



Delivering with agility for a dynamic industry

Safer, greener, innovative solutions in the fast evolving HVAC industry

Celebrating **20** years



Fire Resisting Ductwork



Life Safety Dampers



Sound Attenuators



Fire-rated Insulation



Smoke Exhaust, Car Park & Tunnel Ventilation Fans



VAV Boxes



Control Dampers



Louvers



UL Listed Air Filters & ESPs



AHU, FAHU, FCU, RTU, ERV & Ecology Units

PI VAV CATALOGUE

Central Ventilation Systems (CVS) designs, tests, manufactures, and supplies certified air distribution, air control, and passive fire protection solutions, complying with international standards such as UL, AMCA, BS, EN, NFPA, IBC, ASFP, SMACNA, and DW144.

We are a family-owned group, that has been understanding the HVAC industry for 20 years; through the experience of providing certified HVAC solutions to over 1000 projects of varied sizes and complexities, primarily for the commercial, residential, healthcare, educational facilities, data centers and different industrial segments.

The existing range of CVS products includes the BS & EN Certified Fire-Rated Ductwork System, UL Classified Life Safety Dampers, AMCA Certified Louvers, Volume Control Dampers, and Sound Attenuators.

Our Research and Development team continually strives to improve our existing products as well as introduce new products to serve our customers efficiently. Maintaining quality at every stage, we work with a spirit of teamwork in achieving the various performance objectives of the consultants and building contractors. We inspect and certify our projects, and offer the assurance of all requisite approvals to be in place.



Celebrating **20** *years*



Key advantages that
make a real impact

1

Fire-safety products tested, approved and certified by renowned labs and local civil defence authority

2

High quality in-house manufacturing ensuring consistency and timeliness with process automation

3

Saving time and hassle through understanding of region's building standards, local regulations and numerous specifications



High quality
delivered with
honesty and
integrity



Vision

To be recognized as a leading player within the HVAC industry having formidable presence across product categories.



Mission

Striving for superior quality and performance while manufacturing sustainable products. Associate with leading projects that are shaping the infrastructure landscape.



Core Attributes

- Striving for excellence
- Achieving technical superiority
- Commitment to customer satisfaction
- Conscious of environment and costs
- Investing in innovative methodologies

SINGLE DUCT AIR TERMINAL UNITS



ATU-PI 500
SINGLE DUCT AIR TERMINAL UNITS



SINGLE DUCT AIR TERMINAL UNITS

The single duct terminal units are at the core of today's variable air volume (VAV) systems. The staple of today's HVAC system designer, VAV systems lower operating costs by using less central fan energy and less refrigeration energy. VAV systems also have lower first costs by allowing the designer to take advantage of the building's diversity.

The primary function of the single duct terminal units is to regulate conditioned air flow into an occupied zone in response to a control signal.

Single duct terminal units are available with a wide range of control options to suit any application. These include pneumatic, analog electronic, electric, and direct digital control (DDC).

Single duct terminal units can be applied in both pressure-dependent and pressure-independent applications in duct systems with static pressures up to 3" wg.

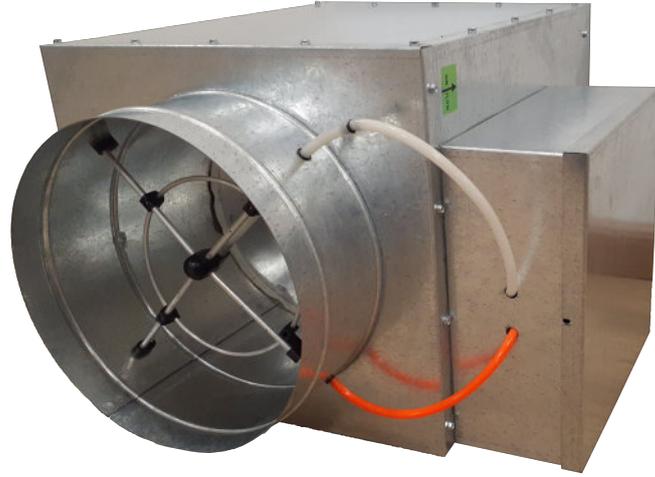
With the demands of today's building designs to reduce energy in smaller mechanical spaces, the single duct terminal unit is the perfect choice.



