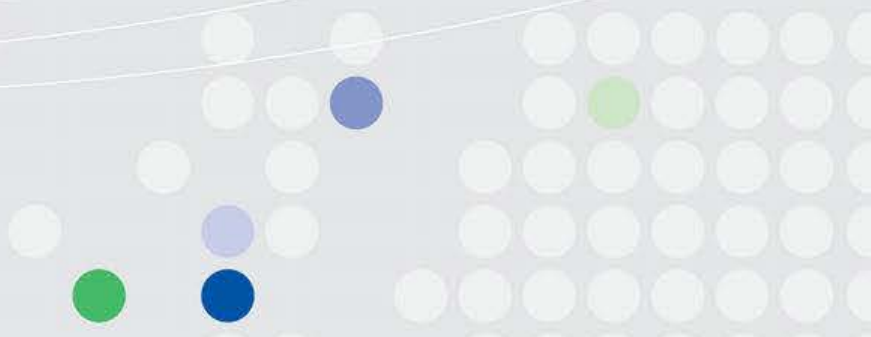




AIR DISTRIBUTION SPECIALIST



PRESSURE INDEPENDENT TERMINAL UNITS



PRESSURE INDEPENDENT TERMINAL UNIT



Flow Tech pressure independent terminal units are designed to control air volume flow rate for supply air on variable volume system. These units are designed to supply the air flow rate of conditioned air into an occupied zone in response to control signal from a thermostat or building management system. These could also be used as stand alone system.

Flow Tech Terminal units consist of a casing with circular inlet spigot, rectangular outlet connection with integral 400 mm long attenuator lined with acoustic mineral insulation with black tissue facing. Circular damper blade and cross flow differential pressure sensor for measuring air volume. The casing design and optimized silencer geometry reduce self-generated noise and minimize pressure drop.

MATERIAL SPECIFICATIONS

- Casing 0.9mm (21 gauge) galvanized steel sheet.
- Damper blade 0.9mm (21 gauge) galvanized steel sheet.
- Acoustic insulation of 25mm thick, 24kg/m³ with black tissue facing meeting UL 181 standard
- Bearing - Brass Bush 12mm Round
- Aluminum Flow Grid.

Terminal units also incorporate control components (VAV actuator, transformer) which are factory fitted and calibrated in our in house calibration rig to ensure all PITU meet the design criteria of our customer. This enables the terminal to monitor desired air flow rate as dictated by the thermostat or input signal of 0-10V and compensate instantly for any changes in supply air pressure that might tend to alter the supply air volume. Net resultant is a pressure independent variable air volume system.

The complete VAV terminal/silencer assembly has been tested in accordance to ARI 880.

Features:

- Circular damper blade for better flow management
- EDPM gasket on damper blade for low leakage.
- Multi-point averaging inlet differential pressure sensor
- Acoustic lining of mineral wool with glass fiber facing suitable for air velocity up to 20m/s.
- Shaft indicator for damper position.
- Rectangular discharge outlet with clip and drive cleat duct connection.
- Control components encased in control panel (optional).



