



## NITROX REGULATORS

The information contained within this leaflet was compiled from many sources and is presented in accordance with EN13949:2003

### WARNING

Before using any oxygen enriched gas system (Nitrox or pure Oxygen) it is vital that the hazards are fully understood. Further to standard SCUBA diving training, additional training programmes must be undertaken in the operation of Oxygen enriched gas systems.

As it is impossible for Apeks to control the in service use of the regulator or the quality of gas used in the breathing system, Apeks therefor accepts no liability whatsoever for any consequences resulting from the use of its equipment with gases containing more than 40% Oxygen.

**NOTE:** For customers within the EEC, Nitrox equipment will be supplied in accordance with the EN 144-3 and the EN 13949 directives which state that Nitrox equipment sold in the EEC (European community countries) for use with Nitrox gas mixes of over 21% & up to 100% will be manufactured with the special M26 Din fitting.

### OXYGEN HAZARDS

How can Oxygen be a hazard? It is all around us and comprises of approximately 21% of the air we breathe. Despite its innocent appearance, Oxygen is a serious fire hazard and pure Oxygen makes everything burn faster and easier than it does in air.

Materials that burn in air will burn violently in pure oxygen at normal pressure, and explosively in pressurised oxygen. Also many materials that do not burn in air, including metals will do so in pure Oxygen particularly under pressure. Equipment for use with Oxygen must be constructed from specifically chosen materials, with greater resistance to ignition and lower rates of combustion.

Oxygen fires need a source of ignition energy and that energy can come from the compressed Oxygen itself. When rapid pressurisation takes place in an Oxygen/Oxygen enriched gas system, i.e. when a diving cylinder is opened and gas flows into the regulator, there is an increase in temperature at the point of any restriction, like a valve seat, this is termed Adiabatic compression and can lead to the ignition of small particles or organic contaminants contained in the system.

### YOUR REGULATOR

Your Apeks Nitrox regulator is suitable for use with Oxygen enriched air and even pure Oxygen, this is only possible due to the extensive cleaning and preparation procedures that have been carried out. Every component has been Oxygen cleaned and assembled under laboratory conditions, in our class J clean room. All 'O' rings are made from Oxygen safe materials, the filter is bronze and special Oxygen compatible lubricants have been used.

Your regulator has been specifically prepared for use in high Oxygen content gas mixtures, if the regulator is used with normal diving air, then it will require a complete Oxygen cleaning procedure to be carried out again.

### CARE AND SAFETY (To avoid risk of fire and explosion)

Do not allow the equipment to come into contact with any oil or grease. Turn Gas supply on slowly.  
Do not use with normal diving air.

### SERVICING

All servicing carried out on your Nitrox regulator must be undertaken by an authorised Apeks dealer service technician and this technician must have successfully completed an Enriched Air Nitrox technician's course with one of the recognised certification bodies. (IANTD, ANDI, etc.)

Failure to comply with the above conditions can result in serious injury or death and voids and warranty expressed or implied.

It is the user's responsibility to ensure that any equipment attached to the APEKS Nitrox regulator has been rendered Oxygen safe prior to fitting.