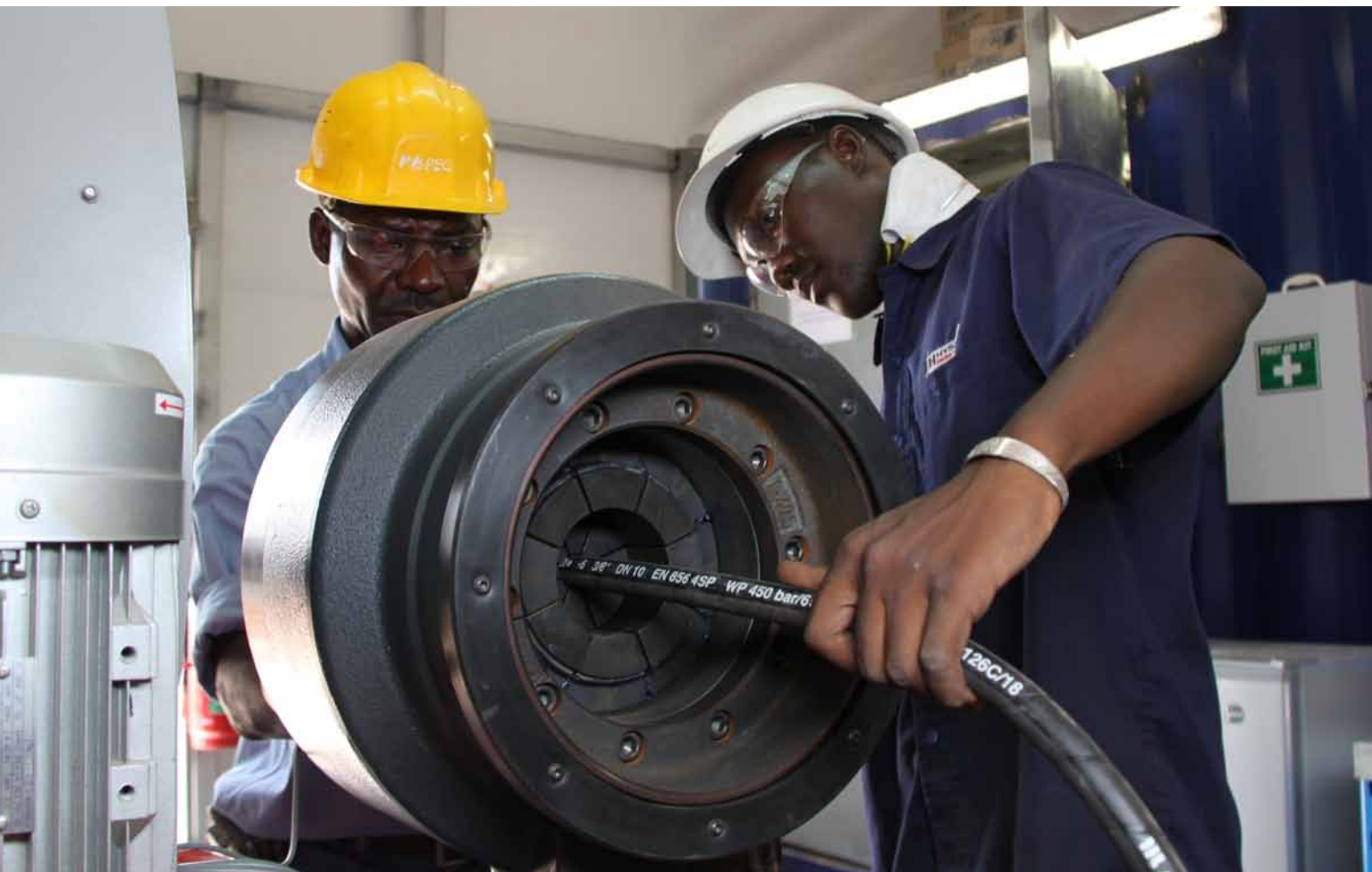


HYSPEC MINING SERVICES

SAVING DOWNTIME AND COSTS



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Managing director Alan Wood describes the progression from the supply of hydraulic hoses to inspection services that save downtime and costs for mining operations in Africa

WRITTEN BY: **MARTIN ASHCROFT**
RESEARCH BY: **RICHARD HALFHIDE**





Assembling hydraulic hoses in Burkina Faso

Founded in 1996, Hyspec Mining Services specialises in the provision of hydraulic, fuelling and lubrication equipment and services to the mining and exploration industry in Africa. The company’s growth over the last fifteen years has been a phenomenon, so much so that its major parts supplier Manuli Fluiconnecto, a subsidiary of the Italian Manuli Rubber Industries, acquired a 51 percent equity stake in the company on 31 November 2012.

