

## **WALLAS MARINE HEATERS PROVIDE QUIET, VARIABLE POWER FOR PRECISE COMFORT CONTROL AND UNMATCHED ADAPTABILITY**

Diesel heaters are some of the safest, most convenient heating options for cold, off-grid environments. Diesel is available virtually everywhere, and the ability to draw fuel from the main fuel tank of the vessel or vehicle is a big advantage. Diesel is also more resilient in cold temperatures than for example propane.

### **The Combustion System Simplified**

Wallas diesel heaters produce heat by a laminar combustion process, which requires air, fuel, and a glow plug for the ignition. Combustion air is drawn in via inlet hose with a combustion fan. The highly precise dosing fuel pump delivers fuel to the burner from a diesel tank, glow plug switches on, air-diesel mixture ignites and creates combustion. This whole process takes place inside a closed chamber, meaning no exposed flame. In the chamber, the fuel vaporizes before ignition, resulting in nearly 100% combustion, making this technology one of the most environmentally friendly options for off-grid heating. The process produces quiet, clean, dry heat, that is blown into the indoor space via warm air ducting.

### **Materials for Challenging Weather Conditions**

The rugged outer case design protects the internal components from damage. Wallas heaters are made of stainless steel, high-grade aluminum, and other corrosion-resistant materials to endure challenging weather and marine conditions. The outer case does not get excessively hot, but is comfortable to touch. This provides the option to install the heater in the cabin, where competitors' heaters are not welcome due to too high surface temperatures.

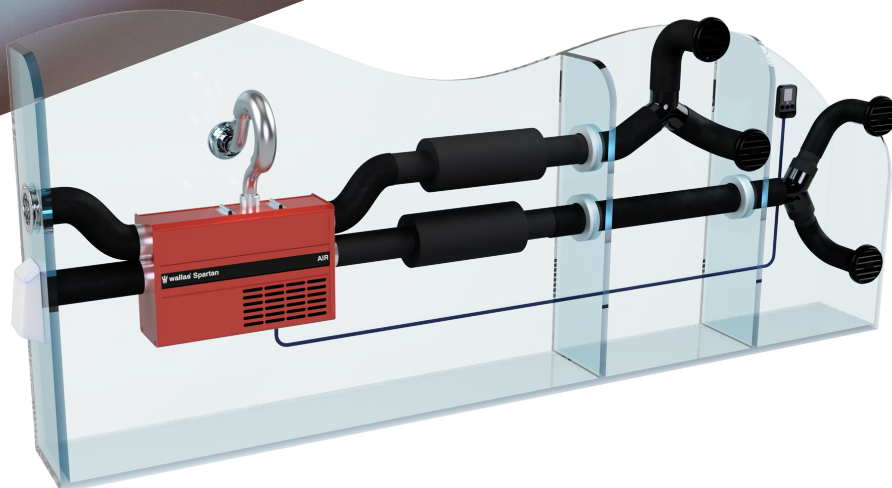
**Wallas-Marin develops products that run best with current road and boat diesel, as well as renewable fossil-free diesel types (HVO), which are some of the cleanest fuels available.**



Wireless temperature sensor sends accurate temperature data to the control panel to maintain a smooth ambient temperature.

Multiple outlets reduce air drag and keep the sound level low. They also reduce power consumption and facilitate smooth distribution of heated air throughout the cabin.

Multiple inlets take fresh air from outside and heated return air from the cabin. This improves efficiency and ensures oxygen rich air in the cabin.



**Multiple Inlets and Outlets Improve Airflow, Flexibility and Efficiency**

Diesel heaters' inlet air can be taken from inside the cabin or outside. If air is taken from the inside, it takes less time to heat the air as this return air is already warmer than outside air, but the heater basically circulates the same stale and possibly damp air in the cabin. If air is taken from outside, it may take a bit longer to warm up, but outside air is always fresher.

Wallas marine heaters do both - take inlet air from outside the boat and recirculated heated air from the cabin. This mix improves efficiency and ensures oxygen rich air in the cabin. Wallas heaters also have unmatched adaptability with multiple outlets for the warm air, reducing air drag and keeping sound levels low.

