

## Dual Duct Type - VAV DD

## Models B - 20/30 Series

**Model: VAVDD-GB- 21x/31x**

**Rectangular Type**

**Construction: Galvanized Steel (GI)**

**Application: Light & Medium Duty**

### Dual Duct Terminals

Dual duct terminal units are used in a special type of air distribution system where the main system has both warm air and cold air separately ducted to each terminal unit. The flow of both warm air and cool air is modulated, delivering air to the VAV zone at variable air volumes as well as variable temperatures.

A dual duct with integral mixing is similar to the non-mixing type, but has an integral mixing section between the two supply valves and the discharge duct connection. The standard mixing dual duct should provide, at a downstream distance of three equivalent diameters from the dual duct, a uniform discharge air temperature profile ( $\pm 1$  °F).

### Standard construction

#### Casing

0.9 mm thick galvanized sheet steel.

#### Insulation

13 mm thick 32 kg/m<sup>3</sup> density Acoustic liner.

#### Blade

0.9 mm thick galvanized sheet steel.

#### Flow grid

Flow grid multi point with 12 inlet holes in four concentric circles.

#### Axle Shaft

12 mm diameter axle shaft made of galvanized steel.

#### Bearings :

12 mm diameter Brass bearings.

#### Gasket

Neoprene Gasket.

#### Controls :

Modulating / On-Off.

### Optional Construction

#### Controls

Backnet DDC with suitable thermostat.

#### Sound Attenuator

VAV with additional length insulated casing for sound attenuation.

#### Insulation

25 mm thick 32 kg/m<sup>3</sup> density Acoustic liner.

#### Blade

0.9 mm thick aluminium extruded aerofoil multiple blades.

#### Duct Heater

Slip-in type electric duct heater (230V AC 1 Phase or 400V AC 3 Phase)

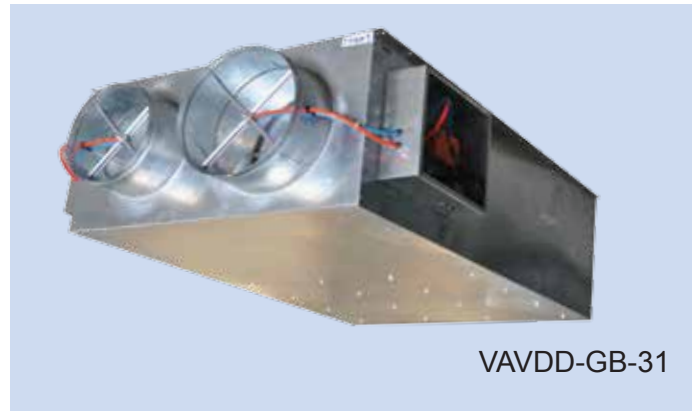
#### Double skin

Insulated internal walls surface with Galvanized perforated sheet used for low noise applications to minimise breakout noise.

#### Neck connections

Round inlet with round outlet and square inlet with square outlet.

