



Supply air diffusers

Designed for sustainable production

Towards net-zero operation

The escalating global warming has presented the world with significant challenges as well as opportunities. Net-zero carbon emissions are a critical step towards mitigating the worst impacts of climate change. At Halton, we are making progress towards our goal of achieving net-zero carbon emissions by 2023.

Halton's major environmental impacts arise from the materials we use, from the energy we consume in our production, and from the energy our products consume during their lifecycle.

Our focus is on reducing these emissions e.g., through energy renovations in the ventilation, heating, and building automation of our manufacturing units. To demonstrate the carbon footprint of our products, we will publish the first Environmental Product Declarations (EPD) in 2023.

At the same time, we continue to invest in research and development to provide solutions that help our customers save energy and reduce the building lifecycle carbon footprint.

Products designed for sustainable manufacturing

Halton's new range of supply air diffusers and plenums has been designed to align with the corporate sustainability goals and to reduce waste. The manufacturing is done locally near our main markets to reduce the logistic carbon footprint.

Halton has been granted a silver-level EcoVadis certificate, demonstrating our commitment to the environment, labour, human rights, ethics, and sustainability. EcoVadis is a sustainability rating system that builds on international standards such as the Global Reporting Index (GRI), ISO 26000 and the guiding principles of the Global Compact.

At Halton, we see it as our responsibility to help to fulfill our customers' sustainability goals by doing our part. The EcoVadis certificate helps us to demonstrate documented evidence of our sustainability efforts.

The manufacturing process has been streamlined to optimize material usage and reduce steel waste. Sheet metal parts are manufactured locally to minimize the logistics footprint. Smaller product sizes and optimized fitting of parts to sheet sizes have enabled a significant reduction in material usage and waste generation. In the new Halton Pop PDI plenum, the metal sheet waste has been reduced to below 5%.



Designed for seamless c

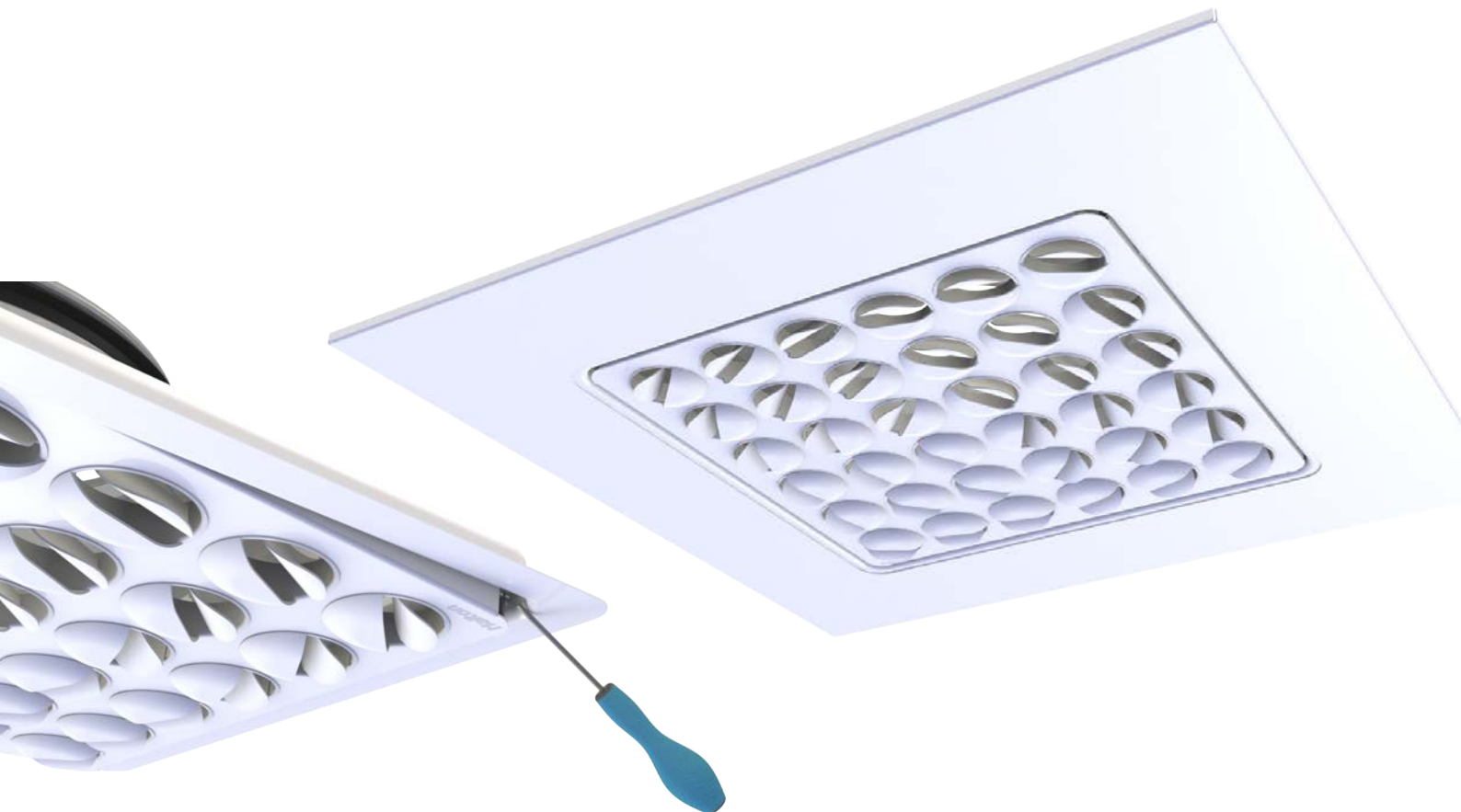
Halton's diffuser range is designed to fit perfectly into suspended ceiling structures. The 600 x 600 models fit the most common T-lists, including narrow models. Separate ceiling adapters have been designed for smaller 420 x 420 models, in order to make ceiling integration seamless for all diffusers, regardless of the size.