FIG. 1: VAV TERMINAL UNITS MODEL - PITU

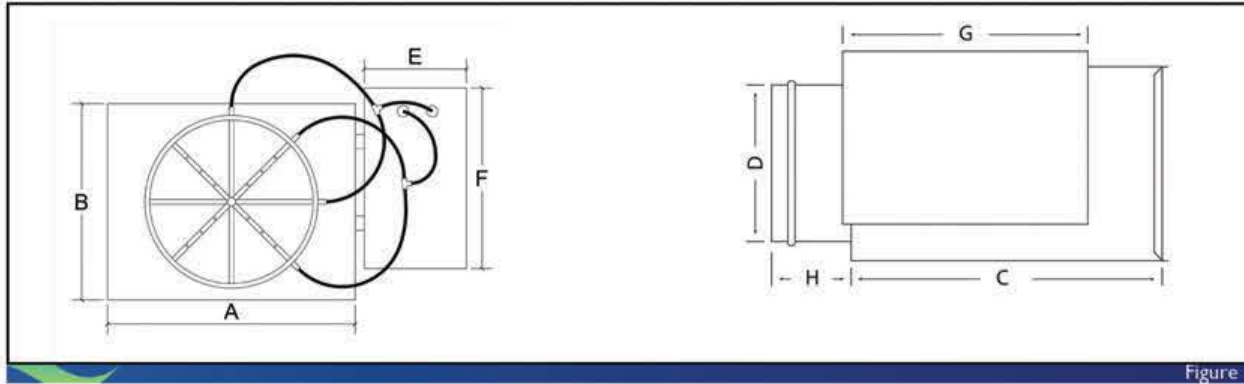


Figure 1

FIG. 2: VAV TERMINAL UNITS WITH SOUND ATTENUATOR - PITU-SA

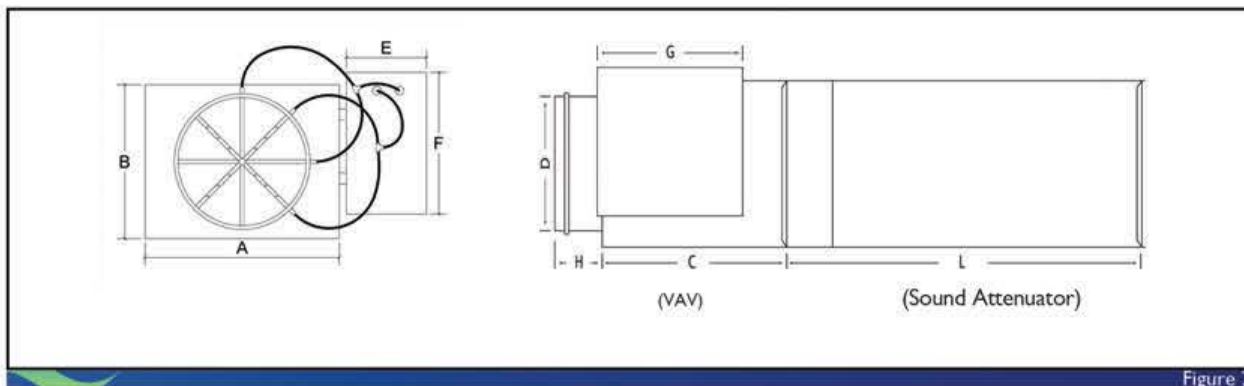


Figure 2

DIMENSIONS

MODEL	D	A	B	C	L	H	F	G
PITU 15	150	350	250	400	900	150	200	300
PITU 20	200	400	300	450	900	200	200	300
PITU 25	250	450	350	500	900	250	250	300
PITU 30	300	500	400	550	900	300	250	300
PITU 35	350	550	450	600	900	350	300	300
PITU 40	400	600	500	650	900	400	300	300
PITU 60	600x400	600	400	1050	900	0	300	300

Left Hand control panel as Standard, Right hand control panel available as optional.



TYPICAL SELECTION GUIDE

Model	Airflow		Basic Unit				w/ Attenuator				Minimum ΔPs Across Assembly				Minimum ΔPt		Discharge NC Basic Assembly ΔPs			Discharge NC c/w 36" Attenuator ΔPs			Radiated NC Basic Assembly ΔPs		
											1Row Coil		2Row Coil		Basic Unit		Across Unit			Across Unit			Across Unit		
											in.wg	Pa	in.wg	Pa	in.wg	Pa	in.wg	Pa	0.5"	1.5"	3"	0.5"	1.5"	3"	0.5"
CFM	L/S	in.wg	Pa	in.wg	Pa	in.wg	Pa	in.wg	Pa	in.wg	Pa	125Pa	375Pa	750Pa	125Pa	375Pa	750Pa	125Pa	375Pa	750Pa					
PITU 15	75	35	0.01	2	0.01	2	0.02	5	0.03	7	0.05	12	--	--	--	--	--	--	--	--	--				
	175	83	0.01	2	0.01	2	0.04	10	0.08	20	0.25	62	--	--	22	--	--	20	--	--	21				
	275	130	0.01	2	0.01	2	0.07	17	0.15	37	0.25	62	--	--	24	--	--	20	--	--	24				
	375	177	0.13	31	0.13	31	0.24	60	0.36	90	0.33	82	--	24	27	--	--	22	--	--	23				
	475	224	0.18	45	0.18	45	0.33	82	0.50	124	0.46	114	--	24	30	--	--	25	--	--	25				
PITU 20	150	71	0.02	5	0.02	5	0.04	10	0.07	17	0.05	12	--	--	--	--	--	--	--	--	--				
	250	118	0.02	4	0.02	4	0.05	12	0.09	22	0.07	17	--	--	23	--	--	--	--	--	--				
	450	212	0.05	12	0.05	12	0.14	35	0.24	60	0.20	50	--	23	29	--	--	21	--	--	22				
	650	306	0.01	2	0.01	2	0.16	40	0.33	82	0.15	37	--	23	30	--	--	22	--	--	26				
	850	400	0.01	2	0.01	2	0.25	62	0.52	129	0.25	62	--	25	32	--	--	24	22	--	29				
PITU 25	250	118	0.02	4	0.02	4	0.05	12	0.09	22	0.07	17	--	--	23	--	--	--	--	--	--				
	450	212	0.01	2	0.01	2	0.06	15	0.11	27	0.06	15	--	22	31	--	--	22	--	--	25				
