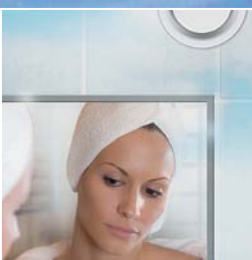


CleanVent® – Nanocoated air terminal devices
Crystal clear choice when cleanliness is essential



Unique nanotechnology keeps the Fläkt Woods valves clean!



*The new
CleanVent®
valve*

*Traditional
exhaust air
valve*

Dirty supply and exhaust air valves are a common sight to a fault. If the valves are not cleaned regularly, it might result in unattractive appearance and decrease in the quality of indoor climate as well as increase in the energy consumption. Fläkt Woods now brings to the market unique CleanVent® valves, the Avalon® coating of which makes the surfaces of air terminal devices soil repellent.

Thanks to the unique Avalon® coating, the valves stay clean and there is less need for cleaning. In addition, as the air diffusion and the throw pattern function as planned, energy is saved. CleanVent air terminal devices are particularly useful in places that are difficult to access.

Fläkt Woods has developed in co-operation with VTT Technical Research Centre of Finland and Millidyne Oy new soil repellent coating for HVAC products.

Fläkt Woods and Millidyne developed the innovation and VTT tested the soiling of CleanVent valves in its laboratories in spring 2008 and verified that “the CleanVent valves soil substantially less than the uncoated versions”. CleanVent coating has been also verified to maintain its quality throughout the life span of the valve.

Cleaning is easier

The soiling of the CleanVent valves is only a fraction of those of ordinary valves. Of course, the CleanVent valves need dusting or vacuuming from time to time,



e³ CleanVent products are part of e³ complex, which is characterized by Life cycle costs, Energy efficiency and Ecological features.

but even then the benefits of the coating becomes noticeable. The dirt can be removed with just light cleaning. The valve does not get dirty as traditional valves do and the dirt does not require strong detergents or abrasion in order to be removed.

Safe and environmentally friendly solution

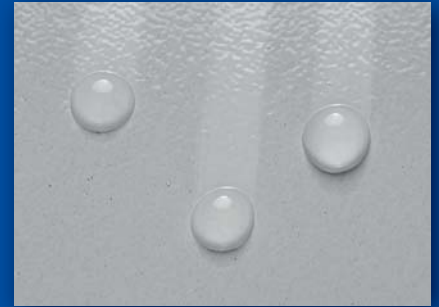
When ventilation and valves function as originally planned, they also function energy efficiently and as economically as possible in terms of life cycle costs.

Cleaning takes less time and strong chemical solvents are not necessary, which makes the valves more environmentally friendly. The reduction in the required cleaning also increase the occupational safety. Valves are often situated in high, difficult to reach places, which means there is always danger of occupational accidents. Valves that need to be cleaned less frequently and more safely are a great improvement in the occupational safety.

What is the CleanVent® ATD's secret?

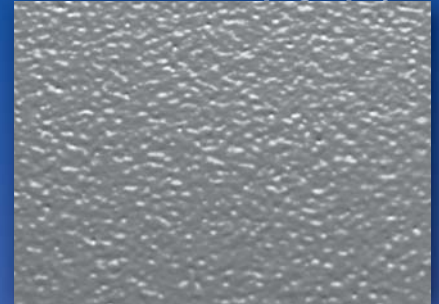
CleanVent valves have been coated with soil repellent sol-gel nanocomposite coating. The cleanness is achieved by three main factors: 1. low surface energy, 2. surface topography and 3. the electrical features of the surface.

1. Low surface energy



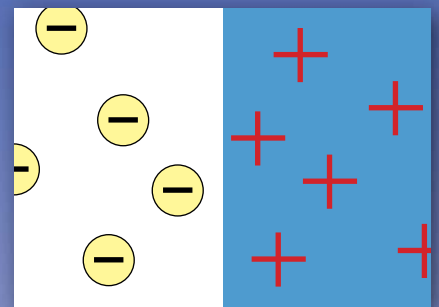
A dirty drop meets a surface with low surface energy (for example, a soil repellent valve) at a high contact angle. Due to the angle and the low surface energy, the water or grease retains its drop shape and does not spread out or leave a trail on the valve surface when sliding away. It is also considerably easier to wipe off the grease.

2. The surface topography



The regular painted surface is considerably uneven when looked at closely enough. The surface might also be porous. The coating prevents the dirt from sticking to the irregularities of the surface by forming an even film, which protects the valve.

3. The electrical features of the surface



Soiling might also be caused by the electrical features of the surfaces. Because of the opposite charges of the dirt particle and the surface, the surface attracts the dirt particles. The electrical features of the soil repellent coating are inert, i.e. the coated valve does not attract dirt particles.

Guaranteed Fläkt Woods quality

CleanVent® valves are established quality valves of the Fläkt Woods selection. Now these valves are also available with unique, soil repellent coating. The thickness of the Avalon® coating in the valve is a few micrometers. Individual product information is available in the technical catalogue for further information.



The following air terminal devices are already available with new soil repellent coating.

KSO-aaa-C is exhaust valve. New soil repellent Avalon® coating brings clean and representative atmospheres for toilets, showers and others demanding spaces.

KTS-aaa-C is supply valve with a sector plate for direction of the air flow. It is suitable for offices and housing ventilation. Classic supply valve is now updated to fit modern aesthetic and hygiene requirements.

KTI-aaa-C is suitable supply valve for housing ventilation and offices. This product is fast to install directly into the duct without a mounting ring. KTI has been developed so that there will be no dirty circle around the valve and KTI with soil repellent coating is absolute solution for places that are difficult to access.

STQA-aaa-C is supply valve in offices, houses and rooms where wall mounting is required. Modern design and soil repellent coating bring STQC to its own class.

KGEB-aaa-C is exhaust valve. New soil repellent Avalon® coating brings clean and representative atmospheres for toilets, showers and others demanding spaces.

DCKA-aaa-C is suitable for demand controlled ventilation. Active diffuser guarantees draughtless ventilation in VAV systems. High indoor air climate and energy saving solution with dirt repellent coating is smart choice.

Avalon® is Millidyne's Brand Name