Ceiling adapters (CA) are available for the most common ceiling tile models:

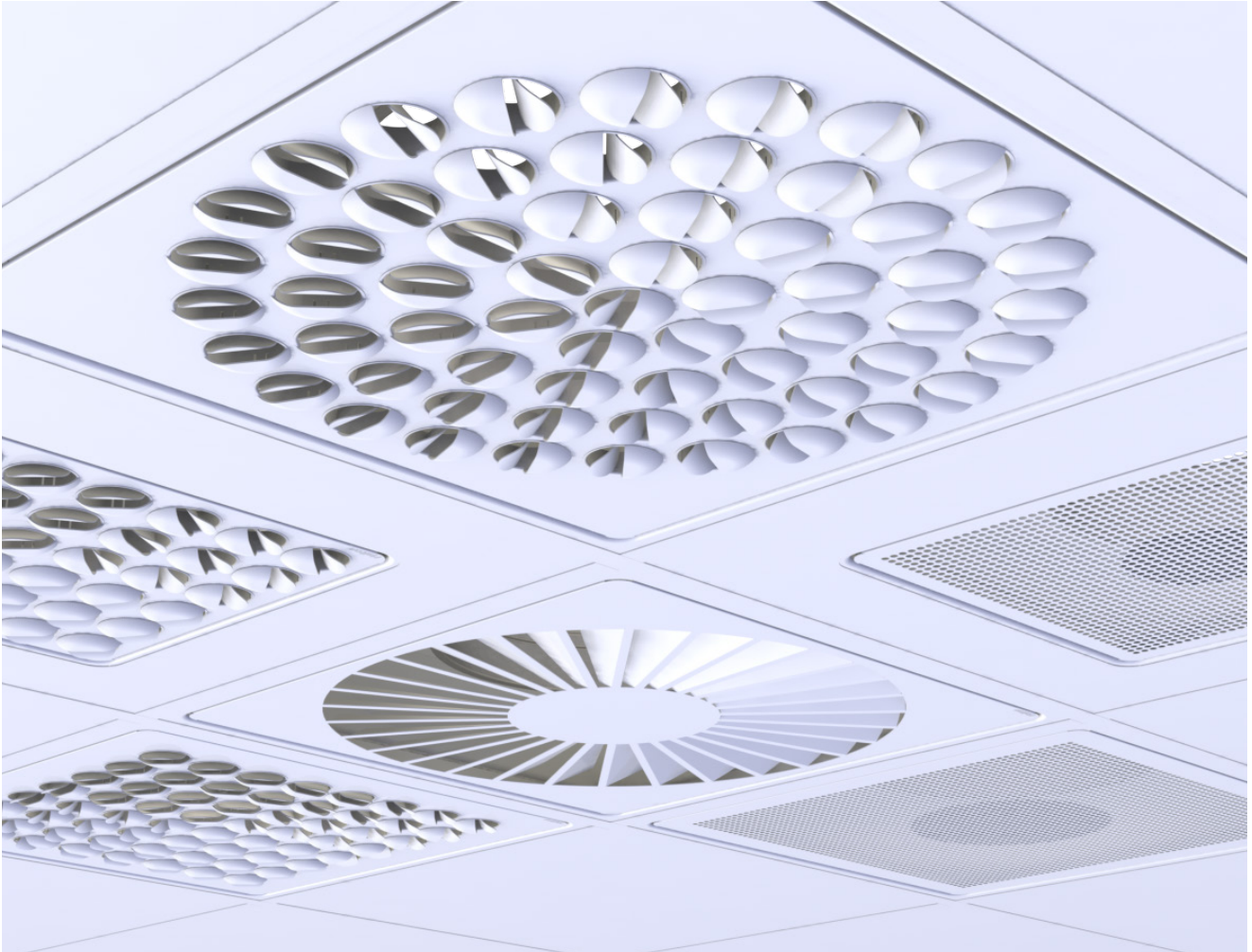
S1	Ecophon A/Rockfon A
H1	Ecophon Ds/Rockfon X
P1	Ecophon Dg/Rockfon M
C1	Dampa clip-in, square edge
R1	Ecophon E/Rockfon E, T24

The diffusers come with a redesigned locking mechanism for opening the front panel, making installation, cleaning and maintenance easier than ever.

In nozzle diffusers, air is supplied into the space through nozzles in the front panel. Two-channel design of the nozzles enables silent operation and high induction rate. With adjustable nozzles, the desired airflow pattern can easily be created. Nozzles can be adjusted in 15-degree intervals.



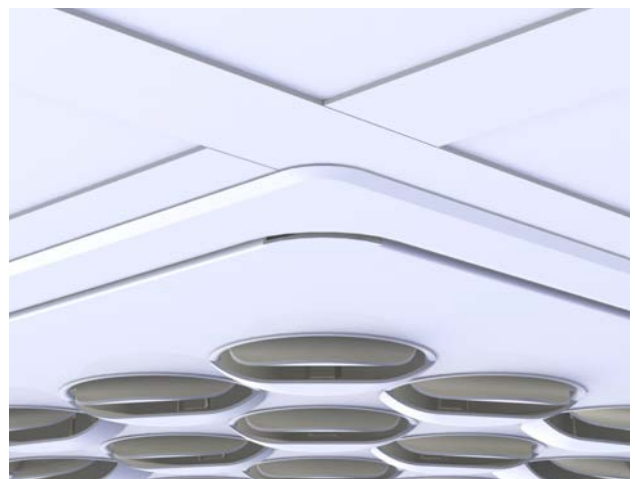
ceiling integration



Halton's renewed diffuser range for aesthetic ceiling integration.