ATU-PI 500 SINGLE DUCT AIR TERMINAL UNIT

SPECIFIABLE FEATURES

- 22 ga. galvanized steel casing, mechanically sealed, low leakage construction.
- Damper construction of double layer 18 gauge equivalent with integral blade seal.
- Spot welded round primary inlet duct to minimize leakage.
- Metal inlet flow sensor with extra balancing taps.



ATU-PI 500 SINGLE DUCT AIR TERMINAL UNIT

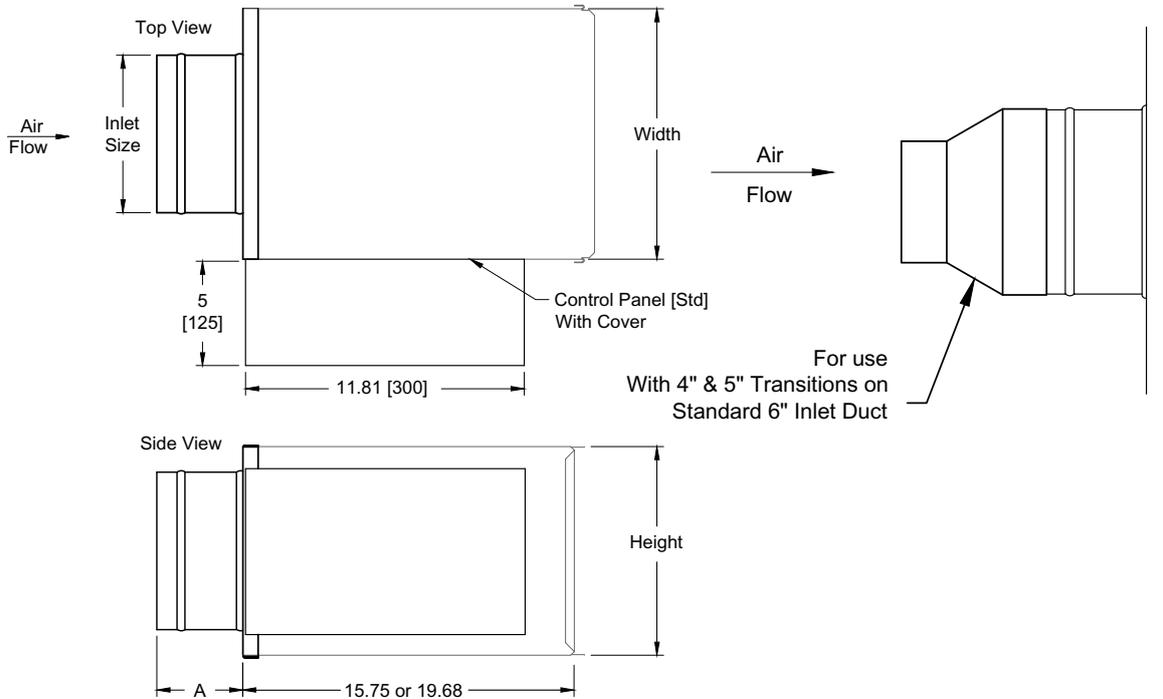
The ATU-PI 500 is the simplest and most widely used VAV terminal unit. Its basic components are an insulated sheet metal box, round inlet damper, flow measuring device and rectangular outlet. The unit is served by a central air handler and modulates the amount of 'primary' cooling air to the space between a minimum set point and the design airflow. When necessary, the ATU-PI 500 can be provided with a heating coil on the discharge of the unit to provide for reheat.

STANDARD FEATURES

- ATU-PI-500 available in 10 unit sizes to handle 75-4200 CFM.
- Variable or constant volume applications.
22 ga. galvanized steel casing, mechanically sealed for low leakage.
- Mechanically fastened damper assembly is double layer, 18 gauge equivalent, galvanized steel with integral blade seal. (<1% at 3.0" wg static pressure).
- Optional factory calibrated controls to meet all control strategies.
- Multi-point, averaging flow sensor for highly accurate (+/-5%) flow readings with varying inlet duct configurations after certified balancer has balanced terminal.
- Externally accessible steel balancing taps.
- External control cabinet with offset mounting plate is standard.
- 3-beaded inlet connection tube for added rigidity and secure flex duct connections.
1/2" thick, dual density (1.5lb / ft³ min.) fiberglass insulation with edges coated.
- Meets NFPA 90A and UL 181.
- Rectangular discharge with slip and drive cleat duct connection.
- Independently tested and certified laboratory performance data.
- Full range of options and accessories available (heating coils, disconnects, attenuators, etc.).
- Full range of liners / insulation available.