	750	353	0.01	2	0.01	2	0.15	37	0.31	77	0.20	50	--	25	35	--	--	26	--	--	22				
	1050	496	0.01	2	0.01	2	0.21	52	0.44	109	0.30	75	--	27	36	--	--	21	27	--	24				
	1350	637	0.01	2	0.01	2	0.32	80	0.66	164	0.29	72	--	25	33	--	--	20	27	--	25				
PITU 30	900	425	0.01	2	0.01	2	0.01	25	0.20	50	0.07	17	--	23	31	--	--	23	--	--	21				
	1200	566	0.01	2	0.01	2	0.16	40	0.33	82	0.11	27	--	25	32	--	--	26	--	--	23				
	1500	708	0.01	2	0.01	2	0.23	57	0.47	117	0.17	42	--	26	34	--	--	21	28	--	25				
	1800	850	0.01	2	0.01	2	0.31	77	0.63	157	0.24	60	--	27	35	--	--	23	30	--	26				
	2100	991	0.01	2	0.01	2	0.04	100	0.82	204	0.33	82	--	28	35	--	--	25	31	--	28				
PITU 35	1000	472	0.01	2	0.01	2	0.07	17	0.13	32	0.05	12	--	22	31	--	--	21	29	--	21				
	1500	708	0.01	2	0.01	2	0.12	30	0.25	62	0.10	25	--	25	34	--	--	23	31	--	25				
	2000	944	0.01	2	0.01	2	0.20	50	0.40	100	0.18	45	--	27	36	--	--	24	32	21	29				
	2500	1180	0.01	2	0.01	2	0.28	70	0.58	144	0.27	67	--	29	38	--	--	25	34	24	32				
	3000	1416	0.01	2	0.01	2	0.38	95	0.79	197	0.38	95	--	30	39	--	--	26	35	27	35				
PITU 40	1500	708	0.01	2	0.01	2	0.09	22	0.19	47	0.06	15	--	22	30	--	--	20	28	--	23				
	2000	944	0.01	2	0.01	2	0.15	37	0.30	75	0.10	25	--	25	33	--	--	22	30	--	26				
	2500	1180	0.01	2	0.01	2	0.21	52	0.43	107	0.16	40	--	27	35	--	--	24	32	22	30				
	3000	1416	0.01	2	0.01	2	0.28	70	0.58	144	0.22	55	--	29	37	--	--	26	34	25	33				
	3500	1652	0.01	2	0.01	2	0.37	92	0.75	187	0.30	75	--	31	40	--	--	27	35	28	36				
PITU 60 (60x40cm)	4000	1888	0.01	2	0.01	2	0.46	114	0.94	234	0.39	97	20	33	41	--	--	28	36	31	39				
	3000	1416	0.01	2	0.01	2	0.13	32	0.28	70	0.06	15	21	29	34	20	29	34	23	31	36				
	4000	1888	0.01	2	0.01	2	0.21	52	0.44	109	0.10	25	26	33	38	25	33	38	27	35	40				
	5000	2360	0.01	2	0.01	2	0.31	77	0.64	159	0.15	37	29	37	42	28	36	41	30	38	43				
	6000	2832	0.01	2	0.01	2	0.42	105	0.86	214	0.21	52	32	40	45	30	39	44	33	41	46				
PITU 60 (60x40cm)	4000	3304	0.01	2	0.01	2	0.54	134	1.11	276	0.28	70	35	42	47	33	41	46	35	43	48				
	8000	3776	0.01	2	0.01	2	0.68	169	1.39	346	0.36	90	37	44	49	34	43	48	37	45	50				

