

ZEROMAG News

Stop Press: Oil Blow out is a test for welding

Blow out on an oil rig or pipeline can be very expensive! Just ask BP or the US Government. Although the exact cause of the latest oil spillage disaster has not been determined it is known that there was a significant build up in pressure to 100Kg/sq cm (1,400 pounds per square inch) in the hours before the blow out. These high pressures will undoubtedly put additional strain on all the high pressure components, pipes, valves and diverters. Many of these components are welded, and, although not indicated as a cause in the latest disaster, it shows the importance of high quality welds. Generally welds are fully inspected but even X-ray testing can miss brittle weld metal.

Magnetism during the welding process has long been recognised as the cause of magnetic arc blow, but welders often come across magnetism at lower levels. In these circumstances the temptation is to continue welding and "get the job done" even though the arc is wandering or unstable. This could result in brittle welds if temperature is not maintained at the weld point.

Zeromag removes magnetism for welders so that welding can be undertaken to the highest quality even with magnetic fields sufficient to blow the arc. Zeromag can be used in 3 completely



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different ways to solve the magnetism problem depending on the weld scenario. Firstly, it can be used to dynamically reduce the magnetism to zero at the weld point. This patented technique works particularly well for zoned magnetism which changes sign around the pipe. Deployment time can be a matter of just a few seconds, immediately removing the magnetism. Secondly, Zeromag can be used to remove the magnetism from the pipe end using a coil bobbin. This process can take several minutes and its effectiveness lasts typically for an hour. Finally, Zeromag can be used in the joint degauss mode, where clam coils are used with the degaussing scheme. Again this process takes a few minutes but allows the magnetism to be removed after fit up.

The problems with weld quality has been recognised by many companies in the pipeline and oil and gas industries for some time. That is why world leading companies trust Zeromag to solve this problem. (see a short list at <http://www.diverse-technologies.net/pages/zeromagusers.html>).

So is it worth taking the risk of a blow out or would it be better to go for the best known method for getting high quality welds in the face of magnetised pipes? Get insurance - get Zeromag.



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ZeroB: Trials and early adopters

ZeroB is a system that allows magnetism to be removed when welding busbars in smelting environments. This entirely novel system, now the subject of two international patents provides controllable shielding of the huge magnetic field generated by the high

smelter busbar currents typically 500,000 Amps. The equipment has attracted EU funding support through EEDA and ERDF. This support is a direct result of the contribution that ZeroB may make to significantly reduce smelter pot down time and, by reducing the effective resistance of the repair, save electricity and reduce CO2.



with our partners who want to become early adopters as part of our trials programme. We welcome contact from other potential users wishing to join the trials programme.

The design stage is complete and the first units are being manufactured during Q2 and Q3 2010. These units are being allocated based on the schedule agreed



Recent sales

Zeromag has recently been sold to new markets in the Congo, power station repair in the UK and for pipe laying barges used in Nigeria. Our geographic coverage is worldwide, including sales, support, and training.

A returning customer from Scotland used Zeromag on hire again with the unit being hired, used and returned within a few days. Problem solved!

Diverse are a pro-active team dedicated to supplying the solution to your magnetism problems. We understand that when arc blow strikes a solution is required immediately. We can supply products to customers with urgent requirements within days or even hours. So if you need a quick response then please call us.

DIVERSE

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News shorts...

MF300F+ Ferrite meter

The MF300F+ has now been available over 18 months and sales are starting to accelerate. Besides being significantly lower cost than other ferricity meters, its simple to use interface and speedy delivery is attracting customers around the world. The basic unit is supplied complete, including probe and test samples a refreshing change compared to other meters where everything is extra!



The MF300F+ ferrite meter has a novel option, not available with other meters - an air cooled probe that can be used to test hot samples. The technique uses compressed air to remove the heat from the probe and maintain measurement accuracy. The advantage to the user is simple: time is saved because you do not need to wait for the sample to cool below 300C after welding.

As well as distributors in France and China we have recently appointed a new agent in the USA. Diverse is proud that its Ferrite meter is taking an increased market share - and would be pleased to quote for your ferricity metering requirements.

Email: sales@diverse-technologies.net