

TECHNICAL DATA SHEET

EBS Pressure Stabilisers

- The guarantee of clean, filtered air is essential in many hospital and industrial clean room environments. A standard technique used to achieve this is to supply treated air into the 'clean' room and maintain a positive differential air pressure between the clean room and other adjacent rooms or corridors.
- R&D Pressure Stabilisers are designed to provide a cost effective, highly reliable and robust solution to facilitate the implementation of regulated differential air pressure control between two rooms.
- R&D Pressure Stabilisers are specifically designed for use in hospital operating theatres, aseptic suits, pharmacies, pharmaceutical process facilities and industrial clean rooms.
- The R&D range of Pressure Stabilisers include; "fire rated" and "smoke and fire rated" options together with a range of additional supporting product accessories.
- Based in Neath, South Wales, R&D Ventilation Systems Ltd operates a comprehensive manufacturing facility, accredited to the BS EN ISO9001:2015 quality standard.
- R&D Ventilation Systems Ltd has been manufacturing air pressure stabilisers for over 40 years.

Benefits to the Designer

- Hassle free design service.
- Free design software.
- Quality engineered reliable products.
- RAL 9010 powder coated as standard
- A wide choice of other RAL powder coat colours are available
- Designed to implement the requirements of HTM-03.
- Wide selection of sizes available.



Benefits to the User

- Reliable.
- Quiet in operation.
- Minimal maintenance - clean only.
- Easy to clean powder coated resilient surfaces.
- Unobtrusive Installation.

Product Features

- Non-removable air control blades - prevents inadvertent or malicious removal.
- Smooth finish air control blades - reduced risk of contaminant build up.
- Hidden blade stops.
- Minimal components in the air stream - reduced risk of contaminant build up.
- Site adjustable pressure settings.
- Telescopic rear flange.
- Bespoke designs.
- Smoke and fire damper units available.
- Wide operating pressure range 5-50Pa.
- Variable volume flow rates.
- Sealed for life bearings.
- SteriTouch® Antimicrobial Protection

Operation

The Pressure Stabiliser regulates the room pressure by utilising a finely balanced blade mounted in a frame. The stabiliser is installed in the wall between the two rooms that require pressure regulation. When the differential pressure between the two rooms reaches a given value the blade opens, allowing air to flow from the higher-pressure room to the lower pressure room. This maintains the differential pressure between the rooms. If a door is opened, and the room pressure falls below a given value, the pressure stabiliser blades will immediately close routing the excess air through the open door.

Calibration

The R&D Pressure Stabiliser is designed to operate within a differential pressure range of between 5 and 50 Pascals.

Following factory calibration, the stabiliser will operate with a maximum hysteresis of 1.5 Pascals. A unique calibration certificate is issued for each pressure stabiliser.

In the unlikely event that small changes are required to be made to the operating pressures, each blade can be individually site adjusted.

Installation and Maintenance

Because each pressure stabiliser is factory calibrated, installation is straightforward. Detailed instructions are shipped with each unit. Maintenance is equally trouble-free requiring nothing more than occasional wiping. Please refer to the separate installation and maintenance instructions.

Fire / Smoke Rated Stabilisers

Pressure stabilisers can be provided with customer-specified, integral “fire” and or “fire / smoke” dampers. Please refer to the appropriate R&D Ventilation Systems Ltd fire damper data sheets.

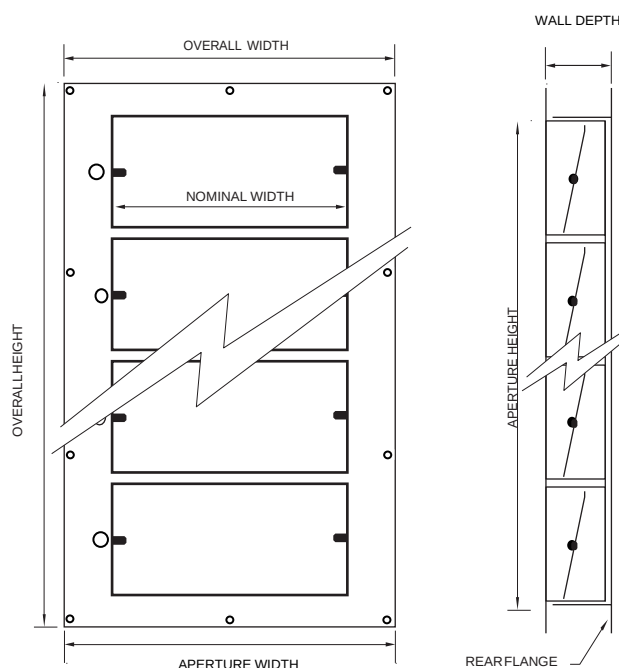
Construction

The body of the pressure stabiliser is manufactured from either 304-grade, stainless steel, or aluminium. The stabiliser blades are manufactured from 304-grade stainless steel and are supported on stainless steel, sealed-for-life, ball bearings. The whole unit, including the blades, are powder coated with SteriTouch antimicrobial paint. The standard colour is RAL9010. Alternative colours are available on request. As the balancing mechanism is located off the blade, there are minimal protrusions on the blade and in the airstream. This significantly reduces the risk of contaminants collecting on the blade. Pressure Stabilisers can be provided up to a maximum of eight blades to suit various wall space requirements. All stabilisers are provided with a slip-over rear flange, powder coated to match the body of the pressure stabiliser. The standard rear flange is designed for installation in wall depths of between 100mm and 180mm. For wall depth greater than 180mm, increased depth rear flanges can be provided. Each pressure stabiliser is manufactured to order which means that an alternative configuration can normally be provided to fit even the most difficult of space restrictions

SteriTouch®

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DIMENSIONS



Note: The rear flange is 7mm wider and 7mm taller than the Stabiliser body.

No of Blades	Wall Aperture Size (mm)		Stabiliser Body Overall Size (mm)	
	Height	Width	Height	Width
1	157	Nominal + 95	220	Nominal + 156
2	305	Nominal + 95	368	Nominal + 156
3	453	Nominal + 95	516	Nominal + 156
4	601	Nominal + 95	664	Nominal + 156
5	749	Nominal + 95	812	Nominal + 156
6	897	Nominal + 95	960	Nominal + 156
7	1045	Nominal + 95	1108	Nominal + 156
8	1193	Nominal + 95	1256	Nominal + 156

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