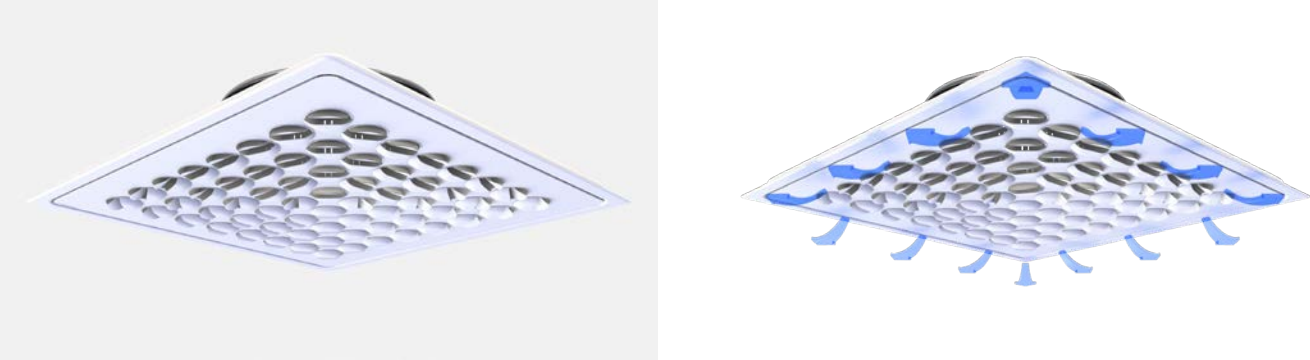


Installation above list (600x600 model).



Installation under list (600x600 model).

The Halton Jaz diffuser family is designed in accordance with the core values of Halton



Multi-nozzle diffuser Halton Jaz JSC

Halton Jaz JSC is the perfect choice for several different applications ranging from workplaces to hospitals, thanks to its high mixing effect. The square diffuser is available with three different front plate models, each with a different amount of nozzles and designed for specific airflow requirements.

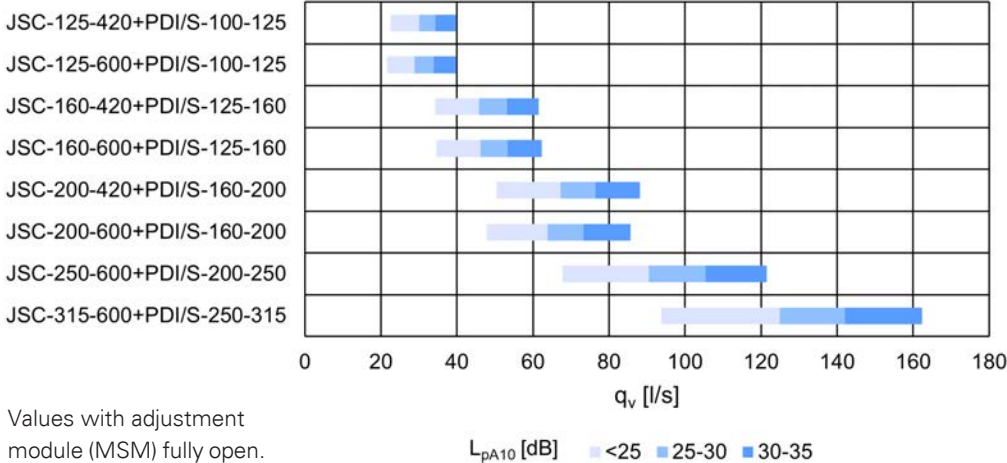
The multi-nozzle diffuser enables freely adjustable indoor climate conditions. The fully adjustable nozzles combined with a high mixing effect ensure draught-free conditions.

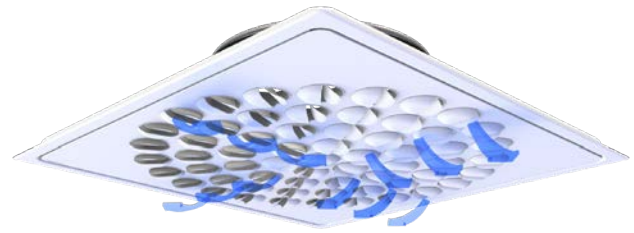
Halton Jaz JSC is available in two sizes: 420 mm and 595 mm. The size 595 is available for direct installation to modular 600x600 T-bar ceilings either above or below the list. For 420 size, a specially designed ceiling adapter is available for seamless ceiling integration also with different ceiling types. Both models are designed to fit even the narrower T-bar model T15.

