



# In perfect proportion

The main oil import terminal of an island country in the Indian Ocean is just one of the latest destinations for a unique foam proportioner that requires no external power to operate, writes Jose Sanchez de Muniain.

Top: Jomala volunteer fire brigade has taken delivery of a water tender with a remote-controlled proportioner that can proportion at three different rates. Below: trailer with 2,500-litre stainless-steel tank and Firemiks 4,000 lpm proportioner – one of three such trailers engineered by Arming for Koper Port in Slovenia.

**A**t the end of last year Galana Raffinerie et Terminal took delivery of a foam proportioner that will be used to protect its jet fuel storage facilities. The recently modernised GRT in Toamasina Port, east Madagascar covers 45 hectares of land and contains 22 storage tanks that supply a number of countries in the Indian Ocean and east and southern Africa.

The 12,000 lpm proportioner, which was built by Swedish company Firemiks, is equipped with a bronze motor that can feed two 6,000 lpm monitors with 3% AFFF.

Similar proportioners were also recently delivered to the Port of Koper in Slovenia for the protection of its Jet A1 storage facilities. For this project, Croatian engineering company Arming installed three bronze 4,000 lpm proportioners on three foam trailers in order to create a semi-fixed fire-fighting system. Firemiks sales director Per Aredal explains more:

“This delivery was a feel-good story for me because we supplied a water-driven proportioner to Arming during my father’s time in the company in 1995 and this proportioner is still in use. We lost touch with Arming for a few years when we set up the new company, but they found us again through publicity in trade magazines. Whilst we were out of touch other proportioners had been installed but we found out that these proved complex, heavy and so noisy that it was

impossible to have a conversation next to them.”

These deliveries followed hot on the heels of another recent success at the opposite end of the globe. For some time the Jomala volunteer fire department on the Åland Islands in the Baltic Sea had been searching for a foam proportioner with some very particular requirements.

The foam proportioner needed to be suitable for mounting on a 35-tonne water tender with a 24-tonne multi-lift system, two 200-litre foam concentrate tanks, and a 15,000-litre water tank.

The water tender, which was designed in-house as a feeding unit to assist the local airport as well as for large-scale fires in the island, also carries an open pool on the roof of the tank to enable the storage of an additional 7,000 litres of water. ‘Jomala had quite unique requirements with the huge open-topped water tank on the truck, and they wanted to be able to choose two different foam solutions and at three different concentrations,’ commented Aredal.

The solution came in the form of a remote-controlled foam proportioner configured to proportion concentrate at 0.33%, 0.66% and 1% rates, and which can simultaneously supply a fixed water monitor flowing at 1,300 lpm as well as two hand-held nozzles flowing at 200 lpm.

‘We discussed how to install the proportioner and I went over to test it with them. They were very pleased that they could also use the system at a low proportioning rate for wetting agents,’ says Aredal. ‘It was a great pleasure to see the result.’

Significant benefits of the Firemiks proportioners include their simplicity and low operating noise. They require no supplemental energy and use the pressure from the water to mix and discharge the foam/water mixture. And because the force of the water motor drives the foam pump, the dosing rate adjusts automatically to the amount of water going into the proportioner. The more water that goes in, the faster the drive coupling rotates and the more concentrate is pumped through to mix with the water. ‘People like that it is water-driven and easy to handle. The industrial sector doesn’t like bladder tanks because they have too many problems and because it is often very expensive to replace the bladder inside the tank. In fact, sometimes it could be cheaper to buy a new Firemiks unit than repair the bladder tank,’ concludes Aredal.