“It’s a win-win situation for us both,” says managing director Alan Wood. “They gain a significant share of the African mining market and we secure continuity of supply, as well as opportunities to spread our business model. Being part of a large group also provides a buffer in the event of a shaky economic future.”

Hyspec has come a long way since 1996. In a similar business in the UK at the time, Wood was looking for an overseas opportunity to excite him. One of his friends (also a customer) was engaged in deep sea diving in support of the early oil exploration operations on the Gold Coast offshore Ghana. “He talked up the African experience and encouraged me to visit, stating there was simply nobody providing hydraulic services there,” says Wood. Eventually, he went.

He was not immediately inspired by what he saw, but then fell upon the mining industry. “Fifteen years doesn’t sound like a long time but it’s a lifetime away in terms of infrastructure in Africa,” he says. “In those

days there were no phones, no internet, and to send a fax involved a 60km round trip to pay \$5 per page. Through some acquaintances I found out about an underground mining operation in Obuasi in the Western region of Ghana, so I made a nine hour taxi journey and found an Australian drilling company with hydraulic hoses dripping off its drilling rigs. The owner of the business gave me 45 minutes in his boardroom and explained to me the mining industry in Ghana; when I came out I thought – this is where we have to be.”

Wood put together a 40 foot container of hydraulic hoses, assembly equipment, parts and fittings and sent it to the Ghanaian port of Tema, meeting up with it a couple of months later to start a bridgehead, register the business, recruit some employees and start training them. It soon became clear, however, that this operation was still too far from the mine sites to be as effective as it should be.

“After about six months the mining guys were complaining that we weren’t much use to them in Tema, 300 kms away, so one of the mines assisted by clearing a patch of jungle outside of their perimeter; they laid a concrete base and we built our first containerised workshop. That was in 1997 in Tarkwa at the Iduapriem mine. We opened our second one at the Ashanti Gold operation in Obuasi and we now have over 50 workshops across twelve countries in sub-Saharan Africa.”

Operating from onsite workshops has allowed Hyspec to progress from the simple

1996

Hyspec Mining Services established



Hose crimping on site

90%

Proportion of Hyspec's contracts on gold projects

provision of hydraulic hose assemblies into a service provider focused on reducing customers' downtime and operating costs by inspecting their production equipment—excavators, drill and blast drilling rigs, and dump trucks.

“Downtime on an excavator can cost many thousands of dollars per hour when they're producing gold,” says Wood, “and 90 percent of our contracts are on gold projects. If a hydraulic hose fails, even with us onsite it might still take up to three hours to replace it. By the time one of the client's service technicians gets down to the pit, takes the hose off, brings it to our workshop for us to make the hose, then gets it back down to the machine and fits it, they may have had three hours of downtime. That could be ten, twenty, even thirty thousand dollars' worth of lost production. Hose breakdowns not only incur production loss, but affect other areas such as oil contaminations of the high grade gold, equipment damage, personal injury situations or environmental damage. The cost of a hydraulic hose pales into insignificance compared to the cost of the breakdown and associated downtime, so it's really important that we work to catch a hose before it fails.”

This is where Hyspec's inspection service



Hyspec evolution of the hose container

is worth its weight in gold. The mine's equipment will have maintenance periods for refuelling and lubrication a couple of times a day, explains Wood, so if that time can be used to inspect the hoses it gives the customer the opportunity to replace suspect hoses before they fail. “We also carry out root cause analysis of failures,” he continues, “which allows us to pinpoint areas that the customer might need to start concentrating on to reduce downtime and improve productivity.”

The average life span of a hose might be six months on a drill rig, or a year or two on an excavator, but it can vary for a variety of

reasons. “It depends how hard the customer is working it,” explains Wood. “How well is the hose routed within the configuration of the machine? Is it chafing for example? How good and sympathetic are the drivers or operatives? Are they damaging the hoses against rocks? Temperature of the hydraulic oil is a major factor, and it is important to keep the hydraulic oil cool. There are a lot of reasons why hoses fail. That's why we conduct root cause analysis so we can identify which machines are most at risk and why. We can then make plans to help a customer reduce hose failures and improve their uptime.”