Each nozzle includes two separate flow channels that enable a large free area for supply air and effective mixing effect. The supply air pattern can be freely directed radially in one to four directions by rotating the nozzles. Horizontal swirl or compact air patterns can also be achieved by adjusting the nozzles.

The direction of the supply air jet has no effect on the noise level, pressure drop, or airflow rate.

The diffuser is normally connected to the balancing plenum Halton Pop PDI, which ensures optimal performance. Alternatively, it can be connected directly to the duct.





Circular nozzle diffuser Halton Jaz JMC

Halton Jaz JMC is a square diffuser with a circular nozzle area that supplies air in a swirl pattern. The adjustable nozzle pattern makes the diffuser flexible for various use cases and the throw pattern easy to adjust. The product is suitable for installation in e.g. office and hospital rooms, educational facilities and public spaces.

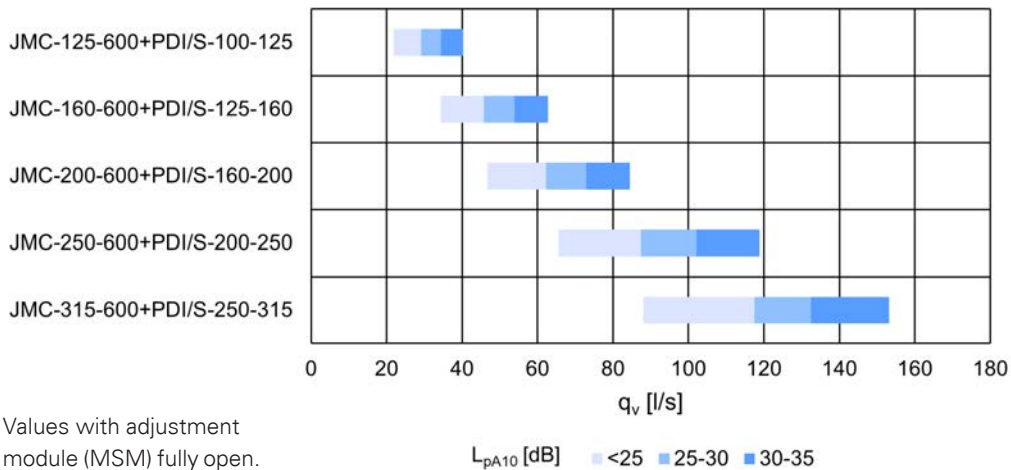
The nozzles have a two-channel design, which ensures silent operation even at high airflows. At the same time, the design creates a high induction rate, reducing the risk of draught.

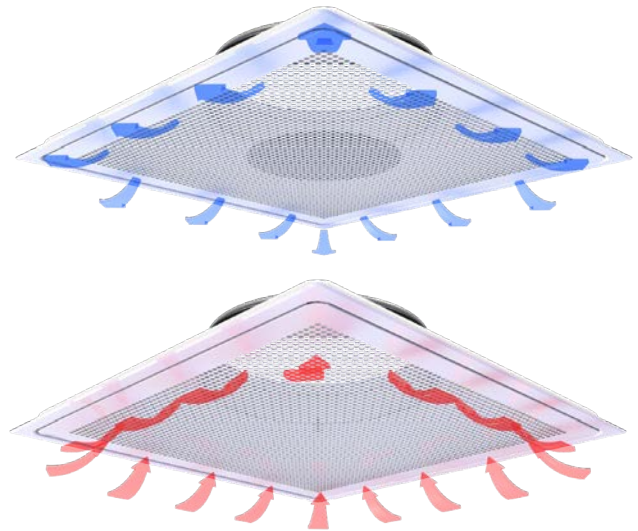
The throw pattern of the diffuser can be easily adjusted by turning the nozzles in the desired direction. By default, each nozzle is oriented tangentially to the circular shape.