PERFORMANCE NOTES

- NC's are derived from sound power levels, which are obtained in accordance with ARI Standard 880-98 and ASHRAE Standard 130-1996.
- Airflow is given in Litres/Second, L/S and Cubic Feet/minute, CFM.
- Blank spaces indicate NC's less than 20
- ΔPs is the difference in static pressure from inlet to discharge of the unit.
- ΔPt is the difference in total pressure from inlet to discharge of the unit.
- Pressure is given in Pascals, Pa and Inches of Water Gauge, in.wg.
- NC values are calculated based on typical attenuation values in Appendix E, ARI Standard 885-98, "A Procedure for Estimating Occupied Space Sound Levels in the Application of Air Terminals and Air Outlets". The following chart shows the attenuation deductions that have been used for NC calculations.
- ΔPs for terminal units with electric coil is equal to basic unit. Resistance of the coil elements is negligible.

Radiated Sound is based on a 5/8" mineral fiber tile ceiling per ARI 885-1998 typical attenuation values:

Total Deductions	Octave Band Mid Frequency, HZ.					
	125	250	500	1000	2000	4000
All Sizes	18	19	20	26	31	36

Discharge Sound is based on environmental effect, end reflection, flex duct effect, space effect, sound power division and lined duct. effect.

Total Deductions	Octave Band Mid Frequency, HZ.					
	125	250	500	1000	2000	4000
<400 CFM	24	28	39	53	59	40
400-800 CFM	27	29	40	51	53	39
>800 CFM	29	30	41	51	52	39



TYPICAL SELECTION GUIDE

NC levels presented in the Typical Selection Guide are based on typical attenuation values as outlined in ARI standard 885-98, Appendix E. ARI Standard 885-98, Appendix E provides typical sound attenuation values for air terminal discharge sound and air terminal radiated sound. The typical attenuation values are recommended for use by manufacturers to estimate application sound levels.

In product catalogs the end use environments are not known and the factors presented in ARI Standard 885-98 are provided as typical attenuation values. Use of these values will allow better comparison between manufacturers and give the end user a value which will be expected to be applicable for many types of spaces.

Following is a detailed description of the typical attenuation values used to determine NC levels.

Radiated Sound

The typical radiated sound attenuation values for three types of ceilings: TYPE 1 - Glass Fiber; TYPE 2 - Mineral Fiber; TYPE 3 - Solid Gypsum Board.

Since Mineral Fiber tile ceilings are the most common construction used in commercial buildings, the attenuation values in the Typical Selection Guide are based on Type 2 - Mineral Fiber.

The table on the right provides the calculation method for the radiated sound total attenuation values based on ARI Standard 885-98.

	Octave Band Mid Frequency, HZ.					
	125	250	500	1000	2000	4000
Environmental Effect	2	1	0	0	0	0
Ceiling/Space Effect	16	18	20	26	31	36
Total Attenuation Deduction	18	19	20	26	31	36

- The ceiling/space effect assumes the following conditions:
1. 5/8" tile, 20lb/ft³ density
 2. The plenum is at least 3 feet deep
 3. The plenum space is either wide (over 25ft) or lined with insulation
 4. The ceiling has no significant penetration directly under the unit.

Discharge Sound

The typical discharge sound attenuation values for three sizes of terminal units.

1. Small Box - Defined as a unit with discharge duct of approximately 20 x 20 cm and capacity less than 400 cfm.
2. Medium Box - Defined as a unit with discharge duct of approximately 30 x 30 cm and capacity between 400 - 800 cfm
3. Large Box - Defined as a unit with discharge duct of approximately 40 x 40 cm and capacity of greater than 800 cfm.

For a complete explanation of the attenuation factors and the procedures for calculating room NC levels, please refer to ARI Standard 885-98.

