

HVAC for Nuclear Industry



Superior HVAC Nuclear Industry

Enabling Wellbeing for People

Halton is passionate about indoor environments. With over 50 years of experience, the company offers business-enhancing solutions for safe, comfortable, and energy-efficient environments for companies that value the wellbeing and productivity of their customers and personnel.

HVAC can play a vital role in improving safety by providing good thermal conditions and protecting against hazards in the production process. In this brochure, we present an overview of Halton's superior HVAC products and solutions for Nuclear Industry applications.

Flamgard Calidair is now Halton Wales

Flamgard Calidair is now Halton Wales. The management of Flamgard Calidair agrees and is confident that the arrangement and close cooperation between the companies significantly enhance the business of both organizations as the natural progression to bigger and better things to come.

By reassessing global trends and the development of key markets, Halton has refocused its strategies in order to maximise positive impact in sustainability and wellbeing, with a particular focus on helping customers and stakeholders to achieve net-zero objectives.

Halton has been supplying products to a number of UKAEA and AWE facilities for several decades and has over 40 years of experience in supplying the nuclear industry.

HVAC solutions for nuclear applications

Halton's Expertise

Quality

Designing and selecting equipment should always be done according to the operating environment. The HVAC installation should always maintain the designed performance level. New technologies that are utilizing automation enable a supervision and monitoring system that adds value to the operators.

Halton's HVAC dampers are specifically designed to meet the stringent requirements of nuclear applications, ensuring adherence to the highest standards of safety, reliability, and durability in even the most demanding environments.

Type approvals from the major classification societies and worldwide references are solid proof about the product quality. A reliable manufacturer has also paid attention to certifications like ISO9001, ISO3834-2, ISO14001, ISO45001, ATEX, CE, and EAC.

Our way of doing business

- Halton production emphasizes tailoring, which means that solutions can be adapted for each customer's specific needs
- Own manufacturing in 9 countries
- Flexible, high-tech production with certified welders
- Comprehensive project management & documentation capabilities
- Testing and simulation services
- The well-established but flexible company, offering long-term business relationships and after-sales service
- Holding up-to-date product certifications aligned with industry standards, including advanced certifications known for their demanding compliance criteria (ISO19443)

Towards net-zero open sustainability in Nuclear

Having supplied and overseen the installation of high-integrity dampers for the Chernobyl New Safe Confinement building, supplied to Sellafield for decades and since been awarded a series of contracts for the next-generation Hinkley Point C facility, Flamgard Calidair now Halton Wales has earned a rapidly-growing reputation in the nuclear industry.

Having achieved the ISO19443 certification tailored to the nuclear industry, Halton is part of an exclusive group of only few certified suppliers. This rare achievement highlights Halton's unwavering focus on compliance, innovation and customer trust.

Nuclear power

Nuclear power is an essential part of the energy strategy of countless countries around the world. Nuclear power plants enable countries to generate low-carbon energy.

A good example is a next-generation facility such as Hinkley Point C in Somerset, England, which will be able to support as many as 6 million homes per year. Steps like this are a huge leap towards a country's net-zero objectives, and Halton is ready to support the development of new nuclear facilities on a much wider scale.

Halton contributes to a comprehensive product offering for the nuclear industry. In addition to Halton's high-integrity dampers, nuclear developers and stakeholders can access a huge range of solutions including diffusers, droplet separators and much more.

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Why choose Halton?

With experience in nuclear decommissioning projects, Halton provides solutions that prioritize safety for onsite staff and other parties in close proximity.

Halton's dampers are designed for various lifespans in classified areas, ranging from 10 to 60 years of operational lifespan. All dampers undergo testing to resist extreme environmental conditions. This includes electromagnetic resistance, seismic resistance, radiation resistance, and chemical leaching safety.

With a strong emphasis on quality control tailored to the nuclear industry, Halton provides dedicated quality assurance, project management, and documentation services.

