaged.

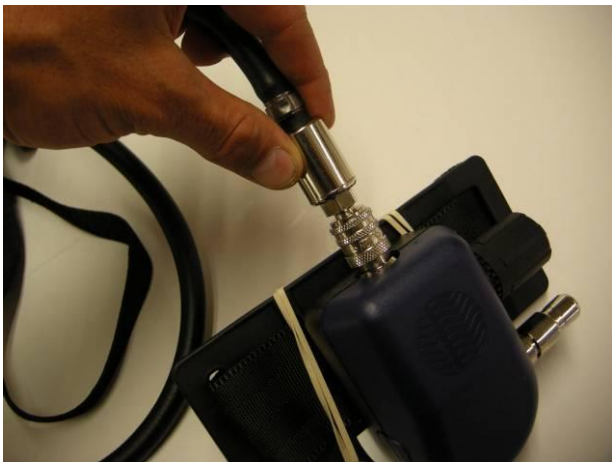
Check particularly carefully the inhalation and exhalation membranes and their seats.

Replace with new membranes if signs of damage.

The membranes are consumables and must be replaced if there are any signs of damage or ageing.

Carefully check that the internal groove of the mask is clean and undamaged.

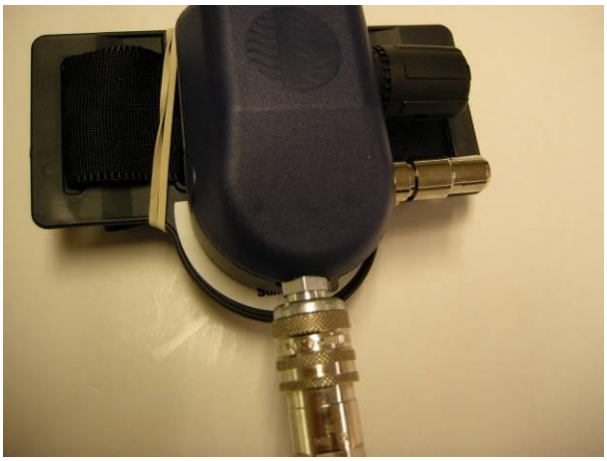
Check the condition of the harness. Replace with new harness if lost elasticity or torn out.



On every occasion before the equipment is used, check that the air flow – measured through the face piece is at least 150 l/min.

Proceed as follows:

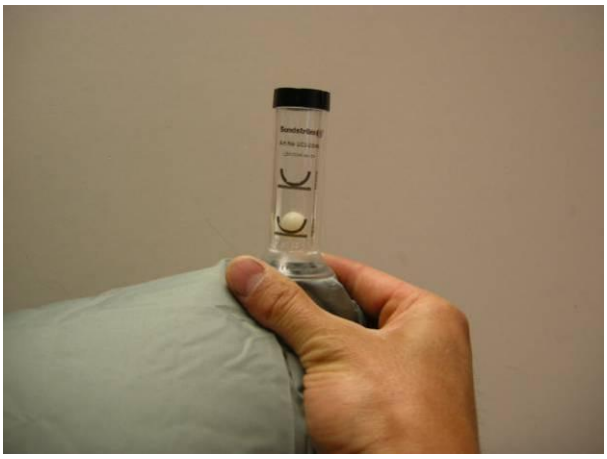
Connect the breathing hose to the control valve.



Connect the compressed air hose to the control valve.

Turn the control valve knob anti-clockwise as far as it will go in order to throttle the air flow rate to a minimum.

Place the equipment in the bag, and grip the lower part of the bag so that the bag seals around the breathing hose.



Grip the flow meter with the other hand and hold it so that the tube points vertically up from the bag. If the flow rate is below the minimum value, check that:

- the flow meter is vertical
- the ball can move freely
- the air supply is not restricted by kinks or other restrictions in the hoses.

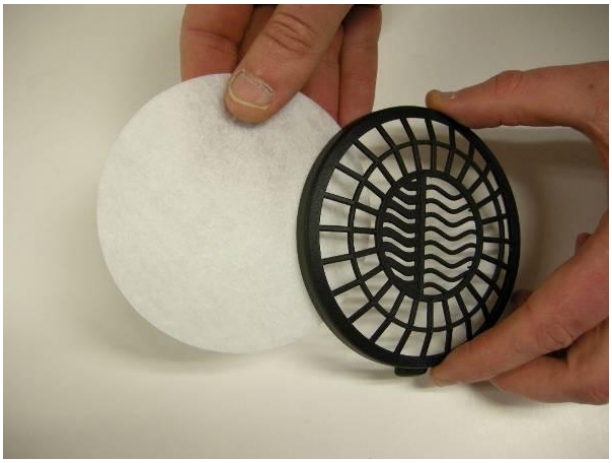
Combination filter

Check that you have selected the right filter and that the used-by date has not been passed.