Single Duct Air Terminal Units

ATU-PI 500 SINGLE DUCT AIR TERMINAL UNIT, COOLING ONLY



The standard location for control panel is Right Hand on Model ATU-PI 500.

Looking in the direction of airflow, the control panel is on the right.

The control panel will extend at the top and aligned at the bottom of VAV casing

Control Panel Mounting Surface width by height is 11.81" x 11.81".

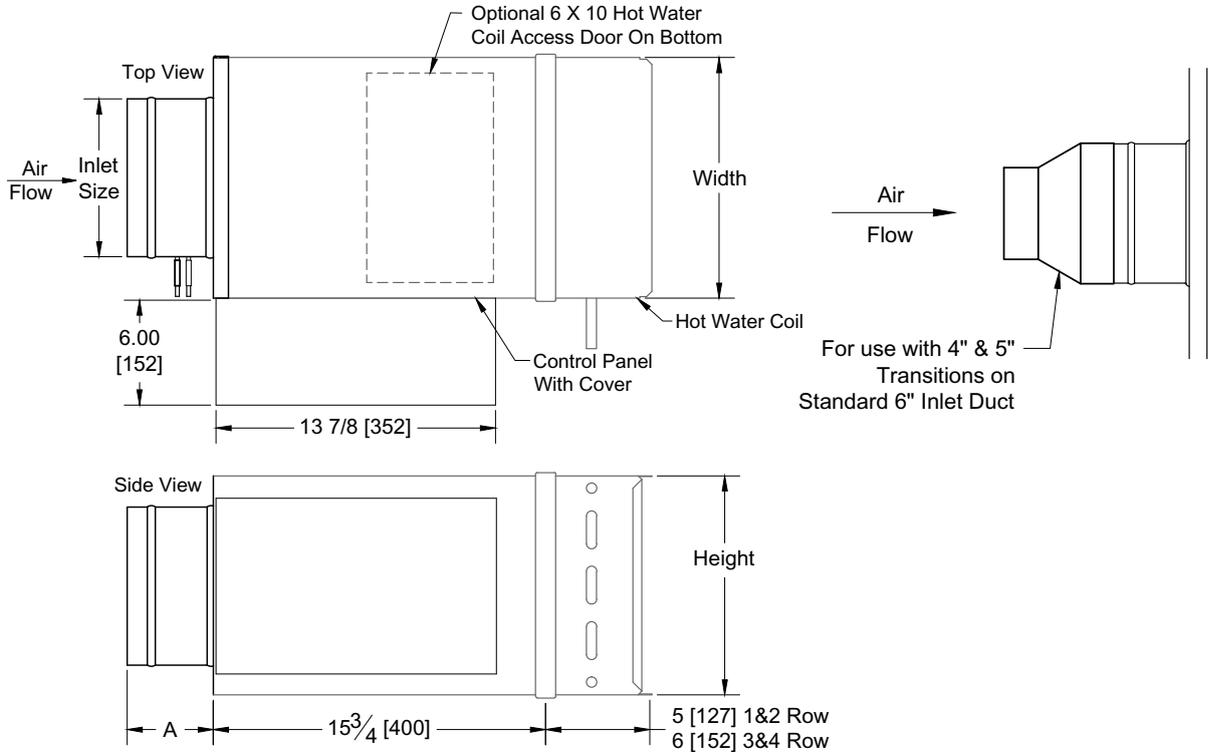
Note: In above drawings S&C connections are shown (available upon request), standard supply is with plain casing at the outlet.

