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Certificated emission control devices for cooking by the New York City DEP, USA.

Performance Certified by the Ministry of SMEs and Start-ups in Korea



### Annual death toll from cooking emissions resulting from cooking foods

## 3,800,000 persons

Source: WHO(World Health Organization)

### Cooking emissions are

the next air quality issue that threatens the healthy lives of mankind, following diesel particulate and cigarette smoke



### Cooking emissions, one of the Group 1 carcinogens designated by the World Health Organization (WHO)

- $\bullet$  90% of lung-cancer women are non-smokers, and cooking emissions are the main cause of their cancer
- When cooking foods, a lot of harmful substances, such as fine dust, VOCs, and formaldehyde, are generated



#### Cooking emissions are the biggest source of ultrafine dust

• Cooking emissions are the number one source of ultrafine dust in the city. (California EPA, USA)

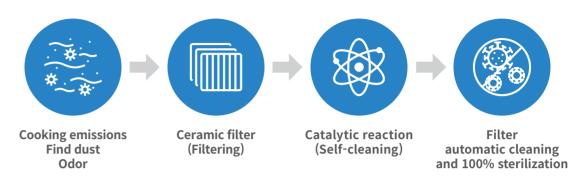
Grilling one hamburger patty = Diesel truck running 230km



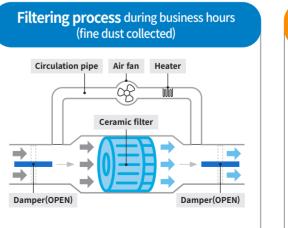
### The concentration of ultrafine dust generated when grilling meat was recorded to be up to 1,013 $\mu g/m^3$

• The ultrafine dust concentration of 1,013µg/m³ measured while cooking is over 13 times the level of "very bad."

### In the oil mist / odorous environment, the only sustainable solution, Khanpure



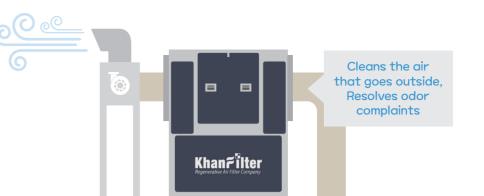
Performance Maintenance Tech.	Reduces fine dust, odors, viruses, etc. by more than 90% by applying automobile DPF technology.
	Even in environments with a lot of water vapor and oil fume, it maintains continuous performance.
	Self-cleaning technology enables to maintain performance without washing filters separately.
Carbon Neutral Tech.	Zero generation of waste water, zero generation of waste.
	Self-cleaning technology through catalytic reaction regenerates the filter.
	The ceramic filter can be used semi-permanently. Maintenance cost is saved (Energy usage is 1/6 and installation cost is 1/2.).
All-in-One Tech.	Ceramic filter with excellent porosity adsorbs not only fine dust but also bacteria/viruses.
	Effective for removing cooking fume and odor that spread inside and outside while cooking



# Self-cleaning process after business hours (filter regenerated)

## Make the air cleaner thanks to the clean filter **being sterilized every morning!**

Filter replacement/cleaning is not required, and fine dust and odors are reduced by more than 90% during cooking.





### **Khanpure** Indoor air purifiers exclusively for restaurants



### **Khanpure** Device that reduces outdoor fine dust and odor

E4MD		ES	MD
Power consumpt Purification mode Regeneration mode (average 1 hour op every ten days) Processed air vol	11KW le 11KW beration ume : 10,000CHM sing wind speed :		Dimensions(mm): 1800 X 1200 X 1800 Power consumption: Purification mode 18.5KW Regeneration mode 11KW (average 1 hour operation every ten days) Processed air volume : 20,000CHM Maximum processing wind speed : 30m/s Purification capacity : 333m <sup>3</sup> /min

## The technology that can clean the kitchen can clean every space.

### Khanpure in the kitchen



**International patents** 

Built solid global patent barriers by registering patents in the U.S., EU, China, Japan, and South Korea



**khanpure** 

Khanpu

- Acquired U.S. safety standards ETL certification. Certificated emission control devices for cooking by the New York DEP(Department of Environment Protection)
- Acquired performance certification from the Ministry of SMEs and Start-ups in Korea. Technology development products to be considered for preferential purchase by public institutions

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