

HIGHLY RELIABLE PC PUMPS FOR CLOSED LOOP SCRUBBER SYSTEM ENSURING NEGLIGIBLE SULPHUR EMISSIONS & CONTRIBUTING TOWARDS SUSTAINABLE ENVIRONMENT



Sulphur produced in form of dirty gas from big engines & boiler exhaust is very dangerous for the environment. To reduce sulphur emission, scrubber system is used to remove harmful elements from gases and convert the Sulphur into sulphate (end product from scrubber system) for easy & safe discharge. Also, scrubber remove 60% to 90% of particulate matter (PM), including a portion of small PMs (10 and 2.5 micron, and ultrafine) & it allows vessels to use HFO; a residual fuel with high energy content which is difficult to refine.

CLOSED LOOP SCRUBBER SYSTEM

- When harmful gases from ship engine & boiler exhaust enters into scrubbing station through various chambers where a high number of droplets rapidly capture the errant particles in the process stream
- MgOH₂ is added to the scrubbing water circulation to maintain the process pH and consequently the SO_x removal efficiency. Simultaneously, a small bleed-off is extracted from the loop to remove accumulated impurities and fresh alkaline water and MgOH₂ is added
- Alkaline water (Sodium Hydroxide/ MgOH₂) is sprayed on gases in from of scrubbing clouds
- Scrubbing water passes through the packing bed and is collected and removed through the bottom. The water absorbs SO_x emissions, heat and other components from the exhaust gas stream
- The bleed-off having traces of oil & combustion elements and its pH is typically closer to neutral is transferred to emulsion breaking water treatment unit
- Clean effluent from the treatment unit is discharged overboard after quality monitoring, or led to the effluent holding tank when overboard discharges are to be avoided

PROGRESSIVE CAVITY PUMPS APPLICATIONS IN SCRUBBER SYSTEM:

- To transfer MGOH₂ to Alkaline Water Unit
- To dispose sludge from Water Treatment Unit



Industrial RD/RM Series Pump

Performance Range

Flow Rate: up to 420 m³/hr

Pressure: up to 48 bar

These heavy duty pumps are designed for continuous or intermittent duty and are suitable to perform efficiently even for the most difficult fluid handling applications in varied industries. These pumps are available in bare shaft and close coupled configurations.