Model Number	Inlet Size		A		Width		Height		*Approx. Unit wt.	
	in.	mm.	in.	mm.	in.	mm.	in.	mm.	lb.	kg.
ATU-PI 504	3 7/8	99	10	254	12	305	8	203	13	6
ATU-PI 505	4 7/8	124	10	254	12	305	8	203	13	6
ATU-PI 506	5 7/8	149	5	127	12	305	8	203	12	5
ATU-PI 507	6 7/8	175	5	127	12	305	10	254	15	7
ATU-PI 508	7 7/8	200	5	127	12	305	10	254	15	7
ATU-PI 509	8 7/8	225	5	127	14	356	12 1/2	318	18	8
ATU-PI 510	9 7/8	251	5	127	14	356	12 1/2	318	18	8
ATU-PI 512	11 7/8	302	5	127	16	406	15	381	22	10
ATU-PI 514	13 7/8	353	5	127	20	508	17 1/2	445	24	11
ATU-PI 516	15 7/8	403	5	127	24	610	18	457	29	13

* For actual weights, please consult factory

Single Duct Air Terminal Units

ATU-PI 500 SINGLE DUCT AIR TERMINAL UNIT WITH HOT WATER COIL



The standard location for control panel is Right Hand on Model ATU-PI 500.

Looking in the direction of airflow, the control panel is on the right.

The control panel will extend at the top and aligned at the bottom of VAV casing

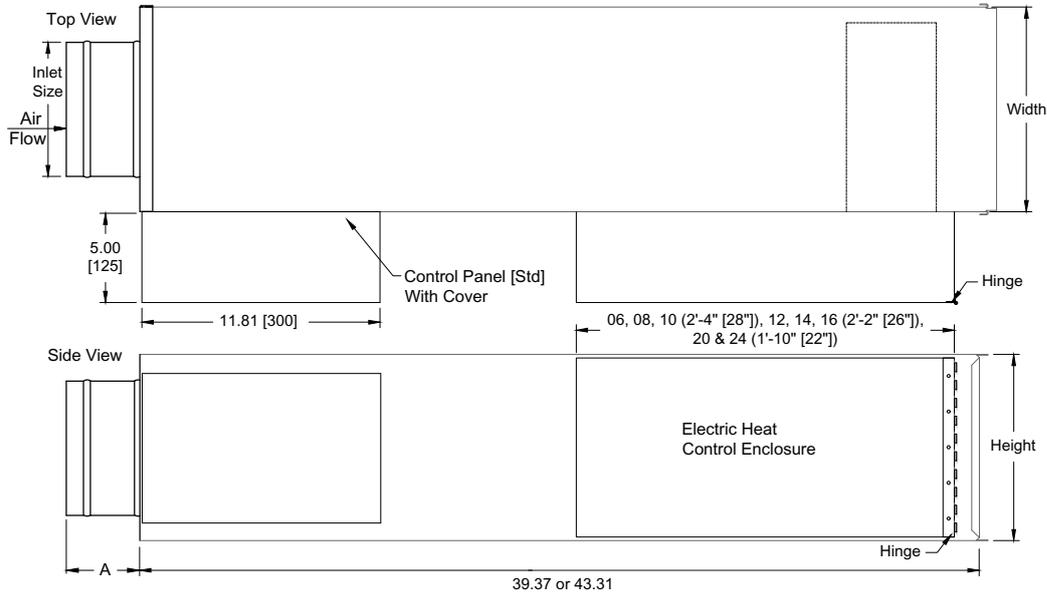
Control Panel Mounting Surface width by height is 11.81" x 11.81".

Note: In above drawings S&C connections are shown (available upon request), standard supply is with plain casing at the outlet.

Model Number	Inlet Size		A		Width		Height		Unit wt.							
	in.	mm.	in.	mm.	in.	mm.	in.	mm.	1 Row		2 Row		3 Row		4 Row	
									lb.	kg.	lb.	kg.	lb.	kg.	lb.	kg.
ATU-PI 504	3 7/8	99	10	254	12	305	8	203	17	7.7	18	8	24	11	23	10.4
ATU-PI 505	4 7/8	124	10	254	12	305	8	203	17	7.7	18	8	24	11	23	10.4
ATU-PI 506	5 7/8	149	5	127	12	305	8	203	17	7.7	18	8	24	11	23	10.4
ATU-PI 508	7 7/8	200	5	127	12	305	10	254	20	9	22	10	28	13	28	13
ATU-PI 510	9 7/8	251	5	127	14	356	12 1/2	318	24	11	27	12	34	15	38	17
ATU-PI 512	11 7/8	302	5	127	16	406	15	381	31	14	34	15.4	41	19	43	19.5
ATU-PI 514	13 7/8	353	5	127	20	508	17 1/2	445	34	15.4	39	17.7	47	21	53	24
ATU-PI 516	15 7/8	403	5	127	24	610	18	457	42	19	48	21.8	54	25	59	26.8

