

# Green Exhausts

**MarQuip**  
Professional in  
Exhaust Solutions

[www.marquip.nl](http://www.marquip.nl)



## DESIGNING GREEN EXHAUST SYSTEMS IS A BALANCE ACT

Along with a changing climate, the demand for green yachts is on the rise.

More and more authorities are rejecting “dirty” yachts out of their harbours. They prefer yachts that will not pollute the water and air in the harbour.

Yacht owners on the other hand are also becoming more and more aware of the advantages of having a so called “green” yacht.

MarQuip, well known for delivering exhaust systems to over 125 Super yachts so far, is an expert on designing green exhaust systems.

Designing a green exhaust system can be quite a challenge. Next to cleaning the exhaust gas there are a lot of other points

that have to be taken into account for engineering an efficient exhaust system.

Noise attenuation, cooling the exhaust gas, maximum back pressure values and available space are all very important parameters.

And then the exhaust system must also fit inside budget, regulations and time schedule. All these subjects interact with each other and influence the outcome of the design.

Therefore it must not be a surprise that designing a green exhaust system is all about making the right choices to come to the optimal design.

Especially if you take a look at all the different ways of emission reduction. All of them require their

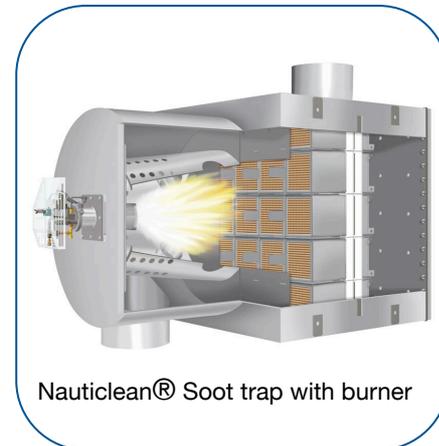
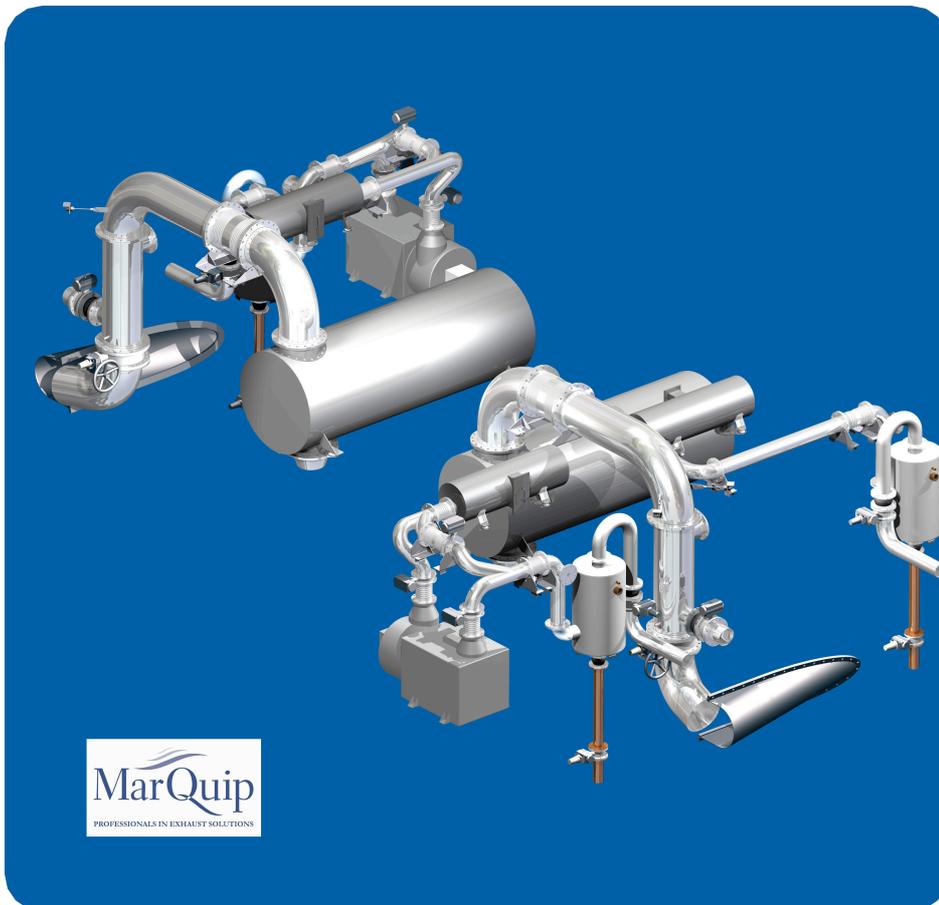
own solution and take a bite out of the available space and budget.

If you are looking for an optimal green exhaust system, it is in our opinion wise to go to a professional exhaust system supplier with experience in green exhaust systems.



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Nauticlean® Soot trap with burner



## The most green and silent exhaust system available

Above right you see a picture of a recent exhaust system we have delivered in full for two yachts in Italy. Next to the underwater exhaust system for the main engines you can see three generator exhaust systems. Two of them are very green systems. One on starboard side and one on port side.

From the engine outlet, the exhaust gas goes directly into a silencer with an integrated catalytic converter. By using the silencer we can guarantee proper noise attenuation. From there we go to a soot trap with an automatic burner, a Nauticlean® by HUG engineering, with the possibility to bypass the Nauticlean®.

After that we have our own water injection piece which injects water from the middle of the pipe. Here the exhaust gas temperature is cooled down rapidly and efficiently before it goes into our water separator (scrubber) where the water and the exhaust gas are separated. Our water separator also works as an extra silencer. All is designed within back pressure limits and requested noise reduction.

By using such an exhaust system we can guarantee that the yards client will get the cleanest and most silent system available.

### Tips for Green exhaust refits:

#### 1. Be early

It is imperative to contact us long before the yacht arrives at the yard. Our engineers are very experienced in finding space for all the green components. For our custom engineered designs we need your information.

#### 2. Give as much info as possible

If available, send us the as build drawing in DWG. We also need all engine output data as extensive as possible.

#### 3. Check the available data

Data can change after delivery of the yacht. Please check all data on accuracy.

### Emission reduction

Noise	Soot	NOx	SOx	CO,HC
Silencer	Soot trap	SCR* Urea	Scrubber Low sulfur Fuel	Catalytic Converter

\*Selective Catalytic Reduction