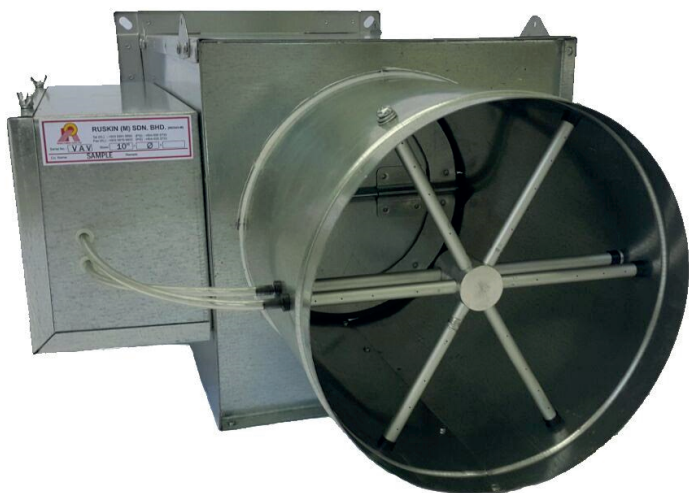




RUSKIN®

**VAV
Terminal Unit**

RVAV

**Single Duct
Terminal Unit**

STANDARD CONSTRUCTION

Material :-

Outer Frame:
- Galvanized Steel
- 0.8mm Thickness

Damper Balde
- Galvanized Steel
- 0.8mm Thickness

Damper Gasket
- Silicon Material
- 1.5mm Thickness

Damper Shaft
- Galvanized Steel
- 9mm Square Shape
- Self-lubricate PQ Nylon Bearing

Airflow Sensor
- Aluminum Tube
- Dia 10mm OD

Type of Outlet Joint :-

*TDC Joint (Standard)
*Slip Joint (Optional)
*Flange Joint (Optional)

Linner Material :-

*PE form Insulation Material (Standard)
~18mm thickness
*Fibreglass Material (Optional)
~ 2" 2 lbs thickness
*Cellular Material (Optional)
~1" 1/2lbs thickness

Optional Material:-

*Stainless Steel
~ Outer Frame : 0.8mm Thickness
~ Damper Balde : 0.8mm Thickness

*Aluminum Material
~Outer Frame : 0.8mm Thickness
~Damper Balde : 0.8mm Thickness

Type of Connection :-

*Round Inlet/Square Outlet
~(Standard Construction)
*Round Inlet/Round Outlet
~(Standard Construction)
*Square Inlet/Square Outlet
~(Standard Construction)
*Round Inlet/Multiple Outlet
~(Optional)
*Square Inlet/Multiple Outlet
~(Optional)

Accessory :-

*Multiple Outlet
*Multiple Inlet
*Multiple Airflow Sensor
*Reheat Coil



Description

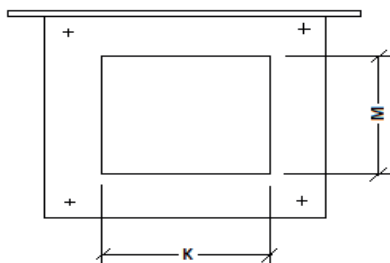
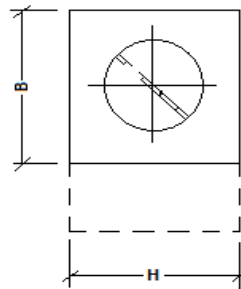
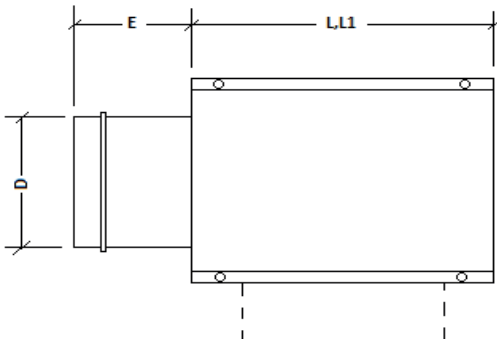
RVAV -Series was single duct terminal units that designed to be easily incorporated in overall building HVAC design. Control package allow the RVAV -Series to be used in variable air and constant air application. Although the designed for the compatibility with lower <0.1ps to reliable high pressure system up to >6.0 ps. In variable air volume pressure independent application, the RVAV-Series terminal units compensate for the system pressure while adjusting the room thermostat demand. For constant air volume application RVAV-Series terminal units maintain a set airflow requirement to compensate the fluctuation in system pressure.