Single Duct Air Terminal Units

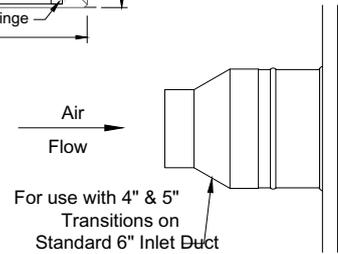
ATU-PI 500 SINGLE DUCT AIR TERMINAL UNIT WITH ELECTRIC HEAT



The standard location for control panel is Right Hand on Model ATU-PI 500.
Looking in the direction of airflow, the control panel is on the right.

The control panel will extend at the top and aligned at the bottom of VAV casing
Control Panel Mounting Surface width by height is 11.81" x 11.81".

Note: In above drawings S&C connections are shown (available upon request),
standard supply is with plain casing at the outlet.



Model Number	Inlet Duct				Unit					
	Nominal Size		A		Width		Height		Unit wt.	
	in.	mm.	in.	mm.	in.	mm.	in.	mm.	lb.	kg.
ATU-PI 504	3 7/8	99	10	254	12	305	8	203	38	17
ATU-PI 505	4 7/8	124	10	254	12	305	8	203	38	17
ATU-PI 506	5 7/8	149	5	127	12	305	8	203	38	17
ATU-PI 508	7 7/8	200	5	127	12	305	10	254	43	20
ATU-PI 510	9 7/8	251	5	127	14	356	12 1/2	318	50	23
ATU-PI 512	11 7/8	302	5	127	16	406	15	381	59	27
ATU-PI 514	13 7/8	353	5	127	20	508	17 1/2	445	67	30
ATU-PI 516	15 7/8	403	5	127	24	610	18	457	77	35

