



### SERVICE ON THE MZS ARKONA

#### Application

The multi-purpose vessel (MZS) Arkona is used by the Federal Republic of Germany to fight against oil and chemical accidents as well as for emergency towing in general maritime traffic. The 69.2 m long special vessel was built in 2004 and is used by WSA Stralsund for the entire area of the southern Baltic Sea.

The Arkona takes on various tasks, such as operated as a spillage incident vessel, i.e. taking in and disposing of oil and chemicals from the water or from damaged ships, even under extremely „poisoned“ atmospheres. The professional fire brigade also uses the Arkona in coastal areas to fight fires. In order to be well prepared for a possible fire fighting attack, Apollo fire pumps were used.

#### Solution

In order to be able to pump the water masses as quickly as possible during operation, Apollo supplied three vertical, heavy duty single-stage process pumps and one vertical, multistage pump in 2004.

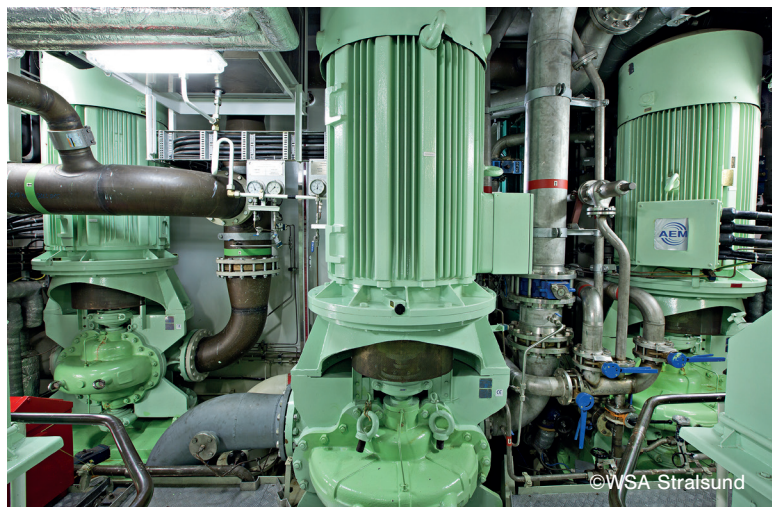
The vertical, multistage pump of the Apollotype GLVB-200A/3 is used on the Arkona as one of the three fire fighting pumps. The 3-stage pump delivers 400 m<sup>3</sup>/h seawater up to 160 m, with a

drive power of 220 kW. The two other fire pumps are the Apollo series ZMLKV.

This series is designed for large flow rates. The pump size ZMLKV-200A/690 was selected for the application parameters specified here.

Another pump of this series is used as a sprinkling pump on the Arkona. The Apollo pump of the type ZMLKV-300/500 with 446 kW pump power delivers 1400 m<sup>3</sup>/h to 94 m. This means that sufficient seawater can be made available from all pumps during extinguishing operations.

All four pump units are constructed of bronze to withstand the particularly high demands of chemical residence and the up to 8 mm solids content in seawater.



©WSA Stralsund



©WSA Stralsund

In 2004, the pump units were installed and commissioned over the uncovered deck. The deck was only closed after each individual part had been installed on site in the engine room. Due to the enormous limited space, the machines were designed vertically.

Apollo offers all its customers a wide range of services. Starting with commissioning of complete pump systems, repairs, maintenance, supply of spare parts up to technical support.

After almost 15 years of perfect operation and a new suction line on the Apollo GLVB pump, maintenance of the pump was necessary. Due to the replacement of the suction line, the pump became strained and therefore no longer functioned correctly.



©WSA Stralsund

An on-site repair could not be carried out as the fire pump had to be carried out on the Apollo test bench for diagnosis, reconditioning and the following test run. The removal and later installation of the pump in the narrow engine room was challenging. It was a technical masterpiece to manoeuvre the 1.5 t heavy units in the narrow engine room. In cooperation with the operator of the special ship,

the GLVB pump was successfully installed. After a one-hour test run on the Baltic Sea, the pump can be used again without restrictions and the Arkona is fully functional again. ■



## CUSTOMER-SPECIFIC SOLUTIONS FOR PUMPS AND SYSTEM ENGINEERING

### Who we are

Located in Goessnitz, Germany, Apollo Gößnitz GmbH is a lead manufacturer of process pumps and engineering systems for oil & gas industry, petrochemistry, offshore, fertilizer industry as well for power plant applications.

Apollo Gößnitz GmbH is a member of the HMS Group and can look back to more than 150 years of successful market presence.

With the know-how gathered over decades, we have specialised in the development and production of customer-specific pumps and pumping systems according to API 610.

Apollo Gößnitz GmbH ■ Walter-Rabold-Str. 26 ■ 04639 Gößnitz  
Tel.: 034493 77 0 ■ sales@apollo-goessnitz.de

[www.apollo-goessnitz.de](http://www.apollo-goessnitz.de)