

**UMBILICALS INTERNATIONAL**

The diving industry continues to pose challenges for the manufacturers of life critical equipment, especially when working within the saturation diving market.

Umbilicals International recently obtained DNV-OS-E402-2004 approval of its Main Bell Umbilicals (MBU), allowing it to supply to a larger international market. The challenges to obtain DNV approval for the UI MBU's were less onerous than expected due to the extensive development done prior to releasing to the market.

Obtaining DNV approval of the MBU ensures the product is fit for purpose as

well as suitable for installation onto a DNV registered vessel. Achieving this approval posed no technical challenge for Umbilicals International, with nothing within the standard make-up of the umbilical being changed; a reassuring message for the worldwide users of our products.

Although this DNV approval was relatively straightforward and well-understood, the same was not the case for the recent Volatile Organic Compound (VOC) requirements imposed on Umbilicals

International by a North Sea contractor ordering a new MBU.

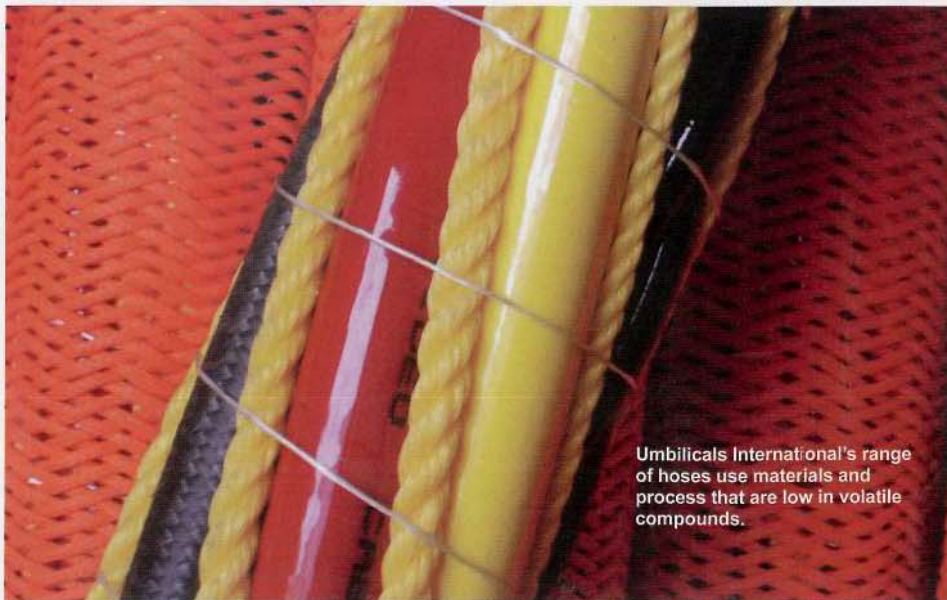
Following a reported case where a contractor performing a VOC test on a diving system found extremely high levels of VOC gasses, the VOC level of a MBU has become a new area of concern for all major diving contractors. The dive system that raised the concern was not fitted with an Umbilicals International MBU. However, due to the high levels recorded, it was thought prudent of the diving contractor to insist upon a VOC analysis on the new MBU it ordered.

VOC testing requires analysis of the gas hoses within the MBU to ensure high levels of volatile gasses are not delivered to the diver. During the process of manufacturing diving hoses there are a number of volatile compounds involved and therefore there will always be residual VOC present in the hoses when the product comes off the production line. The key here is to reduce the level of these potentially life threatening compounds to acceptable levels.

The standard product manufactured by Umbilicals International already had very low VOC levels and by implementing revised processes we were able to lower these VOC levels even further.

The risk to the diver from VOC gases should be taken very seriously and should not be overlooked when installing new equipment. The good news is that VOC gases do deplete over time, much as a car loses its new car smell. Even an umbilical manufactured using techniques that induce extremely high levels of VOC's will eventually be safe for use.

Fortunately Umbilicals International developed a range of hoses that are low in volatile compounds. Therefore no UI umbilical, old or new, will pose no danger to the diver. For more information, visit them at [www.umbilicals.com](http://www.umbilicals.com). **UW**



Umbilicals International's range of hoses use materials and process that are low in volatile compounds.