RVAV - Series Dimension

RUSKIN[®]

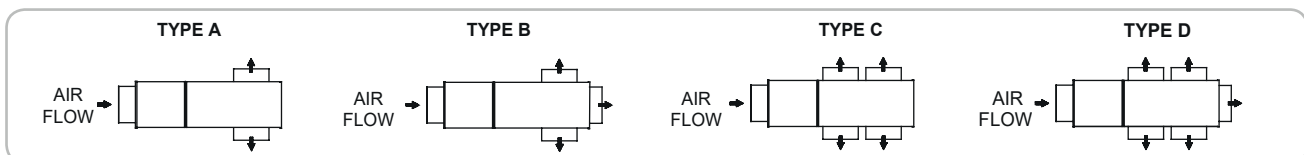
VAV Terminal Unit

Single Duct Terminal Unit



Inlet Size	Airflow CFM (L/S)		L	W	H	E	K	M
	Min	Max						
6	40 - 490	(19 - 231)	570	200	200	200	160	160
8	80 - 873	(38 - 412)	570	250	250	200	210	210
10	130 - 1363	(61 - 643)	570	300	300	200	260	260
12	190 - 1965	(90 - 927)	570	350	350	200	310	310
14	260 - 2673	(123 - 1261)	570	400	400	200	360	360
16	340 - 3490	(160 - 1647)	570	450	450	200	410	410
18	440 - 4418	(208 - 2085)	570	500	500	200	460	460
24 x 12	580 - 5833	(274 - 2753)	800	600	600	200	560	560

Accessory :-



Multiple Outlet Type	No of Outlet	Length	Damper
		mm	Dia
A	2		
B	3		
C	4		
D	5		


RUSKIN®

VAV Terminal Unit

Discharge Sound Data

Single Duct Terminal Unit

Inlet Size	Airflow		Pressure Drop		1" ▲ Ps							2" ▲ Ps							4" ▲ Ps						
					Octave Band Sound Power, LW							Octave Band Sound Power, LW							Octave Band Sound Power, LW						
	CFM	L/S	In.Wg	PA	125	250	500	1000	2000	4000	NC	125	250	500	1000	2000	4000	NC	125	250	500	1000	2000	4000	NC
6	40	19	0.005	1.25	44	45	34	31	34	31	-	47	50	40	33	41	40	-	63	65	61	54	53	50	-
	245	116	0.034	8.50	55	52	47	44	41	36	-	59	62	54	48	48	46	-	64	68	62	55	52	50	-
	368	174	0.089	22.25	62	62	54	50	48	42	20	64	68	62	55	52	50	26	70	77	75	79	72	69	29
	490	231	0.169	42.25	66	68	59	54	52	46	28	68	72	67	59	55	52	31	77	75	77	79	69	67	33
8	80	38	0.005	1.25	50	50	45	36	39	36	-	53	55	51	41	45	43	-	50	52	42	45	47	49	-
	437	206	0.040	10.00	60	60	55	49	47	44	-	63	65	61	54	53	50	-	70	68	65	61	60	59	-
	655	309	0.093	23.25	63	64	59	55	51	47	22	67	70	65	59	56	53	25	74	72	69	64	62	60	30
	873	412	0.173	43.25	66	67	62	59	53	49	25	70	73	68	63	59	56	31	74	71	70	65	63	61	31
10	130	61	0.005	1.25	46	48	41	39	41	40	-	59	54	47	44	40	32	-	69	65	62	60	69	58	-
	682	322	0.038	9.50	58	58	53	51	49	47	-	69	66	69	59	54	50	23	75	71	70	65	65	62	-
	1023	483	0.096	24.00	63	63	59	56	53	50	-	70	77	75	79	72	69	29	80	79	72	71	68	65	30
	1363	643	0.169	42.25	67	66	63	59	55	52	23	77	75	77	79	69	67	33	80	79	72	71	68	65	38
12	190	90	0.005	1.25	47	47	38	40	42	43	-	50	52	42	45	47	49	-	63	61	57	56	55	55	-
	983	464	0.039	9.75	60	58	54	51	51	50	-	64	63	58	56	56	56	20	70	67	65	61	60	59	-
	1474	696	0.094	23.50	66	63	60	56	55	54	20	70	68	65	61	60	59	26	74	71	70	65	63	61	31
	1965	927	0.166	41.50	70	67	64	59	57	54	24	74	72	69	64	62	60	30	80	79	72	71	68	65	38
14	260	123	0.005	1.25	42	43	34	39	39	41	-	46	47	37	42	43	47	-	40	35	25	35	37	37	-
	1337	631	0.043	10.75	59	57	54	52	51	50	-	63	61	57	56	55	55	24	61	57	51	53	54	52	-
	2005	946	0.102	25.50	66	63	61	57	55	54	-	70	67	65	61	60	59	29	69	65	62	60	69	58	25
	2673	1261	0.178	44.50	71	67	66	59	55	52	25	74	71	70	65	63	61	31	75	71	70	65	65	62	29
16	340	160	0.005	1.25	36	31	22	33	32	31	-	40	35	25	35	37	37	-	69	65	62	60	69	54	-
	1745	824	0.040	10.00	57	52	48	49	48	46	-	61	57	51	53	54	52	-	71	70	68	64	63	60	-
	2618	1235	0.095	23.75	77	66	61	59	56	55	-	69	65	62	60	69	58	25	75	71	70	65	64	62	22
	3490	1647	0.171	42.75	72	67	66	61	59	57	25	75	71	70	65	65	62	29	80	79	72	71	68	65	30
18	440	208	0.005	1.25	58	69	62	52	54	60	-	69	65	62	60	69	54	-	75	74	65	64	61	57	-
	2209	1042	0.039	9.75	60	66	60	59	66	59	-	71	70	68	64	63	60	-	80	79	72	71	68	65	38
	3314	1564	0.097	24.25	74	71	69	65	62	58	-	75	71	70	65	64	62	22	83	83	77	75	72	70	43
	4418	2085	0.176	44.00	77	75	74	70	67	65	24	80	79	72	71	68	65	30	85	83	76	74	70	69	43
24 x 12	580	274	0.005	1.25	59	54	47	44	40	32	-	75	74	65	64	61	57	-	71	70	68	64	63	60	-
	2917	1377	0.043	10.75	69	66	69	59	54	50	23	80	79	72	71	68	65	38	89	87	84	79	74	73	48
	4375	2065	0.098	24.50	70	77	75	79	72	69	29	83	83	77	75	72	70	43	92	90	89	85	79	74	50
	5833	2753	0.188	47.00	77	75	77	79	69	67	33	85	83	76	74	70	69	43	96	90	86	87	82	79	55