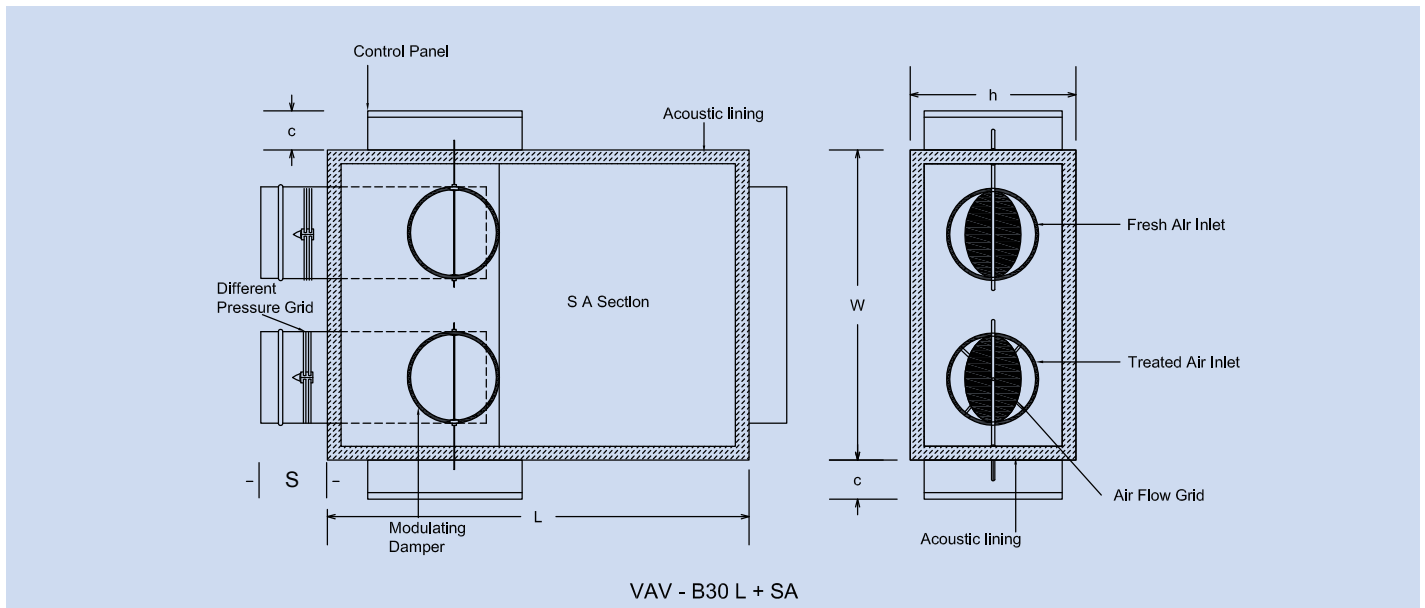
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VAVDD-GB-31

### Technical Features:

- Volume control range from 100 to 10% is possible to the conditioned zone.
- Accurate airflow sensing with 2 X 12 points averaging.
- Low Leakage i.e. less than 2% of V nominal at 750 Pa.
- Designed to produce low NC levels with minimal pressure drop to the system.
- Suitable for use as constant volume application, it can maintain a set flow requirement, compensating for fluctuations in system pressure.
- Suitable for single duct variable volume control
- Air volume capacity upto 2800 CFM
- Electronics control factory supply & mounted.
- Variety of control options available, based on applications.
- Electronic thermostat & actuator provide accurate mounting control.
- Metal encapsulated edges limit fiberglass insulation erosion into the airstream.
- Single-point power connection reduces installed cost. Maintenance free.
- Mixing dual ducts are used in both interior and exterior zones in buildings such as hospitals, or buildings where the use of auxiliary reheat such as hot water or electric reheat is not desirable.

**Dual Duct Type - VAV DD**
**Models B - 20/30 Series**
**Models: VAVDD-GB-31 Construction Details and Dimensions**


Dimensional data for VAV DD B 20/30 Series									
Model (X)	Air Flow Range (cfm)	d-Inlet (mm)	L (mm)	w (mm)	h (mm)	L+SA (mm)	s (mm)	c (mm)	Thickness of Sheet (Gauge)
A	250	150 ø	400	410	200	1000	125	80	20g
B	400	150 ø	400	450	200	1000	125	80	20g
C	550	200 ø	400	490	250	1000	125	80	20g
D	700	200 ø	400	525	250	1000	125	80	20g
E	900	250 ø	500	575	300	1100	125	80	20g
F	1100	250 ø	500	600	300	1100	125	80	20g
G	1400	300 ø	500	650	350	1100	125	80	20g
H	1600	300 ø	500	700	350	1100	125	80	20g
I	2100	350 ø	600	800	400	1200	125	80	20g
J	2800	350 ø	600	900	400	1200	125	80	20g

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