

# Smog vacuum cleaner inspires more steps to cleaner cities

September 9 2015, by Nancy Owano

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A certain structure in a public place in Rotterdam is described in *Inhabitat* as a smog-sucking vacuum cleaner. If going places, that cleaner is designed to ease city pollution. Lucy Wang reported Tuesday of a

Netherlands-based designer behind the machine. This air purifier is part of his Smog-Free Project, and the project team simply defines it as the world's largest smog vacuum cleaner.

According to Wang, we are looking at a seven-meter-tall tower —it's a lightweight, modular system —cleaning 30,000 cubic meters of [air](#) per hour and creating smog-free bubbles, in public spaces. The tower cleans the air by sucking in smog from the top and the filtered air is released through six-sided vents.

This smog-sucking vacuum cleaner runs on just 1,400 watts, said *Inhabitat*, which is no more electricity than a water boiler. The enabler is a low-energy ionization technology, which is patented.

The man behind this machine is Daan Roosegaarde. There was a recent launch in Rotterdam; the tower is a  $7.0 \times 3.5$  m modular system in a public park. The launch marked its first pilot.

"The first 7-meter high Smog Free [Tower](#)" equipped with environment-friendly and patented technology "is now open for public at Vierhavensstraat 52 in Rotterdam NL," announced the team. The Smog Free Tower uses a similar technology as indoor air purifiers. "The technology is used indoors in hospitals, so it's safe and tested—we just built the largest one for outdoor use," said Roosegaarde.

What happens to all that dust collected? This gets interesting. The collected carbon particles in the smog dust will be compressed into high-end jewelry. He said, "we create jewelry from the [residue](#) of the collected smog. Smog consists of carbon which is compressed into high-end jewelry such as the Smog Free Ring or the Smog Free Cufflinks. Each piece of jewelry contributes to the purifying of 1000 cubic meters of polluted air."



There is a Kickstarter campaign where, for a pledge of \$54 (estimated delivery in December), you get a smog-free [cube](#) as a "symbol of the Smog Free Movement." It is a cube filled with compressed smog particles. The idea is that you can "Carry your cube with you as a personal reminder of your efforts to create a world free of smog."

The first pilot was launched in Rotterdam and the team said possible future locations include Beijing, Mexico City, Paris and [Los Angeles](#).

[Studio](#) Roosegaarde is a "social design lab" with a team of designers and

engineers based in the Netherlands and Shanghai.



While the "smog sucking [vacuum cleaner](#)" conjures up an image of an environmental eyesore pictures of the tower clearly indicate it is not an eyesore. Its LEDs make the tower glow at night.

"In the Netherlands we live nine months shorter because of smog.," said a press announcement from Studio Roosegaarde.



The campaign statement is also a project vision: "This campaign is to fund the first pilot of the Tower in Rotterdam, the Netherlands. The tower will travel around the world, from city to city. From Beijing to Paris. From Los Angeles to Mexico City. The [tower](#) lets citizens experience the value of breathing clean air. The Smog Free Tower is the first step in working together to free cities permanently of smog. Together we can fight air pollution."

The campaign page went on to say that "The Smog Free Cubes are first of all developed to make sure the Smog Free Tower produces no waste. All the smog we collect, is processed into a Smog Free Cube and turned



into an exclusive piece of jewelry. The Smog Free Movement stands for a better and cleaner future we can create together. The Smog Free Cubes are the building blocks of that [future](#)."



**More information:** [www.studioroosegaarde.net/project/smog-free-project/](http://www.studioroosegaarde.net/project/smog-free-project/)

[www.kickstarter.com/projects/1...tower?ref=nav\\_search](http://www.kickstarter.com/projects/1...tower?ref=nav_search)

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