

Hardened shelter solutions for the new Kuwait University

In the early 2015 Temet completed one of its largest project deliveries when the last delivery lot for 23 shelters in Kuwait's new university campus was shipped. The total package supplied by Temet included blast and gastight doors, hatches, wall sleeves and first part of the blast valves which were delivered for the initial casting phase, as well as remaining blast valves, gastight valves, filtration units and CBRN detection systems which were delivered at the later phase of the project. Value of the entire project for Temet was approximately EUR 6.5 million.

One of the largest educational campuses in the world

Sabah Al-Salem University City is located to the south west of Kuwait City, where approximately 6 million square meters plot was allocated to the University City. The new University City is designed on east-west axis, with main campus on east and health sciences campus on the west. The University is designed to serve about 40,000 students. Teaching will be organized in several specialized faculties such as arts, humanities, science, technology and medicine.



Picture 1: Shelters in the campus area of University. In the first stage, 23 shelters are build, six more planned to build in the near future.

Long and demanding project

The New University construction project started officially in 2004 when a Decree N. 30/2004 was issued to establish a new university city in Shedadiya. The foundation stone was laid on February 2005. Buildings in the construction area will be completed intermittently and the entire campus area is expected to be ready in 2020. Temet was involved in the project in 2009-2015 and is joining the project again in 2016-2017 when the commissioning phase of the shelters will take place.

Although Temet has provided shelter solutions in Kuwait for more than 30 years, was a project of this size very unique and therefore demanded special planning to keep up with the extremely demanding project schedule. One example gives some idea about the size of the project and how remarkable was the stretching of Temet factory. Typical annual capacity to produce and deliver large ESL-filtration units for both Finnish and international markets is about 10 units. In 2014 more than 30 large ESL-units were manufactured and delivered of which 23 were addressed to Kuwait New University-project.

Ability to stretch when needed

Project implementation required success in many different areas both in Finland and in Kuwait. Main responsibility in Kuwait was lying on Boodai Trading Co., a long term partner for Temet in Kuwait. Boodai took care of all the documents addressed for main contractor, reviewed all the specification and responded to all questions from consultants. *“Co-operation between ourselves and Boodai is very good. M/s Boodai is very prompt and accurate in his responses. We had some clarification / questions from time to time, all were responded in a professional manner and on time”*, says Mr. Oussama Dbaihou, Construction Manager at Projacs International, responsible for project management. Boodai also handled all installations for Temet products and will also be involved in commissioning when everything is ready from the customer’s side.



Picture 2: Representatives from the Kuwait University and construction companies visiting Temet factory in September 2013.



Picture 3: Blast doors stored in Boodai’s warehouse in Kuwait.

One of the most significant keys to successful maintaining of the tight delivery schedule was Boodai's will to take a risk and place an order for blast doors with Temet even before they had an order from the customer. This ensured the ability for us to start deliveries to the site as soon as the agreement was signed. Temet blast doors were playing significant role also in the contract negotiating phase. According to Mr. Jack Al-Armani, Project Manager at main contractor company Ahmadiyah Contracting & Trading Co, *"the proofed high quality and ease of installation of Temet's solid steel doors was one of the key reasons why Temet was selected as a supplier of shelter equipment. After visiting their factory and seeing the product I was convinced that this decision was absolutely correct"*.

Workload at Temet during the project focused on two directions; production and project management. Production load was eased by Boodai's desire to acquire doors for stock in advance - the manufacturing could begin about a year earlier than it otherwise would have been possible. First deliveries for this project were shipped from Temet to Boodai's warehouse in 2012. The welding capacity was also increased due to the requirements of this project through the acquisition of a new welding robot for the manufacturing of blast valves. In the end – with the result of careful planning in advance and efficient sourcing of raw materials – all of the products were manufactured and shipped right on time, as scheduled.

The number of project managers assigned for this project varied between two and three persons, depending on the project stage. In Finland, one or two persons were assigned to take care of delivery schedules, documentation and contacts with Kuwait. In Kuwait, a Finnish project engineer took care of the logistics and oversaw installations. He was also often the contact person in the direction of local consultants. This solution turned out to be really good because a knowledgeable person from the land of origin of the products made lots of things to happen in remarkably fluent way. *"All the deliveries to the site came without any delay and in line with the project schedule"*, comments Mr. Tarek El Yamani, Project Manager at Kharafi National, responsible for installing the electro-mechanical services for the shelters.



Picture 4&5: Temet blast door and wall sleeve installations in the construction site

Successful project as an outcome

All in all, the project was very rewarding and very instructive in many ways for Temet. Due to this major project many things and approaches had to be thought in a new way particularly in the production. A number of improvements were made which will enhance fluency in the material flow also in the future. *“This was an extremely interesting and educational project for the company and for me personally. Dealing with multiple points of contact, handling the project and answering many different kinds of questions from many different people varying from a welder in our own factory to a consultant at construction site while visiting Kuwait was challenging but rewarding. The New Kuwait University will be an excellent reference for Temet products in the Middle East region”*, summarizes Mr. Juha Manninen who was the responsible Project Manager at Temet for the Kuwait University project.



For more information about the Kuwait New University, please visit: <http://ssuc.ku.edu.kw>

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