Single Duct Air Terminal Units

ATU-PI 500

RADIATED SOUND POWER at ΔPS = 0.50, 1.00, 1.50, and 3.0 in. wg

Unit Size	Airflow		Min. Inlet ΔPs		ΔPs = 0.50 in. wg (125 Pa)					ΔPs = 1.00 in. wg (250 Pa)					ΔPs = 1.50 in. wg (375 Pa)					ΔPs = 3.0 in. wg (750 Pa)												
					Sound Power Octave Band Lw (dB)				NC	Sound Power Octave Band Lw (dB)				NC	Sound Power Octave Band Lw (dB)				NC	Sound Power Octave Band Lw (dB)				NC								
					2	3	4	5		6	7	2	3		4	5	6	7		2	3	4	5		6	7	2	3	4	5	6	7
504 4 inch	50	24	0.010	2.5	49	40	27	27	23	15	<15	51	42	29	29	25	17	<15	52	43	30	30	26	19	<15	53	46	33	32	31	26	<15
	100	47	0.020	5.0	51	42	31	30	27	21	<15	53	44	33	32	29	23	<15	54	45	34	32	30	25	<15	55	48	37	35	35	32	15
	150	71	0.030	7.5	54	44	37	34	29	24	<15	56	48	39	36	31	26	16	56	49	40	36	32	28	16	58	52	43	39	37	35	20
	200	94	0.040	10.0	57	49	43	37	31	26	18	59	51	45	39	33	28	20	60	52	46	40	34	30	21	61	55	49	42	39	37	23
	250	118	0.060	14.9	59	51	47	40	36	34	21	61	53	49	42	38	36	23	62	54	50	42	39	38	24	63	57	53	45	44	45	28
505 5 inch	150	71	0.030	7.5	54	46	37	34	29	24	<15	56	48	39	36	31	26	16	56	49	40	36	32	28	16	58	52	43	39	37	35	20
	200	94	0.040	10.0	57	49	43	37	31	26	18	59	51	45	39	33	28	20	60	52	46	40	34	30	21	61	55	49	42	39	37	23
	250	118	0.060	14.9	59	51	47	40	36	34	21	61	53	49	42	38	36	23	62	54	50	42	39	38	24	63	57	53	45	44	45	28
	300	142	0.070	17.4	61	54	51	43	40	38	25	63	56	53	45	42	40	28	64	57	54	46	43	42	29	65	60	57	48	48	49	32
	350	165	0.090	22.4	62	56	54	46	43	41	29	64	58	56	47	45	43	31	65	59	56	48	46	45	31	66	61	59	50	50	50	34
506 6 inch	200	94	0.040	10.0	57	49	43	37	31	26	18	59	51	45	39	33	28	20	60	52	46	40	34	30	21	61	55	49	42	39	37	23
	300	142	0.070	17.4	61	54	51	43	40	38	25	63	56	53	45	42	40	28	64	57	54	46	43	42	29	65	60	57	48	48	49	32
	400	189	0.100	24.9	63	58	54	49	46	40	29	65	60	56	51	48	42	31	66	61	57	52	49	44	32	67	64	60	54	54	51	35
	500	236	0.140	34.9	65	61	56	52	48	42	31	67	63	58	54	50	44	33	68	64	59	54	51	46	34	69	67	62	57	56	53	37
	600	283	0.150	37.4	66	62	57	53	49	43	32	68	64	59	55	51	45	34	68	65	60	55	52	47	35	69	68	63	58	57	54	38
507 7 inch	350	165	0.030	7.5	60	49	42	34	29	27	21	64	55	50	44	36	32	27	64	56	51	46	40	36	27	65	57	54	51	48	46	29
	450	212	0.040	10.0	60	50	43	37	30	27	21	64	57	50	45	38	33	27	65	58	53	48	42	38	28	66	61	58	54	50	48	33
	550	260	0.060	14.9	62	52	44	40	32	28	24	66	59	50	46	38	34	30	67	61	54	49	42	39	31	68	65	60	56	50	48	35
	650	307	0.080	19.9	63	53	46	42	34	28	25	68	60	52	47	40	36	32	69	63	56	51	44	40	33	70	68	63	58	52	49	38
	750	354	0.100	24.9	64	55	49	44	36	30	27	70	62	54	48	42	37	34	71	65	58	52	45	41	35	74	70	65	60	52	50	40
508 8 inch	400	189	0.040	10.0	60	50	42	36	30	27	21	64	56	50	44	37	32	27	64	57	52	47	41	37	27	66	59	56	52	49	47	31
	550	260	0.060	14.9	62	52	44	40	32	28	24	66	59	50	46	38	34	30	67	61	54	49	42	39	31	68	65	60	56	50	48	35
	700	330	0.090	22.4	64	54	48	43	35	29	27	69	61	53	48	41	36	33	70	64	57	52	44	40	34	72	69	64	59	52	49	31
	850	401	0.110	27.4	66	57	51	46	38	32	30	71	62	55	50	44	39	35	72	66	59	53	47	42	36	76	72	66	60	54	50	35