This creates the swirl function of the throw pattern. Custom patterns can be used freely, as the direction of the supply air jet does not affect the noise level, pressure drop or airflow rate.

The diffuser is suitable for suspended ceiling installation, and is designed to fit even the narrower T-bar model T15.

Halton Jaz JMC is available in size 595×595 mm for direct installation to the modular T-bar ceiling (600×600) either above or below the list. The diffuser is normally connected to the balancing plenum Halton Pop PDI, which ensures optimal performance. Alternatively, it can be connected directly to the duct.





Perforated diffuser Halton Jaz JRC

Halton Jaz JRC is a combination of excellent indoor climate conditions and iconic design. The perforated diffuser is available for both supply and exhaust installation, which enables a unified ceiling design.

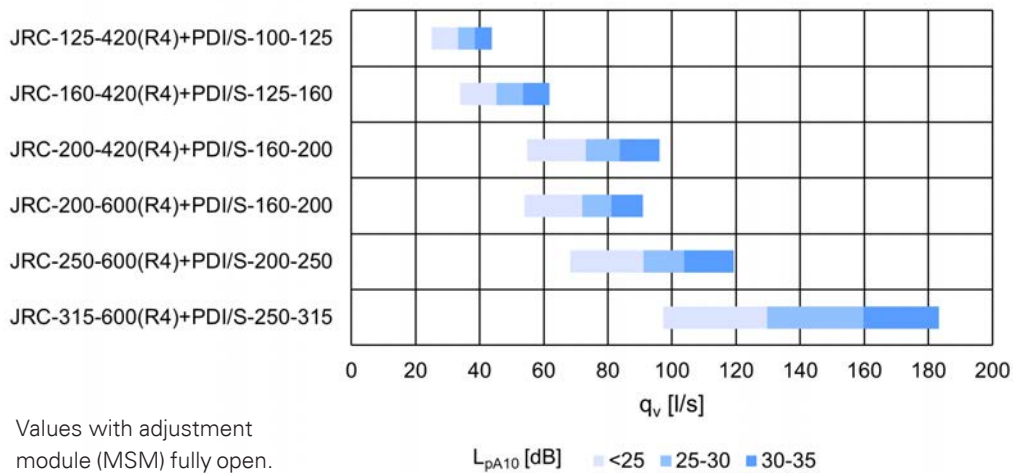
Air is supplied to the space horizontally through the perforated front plate, creating a strong mixing effect and distributing fresh air evenly in the space. The diffuser is suitable also for large airflows. The product has been carefully designed to maintain a low sound level even with maximum operation.

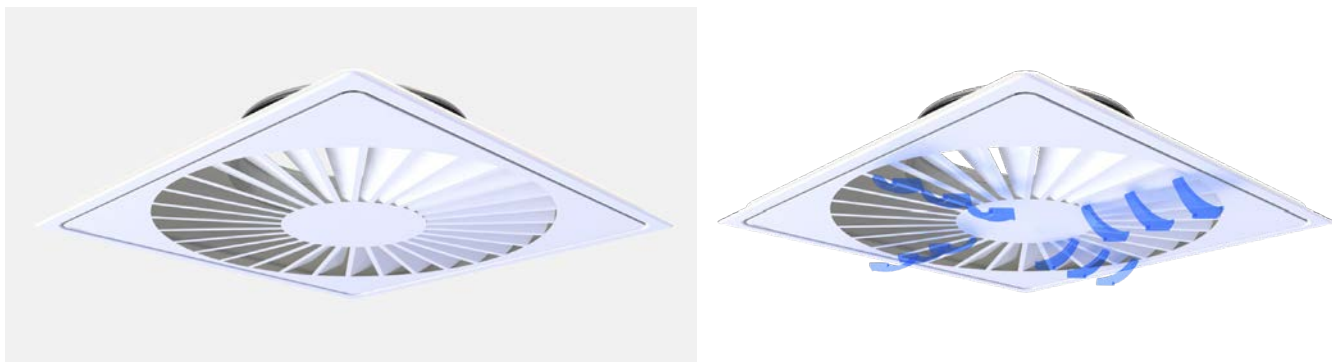
Halton Jaz JRC is available in two sizes: 420 mm and 595 mm. The size 595 is available for direct installation to modular 600x600 T-bar ceilings either above or below the list. For 420 size, a specially designed ceiling adapter is available for seamless ceiling integration also with different ceiling types. Both models are designed to fit even the narrower T-bar model T15.

