



BY-PASS SINGLE DUCT VAV - SDVBP/SDVBPE MODELS

CONSTRUCTION

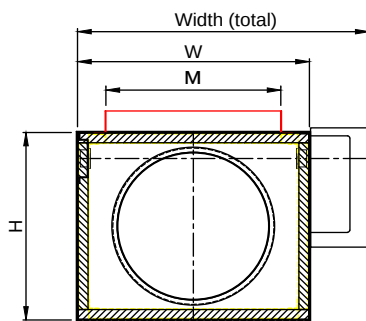
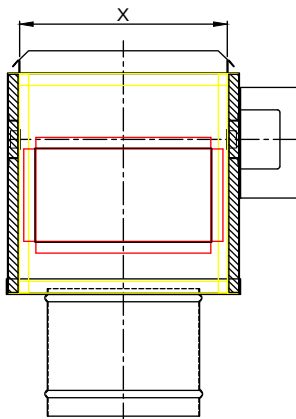
- * Casing is made of 0.9mm & damper blade is made of 1.2mm; galvanized steel sheet.
- * Damper shaft is made of solid square $\frac{1}{2} \times \frac{1}{2}$ inch G.I., with self-lubricating plastic bushes.
- * Lined with $\frac{1}{2}$ inch thick clean highly efficient insulation made of strong resilient dual density glass fibers 32kg/m³ that conform to NFPA-90A & 255, UL 181 and ASTM C665.
- * Insulation edges are covered by metal to prevent exposing to airstream for zero fiber migration.
- * Equipped with a By-Pass outlet to release conditioned air to the return duct or above false-ceiling plenum instead of Discharge outlet; when cooling demand decreases at the room to be conditioned.
- * Sound and Pressure Drop of SDV terminals are tested at Intertek – USA in accordance with industry standards AHRI 880-2008 and ASHRAE 130-2008.
- SDVBPE model is enabled for electric heater for re-heat application by extended length of box.



SDVBP model

DIMENSIONS

A) SDVBP MODEL: TOP VIEW

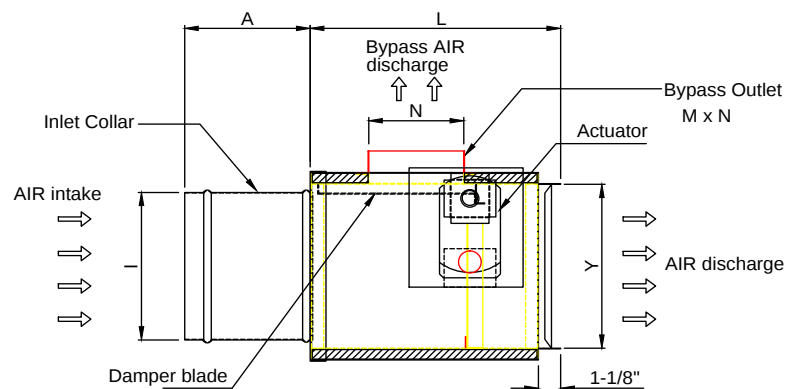


FRONT VIEW

UNIT SIZE	DIMENSIONS								BY-PASS	
	Width(total)	W	H	L	A	I	X	Y	M	N
4	13 (330)	10 (254)	10 (254)	13 (330)	10.5 (267)	3.875 (99)	8.75 (222)	8.75 (222)	5 (130)	4.9 (125)
6	13 (330)	10 (254)	10 (254)	13 (330)	6.5 (165)	5.875 (150)	8.75 (222)	8.75 (222)	7 (180)	4.9 (125)
8	15 (381)	12 (305)	10 (254)	13 (330)	6.5 (165)	7.875 (200)	10.75 (273)	8.75 (222)	9 (230)	4.9 (125)
10	17 (432)	14 (356)	12.5 (318)	15 (381)	6.5 (165)	9.875 (251)	12.75 (324)	11.25 (286)	11 (280)	6.9 (175)
12	19 (482)	16 (406)	15 (381)	17 (432)	6.5 (165)	11.875 (302)	14.75 (375)	13.25 (349)	13 (330)	6.9 (175)
14	23 (584)	20 (508)	17.5 (445)	19.5 (496)	6.5 (165)	13.875 (352)	18.75 (476)	16.25 (413)	15 (380)	8.9 (225)
16	27 (686)	24 (610)	17.5 (445)	19.5 (496)	6.5 (165)	15.875 (403)	22.75 (578)	16.25 (413)	17 (430)	8.9 (225)

NOTES:-

- ALL DIMENSIONS ARE IN INCHES(MM) WITH A TOLLERANCE OF ± 0.125 "(3MM)



