



# DIVEX

## Manufacturers of Quality Diving Equipment



### ULTRATHERMICS CUTTING RODS THE WHITE HOT ROD



**Cuts nearly any material**



**Fast cutting time**



**No marine growth removal required**



**Small cost - high performance**

**ULTRATHERMICS WHITE HOT RODS** will cut, or melt, nearly every material known to man that melts below 4,000°C. That is nearly everything you are likely to come across in the underwater world.

#### Typical cutting jobs include:

- 1 Heavily corroded or marine fouled sheet piling concrete-coated pipe with reinforcing bar.
- 2 Non-ferrous metals.
- 3 Cast iron.
- 4 Mastic coated pipe without pre-cleaning.
- 5 PU, PVC and nylon melted ropes on propeller shafts.
- 6 And nearly everything else you can think of...

To make them work all you need is a high pressure oxygen supply regulated down to 90 psi (6 Bar) above ambient, and a low amperage (150 amps maximum) power supply connected to a good quality cutting rig and torch. Divex can supply it all!

The Ultrathermics rod is ignited by action of a low amperage arc applied to the object to be cut (or a striker plate) and the electrical power switched off if desired.

The high tip temperature of the rod causes the object to melt, and with many materials, such as steel, the oxygen flow oxidises the material further causing an exothermic reaction.

The smooth, directional flow of the oxygen jet then blows the molten material efficiently out of the cut.

Making an underwater cutting rod is not easy. Many companies have tried it and not succeeded.

#### We know what it takes to get:

- 1 Good oxygen flow - high volume, low turbulence.
- 2 Constant high tip temperature.
- 3 Insulation that burns off at the correct rate to allow the tip position to be monitored and yet does not allow side arcing.
- 4 Highest quality, consistent performance.
- 5 Easily seen by the diver.

#### Quality

Divex's Management System, accredited by Lloyds to BSEN ISO 9001. We regularly test samples from the production to ensure performance criteria are met. Each box of Ultrathermics rods is batch numbered to ensure traceability, and quality control is to the highest standards.

#### Training

We offer a complete endorsed training course with certification for successful candidates.

#### Experience

Having made underwater cutting equipment for over ten years, we at Divex have learned a thing or two about underwater cutting!

Firstly, one learns with experience and secondly, one has to keep looking at new ideas and moving forward.

Being based on the diving industry's greatest test site - the North Sea - we have supplied cutting equipment to some of the most extreme diving jobs in the world.

- 850 ft, the cutting of 8" armoured steel plate on the HMS Edinburgh gold recovery.
- At 1,053 ft the deepest working dive ever, on the Janus IV.
- At 450 ft the demolition and recovery of a mangled explosion - wrecked offshore platform.

We have learned a great deal about underwater cutting!

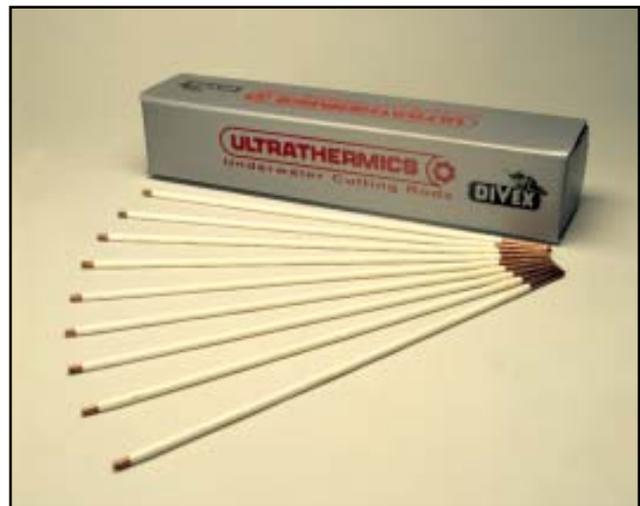
Cutting by thermic lance, exothermic and ultrathermic techniques have been around a long time. Ultrathermics are, however, unique in offering suggested readily achievable and consistent rates of cut to enable better estimating of work time required (conditions being suitable of course).

### Performance

Typical rates achieved by a moderately competent diver on, for example, 1" (22mm) mild steel plate is 10" - 15" rod (250mm - 375mm) at 10ft (3m) depth. A rod will be consumed in approximately 60 - 90 seconds whilst actually cutting under these conditions. Better results are, of course, achieved by experienced persons.

It is obviously difficult to generalise as we have had divers claiming 20" - 30"/rod (500mm - 750mm/rod) under the same conditions.

Whether it is a complete deep diving cutting system (to buy or hire) or simply a spare part for a welding torch - Divex does it!



The  $\frac{3}{8}$ " x 18" (approx. 9.5mm x 457mm) cutting rods are the 'workhorses' of the diving industry. The 18" length is the most manageable sized cutting rod produced, giving a good length of cut combined with diver proximity to the work piece for visibility and control. On mild steel, the  $\frac{3}{8}$ " rod is best used for cutting thicknesses in excess of  $\frac{1}{2}$ ". Typical steel plate cut in the commercial diving industry ranges between  $\frac{3}{4}$ " and  $1\frac{1}{2}$ " but the rods have been used to cut armoured plate up to 8" in thickness. Boxed in quantities of 66 with a package weight of around 25 lbs (11 kgs).

#### Ask for more information about the following:

- 1 Cutting carts and cutting cases. A range of portable and complete cutting systems used by commercial companies, rescue services and militaries.
- 2 Oxygen regulators, underwater welding rods, cutting and welding torches, welding circuit breakers.

Divex sells to major commercial diving companies, civil engineering companies, navies, special forces and militaries worldwide.

We have an international network of 25 distributors serving Europe and others in key countries around the world relating to oilfield and military work.

**Contact our sales team or our local distributor to discuss your requirements, we shall be pleased to advise or demonstrate to you.**

