



Our Company

Alkion service s.r.o. was founded in 2009 and from the beginning we have focused on the cleaning and maintenance of HVAC ducts and industrial exhausts with the utilization of innovative technologies such as dry ice blasting and robotic or hydraulic systems. Our goal is to increase the productivity of the necessary cleaning and maintenance requirements in large buildings and at large-scale projects. Our teams work internationally.

We utilize best practices, work with high safety standards, use modern ways of communication and we effectively solve unexpected complications. Our technologies are environmentally friendly.



Certification

We are the first company in Middle and Eastern Europe that is member of NADCA (National Air Duct Cleaners Association) and who has the ASCS certificate (Air System Cleaning Specialist). NADCA is an international organization which associates companies in HVAC cleaning business. NADCA creates standards, procedures and methods of measuring the cleanliness and risk assessment and it cooperates with governments all over the world. We are also the holder of the German VDI 6022 Hygienic Standard.

Research and Development

Our R&D team constructs new methods and procedures and permanently improves our equipment and accessories in the area of dry ice blasting, robotic systems or contaminant exhaustion to ensure highest effectivity of our services.

References

US Navy, Toyoda Gosei, Mandarin Oriental Hotel, Nemak, Sanofi Aventis, Sheraton, TDDK

Recommendation

„I am fully satisfied with the quality and the speed of the cleaning by Alkion. Your company showed a professional approach and dealt with unexpected complications.“

Michal Hnilica, Caverion

„Your hard work and dedication is a direct reflection of your outstanding pride and work ethic. We are also very impressed and grateful for your ability to use the superb technology of cleaning with dry ice, which also made it possible to access all of our challenging areas.“

T. R. Williams, Captain, U.S. Navy



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HVAC CLEANING





Patented system developed for cleaning industrial exhausts and HVAC systems. Thanks to its unique design, it is able to go through and clean ductwork with curves up to 70°. It can handle branches and different diameters of round or rectangular ductwork. The speed of the robot and the speed of the rotating nozzle can be regulated, thereby controlling the quality of the cleaning performance and condition of the ductwork thanks to the LED lights and camera. It can clean diameters from 300 up to 850 mm.



Why cleaning?

Indoor air quality is one of 5 fundamental factors influencing human health.

Fire risk – Without regular maintenance of ventilation and HVAC systems, there is a big risk of fire and not only in the ductworks. It is necessary to monitor and clean the ducts periodically.

Hygienic Factors – Due to the constant temperature and fluctuating humidity in HVAC systems, it is a perfect environment for the presence and growth of various molds, microbes and bacteria which are dangerous for the people working indoors. Dirty ducts can cause allergies or Sick Building Syndrome.

Ventilation Performance – Every layer of dirt decreases the performance of the ventilation system. Cleaning without disassembling the lines is cheaper than complete replacements.

Dry Ice Blasting

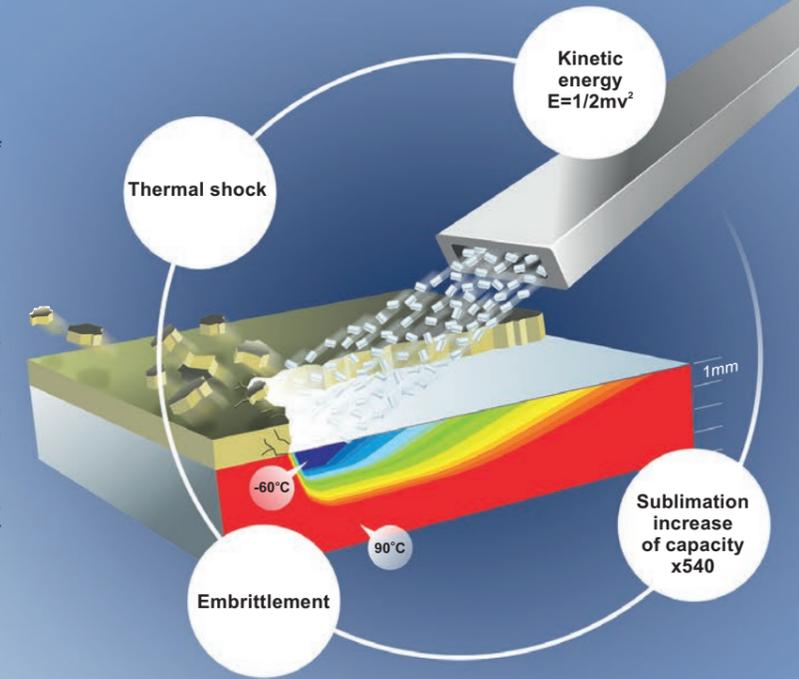
Extraordinary attributes of solid CO₂ = effective removal of contaminants

KINETIC ENERGY – The solid particles of CO₂ are accelerated to supersonic speed in the nozzle and that gives them high kinetic energy.

THERMAL SHOCK – Dry ice has a temperature of -78.5°C. Therefore, it freezes the surface and the contaminant embrittles due to the temperature difference.

REVERSE FRACTURING – As the Dry Ice medium hits the surface, it expands rapidly and this shock wave tears off surface contaminant.

NON-ABRASIVE – Low hardness of dry ice (Nr. 2 on Moh's Scale Of Hardness) protects the surface against damage or scratches.



Cleaning During Production

Thanks to state-of-the art technology for both cleaning and suction, we are able to clean a major part of industrial ducts during operation without disrupting production or workflow. The downtime needed for maintenance is therefore dramatically reduced or eliminated.



Dirt Exhaustion

For smooth and efficient cleaning it is necessary to remove the dirt and other contaminants. The best way is to use the in-house ventilation system with powerful ventilators and filters. It is also possible to use our mobile exhaust system, which connects to the cleaned ductworks. The quality of filtration is up to HEPA 13.



The HVAC Inspection, Maintenance and Restoration Association

We are following the NADCA Code of Ethics and our services meet the needs of the customer.