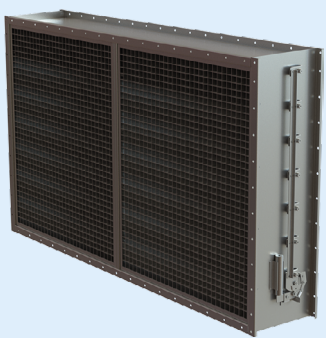
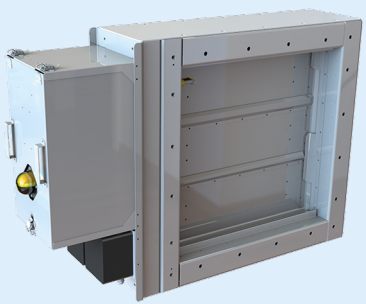
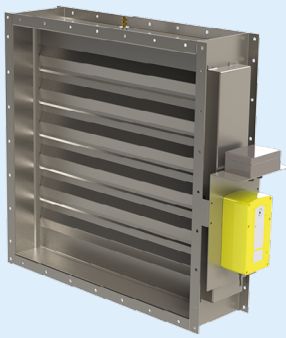
Scope

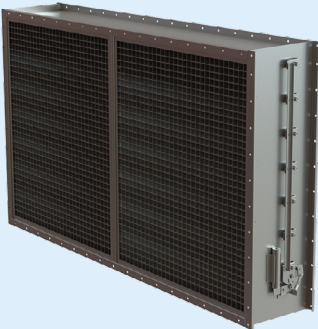
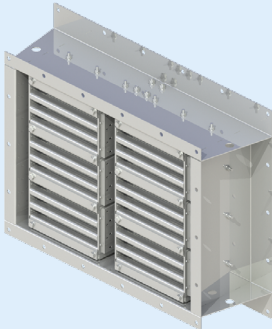
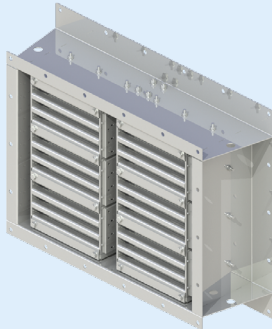
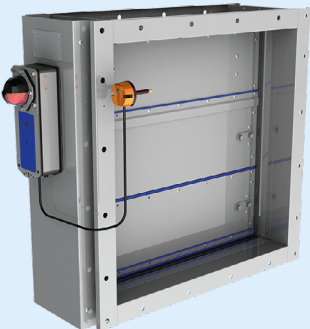
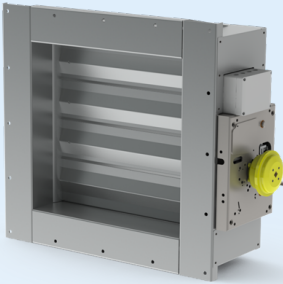
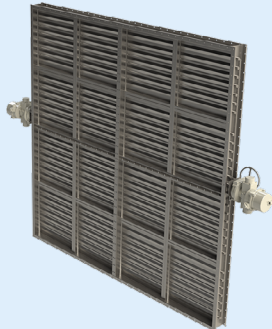
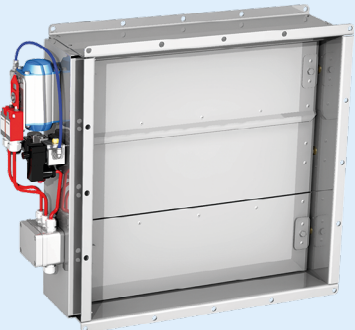
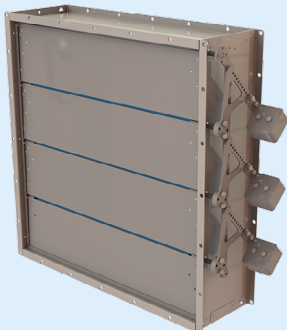
- Fire & gas dampers
- Zero leakage dampers
- Smoke dampers
- Non-return & pressure relief dampers
- Shut-off & balancing dampers
- Blast protection dampers

Projects

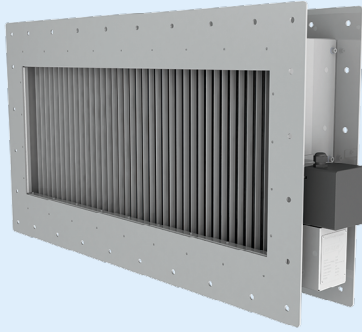
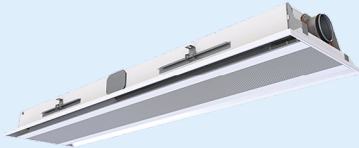
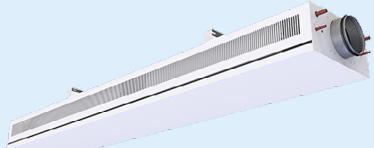
- Chernobyl Safe Containment Dome
- Hinkley Point C Nuclear Power
- Sellafield Nuclear Site
- ITER Project
- Olkiluoto 3 Nuclear Power Plant
- Several other classified nuclear power plant projects in Middle East and East Asia

