Engine Room Cooling Fans & Sea Water Pumps control system

Intelligent VSD control via PLC and HMI, to reduce the speed of fans and pumps while maintaining the ship’s safe operation, based on various scenarios (Seagoing, Maneuvering (port in/out), Cargo handling, Anchoring)

- Reduced operating costs (energy saving)
- Optimized investments with quick ROI (<2 years)
- Tailored solutions with access to highly qualified experts
- Respect modern regulations (SEEMP, ISO50001)
- Reduced CO2 emission

![Diagram of control system](image)

Estimation of energy efficiency for pumps or fans

Energy consumption (% of nominal power)

- 50% energy savings

![Energy savings chart](image)

Engine Room Cooling Fans & Sea Water Pumps control system

Tanker reference case

<table>
<thead>
<tr>
<th>Engine room fans</th>
<th>Sea Water pumps</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size</td>
<td>4 x 18.5kW</td>
</tr>
<tr>
<td>Annual Reduction of energy consumption</td>
<td>358MWh</td>
</tr>
<tr>
<td>Annual savings</td>
<td>~ $58,300</td>
</tr>
<tr>
<td>Reduction of CO₂ emissions</td>
<td>~500 tons per year</td>
</tr>
</tbody>
</table>

Energy Savings

-70%  -40%

ROI <12 months

![Diagram of sea cooling water pumps](image)