Small Box (< 400 CFM)	Octave Band Mid Frequency, HZ.					
	125	250	500	1000	2000	4000
Environmental Effect	2	1	0	0	0	0
5 Ft (1.5m) Duct Lining	2	6	12	25	28	18
End Reflection	8	5	2	0	0	0
5 Ft (1.5m), 8in (200mm) Flex Duct	5	10	18	20	21	12
Space Effect	4	6	7	8	9	10
Sound Power Division	0	0	0	0	0	0
Total Attenuation Deduction	24	28	39	53	58	40

Medium Box (400-800 CFM)	Octave Band Mid Frequency, HZ.					
	125	250	500	1000	2000	4000
Environmental Effect	2	1	0	0	0	0
5 Ft (1.5m) Duct Lining	2	4	10	20	20	14
End Reflection	9	5	2	0	0	0
5 Ft (1.5m), 8in (200mm) Flex Duct	6	10	18	20	21	12
Space Effect	5	6	7	8	9	10
Sound Power Division	3	3	3	3	3	3
Total Attenuation Deduction	27	29	40	51	53	39

Large Box (> 800 CFM)	Octave Band Mid Frequency, HZ.					
	125	250	500	1000	2000	4000
Environmental Effect	2	1	0	0	0	0
5 Ft (1.5m) Duct Lining	2	3	9	18	17	12
End Reflection	9	5	2	0	0	0
5 Ft (1.5m), 8in (200mm) Flex Duct	6	10	18	20	21	12
Space Effect	5	6	7	8	9	10
Sound Power Division	5	5	5	5	5	5
Total Attenuation Deduction	29	30	41	51	52	39



DISCHARGE SOUND POWER LEVELS

Model	Airflow		Sound Power Levels, Lw dB, re 10 ⁻¹² Watts																							
			125 Pa (0.5" W.G.)					250 Pa (1.0" W.G.)					500 Pa (2.0" W.G.)					750 Pa (3.0" W.G.)								
	CFM	L/S	Octave Band					Octave Band					Octave Band					Octave Band								
		2	3	4	5	6	7	2	3	4	5	6	7	2	3	4	5	6	7	2	3	4	5	6	7	
PITU 15	75	35	48	44	40	37	35	29	50	47	45	41	41	37	51	49	49	46	47	44	52	50	52	49	51	49
	175	83	61	57	50	46	42	36	62	59	54	51	48	43	64	62	59	56	54	51	64	63	62	58	58	55
	275	130	59	54	50	46	42	37	61	58	55	51	49	45	64	62	60	56	55	52	66	64	63	59	59	56
	375	177	57	56	48	46	41	33	61	60	54	52	47	41	65	65	59	57	54	49	67	68	63	61	57	53
	475	224	59	57	51	48	42	35	63	62	56	54	49	42	67	67	62	59	55	50	69	70	65	62	59	54
PITU 20	150	71	47	43	36	37	34	27	51	48	41	42	41	35	55	53	47	48	47	43	57	56	50	51	51	47
	250	118	51	49	41	41	38	34	55	55	48	47	44	41	59	60	55	52	51	48	61	63	59	56	55	52
	450	212	57	55	48	46	41	37	60	61	55	51	48	45	64	66	61	57	54	52	66	70	65	61	58	56
	650	306	57	54	48	46	41	34	61	61	55	51	47	44	65	67	62	57	54	52	67	70	66	61	58	56
	850	400	60	57	51	48	42	39	64	63	58	54	49	46	68	69	65	60	55	53	70	73	70	63	59	58
PITU 25	250	118	51	49	41	41	38	34	55	55	48	47	44	41	59	60	55	52	51	48	61	63	59	56	55	52
	450	212	56	52	45	44	40	37	60	59	54	51	48	45	64	67	62	58	56	53	67	71	67	65	60	57
	750	353	60	55	49	48	43	40	64	63	57	55	51	48	69	71	66	62	58	56	71	75	71	67	63	60
	1050	496	62	56	50	49	44	41	66	64	59	57	51	49	70	72	67	64	59	57	73	76	72	68	64	61
	1350	637	62	57	54	54	47	44	66	64	61	58	54	51	71	70	67	63	60	47	73	74	71	66	64	63
PITU 30	900	425	56	55	52	48	44	40	61	62	58	54	51	47	66	68	64	60	57	53	69	72	68	64	61	57
	1200	566	59	57	53	50	46	42	64	63	60	56	52	48	69	70	66	62	59	55	72	73	70	66	63	59
	1500	708	61	57	55	51	47	43	67	64	61	57	54	50	72	71	68	64	61	57	75	74	71	67	65	60
	1800	850	63	58	56	53	48	45	68	65	62	59	55	51	74	71	69	65	62	58	77	75	72	69	66	62
	2100	991	65	59	57	54	50	46	70	65	63	60	56	52	75	72	70	66	63	59	78	76	73	70	67	63
PITU 35	1000	472	55	53	48	46	42	38	62	60	54	53	49	45	68	67	60	59	56	51	72	72	63	63	59	55
	1500	708	59	55	52	49	45	41	65	63	58	55	52	48	69	70	66	62	59	55	72	73	70	66	63	59
	2000	944	62	57	56	50	48	43	68	65	62	57	54	50	74	72	68	64	61	57	78	76	71	68	65	61
	2500	1180	64	59	58	52	49	45	70	66	64	59	56	52	76	73	70	66	62	59	78	76	73	70	67	63
	3000	1416	65	60	60	53	51	47	71	67	66	60	57	53	78	75	72	67	64	60	82	79	76	71	68	64
PITU 40	1500	708	59	53	51	48	45	40	65	60	57	55	52	47	71	67	62	62	59	54	75	71	66	66	63	58
	2000	944	62	56	55	50	47	42	68	63	60	57	54	49	75	70	66	64	59	55	75	74	68	66	62	58
	2500	1180	64	58	58	51	49	44	71	65	63	58	56	51	77	72	69	65	62	58	81	76	72	69	66	62
	3000	1416	66	59	60	53	50	46	73	66	66	60	57	53	79	73	71	67	64	59	83	77	75	71	68	64
	3500	1652	68	61	62	54	51	47	74	67	68	61	58	54	81	74	73	68	65	61	84	78	77	72	69	65
PITU 60 (60x40cm)	4000	1888	70	62	64	55	52	48	76	69	69	62	59	55	82	75	75	69	66	62	86	79	78	73	70	66
	3000	1416	66	64	61	59	57	50	69	68	66	64	61	56	73	72	70	69	66	62	75	74	73	72	69	65
	4000	1888	70	68	65	62	60	53	73	72	69	67	65	59	77	76	74	72	70	65	79	78	76	75	73	68
	5000	2360	73	71	68	64	62	56	76	75	72	69	6	61	80	79	76	74	72	67	82	81	79	77	75	71
	6000	2832	75	73	70	66	64	58	79	77	74	71	69	63	82	81	79	76	74	69	84	84	91	79	77	73
PITU 60 (60x40cm)	4000	3304	77	75	72	68	66	59	81	79	76	73	71	65	84	83	80	78	76	71	86	86	83	81	79	74
	8000	3776	79	77	73	69	68	61	83	81	78	74	73	66	86	85	82	79	78	72	88	88	85	82	80	76

