

### VAV series

#### General description

RIGID Variable Air Volume boxes are designed to achieve variable air volume supply of conditioned air to a room in single duct constant volume air distribution systems. Variable air volume control is achieved by directing air flow either to a room or to a bypass plenum. Air flow direction is controlled by opening and closing of damper blade with direct response to signals from the thermostat in conditioned space. In RIGID VAV box the primary air damper works in connection with bypass port damper. As the primary damper blade closes, bypass port damper blade opens and vice versa so that constant volume air is supplied by air terminal and varying amounts of air is delivered to the room and bypass plenum.

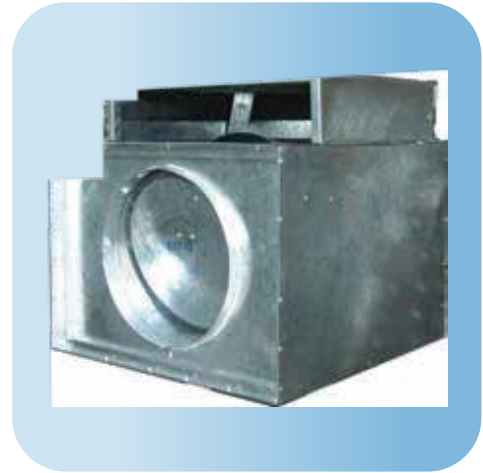


Fig. 7-1

#### Construction

##### Casing

G I Sheet 24 gauge or 22 gauge

##### Mounting panel and damper

G I Sheet 20 gauge or 22 gauge

##### Acoustic insulation

25mm thick (density 48 kg/cubic meter) complies with the requirements of NFPA 90A, ASTM C-665 and UL – 181

##### Controls

1. ON – OFF type
2. Modulating type

##### Sizes

Nominal size 450mm width x 550mm length with ON/OFF control

Nominal size 450mm width x 750mm length with modulating control

Inlet diameters are 150mm, 200mm, 250mm, 300mm, 350mm and 400mm

Other sizes and specifications may be supplied at customer's request

### Performance

Size	CFM	LPS	NC (Discharge)			NC (Radiated)		
			Static pressure			Static pressure		
			minimum 100 pa	1" w. g. 250 pa	1 1/2" w. g. 375 pa	minimum 100 pa	1" w. g. 250 pa	1 1/2" w. g. 375 pa
406	200	94	20	20	21	<20	<20	<20
	300	142	20	20	24	<20	<20	<20
	400	189	20	20	25	<20	<20	<20
	600	283	20	27	34	<20	<27	<20
408	400	189	20	20	20	<20	<20	<20
	500	236	20	21	22	<20	<20	<20
	700	330	20	25	28	<20	<20	<20
	1000	472	20	20	34	<20	<22	<26
410	600	283	20	20	28	<20	<20	<20
	800	378	20	25	32	<20	<20	<20
	1000	472	20	26	34	<20	<20	<21
	1600	755	21	31	37	<20	<20	<32
412	1100	519	20	22	31	<20	<20	<24
	1200	566	20	23	29	<20	<20	<24
	1700	802	20	25	31	<20	<20	<26
	2200	1038	21	28	31	<20	<27	<32
414	1500	708	20	26	32	<20	<20	<24
	1800	849	20	28	35	<20	<20	<23
	2400	1133	20	32	37	<20	<20	<29
	3000	1416	30	36	44	<21	<27	<34
416	2000	944	20	28	33	<20	<20	<25
	2800	1321	20	30	30	<20	<25	<28
	3200	1510	22	32	32	<20	<25	<31
	3600	1699	25	32	32	<20	<26	<33
	4000	1888	31	36	43	<22	<29	<35

Note: Above data is derived from sound power levels