# HARDBANDING SOLUTIONS (EUROPE) LIMITED

hardbandingequipment.com

# A MANUFACTURER OF HARDBANDING EQUIPMENT & TECHNICAL CENTRE FOR DURABAND NC

Hardbanding Solutions (Europe) Ltd has revolutionised the production of hardbanding equipment for the global oil and gas drilling industry. Pioneering and perfecting new technology, we've engineered a world leading range of units for the simple and successful application of hardbanding to drill pipe.



## CHOOSE THE UNIT THAT WORKS FOR YOU





### **Stationary**

#### WITH OUR SKYE UNIT, EVERYTHING YOU NEED IS AT THE TOUCH OF A BUTTON:

Numbered, accurate and easy-to-use control of all functions.

Control panel in your preferred language.

PLC offering: full auto cycle control, auto chuck homing function, auto step-over, incremental over-run, number of bands (0-99), auto stop.

Full manual control is also possible.

## CHOOSE THE UNIT THAT WORKS FOR YOU





## Mobile

#### ALL THE GREAT FEATURES OF SKYE BUILT INTO A MODIFIED 20FT SHIPPING CONTAINER FOR TRANSPORT AROUND THE WORLD, AND TO THE RIG-SITE.

Internal LED light panels for a safe working environment. External LED flood lights means SkyeGo can operate day or night.

Optional diesel generator to power the unit and peripheral tools, with external power socket.

Drill pipe access door and operators perspex window for protected view outside the unit.

Welding wire storage space and SkyeHeat holder.

Can be shipped as a standard 20ft container, reducing cost.



## HYDRAULIC DRILL PIPE DELIVERY SYSTEM

## Lift the drill pipe in and out of the hardband machine.

All hardbanding units require one, so if you don't have an existing system, we've produced one so you can lift your pipes effortlessly:

- Two ball roller adjustable jacks
- Additional third jack behind chuck for handling HWDP and Collars.
- All controlled by levers at the welder's fingertips



## PRE-HEAT EQUIPMENT

#### Heating material before welding.

We offer two options, with different levels of cost and efficiency:

1. 'SKYE HEAT' PROPANE HEATING

We have designed 'Skye Heat' for easy application and positioning over the tool joint or centre wear pad, to give a proper 'soak' heat.

#### 2. INDUCTION HEATING UNIT

This is the new technology, offering faster, deeper heating. Although initially more expensive to purchase, over the long term this unit works out less expensive than using Propane.



## PLASMA REMOVAL SYSTEM

# Remove cracked or damaged hardbanding from tool joints

With this system you can:

- Use the same chuck and weld box
- Carry out removal, repair, and re-hardband in just 35 minutes with our unique laboratory proven procedure.





#### PLC CONTROL SYSTEM 1 BUTTON WELDING

Once welding and torch positioning parameters are set, the operator simply has to select the number of bands required and press the Weld button to run the programme. That's it. Chuck rotation, torch oscillation and the welding begin, giving a flawless start to your application.



#### TORCH POSITIONING SYSTEM

We've made things easy with our unique torch positioning system. You only need one quick adjustment of height to match the size of tool joint to be welded, and then you're ready to weld the perfect bands. It's quick, simple and spot on. Every single time.



#### FUME EXTRACTION SYSTEM

We've designed our hardbanding unit with a unique system of low and high pressure fume extraction, directed through carefully positioned vents. In factory conditions, this will remove almost all welding fume without disturbing gas flow at the welding torch.

This feature is critical for health and safety conscious organisations.



#### OSCILLATION

Our oscillation is strong and reliable, and its width can easily be changed with a quick thumb wheel to measured increments. We've created an efficient, stable and linear motion which results in a perfectly straight band, every time, and is capable of 0 - 100 oscillations per minute.



#### AUTOMATIC WELD HEAD CARRIAGE

Designed with time-saving, simplicity in mind, our automatic carriage lets you position the welding torch to your starting point, move from one band to the next and put the torch in a safe position for loading a new tool joint, all from the control panel.

With the capability to move at speeds between 0.6mm - 20mm per second, this robust carriage is designed for speed.



#### HEADSTOCK

The robust three jaw chuck is made to order in the UK especially for Hardbanding Solutions. We set our chuck speed to minutes and seconds, so changing it for varying diameters of tool joint is fast and simple. It will turn at speeds from 0.2 rpm to 2 rpm as standard. If you need it higher, we can do that on request.

# TRAINING & TECHNICAL SUPPORT

At Hardbanding Solutions (Europe) Ltd we're absolutely determined that our customers get the most out of our products. That's why we offer on-site training as standard with the purchase of any of our units, as well as free on-site technical presentations to bring you up to speed on the latest developments in drill pipe and casing protection.

#### TRAINING

We believe welders should be trained on their own equipment, in their own working environment. So we come to you - no matter where you are in the world - for free.

Since we first launched in 2011, we've travelled extensively across Europe, Russia and Africa to train applicators in the fundamentals of hardbanding and grow the global licensee network for Duraband NC hardband material.

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Training usually takes 4-5 days and sessions include:



#### **HEALTH & SAFETY**

How to protect yourself and your colleagues from heat, arc-rays and welding fume



PRE-HEATING How to achieve a soak heat every time



#### WELDING PARAMETERS Learn about the settings required for a perfect band



#### **PRODUCTION CAPACITY**

How to increase efficiency to weld more joints in one shift



#### **REMOVAL & REPAIR**

Successful plasma arc removal of damaged hardbanding and effective repair of the tool joint



#### REAPPLICATION

Learn which tool joints are candidates for reapplication and how to deal with incompatible materials



#### **BUILD-UP**

How to restore the diameter of worn tool joints with Postle build-up wires

#### **TECHNICAL SUPPORT**

If you're employed by a service company, a drilling contractor, a drill pipe rental company or an oil and gas operator, we can help you understand hardbanding better. Chances are, you'll have a lot of responsibility and a good deal more to think about than hardbanding. We don't, hardbanding is all we do. We live and breathe it.

Our offer to share all we've learned about hardbanding, with you and your colleagues, is a genuine one. We'll fly over, provide free, on-site technical presentations at your office and not leave until you're confident you know as much as we do (well, almost). We'll discuss how you can get the most from your drill pipe, and the latest technical milestones from API/Mohr Engineering and NS-1 standards.

(Please note: although we don't charge for our visits, tea and biscuits are always welcome.)

# WE REDESIGNED THE HARDBANDING PROCESS.

We based our products on three priorities:

#### **1. QUALITY**

Our units are built to last. We deliberately build our products with overspecified main components, manufactured in either the EU or USA, to make sure you receive a reliable and long-term return on your investment.

#### **2. USABILITY**

Offering both automatic and manual units, our machines are simple to operate, without the need for additional hand tools. Requiring minimal effort and input from the operator, our products are a cost effective option, saving oil and gas service companies valuable time.

#### **3. SAFETY**

Like any welding process, hardbanding can present safety concerns. However our machines incorporate industry-leading health and safety features, making us the supplier of choice for health and safety conscious organisations.

# CONTACT HARDBANDING SOLUTIONS

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