Performance Notes:

1. Data obtained in accordance with ARI Standard 880-98 and ASHRAE Standard 130-1996.
2. Airflow is given in litres per second, L/S; and cubic feet per minute, CFM.
3. Pressure is given in Pascals, Pa; and inches of water gauge, in.wg.
4. Blank spaces indicate sound power levels less than 20.



RADIATED SOUND POWER LEVELS

Model	Sound Power Levels, Lw dB, re 10 ⁻¹² Watts																															
	Airflow		125 Pa (0.5" W.G)							250 Pa (1.0" W.G)							500 Pa (2.0" W.G)							750 Pa (3.0" W.G)								
			Octave Band							Octave Band							Octave Band							Octave Band								
	CFM	L/S	2	3	4	5	6	7	2	3	4	5	6	7	2	3	4	5	6	7	2	3	4	5	6	7	2	3	4	5	6	7
PITU 15	75	35	44	34	27	22	-	-	45	36	31	26	24	22	47	38	34	30	29	26	48	39	36	32	32	29						
	175	83	51	45	38	31	25	21	52	47	42	35	30	26	54	49	45	40	35	30	56	50	47	42	37	33						
	275	130	58	46	38	31	25	-	60	49	42	36	31	26	62	51	46	40	37	33	63	53	48	43	40	37						
	375	177	55	45	42	34	28	22	58	49	45	39	34	28	62	53	49	43	40	34	64	56	51	46	43	38						
	475	224	57	48	44	36	29	23	60	51	47	41	35	29	64	55	51	45	42	35	65	58	53	48	45	39						
PITU 20	150	71	47	35	31	25	20	-	50	39	35	29	26	22	53	43	38	34	32	28	55	45	40	37	36	32						
	250	118	50	37	31	28	22	-	52	42	37	32	26	20	54	47	42	36	30	26	56	50	46	38	33	29						
	450	212	56	43	36	34	28	21	58	48	42	37	32	26	60	53	48	41	36	31	62	56	51	44	39	34						
	650	306	57	46	38	33	27	25	60	51	43	38	33	33	64	56	49	43	40	41	66	58	53	47	43	46						
	850	400	60	49	40	35	29	26	63	54	46	41	35	34	67	59	52	46	41	42	69	62	55	49	45	46						
PITU 25	250	118	50	37	31	28	22	-	52	42	37	32	26	20	54	47	42	36	30	26	56	50	43	37	33	29						
	450	212	50	37	32	27	21	-	54	45	39	33	28	26	57	52	46	40	34	33	59	56	50	44	38	37						
	750	353	53	42	36	32	25	21	57	49	43	38	32	28	61	57	50	45	38	35	63	61	55	48	42	39						
	1050	496	55	44	38	33	27	22	58	51	45	40	33	29	62	58	52	46	39	36	64	63	56	50	43	39						
	1350	637	56	46	40	34	30	26	59	52	47	40	35	32	63	59	53	45	40	37	65	62	57	48	42	40						
PITU 30	900	425	49	44	37	31	24	20	53	49	43	37	29	25	58	55	50	42	34	30	60	58	53	45	37	33						
	1200	566	52	45	39	34	27	22	56	51	45	40	32	27	61	57	52	45	37	32	63	60	55	48	40	35						
	1500	708	54	47	41	36	30	24	59	52	47	42	35	29	63	58	53	47	40	34	65	61	57	50	43	37						
	1800	850	56	48	42	38	32	26	61	53	48	43	37	31	65	59	54	49	42	36	67	62	58	52	45	39						
	2100	991	58	49	43	40	34	27	62	54	49	45	39	32	66	60	55	50	44	37	69	63	59	53	47	40						
PITU 35	1000	472	52	44	35	30	22	-	56	50	40	35	28	22	59	55	45	40	33	28	62	59	48	43	36	31						
	1500	708	56	47	41	34	28	22	60	53	46	40	33	28	64	59	51	45	38	33	66	62	55	48	41	36						
	2000	944	59	49	45	38	32	26	63	55	51	43	37	31	66	61	56	48	42	37	69	64	59	51	45	40						
	2500	1180	61	51	49	40	35	29	65	57	54	46	40	34	69	63	59	51	45	40	71	66	62	54	48	43						
	3000	1416	63	52	51	42	38	31	67	58	57	48	43	36	71	64	62	53	48	42	73	68	65	56	51	45						
PITU 40	1500	708	54	46	39	34	29	25	58	52	44	39	34	30	61	57	48	44	39	35	64	60	51	47	41	37						
	2000	944	57	48	44	38	33	28	61	54	49	43	38	33	64	60	53	47	43	38	67	63	56	50	45	41						
	2500	1180	59	50	48	41	37	31	63	56	53	45	41	36	67	61	57	50	46	41	69	65	60	53	48	44						
	3000	1416	61	52	51	43	39	33	65	57	56	47	44	38	69	63	60	52	48	43	71	66	63	55	51	46						
	3500	1652	63	53	54	45	41	35	67	59	58	49	46	40	70	64	63	54	50	45	73	68	66	57	53	48						
PITU 60 (60x40cm)	4000	1888	64	54	56	46	43	37	68	60	61	51	48	42	72	65	65	56	52	47	74	69	68	58	55	50						
	3000	1416	60	54	49	41	33	23	64	59	54	46	39	31	67	63	59	51	44	40	69	66	61	54	48	45						
	4000	1888	64	58	52	43	36	25	67	62	57	48	41	34	71	66	62	54	47	42	73	69	64	57	50	47						
	5000	2360	66	60	54	45	38	27	70	65	59	50	43	36	73	69	64	56	49	44	75	72	67	59	52	49						
	6000	2832	68	63	56	47	39	29	72	67	61	52	45	37	75	71	66	57	50	45	77	76	69	60	53	50						
PITU 60 (60x40cm)	4000	3304	70	64	59	48	40	30	73	69	63	53	56	38	77	73	68	59	51	47	79	76	70	62	55	52						
	8000	3776	71	66	59	49	41	31	75	70	64	55	47	40	78	75	69	60	52	48	80	77	72	63	56	53						