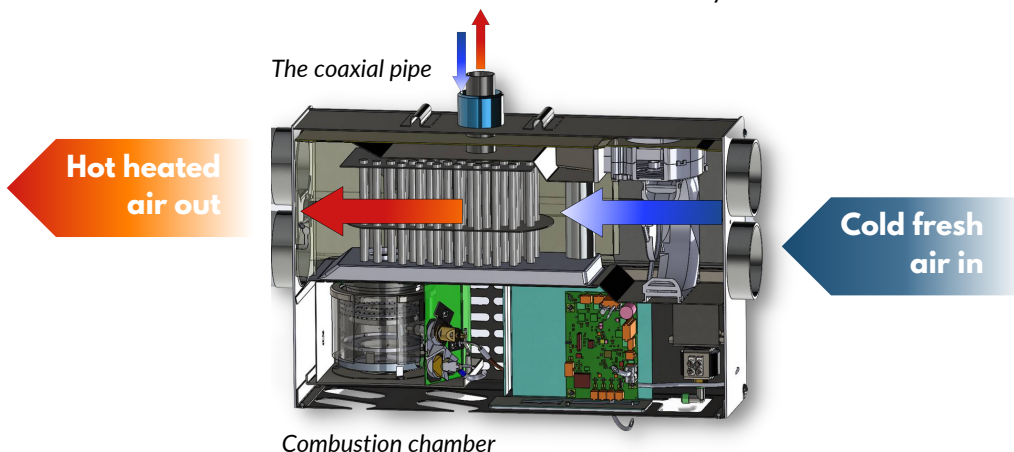
**Multiple ducts reduce power consumption and facilitate smooth distribution of heated air throughout the cabin. The bigger the cross-sectional area of the ducts are, the less it reduces airflow and makes the best use of the ventilation fan.**

**The Greenboost Burner Burns Fuel Slowly, Resulting in a Clean Burning Process and More Efficient Power**

The Wallas combustion chamber is the most efficient in its class. The aerosols of diesel are burnt in a safe enclosed chamber with a burn process that is virtually silent. The fully enclosed burn process doesn't leak fumes or combustion odors and all of the exhaust gas is vented outside, keeping the indoor air always fresh.

Wallas Greenboost burner is unique as it has been calibrated to burn fuel as slowly as possible, which results in very low fuel consumption and emissions without reducing heating power. The fuel pump rate is matched perfectly to the combustion air, providing a very clean and efficient burn of diesel. The recently updated burner software also minimizes 12VDC electricity consumption allowing boaters to use the heater for long periods of time without concerns about depleting the battery.

Wallas heaters take the combustion air through the outer coaxial pipe and force exhaust out through the inner coaxial pipe. This reduces the temperature on the surface of the pipe keeping other surrounding materials safer. This virtually silent process also improves efficiency, wind resistance, and raises the available power level.





**Brushless blower motors have a very long life-cycle, supporting reliably long service intervals**

Wallas heaters are built with brushless blower motors with variable speed. Picture a single-speed system which runs at full capacity, then stops when the temperature reaches the set level in the thermostat, only until the temperature drops and the motor cycles back on at full speed. This kind of constant starts and stops waste a tremendous amount of energy. Variable speed system in Wallas heaters, on the other hand, can operate at high speeds or low speeds and adjusts the speed gradually to the required level to maintain a stable temperature. Even though the variable-speed motor is basically always running, it is more energy efficient, because it runs mostly at lower speeds maintaining the temperature rather than frequently starting at full power.

Distinctive to Wallas, there are two independent, brushless, ball-bearing, highly durable and long-lasting fan motors. The combustion fan, controlled by the electronics, optimizes a precise burning process, while the main blower transfers the heat to the cabin. Competitive products have only one motor with the combustion fan and the main blower on the same shaft. In these devices, the heat output cannot be adjusted without compromising the fuel-air mixture and their ventilation fan does not always follow the power variations of the device. This feature makes Wallas heaters more versatile for different sizes of boats. The big advantage is there is no need to be extremely precise about the size of the heater, because the power output can be adjusted; especially in the newer Viking and Spartan models.



