



**TEMPERATURE & CORROSION
RESISTANT PIPELINES:
AN INTERVIEW WITH JONATHAN
GIBSON, SHAWCOR VP**

Shawcor, an oilfield services company specialized in providing services to the pipeline sector, is introducing the FLEXPipe™ Linepipe High Temperature (FPLP HT) into the Egyptian market. The FPLP HT is a pipeline able to operate in higher temperatures and extreme conditions, and is the most reliable onshore high-temperature linepipe on the market thanks to its winning combination of high-density polyethylene, helically wound epoxy-free dry fiberglass, and a protective outer jacket.

Jonathan Gibson, Shawcor vice president, business development international composite production systems, sat with Egypt Oil & Gas during his visit to Cairo and told us about the company's innovative technologies and interest in the Egyptian oil and gas sector.

BY MARIANA SOMENSI, OMNIA FARRAG

HOW DOES SHAWCOR'S TECHNOLOGY CONTRIBUTE TO THE ENHANCEMENT OF EGYPT'S PIPELINES?

One of the strengths of our product is that it does not corrode. We know that in Egypt, as in many countries, corrosion is a huge problem. With the steel pipeline, you get corrosion, and in some places they are replacing the pipes even after a few months or years, which is expensive, because you are replacing the pipelines all the time. Our pipelines do not corrode and are expected to have a lifetime of about 20 years.

WHAT MAKES THE PIPELINE THAT RESISTANT?

It's made of high-density polyethylene - a plastic - which in fact is the same as the coating that is put on steel pipelines. So, rather than having a coated pipeline, you just have a plastic pipeline. Around the polyethylene liner we wind glass fiber, then on the outside we extrude more high-density polyethylene. The product is very simple; it is plastic and glass.

DOES THIS AFFECT THE COST OF THE PIPELINES?

The install cost of these pipelines is less than that of a steel pipeline, because it not only comes with these materials, but it also is produced on big reels. The reels, for instance, can be 570 meters, meaning you connect it every 570 meters, whereas a steel pipeline is connected every 12 meters. A steel pipeline needs to be welded, you have to conduct an x-ray inspection, put a field joint on it; ours has a joint that can be connected in about 20 minutes. That makes the install cost of the pipeline less than a steel pipeline.

In addition, going back to what I was saying about corrosion, if you look at the lifetime of a pipeline, we

do not need corrosion inhibitors; we do not need cathodic protection and so on, since there is no metal, and that makes the lifetime cost much cheaper as well.

WHAT IS THE ADVANTAGE OF HAVING DIFFERENT PIPELINES WITH DIFFERENT TEMPERATURE CAPACITIES?

It covers different temperatures of the oil coming out of the ground. If the temperature of the oil is less than 60°C, we recommend one version; if the temperature is between 60°C and 82°C, we recommend the higher temperature version. One other further factor is that the pipe can be laid on the surface, which gets hot, particularly in the summer here in Egypt. We generally advise our customers to use the higher temperature pipe because, although the pipe comes with UV protection that reflects the sunlight, it still gets hot. For instance, in Saudi Arabia, we have just sold the higher temperature pipe, not only because the oil is hot but also because the ambient temperature in the summer can become very hot as well.

WHAT MAKES EGYPT AN ATTRACTIVE MARKET FOR SHAWCOR? HOW DO YOU EXPECT THE COMPANY TO EXPAND ITS PRESENCE IN THE COUNTRY?

Egypt is an interesting market because it has a number of pipes which are corroding; they are leaking and they are having to be replaced regularly - so our pipe is a simpler solution to attend this big market. Our pipe is only for use onshore, and there is a lot of drilling and activity in the Western Desert; it is perfect for that because, apart from being used to replace pipelines, it is good from the wellhead to the first treatment separator, what we call gathering lines.

Additionally, in some countries, such as Saudi Arabia or Abu Dhabi, there is only one potential customer. Here we have lots of interesting companies: international companies - we have met Shell and Apache - we are also working with EGPC, so we see an interesting market as there are lots of potential customers. We also see the enthusiasm from EGPC, who has recognized the benefits they would get from using our pipelines. The make-up of the Egyptian market is particularly interesting for us.

We are building a plant in Saudi Arabia, because one of our largest customers is Saudi Aramco.. The plant in Saudi Arabia will obviously be much closer to Egypt than Calgary in Canada, which is where our pipes are made at the moment. In the future, we will be able to offer a 'just in time' solution for the Egyptian market. We see the demand, and we also see that in the future we will be able to supply our pipes more quickly and cheaply.

SHAWCOR HAS COLLABORATION AND PARTNERSHIP AS VALUES FOR ITS BUSINESS. HOW ARE THESE VALUES APPLIED IN THE COMPANY'S INTERACTIONS WITH ITS CLIENTS IN EGYPT?

We are working with a local partner to develop the business in Egypt, we will also be looking to train local people to do the installation of our pipe. Our practice in all countries is always to train local people; we will send people here to train Egyptians who will then conduct the installation. Through our pipe we provide employment for local people and obviously improve their skills by training them, then once a year we come back and check and recertify them.