

Dyson captures the invisible threat in your home

The Dyson Pure Cool™ Link purifier fan automatically removes 99.95% of indoor allergens and pollutants as small as 0.1 microns from the air.¹



The air pollution inside your home can be up to five times worse than outside², and we spend approximately 90% of our time indoors.³

Toxic fumes released from cleaning solvents, deodorants and scented candles are some of the most common indoor air pollutants, a study carried out by the US Environmental Protection Agency suggests.⁴ Other major indoor air pollutants include gases from cooking and central heating, mould, pet hair, pollen and allergens. Invisible to the naked eye, it is these ultrafine and potentially harmful particles that can travel easily through the air that surrounds us in the home.

Dyson engineers have combined their expertise in fluid dynamics and filtration systems with software to develop the new Dyson Pure Cool™ Link. This is a purifier that gives you an indication of the air quality in your home automatically purifying the pollutants it detects, whilst reporting the live indoor and outdoor⁵ air quality to the Dyson Link App – making the invisible visible, at the tap of a finger.

James Dyson says: “We think it is polluted outside of our homes, but the air inside can be far worse. Dyson engineers focused on developing a purifier that automatically removes ultrafine allergens, odours and pollutants from the indoor air, feeding real time air quality data back to you.”

Problem

Modern buildings are often built sealed in order to retain heat and block noise which can trap ultrafine and potentially harmful particles inside the home. Air purifiers can help combat indoor air pollution. But existing purifiers can use inefficient filters allowing potentially harmful, ultrafine particles to escape back into the room.

Solution

The new Dyson Pure Cool™ Link purifier fan uses a unique 360° Glass HEPA filter. This technology captures 99.95% of ultrafine allergens, odours and pollutants as small as 0.1µ from the air – keeping them in the filter. It doesn't stop there; sensors inside the machine detect changes in conditions, before automatically adjusting airflow to maintain the target air quality. The machine projects cleaner, purified air around the room evenly and quietly. Purifying all year round and doubling up as a fan to cool you in the summer.

The air surrounding us can contain a mixture of these gases and particles:

0.1 microns	1 micron	2 microns	5 microns	10 microns
Ultrafine particles	Odours	Industrial emissions	Bacteria	Pollen
Carbon dust	Toxic fumes	Insecticide dust	Mould	Allergens
Coal fuel gases	Cooking oil smoke	Liquid bacteria	Cement dust	Fertiliser
Tobacco smoke	Asbestos	Paint pigments	Coal dust	Spores
Radon gas	Insulation fibreglass		Antiperspirant	Textile fibres

¹ Tested to EN1822

² Hulin et. al., Respiratory health and indoor air pollution based on quantitative exposure assessments. Respiratory Journal, Oct. 2012

³ 'Combined or multiple exposure to health stressors in indoor built environments,' World Health Organization Regional Office for Europe, Edited by Dimosthenis A Sarigiannis, pg 9, 2013.

⁴ <http://nepis.epa.gov/Adobe/PDF/P1009BZL.pdf>

⁵ App functionality may vary depending on market.

Inside air quality monitoring

A team of 50 Dyson software and mechanical engineers were tasked to make the problem of indoor air pollution visible. The new Dyson Link App, developed for iOS and Android, will allow users to:

- Remotely monitor the inside air quality via the app – even if they are out of the house. This way, users can stay on top of the air quality inside their homes, can see the purifier and set a new target before ‘very poor’ levels are reached.
- Keep track of the air quality history, allowing them to oversee peak pollution times, for example during pollen seasons or when cleaning or cooking. If auto-mode is selected, the machine can then automatically react to the monitored air quality.

Real-time outdoor air quality data

Dyson engineers wanted users to gain live insights into the air quality indoors, but also outdoors. By working with the air quality data analytics company, BreezoMeter, the newly developed App will allow Dyson owners to keep an eye on the live outdoor air quality in a location of their choice⁶.

Dyson patented technology

Using powerful Air Multiplier technology and an energy efficient DC motor, the Dyson Pure Cool™ Link purifier fan draws in air via a mixed flow impeller.

The air is passed through a patented 360° Glass HEPA filter, containing 1.1 m² of constructed microfibers. The Dyson Pure Cool™ Link purifier fan’s filter has been pleated over 200 times, meaning it can trap minute particles – including pollen, bacteria and ultrafine particles. Additionally, a layer of activated carbon granules, traps odours and harmful toxins like paint fumes inside the filter.

Cleaner air then leaves the amplifier loop at a high velocity and is directed over an airfoil-shaped ramp. This way, a long-range stream of smooth purified air is released into your home.

-ENDS-

NOTES TO EDITORS

Availability: The Dyson Pure Cool™ Link purifier fan will be available from April/May.

Size: The Dyson Pure Cool™ Link purifier fan is available as a tower and desk purifier. The tower is engineered to project purified air across spaces, suitable for floor placement. The Desk is suitable for desk and worktops. Engineered for smaller rooms, with tilt function for targeting purified airflow.

Automatic night-time mode: Dyson purifiers come with a night-time auto-mode. Your machine will continue to monitor and respond to air quality while you’re asleep, but only using the quietest settings. And the LED display dims, so you won’t be disturbed.

Accreditation: The Dyson Pure Cool™ Link purifier fan is accredited with the Quiet Mark by the Noise Abatement Society and certified asthma & allergy friendly by Allergy Standards Limited.

BreezoMeter: [BreezoMeter](#) is a big data analytics company that provides dynamic air quality data in real-time to help data integrators make informed decisions on our wellbeing. BreezoMeter’s data analytics determine the dispersion and flow of air pollution by gathering information from thousands of existing sensors around the world, providing users with accurate air quality data – as localized as a single city block.

Guarantee: Dyson Pure Cool™ Link purifier fan has a two year parts and labour warranty.

⁶ App functionality may vary depending on market.

Engineered for real homes: The Dyson Pure Cool™ Link purifier fan is designed to perform in real-home environments. Over 350 prototypes were tested in real homes around the world.

Testing methods: To test the performance of the sensors inside the machine, ethanol (alcohol) fumes were used. Additionally, the Dyson 360° Glass HEPA filter was iteratively tested with different particles to ensure maximum efficiency.

Dyson figures:

- Dyson invests one third of profits into research and development for its future technologies.
- In December 2014, Dyson committed a £1.5 billion investment to future technology, including a £1bn for the research and development of new product categories.
- 90% of Dyson technology is sold overseas; it is now available in over 70 countries worldwide.
- Dyson is recruiting 300 engineers to its engineering team now. They will join a team of over 2,000 engineers and scientists.
<https://www.careers.dyson.com/rdd/default.aspx>
- In 2013, Dyson produced its 50 millionth machine. In November 2014 Dyson sold more than 1m machines around the world.

For further information

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