

airhood®



Design Description

AirHood® is a portable range hood that removes grease, smoke, and cooking odors as it happens, and stops oil films from forming on surfaces. It keeps the air and kitchen countertops clean while adding a friendly but non-intrusive touch to any kitchen.

The design idea of AirHood® was born from looking at conventional, permanently installed range hoods in small student apartments. It was quickly apparent that the user-friendliness and maintenance needed improvement. Portability and small form were essential factors, as many people neither own nor can install a range hood. Since everyone deserves to cook and live in a healthy and comfortable environment, the design goal was to challenge the status quo of "clean and healthy cooking." and make it a reality for **anyone – anywhere and anytime.**

The Evolution of AirHood®

First Drafts

The first concepts go back to the use of an ordinary vacuum cleaner and other elongated and thin cylinders. Testing different fans helped to rethink the basic shape of the device.



Optimizing The Base

The next step was to design the base of the device so that it doesn't look too clunky but still offers enough stability. The footprint should be kept as small as possible so that the device can be placed anywhere. To optimize cable management and potential battery storage, a hollow cylindrical base with extra weight for added stability became the natural solution.



Finding The Right Form

It became apparent that the most effective motors have a wide, flat design. This also led to the improvement of possible housing shapes, since such a shape requires relatively little space next to the hob. Based on this finding, a variety of "flat" cuboid and cylindrical shapes were investigated for their fit for use with the necessary technical components.



The Final Design

The last four models were made to make the proportions between the case and the base more precise and to make the device look friendlier and less technical.

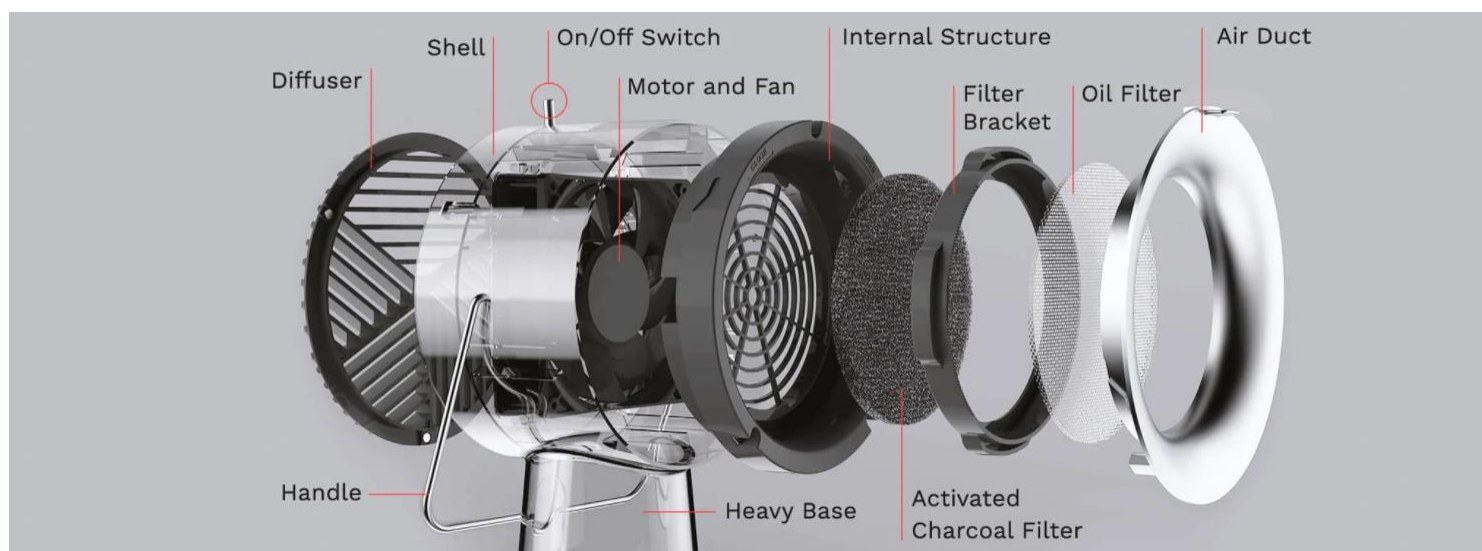
This led to the final appearance of the AirHood® as it exists today.

