

Dutch unveil giant vacuum to clean outside air

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One of the group's Managing Partner Peter van Wees posing next to a system he created to filter fine and ultra-fine particles from ambient air at the Offshore Energy 2016 Exhibition & Conference in Amsterdam

Dutch inventors Tuesday unveiled what they called the world's first giant outside air vacuum cleaner—a large purifying system intended to filter out toxic tiny particles from the atmosphere surrounding the machine.

"It's a large industrial filter about eight metres (yards) long, made of steel... placed basically on top of buildings and it works like a big vacuum cleaner," said Henk Boersen, a spokesman for the Envinity Group which unveiled the system in Amsterdam.

The system is said to be able to suck in air from a 300-metre radius—and from up to seven kilometres (over four miles) upwards. It can treat some 800,000 cubic metres of air an hour, filtering out 100 percent of [fine particles](#) and 95 percent percent of ultra-fine particles, the company said, referring to tests carried out by the Energy Research Centre of the Netherlands (ECN) on its prototype.

"A large column of air will pass through the filter and come out clear," Boersen told AFP, speaking on the sidelines of a major two-day offshore energy conference in Amsterdam.

Fine particles are caused by emissions from burning wood and other fuels as well as industrial combustion, and have "adverse effects on health," according to the European Environment Agency.

About 90 percent of EU residents are exposed to levels of such particles—which can be carcinogenic—above those recommended by the World Health Organization.

As for ultra-fine particles, they are released by emissions from vehicles as well as aeroplanes, according to Envinity, and can "damage the nervous system, including brain cells, and also cause infections."

Governments, businesses and airports are already interested in the project, Boersen said.

Another air-purifying system called the "Smog Free Tower" was installed in Beijing last month and launched by the Dutch artist Daan

Roosegaarde.

Using patented ozone-free ion technology, it can clean up to 30,000 cubic metres of air an hour as it blows past the tower, collecting more than 75 percent of the harmful particles, Studio Roosegaarde said in a statement.

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