Performance Notes:

1. Data obtained in accordance with ARI Standard 880-98 and ASHRAE Standard 130-1996.
2. Airflow is given in litres per second, L/S; and cubic feet per minute, CFM.
3. Pressure is given in Pascals, Pa; and inches of water gauge, in.wg.
4. Blank spaces indicate sound power levels less than 20.



DISCHARGE SOUND POWER LEVELS WITH SOUND ATTENUATORS

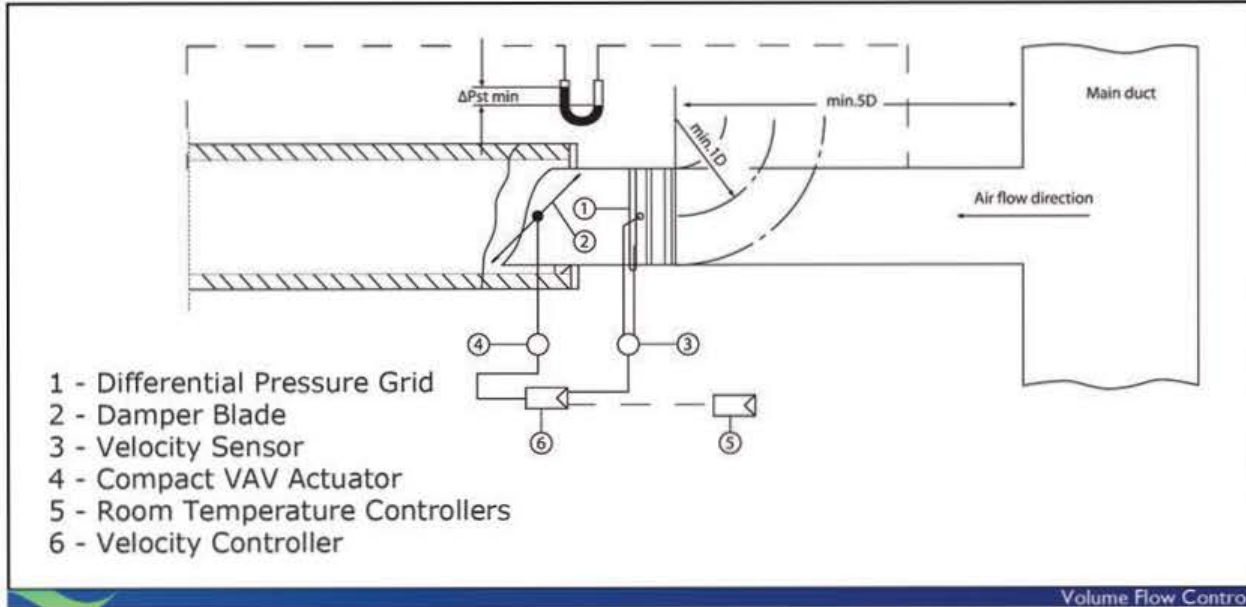
Model	Sound Power Levels, Lw dB, re 10 ⁻¹² Watts																													
	Airflow		125 Pa (0.5" W.G)							250 Pa (1.0" W.G)							500 Pa (2.0" W.G)							750 Pa (3.0" W.G)						
			Octave Band							Octave Band							Octave Band							Octave Band						
	CFM	L/S	2	3	4	5	6	7	2	3	4	5	6	7	2	3	4	5	6	7	2	3	4	5	6	7				
PITU-SA 15	75	35	48	43	36	28	-	-	49	45	40	32	23	-	51	47	44	37	29	20	52	48	47	39	32	25				
	175	83	59	56	45	37	24	-	60	58	50	42	30	-	62	60	54	46	36	26	63	61	56	49	39	31				
	275	130	57	51	46	37	26	-	59	55	50	42	31	21	62	58	55	47	36	26	64	60	57	49	39	30				
	375	177	56	52	47	37	23	-	59	56	52	42	30	20	62	61	57	47	36	28	64	63	60	50	40	33				
	475	224	58	54	49	39	25	-	61	59	54	44	31	22	64	63	59	49	37	29	66	66	62	52	41	34				
PITU-SA 20	150	71	47	40	37	28	-	-	50	45	42	33	25	-	53	49	47	38	31	23	55	52	50	41	35	27				
	250	118	48	44	37	31	20	-	52	48	43	36	27	25	55	53	50	41	33	32	57	55	54	44	37	37				
	450	212	55	52	44	38	25	20	58	56	51	43	31	27	62	60	57	48	38	35	64	63	61	51	41	39				
	650	306	60	56	49	42	27	21	63	61	55	48	34	29	66	65	62	53	40	36	68	68	65	56	44	40				
	850	400	58	55	47	42	30	23	62	59	54	47	36	30	66	64	60	52	43	37	68	66	64	65	46	41				
PITU-SA 25	250	118	48	44	37	31	20	-	52	48	43	36	27	25	55	53	50	41	33	32	57	55	54	44	37	37				
	450	212	54	49	45	38	29	25	58	54	51	43	36	32	61	60	58	48	42	40	64	64	62	51	46	44				
	750	353	59	53	48	44	33	28	62	59	55	49	39	36	66	64	62	54	46	43	68	68	66	57	49	47				
	1050	496	60	54	50	46	34	29	64	60	56	51	40	37	67	66	63	56	47	44	70	69	67	58	51	49				
	1350	637	61	54	50	45	35	35	65	60	57	51	42	38	69	66	63	56	48	41	72	69	67	59	52	42				
PITU-SA 30	900	425	54	51	49	42	36	31	58	57	55	48	41	38	62	62	62	53	47	45	65	65	66	57	51	49				
	1200	566	57	53	51	44	37	33	61	59	57	50	43	40	66	64	64	55	49	47	68	68	68	59	53	51				
	1500	708	59	55	52	46	39	35	64	61	59	51	45	41	68	66	65	57	51	48	71	70	69	60	54	52				
	1800	850	61	57	53	47	40	36	65	62	60	53	46	43	70	68	67	58	52	50	72	71	70	62	55	54				
	2100	991	63	58	54	48	41	37	67	63	61	54	47	44	72	69	68	60	53	51	74	72	71	63	56	55				
PITU-SA 35	1000	472	58	53	46	42	37	33	64	59	53	48	43	40	69	66	59	53	49	46	73	70	62	57	52	50				
	1500	708	61	54	50	45	40	36	66	61	56	50	46	42	72	68	62	56	52	49	75	72	66	59	55	53				
	2000	944	62	56	52	46	42	37	68	62	58	52	47	44	73	69	64	58	53	50	76	73	68	61	57	54				
	2500	1180	63	57	54	48	43	39	69	63	60	53	49	45	74	70	66	59	55	52	77	74	70	62	58	56				
	3000	1416	64	57	56	49	44	40	70	64	62	54	50	46	75	71	68	60	56	53	78	75	71	63	59	57				
PITU-SA 40	1500	708	58	52	49	45	41	34	63	59	55	51	47	42	69	66	60	56	53	49	73	70	64	60	57	53				
	2000	944	60	54	52	47	43	36	66	61	58	53	49	45	71	68	63	58	55	51	75	72	66	61	59	55				
	2500	1180	62	56	54	48	44	38	67	62	60	54	50	45	73	69	65	60	56	52	77	73	68	63	60	57				
	3000	1416	63	57	56	50	45	39	69	64	61	55	51	46	75	70	67	61	57	54	78	74	70	64	61	58				
	3500	1652	64	58	57	51	46	40	70	65	63	56	52	47	76	71	68	62	58	55	79	75	71	65	62	59				
4000	1888	65	59	59	51	47	41	71	65	64	57	53	48	77	72	70	63	59	56	80	76	73	66	63	60					
PITU-SA 60 (60x40cm)	3000	1416	65	63	59	54	49	43	69	68	64	59	54	48	72	72	69	64	59	53	74	75	72	67	61	56				
	4000	1888	69	67	63	57	52	46	72	71	67	62	57	51	76	76	72	67	62	57	78	78	75	70	64	60				
	5000	2360	72	69	65	59	55	49	75	74	70	64	59	54	79	78	75	69	64	59	81	81	77	72	67	63				
	6000	2832	74	72	67	61	57	51	78	76	72	66	61	56	81	81	77	71	66	62	83	83	79	74	69	65				
	4000	3304	76	73	69	62	58	53	80	78	74	67	63	58	83	82	78	72	68	64	85	85	81	75	70	67				
8000	3776	78	75	71	64	60	55	82	80	75	69	64	60	85	84	80	74	69	65	87	87	83	77	72	68					

Performance Notes:

1. Data obtained in accordance with ARI Standard 880-98 and ASHRAE Standard 130-1996.
2. Airflow is given in litres per second, L/S; and cubic feet per minute, CFM.
3. Pressure is given in Pascals, Pa; and inches of water gauge, in.wg.
4. Blank spaces indicate sound power levels less than 20.

