





Ultra Low Leakage valve

## ULTRA LOW LEAKAGE VALVE FOR CO<sub>2</sub> REDUCTION AND FUEL SAVINGS

Plug n' play solution for energy optimization

Internal leakage of control valves can cause energy losses during port stay on HT cooling system when pre-heater is in operation and additional consumption of oil by the boiler during port stay. Internal leakage leads to increased  $\rm CO_2$  emissions, increased  $\rm CO_2$  tax for the owner and worse CII rating of the vessel.

BROEN Clorius Controls offers a broad program of control valves, designed for energy optimization. Our unique Ultra Low Leakage valve solution has a leakage rate of less than 0,01%.

**Take control with BROEN Clorius Controls solutions** 

### **BROEN Clorius Controls offers**

- Ultra Low Leakage valve with an internal leakage rate of less than 0,01%, removing unwanted energy losses
- The Ultra Low Leakage valve can reduce the oil consumption from boilers, reducing the CO<sub>2</sub> emission
- The most compact valve on the market for easy retrofit without the need of hot work
- Retrofit solution can replace all types of 3-way valves in the market
- Easy installation and delivered as a plug n' play solutions.

## Benefits using our valves

- Removes unwanted energy losses during port stay
- 30 60T fuel savings annually on most vessels
- · No annual maintenance required
- Low switching cost compared to other energy optimization solutions
- CO<sub>2</sub> and fuel savings.

Fast Return on Investment (ROI)



# UPGRADE YOUR HT COOLING SYSTEM TO REDUCE CO<sub>2</sub> EMISSIONS AND SAVE FUEL

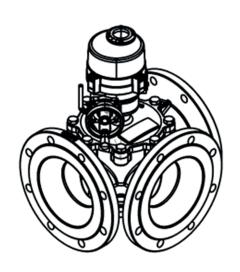
The maritime industry stands in front of major challenges to reach the IMO goals by 2050 and every step counts in reducing CO<sub>2</sub> emissions and save fuel.

With BROEN Clorius Controls Ultra Low Leakage valve solution, which can replace all 3-way valves in the market, your vessel will be a step ahead.

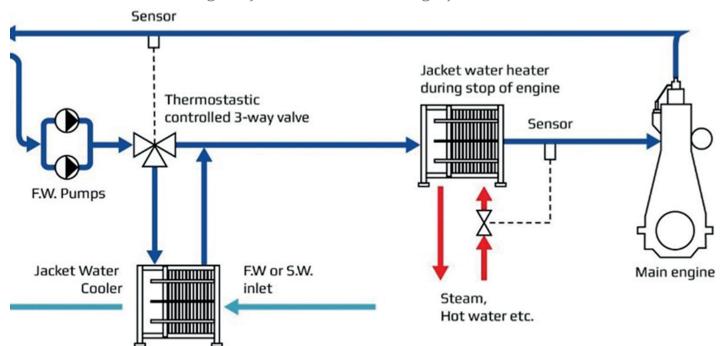
During port stay, the 3 way valve will close the port to the cooler side when the engine is shutdown.

Despite the closed valve port, valves with high internal leakage will not fully prevent the water from flowing to the cooler, leading to an unwanted cooling of the water which during port stay is heated by the pre-heater.

With BROEN Clorius Controls Ultra Low Leakage retrofit solution, you can easily upgrade the cooling control, and avoid energy loses during port stay, and save both oil on the boiler and lower the Co<sub>2</sub> emissions.



### Illustration of Main Engine jacket water cooling system



**Leading manufacturer of control valves**BROEN Clorius Controls is part of BROEN Valve
Technologies in Denmark.

BROEN A/S is owned by Aalberts N.V.

Headquarters

BROEN Clorius Controls Skovvej 30 5610 Assens Denmark **Contact information** 

Phone: +45 77 32 31 30 E-mail: mail@cloriuscontrols.com

Cloriuscontrols.com