*Open and closable air vents can be installed in the indoor space or on the deck for maximum comfort.*

**Brushless motors are considerably more durable, yet quieter than brushed motors. They have a longer life-cycle, thus requiring less frequent servicing.**

**WALLAS IS DIFFERENT**

- Multiple inlets and outlets improve airflow and efficiency.
- Variable output eliminates system cycling and reduces noise.
- Two independent highly durable and long-lasting fan motors for improved performance.
- Low temperature on unit and exhaust pipe improves everyone's safety.
- Wallas thermo control maintains an accurate temperature level to keep the whole crew comfortable.
- Wallas marine heaters are remotely controllable from your home sofa, so you can arrive at a warm boat.
- Low voltage technology ensures that the heater will start even with compromised charging and lower battery levels.

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*The Advanced Control Panel enables intelligent temperature control and system diagnostics.*

**Wallas-Marin is known for durability, sustainability, and performance, which rise from strong Finnish values of pursuing quality in every aspect.**

### **12 V Battery as a Power Source**

Wallas heaters need a 12 V battery to operate, but they use a very low amount of power. Starting current will typically go to 7-9 amps and then settle to 8-10 amps, which can drop the available voltage momentarily. Once the device is running, it will continue to run on a battery, but with a voltage well below 12 V, amps typically ranging between 0.5-4.5. Low voltage technology ensures that the heater will start even with compromised charging and lower battery levels.

### **Wireless Temperature Sensor Maintains a Smooth Ambient Temperature**

Wallas heaters have either a wired or wired+wireless temperature sensors, which maintain a smooth ambient temperature in the space. The wireless sensor in the newer Wallas models is a convenient tool to accurately measure room temperature. As it is detachable, it can be moved to different areas of the boat.

### **Thermo Control Panels Give More Options to the Boater**

Wallas currently has two control panels; the PI Thermo Control Panel and the Advanced Control Panel depending on the heater model. They both give the option to heat air in the Thermo Control Mode (set a desired target temperature) or in the Manual Mode (control heating power manually). Additionally, the ventilation volume in Air Boost Mode provides extremely fast defrosting and drying. Ventilation Mode can be used to blow fresh air, when heating is not needed. Both control panels can be accessed remotely, which allows the boaters to start the heater from distance and enjoy a warm boat upon arriving at the marina. The control panel is installed in an area, where it is easy to reach and read. However, Wallas Remote app paired with the Advanced Control Panel is a convenient alternative heater control as it allows the boaters to adjust the heat from their phone without having to reach to the control panel at all.



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# CONTROL YOUR HEATER REMOTELY WITH A MOBILE APP

The Advanced Control Panel can be accessed remotely with the free Wallas mobile app, which allows you to save time by turning the heater on while you are still at home.

## SHORT RANGE WIRELESS CONNECTION

Wallas Remote Mobile App connects to the heater's control panel through a short-range wireless connection.

No additional equipment is needed to use the app locally on boat within 15-20 m / 50-65 ft.

Wallas App operates with units that come with the Advanced Control Panel.

## LONG DISTANCE WIRELESS CONNECTION

Remote accessibility is also possible from any location through a WiFi connection. This type of connectivity requires a boat or marina WiFi modem.

*Keep your heater always updated with the latest features*

## USE APP OR CONTROL PANEL

Turn your heater on remotely and enjoy a warm boat upon arrival.

Monitor cabin temperature and battery voltage remotely from home to be better prepared for the day.

Adjust temperature locally on boat with your phone without having to reach to the control panel.

**INTERESTED?  
IT IS ABSOLUTELY FREE**



**30 GB**

1500-3000 W

5,100-10,200 BTU

Forced air heater with a basic thermo control panel for convenient, flexible comfort control.

Heating power can be controlled in Thermo Control Mode by setting a target temperature or with knob with simple rheostat in Manual Mode.

Air Boost Mode increases the ventilation capacity for quick defrosting, and drying.

Wallas 4430 Remote Control accessory enables online based remote accessibility.

Temperature sensor in the control panel provides stable indoor temperatures.

**VIKING AIR**

950-3000 W

3,200-10,200 BTU

Forced air heater with a thermostatic control panel and multipoint remote temperature sensing for improved accuracy.

Heating power can be controlled in Thermo Control Mode or using six power levels (1-6) in Manual Mode.

Superior ventilation volume in Air Boost Mode provides extremely fast defrosting and drying.

Wallas Remote App enables remote control, feature updates, and diagnostics.

Wired and wireless sensors send more accurate temperature data to the control panel to provide stable room temperature.