A deflector plate is installed in the middle of the front panel. By removing the plate, the diffuser becomes suitable for exhaust use. The plate is used to turn the air parallel to the ceiling to strengthen the Coanda-effect.

By default, the supply air pattern is four-directional. By using supplementary deflector panels (DP), the pattern can be directed in three, two or only one direction.

The diffuser is normally connected to the balancing plenum Halton Pop PDI, which ensures optimal performance. Alternatively, it can be connected directly to the duct. Standard applications for Halton Jaz JRC are workplaces, hospital rooms, schools, and public spaces.





Swirl diffuser Halton Jaz JWC

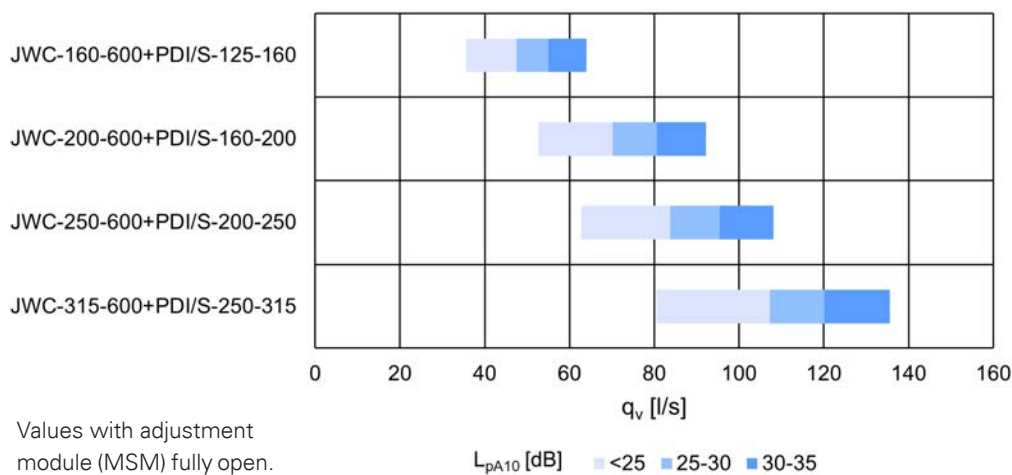
Halton Jaz JWC is a square diffuser that supplies air in a swirl pattern. The diffuser is suitable for suspended ceiling installation. The diffuser is designed to fit even the narrower T-bar model T15.

Halton Jaz JWC has been carefully designed and tested in the Halton R&D lab to ensure silent operation even with large airflows. The product has been designed to meet the requirements of e.g. workplaces, hospital rooms, schools, and public spaces.

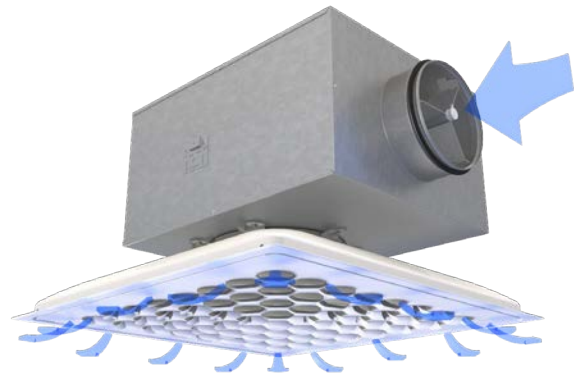
The swirl effect is created with fixed blades for steady and reliable performance. Air is supplied into the space through

tangentially oriented fixed vanes. The swirl function creates a high induction rate, reducing the velocity of the supply air jet significantly in order to ensure comfortable conditions.