VAV Terminal Unit

Radiated Sound Data

Single Duct Terminal Unit

Inlet Size	Airflow		Pressure Drop		1" ▲ Ps							2" ▲ Ps							4" ▲ Ps						
					Octave Band Sound Power, LW							Octave Band Sound Power, LW							Octave Band Sound Power, LW						
	CFM	L/S	In.Wg	PA	125	250	500	1000	2000	4000	NC	125	250	500	1000	2000	4000	NC	125	250	500	1000	2000	4000	NC
6	40	19	0.005	1.25	43	35	24	22	18	14	-	46	40	28	25	22	20	-	46	45	40	32	30	26	-
	245	116	0.034	8.50	53	47	39	35	32	27	-	56	52	43	39	36	33	-	56	54	51	43	40	36	25
	368	174	0.089	22.25	58	53	47	42	39	34	22	61	58	51	45	43	40	27	60	58	55	47	44	40	30
	490	231	0.169	42.25	61	57	52	47	43	39	26	64	62	56	50	47	44	32	63	61	58	51	47	44	33
8	80	38	0.005	1.25	43	39	33	27	25	19	-	46	45	40	32	30	26	-	41	41	23	23	24	20	-
	437	206	0.040	10.00	53	49	44	38	35	29	-	56	54	51	43	40	36	25	54	50	43	38	37	32	-
	655	309	0.093	23.25	57	52	48	42	39	34	22	60	58	55	47	44	40	30	60	54	52	45	43	38	26
	873	412	0.173	43.25	60	55	51	46	42	37	26	63	61	58	51	47	44	33	64	57	58	50	47	41	32
10	130	61	0.005	1.25	35	35	20	19	16	9	-	41	41	23	23	24	20	-	45	50	35	29	28	24	-
	682	322	0.038	9.50	48	44	39	34	29	21	-	54	50	43	38	37	32	-	56	55	48	43	41	35	23
	1023	483	0.096	24.00	54	48	48	41	35	26	22	60	54	52	45	43	38	26	60	57	54	48	47	40	28
	1363	643	0.169	42.25	58	51	54	45	39	30	29	64	57	58	50	47	41	32	63	59	57	52	50	44	32
12	190	90	0.005	1.25	40	45	30	25	23	18	-	45	50	35	29	28	24	-	41	42	26	30	29	29	-
	983	464	0.039	9.75	51	50	43	39	36	30	-	56	55	48	43	41	35	23	54	52	43	42	41	39	20
	1474	696	0.094	23.50	56	52	49	44	42	35	23	60	57	54	48	47	40	28	59	56	51	47	46	43	25
	1965	927	0.166	41.50	59	54	53	48	46	38	27	63	59	57	52	50	44	32	63	59	55	50	49	46	30
14	260	123	0.005	1.25	36	37	23	26	25	25	-	41	42	26	30	29	29	-	44	44	36	36	37	33	-
	1337	631	0.043	10.75	49	47	40	38	37	35	-	54	52	43	42	41	39	20	57	54	50	47	46	41	24
	2005	946	0.102	25.50	55	51	48	43	43	39	22	59	56	51	47	46	43	25	63	59	55	52	50	45	30
	2673	1261	0.178	44.50	58	53	52	47	46	41	27	63	59	55	50	49	46	30	66	62	59	55	53	47	34
16	340	160	0.005	1.25	39	38	31	31	30	25	-	44	44	36	36	37	33	-	42	41	37	36	35	34	-
	1745	824	0.040	10.00	52	49	45	42	39	33	-	57	54	50	47	46	41	24	56	52	49	46	42	40	23
	2618	1235	0.095	23.75	58	53	50	47	43	37	25	63	59	55	52	50	45	30	64	60	56	53	51	46	31
	3490	1647	0.171	42.75	62	56	54	50	46	39	29	66	62	59	55	53	47	34	68	63	60	56	53	47	35
18	440	208	0.005	1.25	42	39	33	32	31	26	-	42	41	37	36	35	34	-	53	54	47	45	43	39	-
	2209	1042	0.039	9.75	50	47	44	41	38	34	-	56	52	49	46	42	40	23	63	61	58	52	53	52	-
	3314	1564	0.097	24.25	59	54	51	48	44	39	26	64	60	56	53	51	46	31	68	64	62	56	57	56	38
	4418	2085	0.176	44.00	64	58	52	49	47	40	30	68	63	60	56	53	47	35	70	66	66	64	58	55	41
24 x 12	580	274	0.005	1.25	50	52	43	41	42	41	-	53	54	47	45	43	39	-	68	64	62	56	57	56	-
	2917	1377	0.043	10.75	59	58	54	50	51	50	-	63	61	58	52	53	52	-	70	66	66	64	58	55	-
	4375	2065	0.098	24.50	64	61	59	54	55	54	34	68	64	62	56	57	56	38	77	74	69	65	58	55	38
	5833	2753	0.188	47.00	67	63	62	56	58	57	37	70	66	66	64	58	55	41	89	80	79	75	70	69	40

