

SCRUBBERS USED IN MARITIME INDUSTRY

Scrubbers

Scrubber systems are a diverse group of air pollution control devices that can be used to remove some particulates and/or gases from industrial exhaust streams. The first air scrubber was designed to remove carbon dioxide from the air of an early submarine - the Ictineo I - a role which is used until today. Traditionally, the term "scrubber" has referred to pollution control devices that use liquid to wash unwanted pollutants from a gas stream. Recently, the term is also used to describe systems that inject a dry reagent or slurry into a dirty exhaust stream to "wash out" acid gases. Scrubbers are one of the primary devices that control gaseous emissions, especially acid gases. Scrubbers can also be used for heat recovery from hot gases by flue-gas condensation.

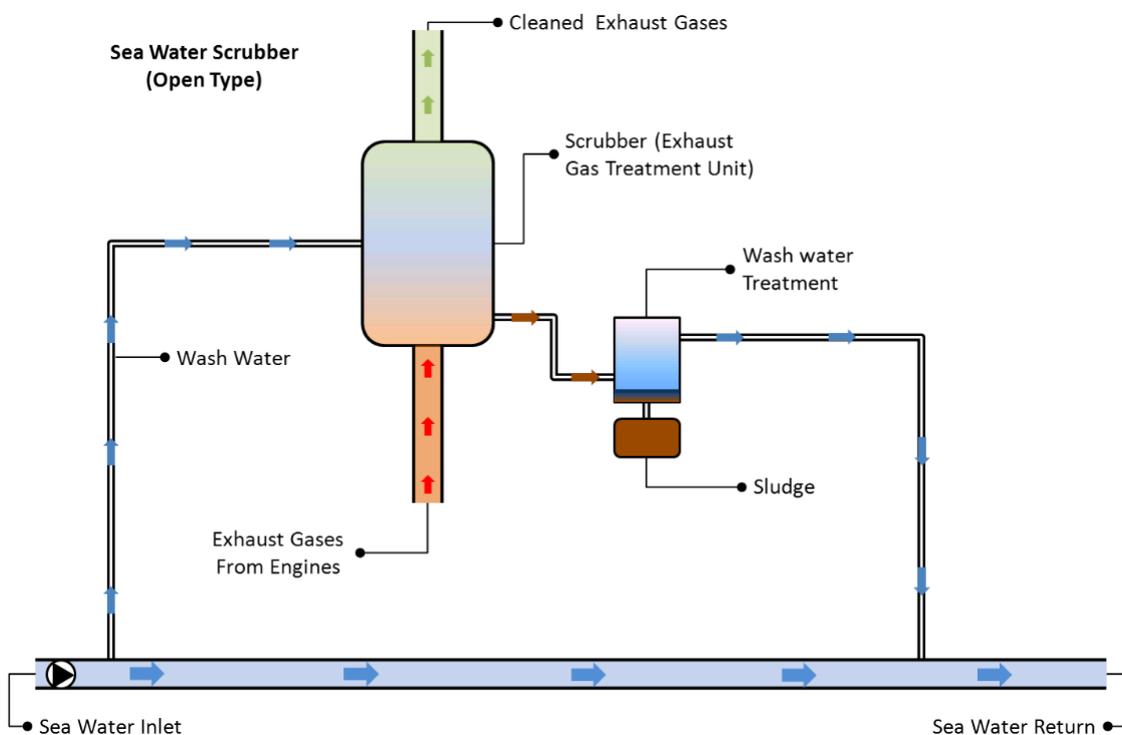


Figure 1

Manufacturers in the maritime industry are constantly improving this sort of systems to meet new regulations. The improved systems enable manufacturers to decrease sulfur content of fuel oil to a max of 0,1%. Because of this, air emissions are significantly reduced and companies are able to meet their environmental goals.

There are 4 kinds of scrubbing: wet and dry scrubbing, absorbing and mercury removal. These systems are used for various purposes.

- To clean air, fuel gas or other gases of various pollutants and dust particles;
- To contain water soluble toxic and/or corrosive gases like hydrochloric acid (HCl) or ammonia (NH₃);
- To remove acid gases (such as SO₂ and HCl) primarily from combustion sources;
- To remove Mercury.

Wouter Witzel butterfly valves

In brief, a scrubber system is used to remove or neutralize harmful substances. Scrubber systems like these, use a various number of valves (not shown in figure 1). These valves have to be resistant to these substances. Wouter Witzel has the perfect range of butterfly valves for scrubber technology. We can provide a wide range of manual and remote controlled butterfly valves with higher grade materials resistant to the substances it will face in scrubber systems. Unique sustainable product features, reliability as well as excellence in project management skills make our products and services suitable for a wide scope of applications and substances. The already proven track record of our applied butterfly valves in scrubber systems in various ships has shown our valves to be reliable and long lasting.