

## Fuel Installation at Naval Base

**L&H Rørbyg A/S (Denmark)**  
**[www.rorbyg.dk](http://www.rorbyg.dk)**

The Royal Danish Naval base in Fredrikshavn needed to upgrade the fuel transfer installations in order to prepare for changes in the environmental approval of the fuel transfer and storage facility. The original Italian pumps, pictured on the right, were installed in the early 1950's, and were equipped with a mechanical gearbox regulator for flow control.

PlantWare designed the pump installation upgrades for L&H Rørbyg. The drawings for pump sizes, connection pipes and general layout were based on a 3D AVEVA PDMS model. PlantWare used PIPE-FLO® from Engineered Software, Inc. to calculate pressure losses in the more than 3 km long supply lines, and to select suitable pumps for the booster and service pumps.

PlantWare also designed the new installation including PID, pumps selection, pipe design and general arrangement of the installation, for receiving and supplying both drinking water and demineralised water to the naval ships.



## Acoustic Cleaning of Air Preheater

### I/S Vestforbrænding (Denmark) [www.vestfor.dk](http://www.vestfor.dk)

Unit 5 at Vestforbrænding had a problem with the air preheater. The primary air contains a lot of dust as the intake is placed over the waste handling silos. The dust blocked the air preheater every 3 to 4 days and manual cleaning was needed. After mounting the PlantWare PH-250 acoustic horn, the air preheater remained serviceable for up to 1 to 1½ months between manual cleaning.

Save energy by changing from e.g. steam driven soot blowers to acoustic cleaning - contact PlantWare A/S for a quote for your (water/air - gas/gas - gas/air) preheater (rotating or tube types) or heat exchanger .

The picture shows the horn mounted in a modified hatch cover between the two sections of tube bundles.



## CONVAL 8.0

The Conval software is now out in version 8.0 with improved functionality for e.g. calculation of safety valves based on the rated mass flow for safety valves according to AD Specification A2, ISO 4126-1:2004, API 520:2008 and ASME:2004 Section VIII. The calculation of two-phase systems, including flashing liquids, is now standardised according to the Omega Method in API 520:2008. Please

visit our webpage [www.plantware.dk](http://www.plantware.dk) under Services > Software for more information on the new release or visit the web site of F.I.R.S.T GmbH @ [www.firstgmbh.de](http://www.firstgmbh.de)



## Industrial Boiler Plants

PlantWare are specialist in engineering of industrial boiler plants. Please visit either [www.kedelcentral.dk](http://www.kedelcentral.dk) (Danish) or [www.boiler-plant.dk](http://www.boiler-plant.dk) (English) for further informations or contact us for assistance during the sales period or a quotation for an order in hand.

