Fans with surface coating

The engineer's choice

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These blades reduce dirt – and even prevent pathogens.

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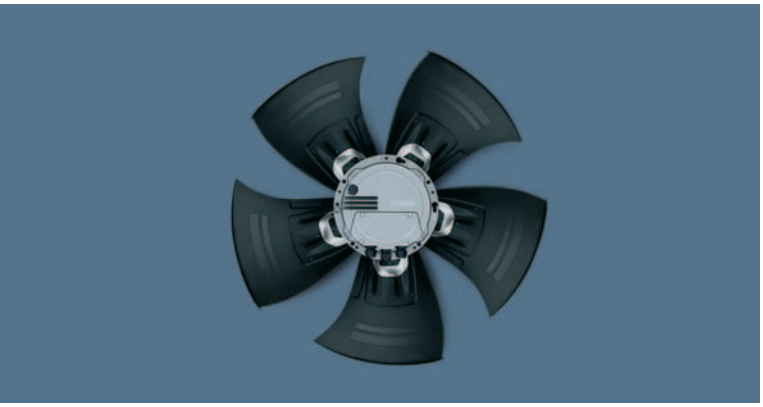
The two fans presented here have been optimised according to sanitary considerations. Differences: One fan prevents dirt particles and dust accumulation and thus primarily protects itself. The other attacks germs, microbes and bacteria – in other words, contamination on a much smaller level. Common features: Both fans operate with a specially modified surface, which is invisible, but displays its great effectiveness directly on the impellers.

Fans with nano effect

Everyone knows about the lotus effect: Water rolls off from the leaves of the lotus flower in droplets and picks up dust and dirt particles along the way. When applied to industrial applications, this effect is achieved by complex surface treatment on a nanoscopic scale, ensuring that particles can no longer adhere to the surface. Using nano surfaces substantially reduces contamination in fans that are subjected to increased ambient stress by dust or textile particles. The technology, which does not visibly change the surface, not only provides the advantage of longer cleaning intervals, but also allows constant air performance curves and increases corrosion protection. Presently, centrifugal fans of various sizes (R2E146, R2E175, R2E220, R2E280) are available with nanocoating. However, the technology can also be applied to other types of fans if necessary.

The antibacterial fan

In medical and food technology, hygiene is the topmost priority. For these requirements, we have developed a fan series equipped with an anti-bacterial feature. The basis of the special surface is zeolite doped with silver ions. These materials render bacteria harmless in different ways. Catalytic oxidation cuts off the oxygen supply to pathogens, while a reaction with the cellular membranes and a connection to the DNA of the pathogens prevents them from ingesting nutrients or reproducing. Only microorganisms and fungi are attacked in this process. The coating does not have any effects on more advanced life forms such as plants, animals or humans. The five fans, with diameters of 172, 200, 230, 250 and 300 mm and an average air flow of 200 m^3/h to 1400 m^3/h, work at ambient temperatures between –30 °C and +50 °C.



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