In areas with gas and particles for example in paint brushing, gas and particles should be combined.

Attach the filters to each other. The filter arrow marks should point towards the mask. The gas filter should be mounted closest to mask.

Pre-filter



Fit pre-filter SR 221 in the pre-filter holder and press it into place on the filter.

Mounting filter into mask

Mount back up filter or sealing cover.

Mount the filter into the mask. Make sure the arrow marking points towards the face part of the mask.

Carefully check that the edge of the filter is in the internal groove of the mask.

Mount pre-filter SR 221 in the pre-filter holder and attach this to the filter.

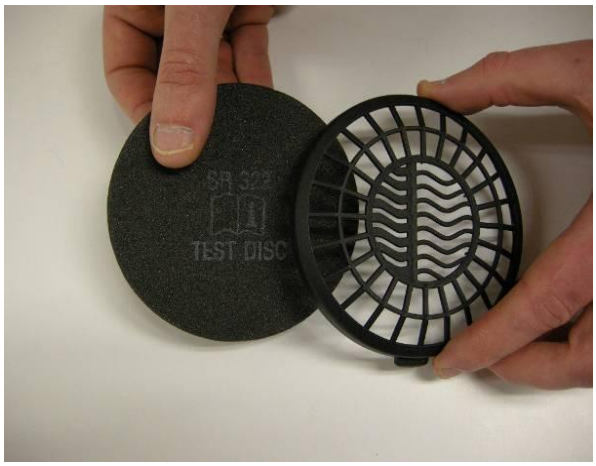
2.4 Putting the face piece on Belt with control valve

Put the belt on and adjust the length.

Arrange the control valve in a way that allows easy adjustment of the flow rate and a strict watch over the breathing hose, i.e. it must not be placed on the back of the waist.

Fitting mask onto face

Adjust the harness so that the face piece is held firmly but comfortably in place.



Use the test disc supplied to test the tightness.
Place the test disc in the pre-filter holder supplied and fit the holder to the filter.

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Take a deep breath and hold your breath. If the face piece is tight, it will be pressed against your face. If the face piece is not tight, this may be because you wear a beard, because your face is unshaved or is deeply wrinkled, or because the size of your face is uncommon.

Leakage may also occur through dirty or defective exhalation valves. N.B. The disc is intended only for tightness testing and should be removed after the test has been completed.
If the sealing cover is used, the tightness test can be carried out with this cover fitted.

Breathing hose / Compressed air hose

Connect the breathing hose of the face piece to the control valve outlet.

Unroll the compressed air tube and make sure that it is not twisted.

Connect the tube to the control valve inlet.

The face piece is now being supplied with air, and you can put it on.

The breathing hose retaining clip which is supplied can be used to advantage for securing the breathing hose to your body.

Air flow

Use the control valve knob to set the air flow rate to suit your current work intensity.
In the fully closed position (turn the knob anti-clockwise), the flow is about 150 l/min, and in the fully open position (turn the knob clockwise), it is about 320 l/min.

2.5 Taking the face piece off.
When using backup-filter

Remove the sealing cover, if fitted.

Disconnect the compressed air hose from the control valve.
See below:

Leave the polluted work area and take the equipment off.

When using sealing cover

Leave the polluted work area and then take the equipment off.
See below for details of releasing the hoses.

Releasing the compressed air hose and the breathing hose

Both couplings are of safety type and are released in two stages.

1. Push the coupling towards the nipple.

2. Pull the locking ring back.

After every period of use, check that no defects have occurred, and clean the equipment.

4.1 Cleaning
Daily maintenance

Remove filter or seal cover and the membranes.
Wipe the mask with Sundström cleaning tissue SR 5226 witch also is disinfecting.

Check and replace torn parts.
The membranes are consumables and must be replaced if there are any signs of damage or ageing.

Manual Cleaning

Remove filter, membranes and head harness.

If the equipment is more heavily fouled, use a soft brush or sponge moistened with a solution of water and dishwashing detergent or the like. Rinse the equipment and leave it to dry.

For particulars of cleaning of the Sundström human interfaces, see the appropriate user instructions.
N.B. Never use a solvent for cleaning

4.2 Storage

After cleaning, store the equipment in a dry and clean place at room temperature. Avoid direct sunlight.

Hint: Turn the flow rate bag inside out and use it for storing the equipment

Sundström storage box SR 230 is also recommended.

4.3 Maintenance schedule

	Before use	After use	Annually
Visual inspection	●	●	●
Functional check	●		●
Cleaning		●	
Change of breathing hose			●

The schedule below shows the minimum requirements on maintenance routines to assure the user that the equipment will always be in usable condition.

4.4.2 Breathing hose

To change the breathing hose, proceed as follows:

Cut off the hose clip with a pair of pincers and pull the hose off.

Thread the hose clip and retaining clip onto the new hose.

Connect to the adapter and use a pair of pincers to nip the hose clip.

