



Marco KLIJSEN  
Managing Director  
STRAALTECHNIEK  
INTERNATIONAL

“Projects in Azerbaijan are becoming bigger in both size and scope, with developments such as Shah Deniz Stage 2 and the planned Absheron field development, and we should expect more similar initiatives.”

## Straaltechniek International

- Completed installation works at BOS Shelf's new custom coating facility in November 2015
- Contract for execution of these works was valued at around €3.6 million
- 5,000-square-metre facility is designed for 25-year lifecycle
- Facility will be used to coat jackets, jacket pillars, subsea equipment and structures for Shah Deniz Stage 2 project



In November 2015, Straaltechniek International completed its equipment and installation works at BOS Shelf's new 5,000-square-metre custom coating facility. The Dutch company was awarded a €3.6 million contract in July 2014 by BOS Shelf, which is the engineering and construction subsidiary of the State Oil Company of the Azerbaijan Republic (SOCAR).

Around 200 people, including 12 Straaltechniek employees, were mobilised for the realisation of the project, which took eight months to complete. The now-installed equipment can perform blasting and coating without interruption throughout the year.

**FACILITY:** The facility is divided in three sections. The 37-metre by 25-metre by 15-metre blast room is equipped with a reverse osmosis water treatment system and a high pressure washing and cleaning system to ensure that all steel surfaces are clean of salt and calcium.

The 74-metre by 25-metre by 15-metre painting room is fully equipped with temperature and relative humidity control systems, which are necessary for the coating to be applied and dried properly.

The 48-metre by 35-metre by 15-metre insulating room is used to protect the subsea structures with a special polyurethane coating, a job to be undertaken by Swedish engineering group Trelleborg.

All three sections are interconnected by a rail grid equipped with trollies to move structures across the different processes.

**MULTIFUNCTIONAL:** These new facilities and equipment, designed for a 25-year lifecycle, will first be used by BOS Shelf for its work on BP's Shah Deniz Stage 2 offshore gas development.

Units and structures to be coated at this facility are the project's jackets, jacket pillars, and subsea equipment and structures. Once coated, these units will be assembled before being installed offshore.

**CASPIAN AMBITIONS:** The company's primary focus in Azerbaijan and the broader Caspian region is the oil and gas and the shipbuilding industries.

“Today, the market conditions in the oil and gas sector in Azerbaijan, as well as the broader region are not favourable. However, I do believe that there are multiple opportunities in the oil and gas and marine industries. Projects in Azerbaijan are becoming bigger in both size and scope, with developments such as the Shah Deniz Stage 2 gasfield and the planned Absheron field development, and we should expect more similar initiatives within the next few years,” Marco Klijsen, Straaltechniek International's sales director, told TOGY. ■



**Ikhtiyar AKHUNDOV**  
General Director  
**BOS SHELF**

## Shelf reliance

Ikhtiyar Akhundov, general director, speaks to TOGY about the progress of the Shah Deniz project and related works, the impact of low oil prices and the development of local capacity. BOS Shelf is an engineering joint venture between the State Oil Company of the Azerbaijan Republic (SOCAR) and Star Gulf FZCO.

### What impact have low oil prices had on Shah Deniz-related work?

Low oil prices have been a major challenge, requiring cost cutting and optimisation. The major clients on site today in Azerbaijan want to push costs down. While we're working on a project, the client may come up with new requirements, requesting that we lower costs when we have already laid out our plans, schedule and budget. That forces us to rethink our plans and our way of doing things, in order to meet these new requirements. It's dictated by the lack of cash availability.

“When you go for mega-projects, specifically for a multi-year project like Shah Deniz [...] you think about contingencies.”

For Shah Deniz, sale prices and volumes were agreed on in 2011 and 2012, during the pre-sanction phase. Today we have to concentrate all our efforts on making sure that dates are met and volumes are reached. Our job as a consortium is to make sure that all milestones are passed and the schedule is followed, no matter what.

When you go for mega-projects and specifically for a multi-year project like Shah Deniz – which for us is a seven-year project – you think about contingencies. Unprovisioned costs happen each year. It's not easy to manage those costs, but at least you have some instruments in hand to address the problems. And there has to be no compromise on quality and safety. It has to be a best-in-class project.

### How has your Shah Deniz-related work been progressing?

This is a challenging project. It's never been done before. It's not just BOS Shelf and Saipem. It's also very specific contractors. Some of them

have never been in Azerbaijan or this part of the world at all. It was very challenging to get them on board and agree to the terms and conditions, to understand their obligations, to make them adjust and qualify, and then to start the job.

On top of that, our yard had the biggest upgrade we have ever had, including a new coating facility and a new subsea workshop. Overall, we spent something between \$80 million and \$100 million on upgrades of the yard for specific Shah Deniz needs. We completed that work on time. Our throughput capacity is more than 120,000 tonnes per year. We had a new crane delivered in 2015, which can carry 1,600 tonnes with a special super lift.

Complex equipment needed to be installed, especially for the coating facility, which required a lot of co-operation between contractors. Coating is one of the key parts of the work for Shah Deniz. We'll keep the contractors working on the coating for us over the long term.

The upgrades were all completed in November 2015, on schedule, and we're also ahead of schedule on the jackets, subsea fabrication and coating projects. We lost a bit of time because BP asked us to reshuffle some of the deliveries, so we've worked on that with Saipem to reschedule our overall master plan. It's been done and the new plan is definitely addressing key efficiency issues.