RUSKIN®

VAV Terminal Unit

Damper & Case Leakage Data

Single Duct Terminal Unit

Inlet Size	Airflow CFM (L/S)		Damper Leakage						Casing Leakage					
	Min	Max	1" wg		2" wg		4" wg		1" wg		2" wg		4" wg	
			CFM	%	CFM	%	CFM	%	CFM	%	CFM	%	CFM	%
6	40 - 490 (19 - 230)		4	0.8	5	1.0	7	1.3	2	0.4	3	0.6	5	1
8	80 - 873 (38 - 412)		4	0.4	5	0.5	7	0.8	3	0.3	4	0.4	6	0.8
10	130 - 1363 (61 - 643)		4	0.3	5	0.3	7	0.5	4	0.3	5	0.3	7	0.6
12	190 - 1965 (90 - 927)		4	0.2	5	0.1	7	0.3	5	0.2	7	0.3	9	0.5
14	260 - 2673 (123 - 1260)		4	0.1	6	0.1	8	0.3	6	0.2	9	0.3	12	0.4
16	340 - 3490 (160 - 1647)		5	0.1	7	0.1	9	0.1	7	0.2	10	0.3	14	0.4
18	440 - 4418 (208 - 2085)		5	0.1	7	0.1	9	0.1	7	0.1	11	0.1	16	0.3
24 x 12	580 - 5833 (274 - 2753)		5	0.1	7	0.1	9	0.1	7	0.1	13	0.1	18	0.3

Installation Guide

Figure 1

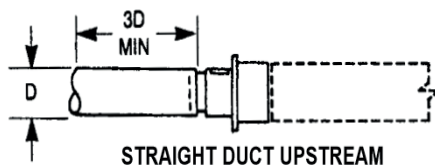
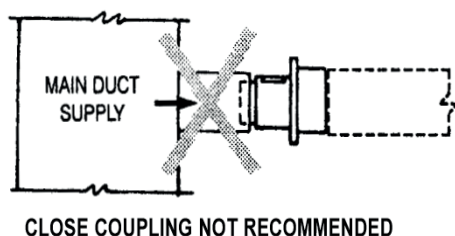


Figure 2



Method of Installation

~ Avoid abrupt transitions or duct turns at the inlet of the units that would alter the cross section area.

~ A minimum of three duct diameter of straight duct upstream of inlet sensor is recommended. (i.e 6" inlet dia = 18" or more straight upstream duct . figure 1)

~ Close coupling the terminal unit inlet to the side of the main duct is **NOT** recommended. Figure 2.

~ The control unit must be mounted such that the airflow sensor is at the inlet of the terminal unit upstream of the damper blade.