



training



Sundström 

SR500ex

Intrinsically Safe
Powered Air Purifying
Respirator (PPR)





Sundström 
SR500ex

Companion module:

Sundström SR500ex PAPR — **HOW TO...**

Related material:

Sundström filters

About your SR500ex PAPR:

What is it?

The SR500ex is a PAPR, which stands for Powered Air-Purifying Respirator.

Powered means battery-driven.

Air-purifying means filtering.

Respirator means that your lungs are separated from the surrounding contaminated atmosphere.

ex means that the PAPR is certified as intrinsically safe, that is, it can be used in many potentially explosive or flammable atmospheres.



How does it work?

A battery-driven fan draws in the surrounding air through a pair of filters that clean the air from harmful substances. The clean air is then delivered to a face piece or air hood around your face or head.

The air pressure inside the mask or hood is higher than the surrounding air, which means that outside air cannot leak into the head piece.



Components

The SR500ex PAPR is made up of three main parts:

- The fan unit with filters, motor, fan, and a waist belt.
- The breathing hose that delivers the cleaned air to your face.
- The head piece, usually the SR540ex intrinsically safe head-top. Other EX-certified face shields and helmets may also be used, along with the SR200 tight-fitting full-face mask.



IMPORTANT: when selecting suitable filters and head pieces, certain factors must be taken into consideration. It is best to consult a qualified person with training and experience in risk-assessment. Crucial factors include:



- Types of contaminants
- Concentrations
- Work load and breathing rate*
- Explosive or flammable atmosphere
- Other types of safety equipment that may be required

**) The breathing rate is important, because the SR500ex delivers air at a maximum flow rate of 175 litres per minute (normal mode) or 225 l/min (boost mode). If you are using a loose-fitting head piece, and your peak inhalation air flow is greater than the supply rate, outside air will leak into the head piece.*

Where can the SR500ex be used?

The SR500ex PAPR can be used wherever negative-pressure filter respirators are allowed or recommended, including potentially explosive environments.

Because the fan unit helps to draw air through the filters, and because it delivers the air at pressure to the face and lungs, the PAPR is particularly suited for situations where work is hard, warm or long-term.



The battery

- Lithium-ion battery
- Can be recharged at least 500 times
- Available as standard (2.2 Ampere hours) or heavy duty (3.6 Ah)
- Can be recharged at any time — no need to wait until completely drained
- Charging time: less than 2 hours



The fan unit

- Operating time up to 13 hours
- Single-button operation
- Normal speed (175 litres/minute) and boost speed (225 l/min)
- Visual display panel shows normal/boost operation, disrupted air flow, low battery power
- Additional vibration and sound alarms
- Automatic air flow control
- Can be used with a variety of head pieces



Particle filter

- Class P3 high-efficiency particle filter
- Available as threaded filter that screws directly into the fan unit, or as non-threaded through a filter adapter
- The non-threaded particle filter can be fitted to the front of all gas filters



Gas filters

Several types of gas filters are available:

- A2 (organic vapour)
- ABE1 (organic vapour, inorganic vapour, acid gas)
- A1BE2K1 (organic vapour, inorganic vapour, acid gas, ammonia)
- A1BE2K1-Hg-P3 (organic vapour, inorganic vapour, acid gas, ammonia, mercury vapour + particles)

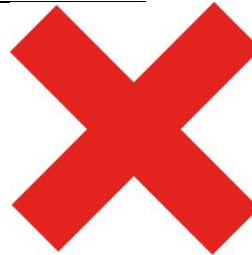


IMPORTANT: There are two filter ports. Identical filters or filter combinations must be fitted to both filter ports. You must not fit one type of filter to one port, and another type of filter to the other.



When should the SR500ex respirator NOT be used?

- When the fan motor is turned off for any reason
- If there is not enough oxygen for human breathing in the ambient atmosphere
- If the contaminant is unknown
- If the contaminant is Immediately Dangerous to Life and Health (IDLH)
- If the ambient atmosphere is oxygen-enriched or pure oxygen
- If breathing becomes difficult
- If you can smell or taste any contaminant
- If you feel dizzy or nauseous, or suffer any discomfort



Before using the respirator:

- Make sure the SR500ex PAPR and all its parts are clean, intact, and correctly assembled
 - Make sure the appropriate filters are fitted to the fan unit
 - If gas filters are used, particle filters must be fitted to the front of each gas filter
 - A pre-filter must be attached to each particle filter
 - Make sure the battery is fully charged
 - Do a performance check and test the alarms
 - Make sure you are familiar with the equipment and know how to use it
-