High Quality HVAC Products and Solutions for Nuclear Industry

	DESCRIPTION	BLAST DAMPER	HIGH PRESSURE BLAST DAMPER
BLAST PROTECTION	Blast protection in industrial applications is essential. The primary purpose of blast dampers and valves are to protect people and equipment in case of a blast. Without proper protection, a blast wave penetrates the building through air intakes and outlets in an otherwise hardened structure. ATEX certification is available as an option.	 BDH	 BLD-01
	DESCRIPTION	H0(H120) FIRE AND GAS DAMPER	E120S FIRE DAMPER
VENTILATION FIRE SAFETY	Sudden and uncontrolled fire is not only a life-threatening risk for people and the environment, but it also creates remarkable additional costs due to the stop of operation or production. Halton provides fire and gas dampers to prevent the progress of fire and gases through ventilation ductworks. ATEX certification is available as an option.	 FDH	 CFD-01
	DESCRIPTION	BALANCING DAMPER	GASTIGHT SHUT-OFF DAMPER
AIRFLOW MANAGEMENT	HVAC ductwork on heavy industry projects consists of a diverse range of dampers products, each serving different airflow management functions. Halton manufactures an extensive range of dampers for these demanding applications. ATEX certification is available as an option.	 UTP / CCD	 UTA / CCD

MEDIUM PRESSURE BLAST DAMPER	BLAST VALVE	BLAST VALVE	BLAST PROTECTION
			
BLD-02	PV-KK-S	PV-KK-SX	
FIRE DAMPER (EI60S)	E120S UNINSULATED FIRE DAMPER	HIGH TEMPERATURE TUNNEL DAMPER	VENTILATION FIRE SAFETY
			
FCE	CFD-01	CFD-02TM	
GASTIGHT SHUT-OFF DAMPER	ZERO LEAKAGE ISOLATION DAMPER	NON-RETURN AND PRESSURE-RELIEF DAMPER	AIRFLOW MANAGEMENT
			
UTG	CID-01	BLD / BRD	

High Quality HVAC Products and Solutions for Nuclear Industry

	DESCRIPTION	DROPLET SEPARATORS	OUTDOOR LOUVRES
AIR INTAKES	Halton's droplet separators have been designed to protect capital equipment from the damage caused by the salty spray and rainwater, allowing for less maintenance and downtime higher equipment efficiency.		
		DSA	USM
	DESCRIPTION	INTEGRATED VAV CHILLED BEAM	VARIABLE AIR VOLUME CHILLED BEAM
ROOM AIR CONDITIONING	An energy-efficient, reliable and comfortable environment can be achieved by using the right room air conditioning solutions. Halton offers a variety of air distribution solutions with a variety of options for airflow balance, air temperature, sound level and performance to meet the needs of different spaces and environments.		
		HALTON REX	HALTON REX
	DIFFUSERS	GRILLES	VALVES
			
	JDA	AGC	URH

	DESCRIPTION	KITCHEN VENTILATION SYSTEMS	KITCHEN AIR HANDLING UNITS
KITCHEN VENTILATION	Halton has the widest range of solutions for all stages of kitchen ventilation systems, including capture, extraction, discharge of the air and providing the replacement air. Halton's kitchen air handling units have been developed to provide the healthiest fresh air for commercial kitchens while limiting the impact of food production on nearby buildings.		
		KWF	PST-A

