Since its launch, ABB’s System 800xA has been sold to more than 4000 customers. One of the systems currently sits in the pumping system for cooling the modernized Öresundswerket Power Station in Malmö, Sweden.

The system integrator, Deterministic Control, got work off to a flying start with ABB’s control system. “We received half-a-day’s training on 800xA, and thereafter the only thing to do was to get started with the engineering”, says Torulf Wiberg, MD and founder of Deterministic.

The Öresundswerket Power Station is an old station owned by E.ON, who is converting it into a modern, natural gas, combination station which will supply electricity and district heating to Malmö and the surrounding district. Located about two kilometers from the station, the newly built pumping station is a separate building – and a separate contract.

“In the assignment to supply the control system, there were also specific requirements for the functionality”, relates Torulf Wiberg. “E.ON did not specify a brand, but it had to be a qualified control system, and when we examined the different alternatives, the 800xA was the natural choice.”

After six hours of training by ABB’s Product Manager, Magnus Högstedt, Deterministic was ready to start programming a product they had never worked with before. “It helped, of course, that we were experienced programmers and ABB supported us along the way”, says Torulf.

“When we received the order, we only had two employees in the company, and this proves that even a small organization can manage an advanced system like the 800xA.”

Open toolbox
He believes that it is precisely this complexity that has given the system a reputation for being a bit difficult to get to grips with. “Certainly, the 800xA has a somewhat higher threshold than other systems, but this is because ABB has made it more flexible, with a more open toolbox”, he explains. “There were more things to come to terms with, but for us there were no oddities, and we did not have any problem keeping the schedule.”
“We have now gathered a lot of competence and a knowledge bank on ABB’s systems; therefore it feels natural to continue our growth strategy together with ABB.”

The delivery to the pumping station included an 800xA system with AC 800M controller, two operator workplaces and about 450 physical I/Os. Everything is redundant, except for the physical I/Os.

“A burdensome requirement was the time stamps for all digital events on the I/O cards “to a millisecond”, so as to synchronize all the events in the station with events in the gas combination station. This was one of the reasons we chose ABB’s products.”

Established partner
The collaboration has continued, and today Deterministic is one of ABB’s established partners. At the same time, the company has grown over a few years from two to eight employees.

“Naturally, we hope to grow even more thanks to the strength of the partnership with ABB. The Öresundsverket Power Station has generated further deliveries, including ABB’s Compact system to Gambro in Lund.”

“The product range and ABB’s technical support are strengths that gives us a strong feeling of security”, continues Torulf Wiberg.

“We have now gathered a lot of competence and a knowledge bank on ABB’s systems; therefore it feels natural to continue our growth strategy together with ABB.”

Moreover, the partnership with ABB is already on its way to include the Instrumentation section.

“This suits us well, as we have a large customer base in the process industry, where instrumentation is an important part of the business”, Torulf Wiberg points out.
Great confidence
On the automation side, Henrik Persson of ABB in Malmö, is responsible for the partnership with Deterministic. “We have great confidence in Deterministic and Torulf, and it is a genuine pleasure that the first 800xA project has now led to a partnership”, he says. “I see it as evidence that Deterministic considers ABB to have good products - and our focus on partner sales is appreciated.” It should also be mentioned that the two large cooling water pumps, of 575 kilowatt each, are run by convertors from ABB. ABB also supplied most of the power equipment in the cooling water plant.

Deterministic Control
- Started 1994
- 8 employees
- Focus on: process industry and infrastructure
- Business focus: an installation company that optimizes daily functions in automated systems and refines the data to provide useable information to the control room and business systems.

ABB Delivery
ABB deliveries for the pumping system included medium-voltage switching station, transformer, frequency converters and control system equipment.
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