

Standard Requirements

The standards

New technology applied in the firefighting sector

V.D.S. 3527 - 01/2007

Guidelines for Inerting Oxygen Reduction Systems Planning and Installation

The requirements for planning, installation and maintenance of fixed inerting and oxygen reduction systems with fixed or mobile inert gas supply in buildings and industrial production sites.

These guidelines are also applicable to extensions and modifications of existing installations.

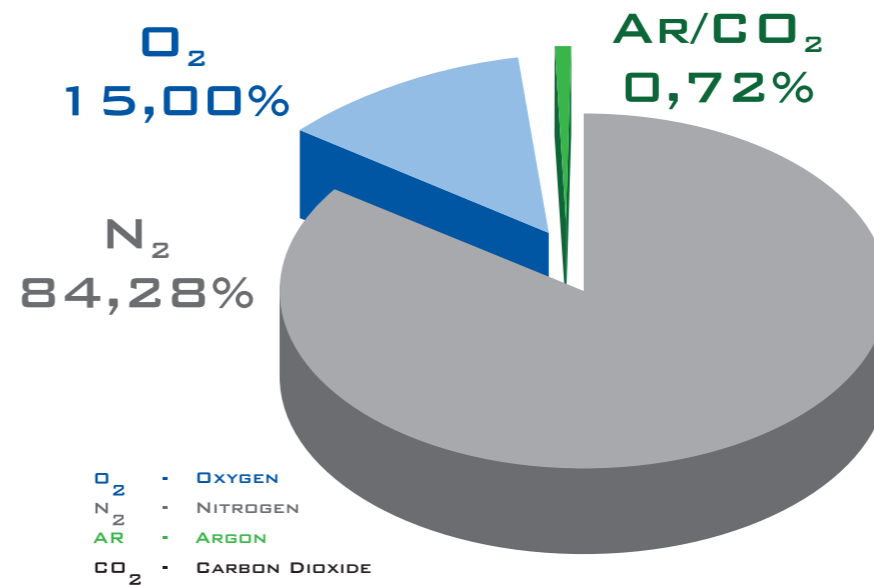
BSI British Standards - PAS 95: Hypoxic fire prevention systems for occupiable spaces (ongoing).

ISO TC 21 SC/8 2007

Working Group for the implementation of standards for the design and installation of oxygen depletion Systems.

OXYGEN REDUCTION SYSTEM (O.R.S.)

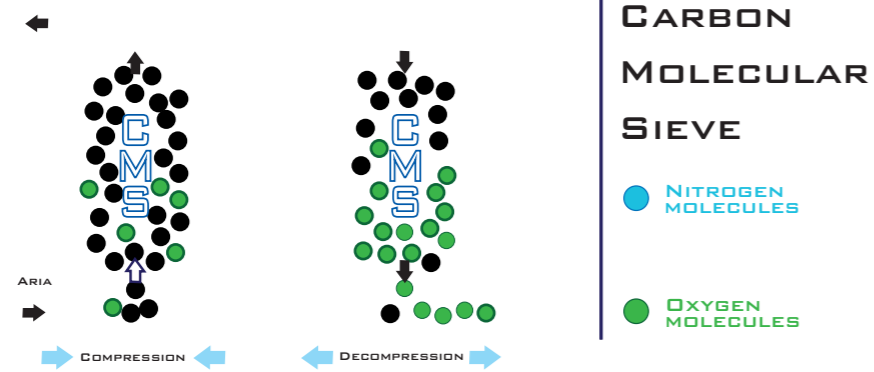
Max-Fun



O.R.S.
Advantages: A new technology in fire safety systems.

- The only one fire preventive system
- System always active
- Reliable and simple system
- Deterioration processes of organic objects is reduced
- No aesthetical impact
- Can be integrated in the HVAC/ventilation system of the protected building

fire protection technology



IN SUCH AN ENVIRONMENT THE OXYGEN IN THE LUNGS, BLOOD AND TISSUES IS PRESENT TO A LESSER EXTENT THAN THAT PRESENT IF BREATHING AIR AT SEA LEVEL. THIS COULD CAUSE HYPOXIA IN PEOPLE WITH CARDIAC AND/OR RESPIRATORY DISEASES. THE TABLE LISTS THE SYMPTOMS CAUSED BY A LOW CONCENTRATION OF O_2 .

15-17%	No immediate effect
13-15%	Intellectual performance impaired
10-13%	Dizziness, hyperventilation
7-10%	Stupor, nausea, vomiting
5%	Minimum concentration that allows the human life
0-3%	Death in 1 minute

SOURCE: RESEARCH REPORT "HYPOXIC AIR VENTING FOR PROTECTION OF HERITAGE" BY GEIR JENSEN (COWI AS, NORWAY) AND JAN HOLMBERG (ROYAL INSTITUTE OF TECHNOLOGY, SWEDEN).