CHOOSE A LOCATION



Air Handling Units



Airports



Gas Turbines and Power Generation



Nuclear Facilities



Offices and Other Facilities



Power and Heat Plants



Power Tunnels



Production and Support Processes



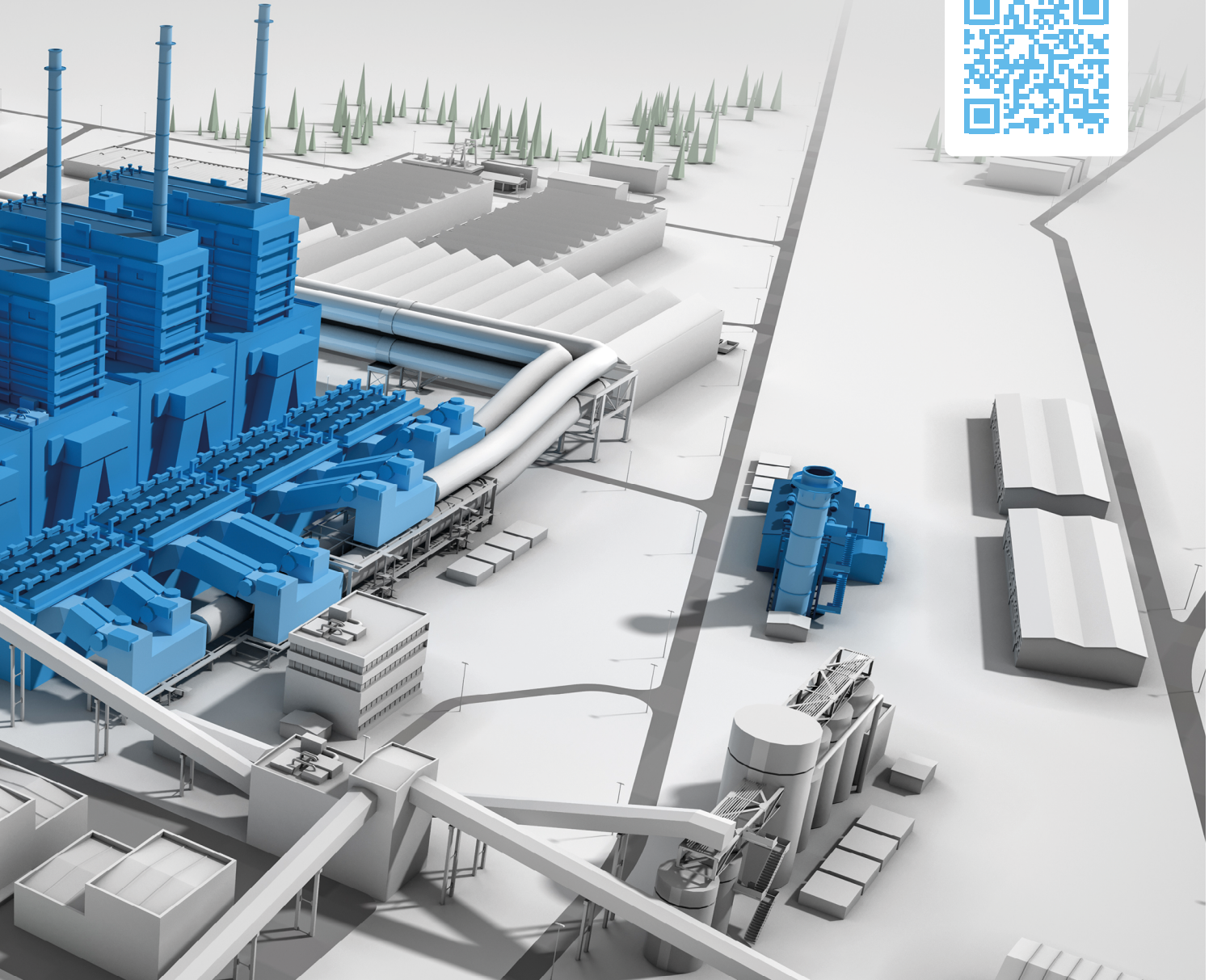
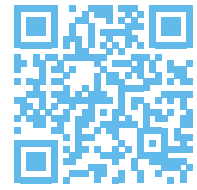
Road Tunnels



Train Tunnels and Stations



Utility Tunnels



Heavy Industry 3D World

Halton's Heavy Industry 3D World provides users with a real-world visualisation of Halton's product offering while showcasing individual products and linking back to the main Halton website for more information. Users can explore comprehensive offerings

through a dynamic 3D experience, discovering products and benefits for applications such as nuclear facilities, power and heat plants, power tunnels and much more. Start exploring at heavyindustriesolutions.halton.com.

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About us

Halton Marine, Energy and Infrastructure

Halton Marine, one of the world's leading supplier of HVAC for demanding environments develops, manufactures and markets reliable, high-quality ventilation solutions specifically designed for different types of ships, offshore oil & gas, heavy & nuclear industry and offshore wind. Our track record includes deliveries to over 200 major cruise ships, 200 oil & gas projects and 150 naval vessels.

Halton Group

Halton Group specializes in indoor environment solutions, ranging from public and commercial buildings to foodservice facilities. Founded in Finland in 1969, Halton operates today in over 35 countries around the world, with annual sales of around €300 million and over 1900 employees. The company has production facilities in Brazil, Canada, China, France, Finland, Germany, Malaysia, the United Kingdom, and the USA.