Apply a load to the hose to check that it is firmly secured to the adapter.

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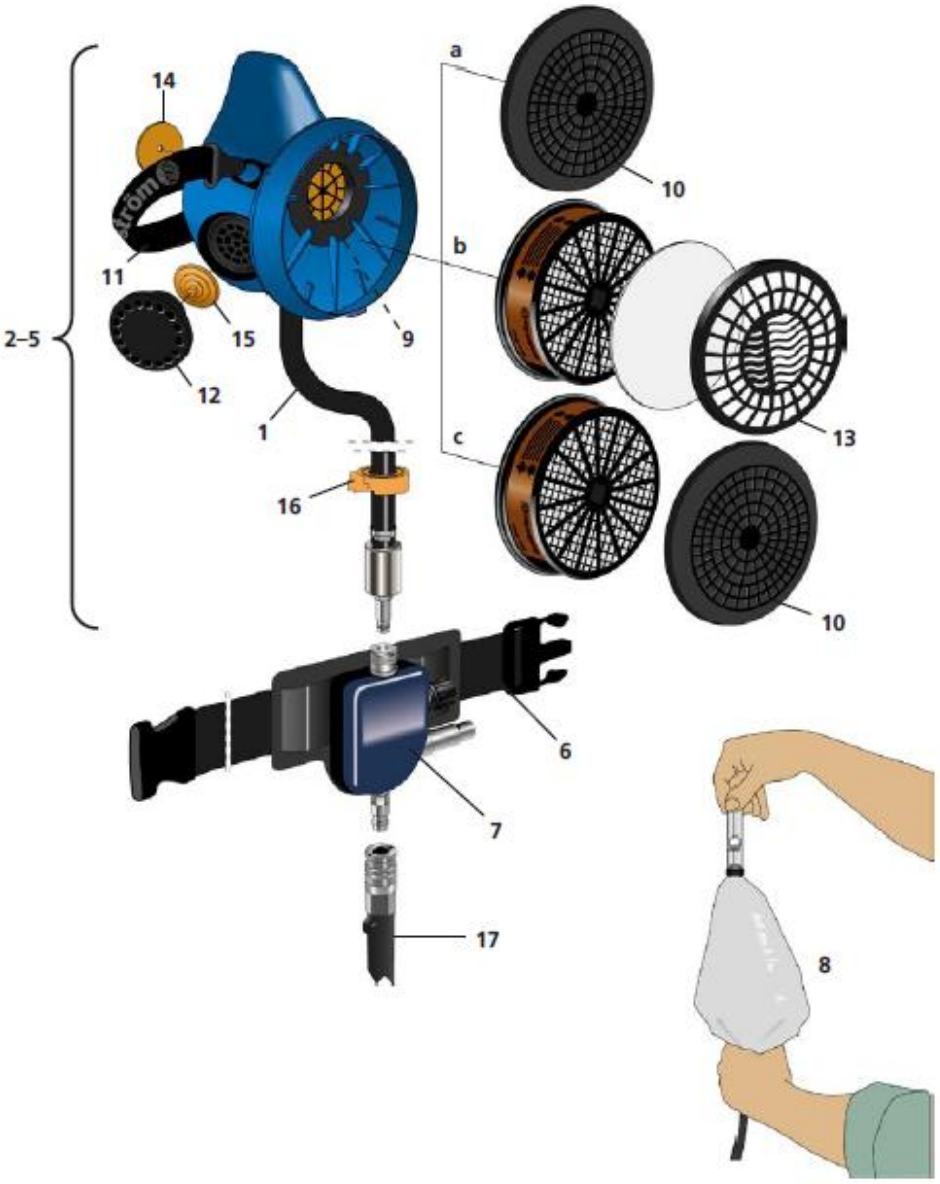
Spare parts and accessories



No.	Part	Order No.
1.	Breathing hose	R03-1534
2.	SR 90 S/M facepiece w hose	R03-1530
3.	SR 90 M/L facepiece w hose	R03-1531
4.	SR 90 TPE S/M facepiece w hose	R03-1532
5.	SR 90 TPE M/L facepiece w hose	R03-1533
6.	Belt	R03-1510
7.	SR 347 Control valve	R03-1535
8.	Flow meter	R03-0346
9.	Silencer	R03-1405
10.	Sealing cover	R03-1406

	Service kit for SR 90	**R01-2202**
11.	Harness straps	R01-2001
	Set of membranes	R01-2201
13.	Pre-filter holder	R01-0604
	Set of membranes for the SR 90	**R01-2201**
14.	Inhalation membrane 1x	-
15.	Exhalation membrane 2x	-
12.	Exhalation valve cover 2x	-
16.	Retaining clip	-
17.	SR 358 Plastic hose 5/10/15/20 m	-
17.	SR 359 Rubber hose 5/10/15/20 m	-
17.	SR 360 Spiral hose 2/4/6/8 m	-