

**Client Benefits:**

- **Removable blades for improved cleaning**
- **Antimicrobial protection as standard**
- **Quiet day-to-day operation**
- **Self contained units**
- **Low maintenance**

The patented VARI-centric® range of Air Pressure Stabilisers is purpose-designed for clean environments, such as Operating Theatres, Isolation Rooms and Cleanrooms to control airborne contamination by controlling room pressure differentials.

The VARI-centric® balancing system accurately controls the differential air pressure between adjacent rooms, and the blades close fully as soon as the pressure differential drops below the required level. This diverts the airflow to pass through an open door forcing back airborne contamination without the need to alter the air extract and supply.

Positive pressurisation of Operating Theatres to protect them from the ingress of infectious agents passing through the open doors, by providing high air volume rates, is a well established principle of hygiene and infection control, forming the fundamental principles on which Health Technical Memorandums HTM 03-01 & HTM 2025 are based.

In following the philosophy of HBN 4 Supplement 1: Isolation facilities in acute settings, Air Pressure Stabilisers are utilised to control the pressure differential between the Corridor and Isolation Room.



Within Cleanrooms they are used to facilitate the cascade of air pressures to maintain a sterile environment where facilities are conforming to ISO 14664-1 and BS 5295.

Apreco VARI-centric® Air Pressure Stabilisers and associated products are supplied as standard with Apreco-Ag™, utilising silver technology – which is already used extensively within the healthcare sector as an excellent antimicrobial protection in conjunction with good hygiene practices. Apreco-Ag™ is extremely effective in helping to protect against harmful bacteria including MRSA, E-coli, Salmonella and C-diff.

**Product Data – APS-FSD-123**

Items: Air Pressure Stabiliser incorporating a smoke fire damper that has been integrity tested to BS EN 1366-2:1999 for a 4 hour duration.

Materials: Carbon / Stainless steel frames and blades to suit application.

Standard Finish: RAL9010 powder coated white Apreco-Ag™, antimicrobial protection as standard.

Bearings: Stainless Steel ball roller type 'sealed for life' ball bearings.

Pressure Control Range: 3 - 50 Pa with a setting accuracy of +/- 1 Pa over the operating range.

*Note: Specifiers must satisfy themselves that the materials used in the construction of the equipment are compatible with the environment in which they will be placed and do not pose hazard or risk of injury. Where there is any doubt please refer to our technical department. Apreco operates a policy of continual product development. The information contained within this data sheet may therefore be subject to change without notice.*

## Unit Selection

To obtain an indicative size of an APS FSD 123 use Table A below to calculate the total blade length of blade required and divided it into sections of equal length using values from Table B. The blades can then be accommodated into single or dual column matrix frames.

### Example:

Selecting a stabiliser capable of transferring 220 l/s (0.22m<sup>3</sup>/s)@ 14Pa.

Therefore 220 x 4.39 = 966 mm of total blade length.

Where: 220 (Volume of l/s)  
4.39 (Factor from Table A relating to 14Pa)

Table A (Factors)

Pa	Factor	Pa	Factor	Pa	Factor
3	9.49	15	4.25	35	2.78
5	7.35	20	3.68	40	2.60
8	5.81	22	3.51	45	2.45
10	5.20	25	3.29	50	2.33
11	4.96	30	3.00		
14	4.39	32	2.91		

Divide this total into equal lengths using one of the standard blade lengths from Table B. It is suggested that consideration should be made regarding any physical restrictions the building may impose before calculating the blade lengths of units.

Table B (Blade Lengths)

200	325	450	575	700
225	350	475	600	725
250	375	500	625	750
275	400	525	650	
300	425	550	675	

Therefore 966 divided by 2 (blades) = 483mm.  
Round up to the nearest 25mm increment gives you 2 x 500 mm blades.

Where: 966 (Total blade length)  
500 (Standard blade length from Table B)

Useful Tip: Using as few blades as possible will result in the most cost-effective solution.

### Dimensions:

#### Nominal Size Matrix

Height single row (base unit)	Height each additional row	Width single column
123 mm	+ 133mm per row	Blade length

#### Aperture Size Matrix

Height single row (base unit)	Height each additional row	Width single column
135mm	+ 133mm per row	Blade length + 12mm

#### Over flange Size Matrix ~ Front of Unit (Stabiliser Side)

Height single row (base unit)	Height each additional row	Width single column
203mm	+ 133mm per row	Nominal Width + 80mm

#### Over flange Size Matrix Rear of Unit (Smoke/Fire Damper Side)

Height single row (base unit)	Height multi row units	Width single column
317mm	Nominal + 132mm	Nominal Width + 247mm