The Halton Jaz JWC diffuser is available in size 595×595 mm for direct installation to the modular T-bar ceiling (600×600) either above or below the list. The diffuser is normally connected to the balancing plenum Halton Pop PDI, which ensures optimal performance. Alternatively, it can be connected directly to the duct.



Balancing plenum for ceiling diffusers



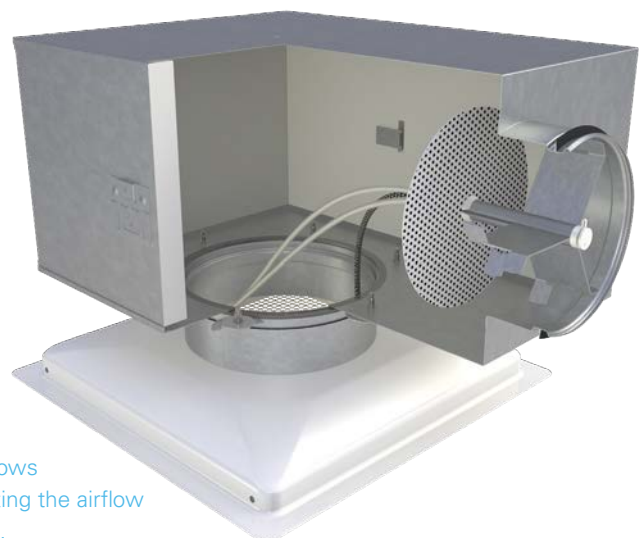
Plenum for diffusers Halton Pop PDI

The Halton Pop PDI balancing plenum is suitable for both supply and exhaust air. The plenum operates as a balancing chamber between the air supplied from the ductwork and the room unit distributing the air for maximum comfort and air quality. It equalises the airflow by reducing the flow velocity and spreads the air evenly into the diffuser, ensuring excellent operation.

By connecting diffusers directly to a balancing plenum in the distribution ductwork, their performance can be improved significantly. The balancing plenum also attenuates noise from the ductwork.

Key features of Halton Pop PDI:

- Enables adjusting of the airflow with adjustment module for supply or exhaust air
- Makes connecting diffuser to ductwork easier
- Attenuates sound effectively
- Enables access for ductwork cleaning



The MSM module allows measuring and adjusting the airflow in supply applications.

Other diffusers suitable for use with Halton Pop PDI



Halton Jaz JDA
– Diffuser with side slot



Halton Jaz JDB
– Diffuser with side slot



Halton Jaz Cloud Ceiling (JCC)
– Diffuser



Halton TRB – Conical diffuser



Halton THL – Conical diffuser



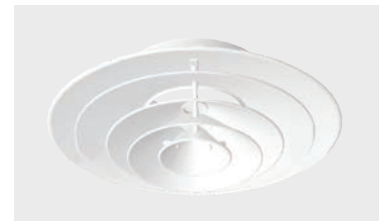
Halton TSA – Swirl diffuser



Halton TSR – Conical diffuser



Halton DFA
– Square conical diffuser



Halton CAR – Conical diffuser

Halton's range of diffusers and terminal units offers alternatives for several different spaces ranging from commercial to industrial buildings. Products are available for ceiling, floor and wall mounting. Correct product design and selection are important for ensuring comfortable and effective air distribution.

The Halton Jaz diffuser family is designed in accordance with the core values of Halton to meet the following requirements:

- Sustainable production with reduced waste and production close to markets
- Excellent performance in terms of airflow range and flexibility
- Comfortable indoor environmental conditions through silent operation

The improved product features are a result of the dedicated efforts of the Halton team.

About us

Halton is passionate about indoor environments. We offer business-enhancing products, systems, and services for comfortable, energy-efficient, and safe environments to customers who value people's wellbeing. Halton is involved from target-setting to facility use and focuses on creating positive indoor environment experiences for people.

Contact us at:

www.halton.com