AirHood® Design Features

Cooking Fume Extraction with Dual Filter Technology

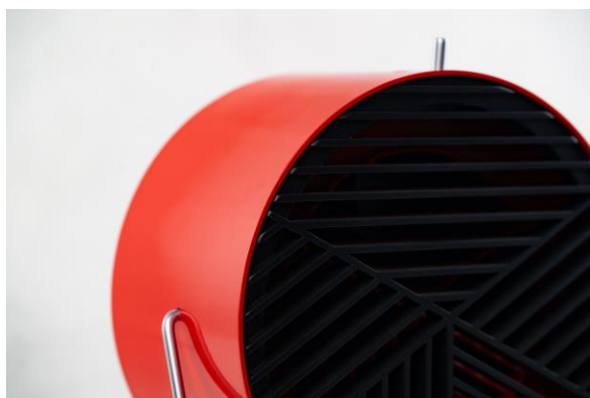
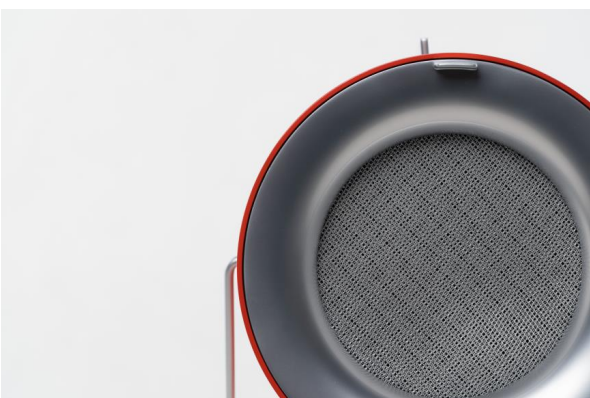


A strong fan draws in cooking fumes, through a two-filters system, before passing the fan and diffuser, venting them out into the surrounding area. This structure protects the fan from any dirt particles, which significantly improves its lifetime. The oil filter together with the air duct gives the device its distinctive appearance.



The Dual Filter System

After getting sucked in through the air duct, the fumes first pass the oil filter, which extracts the grease particles from the steam caused by cooking. This reduces cooking odors and prevents a yellow sticky film from developing on kitchen surfaces. It then passes through the activated charcoal filter, which filters smoke and toxic fumes from cooking at high temperatures. The activated charcoal filter also binds odors, leading to a more pleasant cooking experience. Finally, the filtered air is passed through the diffuser. This is not only helpful for swirling the outflowing air but is also a visual highlight of the device.



Dimensions

Main unit: 332 mm x 220 mm x 140 mm
Oil Filter: \varnothing 145 mm x 3 mm
Charcoal Filter: \varnothing 135 mm x 8 mm
Height Extension: 50 mm

Weight

Wired: 1.70 kg
Wireless: 1.95 kg
Height Extension: 0.77 kg

Materials

Main housing: gloss ABS
Anthracite parts: matte ABS/PT
Silver part: gloss ABS
Handle: stainless steel

