ESO-137 Air Filtration Unit

Air filtration/purification unit bought in 2008, prompt available for sale in an unused condition ex UK.

Introduction:

Mako purification systems are standard on all breathing air compressor units and are also available separately. Seven models make up the product line covering a process capacity range between 9,800 to 300,000 cubic feet. The air delivered meets CGA grade "E" quality.

These systems are multi-chamber units each constructed of 7075-T6 aluminium alloy with a tensile strength of 83,000 psi and designed for 6000 psi working pressure with a 4 to 1 safety factor. The first chamber is a mechanical separator to remove water droplets.

Subsequent chambers utilize replaceable cartridges to remove water vapour, hydrocarbons, noxious gases, taste and odour. Carbon monoxide is also eliminated by catalytic oxidation; the final chamber includes a visual moisture and carbon monoxide monitor.

Specification:

Mako Air Purification System
The air purification system is constructed of aluminium alloy. Ultimate tensile strength is 83,000 psi. Equipment is designed to meet ASME "unfired pressure vessel code, section VIII. A 4 to 1 safety factor results when used at 5000 psi.

The first component of this multi-chamber system is a separator. This eliminates oil and water vapour and solid particles larger than 10 microns. Subsequent stages remove vaporized and gaseous contaminants. The air purification system exceeds US Navy Diving standards and specifications set by the National Fire Protection Association (NFPA), OSHA and the Compressed Gas Association.

Mako's Filter Separator
This separator removes oil and water droplets from the compressed air by filtering through a sintered screen. Water and oil is collected in the sump for subsequent draining. The separators are efficient in the 10 micron range.

The element should be inspected every six (6) months or when 100,000 cubic feet of air are processed, whichever comes first. When the air leaves the separator it will be further processed in the purification chambers.

Mako's Purification Cartridges
The purification cartridges remove undesirable gases, odours and any remaining traces of oil and water. The gases removed depend upon the cartridge used.

All Mako purification systems utilize non-corrosive, FDA grade polycarbonate filter cartridges. Each is filled with properly sized chemical beds to optimize cartridge life. The cartridge end caps are spin welded to the tubes providing a permanent seal without the use of adhesives.

The air purification system must be maintained on a regular basis, based upon volume of air processed and age of purification cartridges. Other factors such as ambient moisture, temperature and operating pressure will also affect cartridge life. Cartridges should be replaced every six (6) months regardless of the volume of air processed during this time.