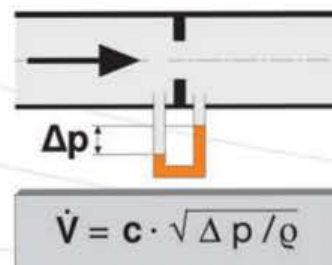
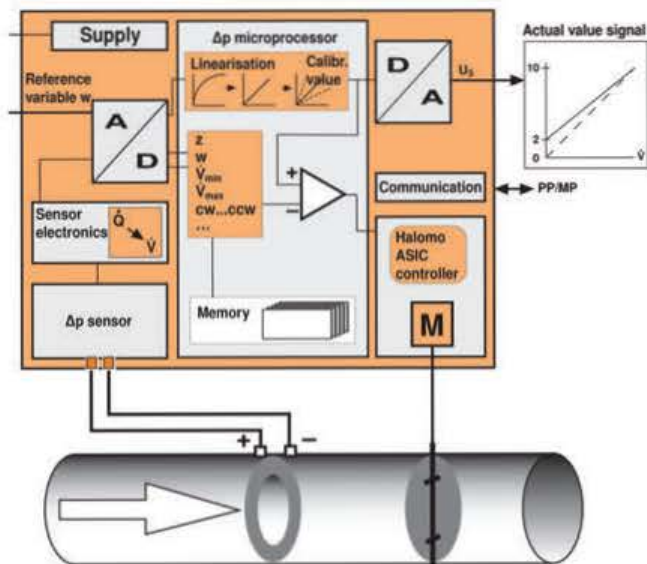
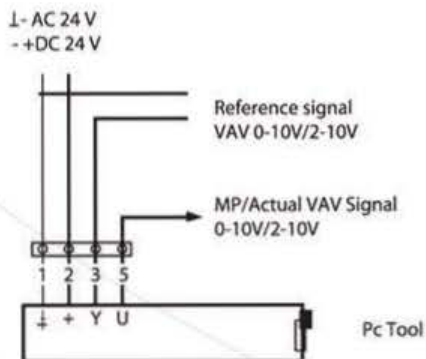


VOLUME FLOW CONTROL



CONTROL DIAGRAM

VAV with analogue reference signal

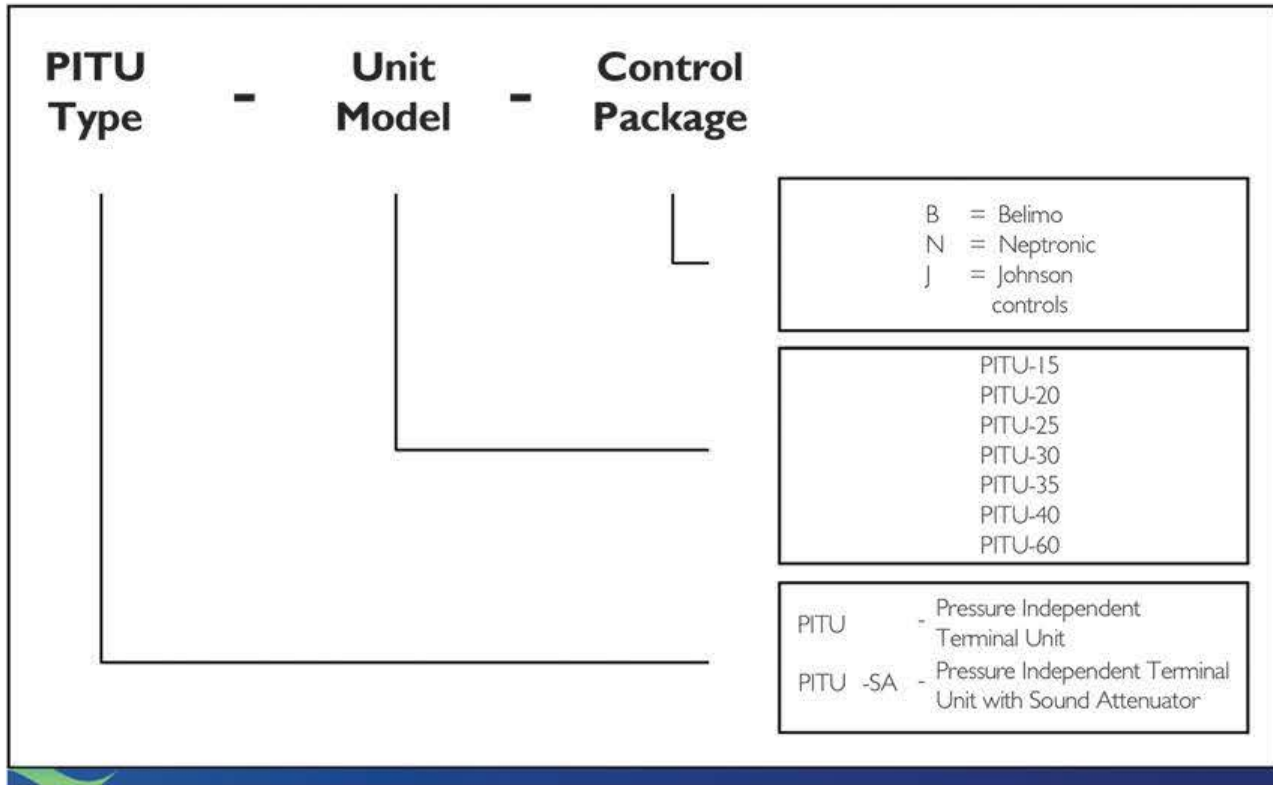


Legend:

- \dot{V} = Volumetric flow
- c = Geometry-related constant of the baffle device
- Δp = Differential pressure
- ρ = Medium density



ORDERING SYSTEM



ORDERING EXAMPLE

PITU-SA-20B

Refers to Pressure Independent Terminal Unit with Sound Attenuator, Unit Model PITU-20 with Belimo Actuator