SIDE VIEW





AIR TERMINALS (VAV)

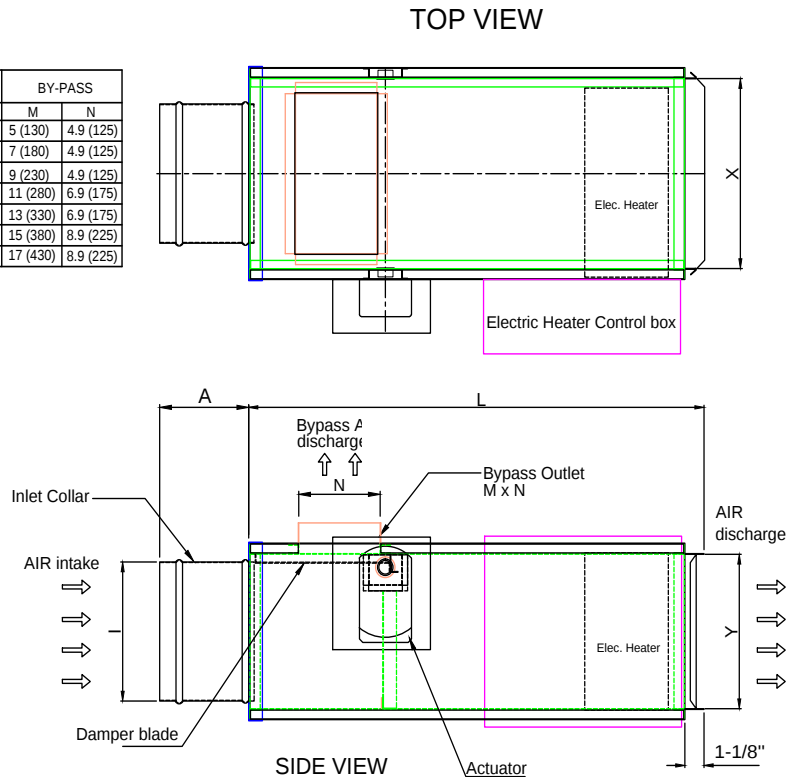
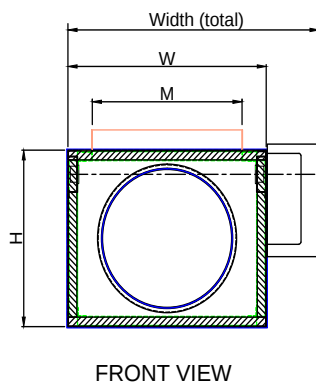
BY-PASS SINGLE DUCT VAV - SDVBP/SDVBPE MODELS

PERFORMANCE DATA

B) SDVBPE MODEL:

UNIT SIZE	DIMENSIONS										BY-PASS	
	Width (total)	W	H	L	A	I	X	Y	M	N		
4	13 (330)	10 (254)	10 (254)	35.5 (895)	10.5 (267)	3.875 (98)	8.75 (222)	8.75 (222)	5 (130)	4.9 (125)		
6	13 (330)	10 (254)	10 (254)	35.5 (895)	6.5 (165)	5.875 (149)	8.75 (222)	8.75 (222)	7 (180)	4.9 (125)		
8	15 (381)	12 (305)	10 (254)	35.5 (895)	6.5 (165)	7.875 (200)	10.75 (273)	8.75 (222)	9 (230)	4.9 (125)		
10	17 (432)	14 (356)	12.5 (318)	32.1 (816)	6.5 (165)	9.875 (251)	12.75 (324)	11.25 (286)	11 (280)	6.9 (175)		
12	19 (482)	16 (406)	15 (381)	39.3 (1000)	6.5 (165)	11.875 (302)	14.75 (375)	13.25 (349)	13 (330)	6.9 (175)		
14	23 (584)	20 (508)	17.5 (445)	39.3 (1000)	6.5 (165)	13.875 (352)	18.75 (476)	16.25 (413)	15 (380)	8.9 (225)		
16	27 (686)	24 (610)	17.5 (445)	39.3 (1000)	6.5 (165)	15.875 (403)	22.75 (578)	16.25 (413)	17 (430)	8.9 (225)		

NOTES:-
• ALL DIMENSIONS ARE IN INCHES(MM)
WITH A TOLERANCE OF ±0.125"(3MM)



AIR CAPACITIES

SIZE	100	150	200	250	300	350	400
INLET DIA., IN	4	6	8	10	12	14	16
INLET AREA, SQ.FT.	0.09	0.2	0.35	0.55	0.79	1.07	1.4
NOMINAL FLOW, CFM	256	639	1176	1833	2721	3534	4597

