



REICAT
Environmental Solutions

YOUR PARTNER FOR CATALYTIC
AIR PURIFICATION SOLUTIONS



FUNCTIONALITY OF THE CATALYTIC CONVERTER

The waste air contaminated with organic impurities is led to the catalytic air purification system via pipe and an on-site blower. The waste air is - if necessary - heated to the necessary reaction temperature by means of an electric hot air blower (for ReiCatino® models) or a gas burner (for ReiCat Gourmet & ReiCat Industrial models).

Through a reaction at the catalyst, all impurities responsible for smoke and odour are oxidised into harmless substances.

As this is not a filtration system, there is no residue to remove after the use of the catalytic exhaust air purification solution. This makes the catalytic converter a very low-maintenance system compared to other exhaust air purification solutions.

An additional pre-filter serves as a further safety measure and filters remaining coffee chaffs from the roasting exhaust air that the cyclone does not capture. This also ensures that the catalytic converter functions permanently and is kept clean. In the event of a cyclone failure, the catalytic converter can also be protected from major maintenance costs.

ENERGY CONSUMPTION AFTERBURNER VS. CATALYTIC CONVERTER

	Gas consumption (kW)	Gas price per kWh	Gas consumption (1 day per 8 hours)	Gas consumption per year	Costs per day*	Costs per year**
After-burner	160 kW	0.0474 €	1,280 kWh/day	332,800 kWh/year	60.67 €/day	15,774.20 €/year
ReiCat Gourmet	20 kW	0.0474 €	160 kWh/day	41,600 kWh/year	7.58 €/day	1,970.80 €/year

costs per kWh Gas: 4.74 Cent (Status January 2022, without VAT)
arithmetic mean value for an annual consumption of 116,000 kWh per year

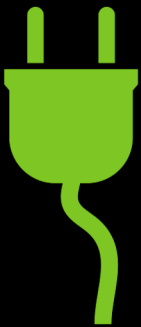
COMPARISON REICATINO® VS. AFTERBURNER



neutralisation
of smell



neutralisation
of smoke

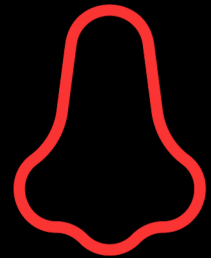


electrically
powered



low in
maintenance

NO
neutralisation
of smell



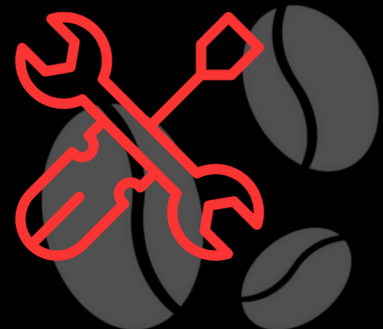
only partly
neutralisation
of smoke



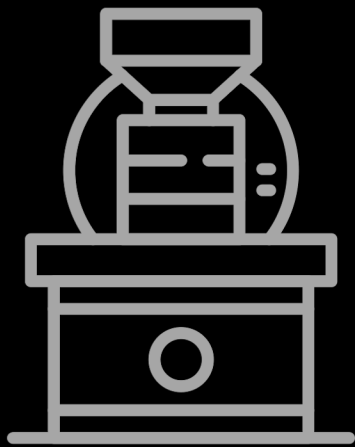
gas
powered



higher
maintenance
effort



REICAT CATALYST VS. AFTERBURNER

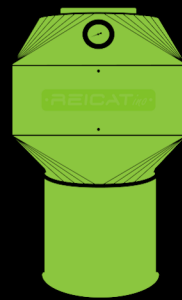


Roaster



Cyclone
150 - 180°C

Δt
100°C - 200 °C



250°C - 380 °C
ReiCat Catalyst



approx. 50%
energy saving



















Δt
approx.
500 °C



Afterburner
600 °C - 700 °C

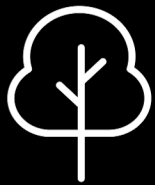


COMPARISON OF EXHAUST AIR PURIFICATION OPTIONS

	Neutralisation of smell	Neutralisation of smoke	Compliance with legal regulations	Maintenance
Dilution				high effort
Electrostatic filter				very high effort
Activated carbon filter				very high effort
Zeolite filter				very high effort
Afterburner				low effort
catalytic air purification from ReiCat				very low effort

*not completely

ADVANTAGES OF A CATALYTIC EXHAUST AIR PURIFICATION SOLUTION



eco-friendly



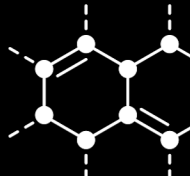
energy-efficient



**reduce
emissions**



**neutralisation
of smell &
smoke**



**avoid NOx
(VitarNOx)**



**happy
neighbours**



**no additional
footprint***



**conversion of harmful
components at
low temperature**

*trough increase in temperature without additional combustion

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