

BAWAT BWMS - NEW BUILDINGS

- **UTILIZING MAIN ENGINE WASTE HEAT**
- **NO FILTERS**
- **NEGLIGIBLE OPEX**

BAWAT BWMS ONE-PASS TECHNOLOGY

The Bawat BWMS is the world's first in-voyage and no-filter ballast water management system utilizing onboard waste energy to treat ballast water.

The Bawat BWMS is a One-Pass BWMS. This means that ballast water is treated after passing through the system once – no secondary treatment, neutralization, nor measurement of the ballast water is necessary.

The technology behind is pasteurization. In this process, all foreign species are killed, and the ballast water becomes D2 compliant

The Bawat BWMS is an appendix to the ballast pumps and sized to match the

actual ballast water need and not the size of the ballast pumps.

INTEGRATING A BAWAT BWMS

The Bawat BWMS is based upon a well-known technology and components. This means that there is a possibility of optimizing components type and space.

By selecting Bawat BWMS for New Buildings it is possible to use the seawater cooling pump for both the BWMS and engine cooling thereby lowering energy consumption and saving a pump installation.

The Bawat BWMS is delivered either as a skid-mounted installation or individual components.

SIZING THE BAWAT BWMS

The Bawat BWMS is sized according to the actual amount of ballast water to be treated and not the size of the ballast pumps.

The following needs to be considered when sizing a Bawat BWMS:

- The availability of waste heat
- Amount of waste heat from main engine
- Alternative heat sources (Boilers, Gen-set, etc.)
- Operational pattern of the vessel (Time between ports, nominal speed, ballasts water exchange pattern)
- Cargo loading and vessel stability

Because of the unique One-Pass technology and by planning ballast water

treatment thoroughly, the amount of water to treat can be reduced remarkably. The size of the Bawat BWMS can often be reduced by 50% or more compared to the capacity existing ballast pumps.

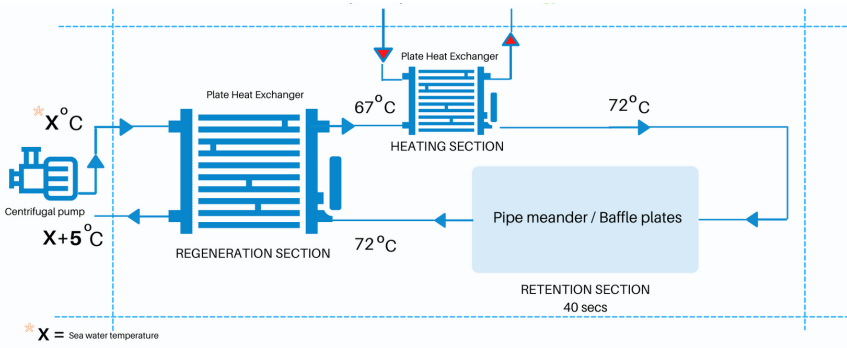


Illustration of Bawat's Pasteurization Technology