Sundström

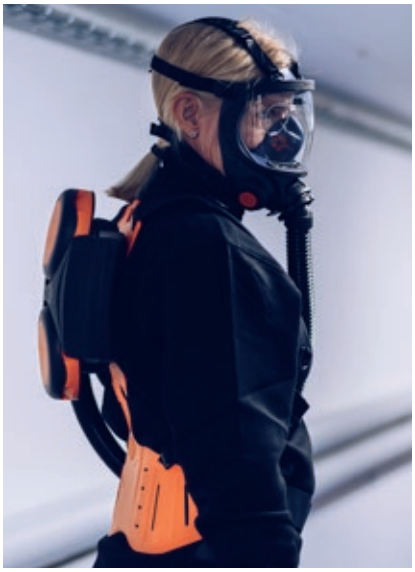
YOUR BREATHING
OUR EXPERTISE

SUNDSTRÖM KNOWLEDGE srsafety.com

PROBLEM AREA

Potentially Explosive Atmospheres

In many workplaces respiratory protection is just one of the many factors that needs to be considered that is essential to look at from a risk assessment and safety aspect. Here we are going to look a bit closer at workplaces where there is a possibility that explosive environment can occur and how to encounter that problem from a respiratory protection point of view.



Normal respiratory protection equipment like half masks, full-face masks, fan units or compressed air-line equipment can be used in most work environments depending on the surroundings and work environment.

However, there are quite a few work areas where a direct risk for potentially explosive environments can occur, and this must be a part of the risk assessment as well as the choice of respirator. The risk assessment concerning EX or ATEX classified working areas must be performed by a trained person that have the knowledge for such areas. It is not only the respiratory protection that need to be considered there are more to consider as light, mobile phones, tools, machinery, ventilation, clothing and so on.

There are two different types of potentially explosive atmospheres: for gases and dust and the equipment can be approved for use in either of these environments or both.

The equipment must be approved for use in these types of areas to minimize the risk for an ignition of the atmosphere and an explosion. There are a lot of different ways to design the equipment or respirator in this case. The electronics can be molded into a material to prevent sparks and heat to ignite the surrounding atmosphere, pressurized, encapsulated, powder filled, oil submerged and so on.

To be able to answer the question if the equipment is suitable or not to use in your specific work environment there should be a classification scheme and information in the risk assessment regarding the zoning, temperature classes, ignition temperatures, explosion groups and so on.

This must be carried out before any type of respiratory protection can be recommended for use in these environments.

Examples of work areas that can have potentially explosive atmospheres and can require respiratory protection:

Spray painting shops (solvents and/or particles), oil industry, ref (gases organic vapor), pharmaceutical (powder and/or solvents) food industry (powders such as starch, sugar, flour), explosives (powder), chemical industry (various chemicals) and so on.

Health risks

The issue with a toxic atmosphere containing dust or gases as well as a possible explosive environment where there can be an explosion if the incorrect respiratory protection and ATEX approved equipment are used.

SUNDSTRÖM RECOMMENDS

The SR 500 EX and suitable head top will solve most of the situations when a respiratory protection and ATEX certified equipment must be used.

Sundström have taken the leading position to go one step further regarding the ATEX approval. We have as the only manufacturer of respiratory protection not only the ATEX approval for the electrical equipment like the fan unit and battery but we have also tested the head tops like, full-face masks, hoods, helmets with visors and belts for to standards regarding non-electrical equipment for explosive atmospheres.

To assure that the correct equipment is used from both the respiratory side as well as the ATEX required equipment you are very welcome to contact our Technical support team or our KAM for further guidance to the correct solution. support@srsafety.se

EXAMPLES OF SUNDSTRÖM EX APPROVED PRODUCTS

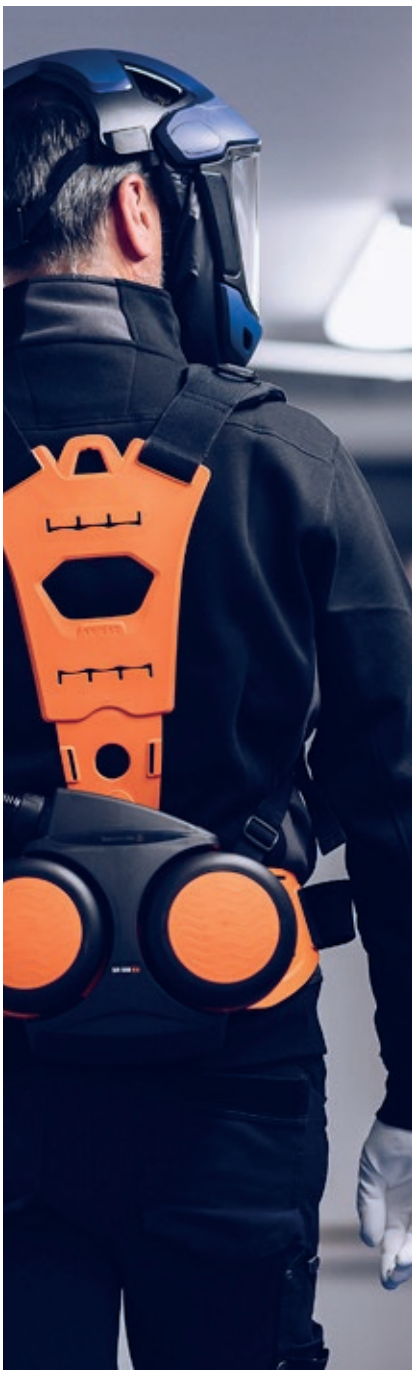
Fan unit SR 500 EX

Face shield SR 570

Protective helmet with visor SR 580

Hood SR 601 and SR 602

Full face mask SR 200 with hose SR 550 PU / SR 551 Rubber



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