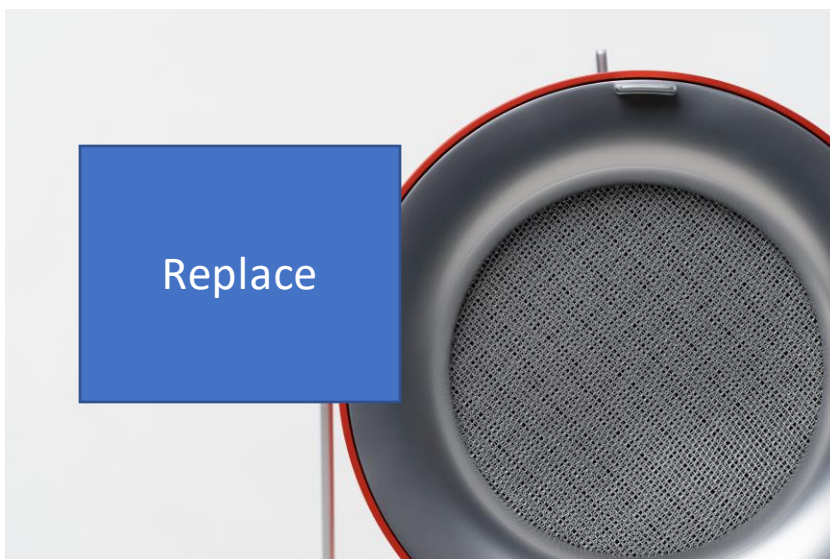
AirHood® Design Features

Portability

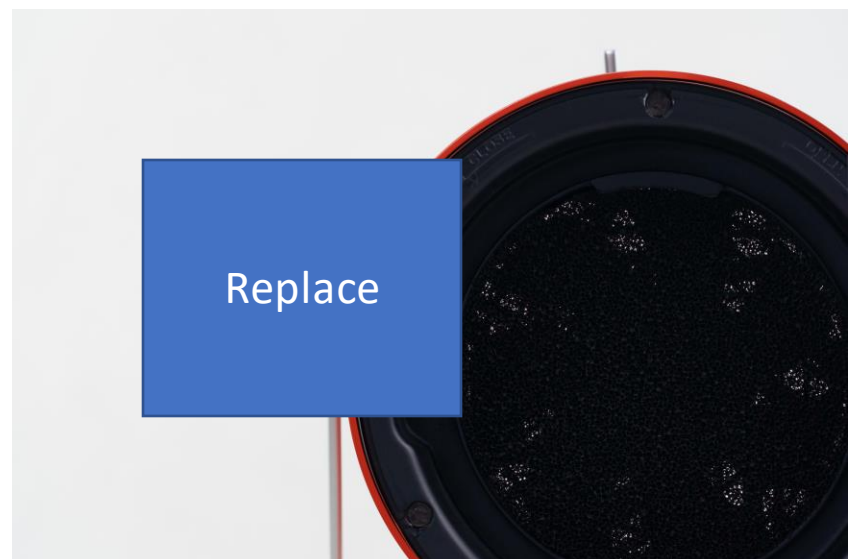


The stainless steel handle is not only an aesthetic choice for AirHood® but also has two functions: improved portability by allowing users to carry it around easily, and creating hanging as a storage option, which is especially beneficial for owners of small kitchens.

Easy to Clean



The oil filter is attached to the rear of the air duct by a bracket. If the magnetic connection between the air duct and housing is released, the air duct together with the bracket and the oil filter can be easily removed. The bracket can then be released with the aid of a twist lock mechanism and the oil filter removed. This is very easy and does not require any tools. The oil filter is made of 100% stainless steel and is therefore dishwasher safe.



After removal of the air duct, the user has direct access to the charcoal filter. The charcoal filter is placed directly behind the oil filter and is fixed in place by the internal structure. Due to its soft nature, the filter can be easily removed with only one grip. The charcoal filter is a wearing part and should be replaced regularly. Thanks to the present design, this process is no longer an obstacle for the user. The internal structure also protects the user from direct contact with the fan.

AirHood® Design Features

Wireless and Wired Version



The wired option delivers unlimited power. Thanks to the hollow design of its base, AirHood® offers a dedicated space for the power cord. Storage and setup are just as easy and convenient as the wireless option. The opening shape looks unobtrusive and the cable is guided through the small trough in the handle.

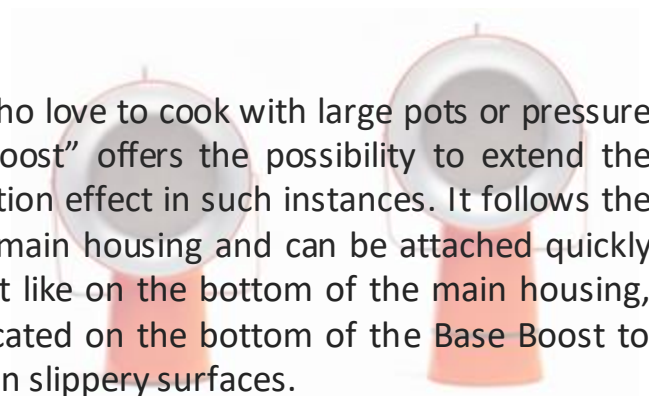


The wireless variant of AirHood® offers ultimate flexibility. The battery life lasts up to 180 minutes, which means it can handle cooking meals throughout the day. It can be used even while it is being charged. White LEDs arranged in a semicircle were chosen as the battery indicator to fit with the overall rounded design.

Adjustable Height



To meet the needs of foodies who love to cook with large pots or pressure cookers, the optional “Base Boost” offers the possibility to extend the AirHood™ and enhance the suction effect in such instances. It follows the color and conical shape of the main housing and can be attached quickly via a twist lock mechanism. Just like on the bottom of the main housing, four circular rubber feet are located on the bottom of the Base Boost to protect the device from sliding on slippery surfaces.



Three Speed Settings

Three different fan speeds can be set via a switch. The switch is mounted on the top to be easily accessible at all times. Furthermore, it follows the design language of the front lid with its glossy silver appearance.

Color Options

The four color options are based on the four main colors of the AirHood® brand guidelines. In addition to the signature red and the most recent mint green, an anthracite and white version are designed as well. This also gives people who don't need an extra splash of color in their kitchen the opportunity to find a visually appealing model.