“ONE OF THE MINES CLEARED A PATCH OF JUNGLE OUTSIDE OF THEIR PERIMETER, LAID A CONCRETE BASE AND WE BUILT OUR FIRST CONTAINERISED WORKSHOP”

As the business grew and its customer destinations multiplied, it became apparent that changes would need to be made to the logistics operation to get the right products to the right place at the right time. “We became a very large purchaser of hydraulic hoses and fittings,” explains Wood. “The GFC manufacturers simply do not keep inventory, however, and the lead times have extended significantly. Miners are not interested in

excuses, they need the service and product immediately, and the manufacturers were struggling to provide the stock in the volumes we were ordering.”

To keep up with customer demand, Hyspec ran up an air freight bill in excess of a million dollars a year, so the decision was made four years ago to invest in a purchasing and logistics facility in Perth, Australia, to consolidate all its shipments there. “Now we’re in charge

“DOWNTIME ON AN EXCAVATOR CAN COST MANY THOUSANDS OF DOLLARS PER HOUR WHEN THEY’RE PRODUCING GOLD”



Diving umbilicals can be a challenge

of all our shipping to individual countries,” says Wood. “It has reduced our annual air freight bill by three quarters, and allowed us to get the right product in the right place to better support our mining customers. We know we are not perfect, however, and we are continually looking for improvements.”

Hyspec has had a single source agreement with Manuli for hydraulic hoses and fittings from the beginning, with 80 percent of its business deriving from Manuli products. The other 20 percent relates to greasing, lubrication and fuelling equipment.

“Now we are part of their direct family we have new opportunities in the oil and gas industry where Manuli is making an impact,” says Wood. “The use of hydraulic

systems in offshore oil is considerable and we already have operations in Takoradi in Ghana, which is a new offshore centre for oil production. We’re also opening up in Cote d’Ivoire where there is already an offshore oil production industry. Guinea and Sierra Leone have development phase drilling, as well as Tanzania where we have a presence already, so the sub-Saharan region is full of oil and gas opportunities.”

Between the mining and oil and gas sectors, Hyspec is looking to set up six to ten new workshops in 2013, but finding a skilled workforce to fulfil this expansion is a major challenge. “There are little to no skilled workers available, and we cannot steal from our clients,” says Wood, “so we



Hose technician inspecting service truck for potential failures



Conventional single containerized workshop



New workshop format



Central workspace for new workshop

“NOW WE ARE PART OF MANULI’S DIRECT FAMILY WE HAVE NEW OPPORTUNITIES IN THE OIL AND GAS INDUSTRY”

must train our own technicians. We have a full time technical training manager who ensures that all our technicians are up to scratch, and we have now developed a train the trainer system within each country, which he manages.”

Whilst multinationals continue to expand in Africa, it’s becoming harder to employ expatriate labour, says Wood. “The governments naturally want their own people

to be employed, not just within the mining or oil and gas industry but by all the multinational companies. We’re all under pressure to reduce our expatriate headcount. I believe it’s the right way to go, but it takes significant time and effort to bring the local employees up to a standard where they can provide the same level of service as any other global company in the first world. Our hoses are assembled in accordance with first world fabrication

procedures: we want to avoid contamination on our customers’ equipment, and ensure that the hoses made in our workshops last as long as possible. This involves using appropriate manufacturing equipment, internally cleaning the hoses before they are installed on the mines’ equipment, storing them correctly, and banning practices such as mixing and matching, hose re-ending or welding of fittings. All of the hoses made by Hyspec are tagged and carry a three month warranty. Meeting these objectives in Africa therefore requires extended training in the assembly and identification of high pressure hoses and systems, and involves close monitoring in every workshop to ensure that procedures are understood and strictly followed at all times.”

After talking to Alan Wood, I am impressed

by Hyspec’s success on a continent known for its difficult business environment—from a one workshop company providing hydraulic hoses to a single mine in Ghana, to a group with over 50 workshops spanning twelve African countries, providing a full range of services aimed at reducing the mines’ operating costs and at improving their production. Hyspec and Manuli’s combined expertise will allow the group to grow further and expand to other markets and areas very quickly. Time and effort are definitely not a problem for Hyspec. **BE**

For more information about Hyspec Mining Services visit: www.hyspec.com



HYSPEC MINING SERVICES

E sales@hyspec.com

www.hyspec.com

Produced by:

ACHIEVING BUSINESS EXCELLENCE ONLINE

BE Business Excellence

www.bus-ex.com