PERFORMANCE DATA

Intertek

Results of Intertek test conducted in accordance with AHRI 880-2008 AND ASHRAE 130-2008:

SIZE	CFM	Min P _s Inch WG	Radiated Sound Power (dB) By octave band @ 1.5 inch WG							Radiated Sound Power (dB) By octave band @ 1.5 inch WG						
			2	3	4	5	6	7		2	3	4	5	6	7	
150	400	0.07	55	48	46	39	31	25		74	73	68	64	62	57	
250	1100	0.00	58	55	56	46	37	30		74	72	65	63	62	59	
350	2100	-0.02	63	62	54	47	41	35		76	75	66	65	64	61	

Notes: 1- Above dB values are A-scaled 2- Above dB are with ref. 10⁻¹² watt





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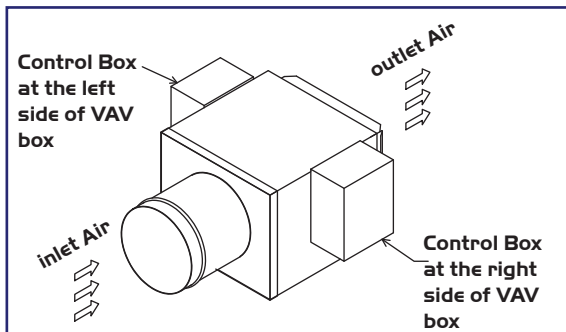
PERFORMANCE DATA

SOUND & PRESSURE DATA

NOTES:

- 1- ΔP_s is the static pressure loss through the unit with 100% air flow through discharge outlet.
- 2- NC_D is the discharge noise criteria through the unit with 100% air flow through discharge outlet, based on 10 dB room absorption.
- 3- NC_R is the radiated noise criteria through an exposed unit with 100% air flow through discharge outlet, based on 10 dB room absorption.

ORDERING KEY



Terminal Size	CFM	Min ΔP_s (inch WG)	NC_D			NC_R		
			0.5 Inch WG	1.0 Inch WG	3.0 Inch WG	0.5 Inch WG	1.0 Inch WG	3.0 Inch WG
100	50	0.01	36	41	52	28	30	36
	100	0.02	39	44	55	32	33	39
	150	0.03	42	49	59	36	37	46
	250	0.05	51	56	66	45	45	55
150	150	0.02	36	44	56	27	33	42
	250	0.04	40	46	58	30	35	45
	450	0.07	48	55	63	37	43	52
	600	0.08	51	59	66	39	46	55
200	200	0.01	39	45	62	28	35	49
	500	0.03	44	50	64	31	38	53
	800	0.03	50	56	65	40	44	55
	1100	0.04	54	59	68	44	47	56
250	300	0.01	39	49	62	38	36	49
	800	0.01	44	54	66	33	40	55
	1200	0.01	50	57	68	37	45	56
	1900	0.03	55	61	-	43	50	61
300	450	0.01	43	53	61	33	40	53
	1100	0.01	47	57	65	37	45	57
	1700	0.02	53	59	70	40	48	59
	2700	0.03	55	61	-	44	51	62
350	600	0.01	41	50	61	31	38	48
	1500	0.01	47	55	66	35	42	53
	2300	0.02	54	58	68	38	45	56
	3500	0.03	56	60	70	43	49	60
400	800	0.01	47	52	64	32	38	50
	2600	0.02	51	56	68	37	44	57
	3600	0.03	57	61	-	44	48	59
	4500	0.04	59	63	-	47	52	63

Intertek



Ordering Key:

S	D	V	B	P	E	I	S	O	L	B	S	T
BY-PASS TYPE SINGLE DUCT VAV BOX												
--: NOT ENABLED FOR ELECTRIC HEATER												
E: ENABLED FOR ELECTRIC HEATER												
SIZE: 100, 150, 200, 250, 300, 350 OR 400												
L: CONTROL BOX AT LEFT SIDE OF VAV BOX (STANDARD)												
R: CONTROL BOX AT RIGHT SIDE OF VAV BOX												
ACTUATOR:												
B: BELIMO				J: JOHNSON								
G: GRUNER				S: SIEMENS								
H: HONEYWELL				O: OTHER BRAND								
W: WITHOUT ACTUATOR												
THERMOSTAT:												
A: ACSYS				J: JOHNSON								
B: BELIMO				S: SIEMENS								
H: HONEYWELL				T: TITAN								
O: OTHER BRAND												
W: WITHOUT THERMOSTAT												
T: WITH TRANSFORMER												
--: WITHOUT TRANSFORMER												