### What has the work comprised to date?

The full body of the first jacket was completed around March 20, 2016, and then we'll do the outfitting. This first jacket will be completed at the beginning of August. The second jacket is progressing very well. We're ahead on that too and we'll finish our work on that one towards the end of the first quarter or the beginning of the second quarter of 2017.

Phase one of the subsea work will also be completed by November 2016, and the jackets will be laid with the post-metrology completion of the subsea project. Phase two of the subsea project will be completed for first gas.

We agreed with BP on the operation of the multi-support vessel *Khankendi*, currently under construction at Baku Shipyard. The multi-support vessel will replace the *Tofiq Ismaylov* diving support vessel and the pipe laying

#### About BOS Shelf

*Bos Shelf was formed by SOCAR and Star Gulf FZCO, a subsidiary of Italian engineering company Saipem in 2001. Since 2012, BOS Shelf became a fully Azerbaijani company and a subsidiary of SOCAR, and was made the exclusive operator of Baku Deep Water Jackets yard.*

barge. This vessel will do both. This is our last big contract for Shah Deniz 2. Delivery of the multi-support vessel is scheduled for April 2017, after physical completion and the sea trials in the first quarter of 2017, but the design control, completion control, trials control, equipment purchasing, installation of equipment, trial of equipment, and other work will start in May 2016.

#### What is Azerbaijan's shipyard capacity in the Caspian and are there future expansion plans?

Azerbaijan has the biggest shipyard capacity in the Caspian Sea. The pity is that we don't have access to international waters yet. Once we do, it will be absolutely a different business. Iran is planning to dredge a channel between the Caspian Sea and the Mediterranean, spanning about 600 kilometres. They want to sponsor that themselves. If and when that happens, that would be a game changer.

#### What is the outlook for 2016 and beyond?

2016 is going to be more challenging and tougher than 2015. The crisis will start to ramp up a little somewhere in the second quarter of 2016, because the oil price will reach the bottom or has reached the bottom already. It will take longer for the price to recover. For us, even if the oil is \$60 per barrel today, it will be mid-2017 before we can claim a little more money.

“It's important to develop capacity for local workers. [...] we're not going to fire our guys, because we invested in their training.”

In June 2015, we finally took over some operations from BP. Now we not only do fabrication services, but also the full logistics support. All of BP's offshore works are done through our logistics base.

We receive, check, verify, deliver and receive back from offshore both materials and people. It's not just BOS Shelf, it's a lot of contractors going through one place. The facilities have been upgraded accordingly, it will be useful in the future as the base can support all offshore operations.

Looking at opportunities, we are in discussion with Total for the development of the offshore Absheron gasfield. A rig will be available soon for the development of the field, and its development will start in the coming years.

BP's new Shallow Water Absheron Peninsula PSA (production-sharing agreement) will also be interesting. There will also be other opportunities with the next phase of ACG [Azeri-Chirag-Guneshli], the development of the Umid and Bulla Deniz offshore fields.



The Shah Deniz 2 gasfield development requires two new offshore platforms and 500 kilometres of subsea cables

#### Can you characterise the development of local contractors' capacity to target these projects?

It's important to leave room for the contractors to manoeuvre. Companies should work with lump-sum, turnkey contracts where the contractor is responsible for delivering on schedule and according to a fixed cost, and let the contractors focus on their jobs and reduce interference from the client. This is how business becomes really interesting and how the contractor's capacity develops. For Total, we will give a full turnkey lump-sum proposal. The business has to be controlled by professionals. SOCAR, for instance, also supports this view and is going for lump-sum turnkey contracts for their large projects.

We are trying to promote this vision, and SOCAR should resort more to local contractors and its own subsidiaries to develop local capacity at the same time as they develop new plays. Look at the smaller fields, Umid, Bulla Deniz, and develop them with local expertise, so contractors will be able to take on larger projects once they acquire the necessary expertise. SOCAR can also develop and operate themselves. We are moving in that direction. If the oil price stays low for long, that will also be an incentive for operators to resort to local contractors more often.

At the same time, it's important to develop capacity for local workers. Beyond the fact that we need to cut costs and optimise, we're not going to fire our guys, because we invested in their training. We are not going to lay off and hire again. We invest in the young guys, because they have an interesting career path ahead of them, unlike the older ones who are not so interested in these opportunities. So in Summer 2015, we started investing in young guys and asked our older employees to recruit their sons.

We ran campaigns with the trade unions, saying sons can replace fathers. We are sending them to all the training centres, and we have our own welding school now. We've got about 400 new young guys, 150 of them are completing their training, the rest will start it soon. In the meantime, we bring non-national specialists because the job needs to be done, but for a short period of time. The idea is to have a fully nationalised young workforce that will remain an asset for the company for the next 25 years. ■

#### Shah of the show

In 2014, the BOS Shelf-Saipem-Star Gulf consortium was awarded \$2.5-billion in contracts by BP for Shah Deniz Stage 2: a \$750-million contract to supply the jackets for two offshore platforms, and a \$1.8-billion contract for the transport and installation of the jackets, topsides, subsea production systems and other subsea structures. In May 2016, the company was awarded another \$1.5-billion contract for the management and operation of the new Khankendi vessel and transport and installation of subsea infrastructure.