	1000	472	0.130	32.4	68	60	54	50	42	35	32	73	65	58	53	47	41	38	74	68	61	56	50	44	39	78	74	68	62	55	50	39
509 9 inch	500	236	0.010	2.5	54	53	42	36	33	29	21	59	58	52	42	38	32	27	63	59	53	46	42	37	28	67	60	55	52	49	48	31
	700	330	0.010	2.5	56	55	46	40	35	30	23	60	60	54	46	40	34	30	64	62	57	49	44	39	32	70	67	61	55	52	49	37
	900	425	0.020	5.0	56	56	49	43	36	31	24	62	62	56	48	42	35	32	66	65	59	51	46	41	35	72	72	66	58	54	52	43
	1100	519	0.040	10.0	59	58	52	46	38	32	27	63	63	57	49	43	37	33	67	68	61	54	48	43	38	73	76	69	61	56	55	48
	1300	614	0.060	14.9	62	62	55	49	40	34	32	66	64	58	50	44	38	34	70	69	62	55	49	45	39	76	78	70	63	58	57	50
510 10 inch	700	330	0.010	2.5	56	55	46	40	35	30	23	60	60	54	46	40	34	30	64	62	57	49	44	39	32	70	67	61	55	52	49	37
	900	425	0.020	5.0	56	56	49	43	36	31	24	62	62	56	48	42	35	32	66	65	59	51	46	41	35	72	72	66	58	54	52	43
	1100	519	0.040	10.0	59	58	52	46	38	32	27	63	63	57	49	43	37	33	67	68	61	54	48	43	38	73	76	69	61	56	55	48
	1300	614	0.060	14.9	62	62	55	49	40	34	32	66	64	58	50	44	38	34	70	69	62	55	49	45	39	76	78	70	63	58	57	50
	1500	708	0.080	19.9	64	64	57	50	44	28	34	69	66	59	52	46	40	36	74	70	63	56	51	47	40	80	78	71	64	58	58	50
512 12 inch	800	378	0.020	5.0	58	50	43	36	34	37	19	62	56	53	44	40	40	28	64	59	57	48	44	44	32	66	64	64	58	54	55	39
	1200	566	0.040	10.0	59	54	49	42	37	38	23	64	59	57	47	43	42	32	66	63	61	52	47	46	36	70	70	70	62	56	56	46
	1600	755	0.080	19.9	62	56	54	47	41	40	29	66	61	59	50	46	45	34	68	64	62	54	49	48	37	73	73	71	63	57	56	47
	2000	944	0.120	29.9	63	59	58	50	45	44	33	67	62	60	52	49	47	35	70	66	64	56	52	50	39	74	75	72	64	58	57	48
	2400	1133	0.170	42.3	65	60	54	46	46	44	30	70	65	63	55	52	50	38	72	69	67	59	55	53	43	77	75	74	67	61	59	50
514 14 inch	1000	472	0.020	5.0	61	49	47	39	35	30	23	63	51	49	41	37	32	25	64	52	50	42	38	32	27	65	53	51	43	39	34	28
	1600	755	0.050	12.5	64	54	52	43	39	34	27	66	56	54	45	41	36	30	66	56	54	46	42	36	30	68	58	56	47	43	38	32
	2100	991	0.080	19.9	67	62	59	50	44	39	34	69	64	61	52	46	41	36	70	64	62	52	46	42	37	71	66	63	54	48	43	38
	2600	1227	0.120	29.9	70	64	62	51	48	44	37	72	66	64	53	50	46	39	72	66	64	54	50	46	39	74	68	66	55	52	48	41
	3100	1463	0.160	39.8	71	67	64	53	51	47	39	73	69	66	55	53	49	41	74	69	67	56	53	49	43	75	71	68	57	55	51	44
516 16 inch	1400	661	0.020	5.0	66	58	48	42	37	32	30	66	62	53	46	42	36	32	68	64	57	52	46	42	34	70	68	64	60	55	52	39
	2100	991	0.050	12.5	68	60	51	46	43	39	32	68	64	56	50	46	42	34	70	68	61											

Single Duct Air Terminal Units

ATU-PI 500

DISCHARGE SOUND POWER at $\Delta P_s = 0.50, 1.0, 1.50, \text{ and } 3.0$ in. wg

Unit Size	Airflow		Min. Inlet ΔP_s		$\Delta P_s = 0.50$ in. wg (125 Pa)							$\Delta P_s = 1.00$ in. wg (250 Pa)							$\Delta P_s = 1.50$ in. wg (375 Pa)							$\Delta P_s = 3.0$ in. wg (750 Pa)										
					Sound Power Octave Band Lw (dB)							NC	Sound Power Octave Band Lw (dB)							NC	Sound Power Octave Band Lw (dB)							NC	Sound Power Octave Band Lw (dB)							NC
					2	3	4	5	6	7	2		3	4	5	6	7	2	3		4	5	6	7	2	3	4		5	6	7					
CFM	L/s	in. wg	Pa	2	3	4	5	6	7	NC	2	3	4	5	6	7	NC	2	3	4	5	6	7	NC	2	3	4	5	6	7	NC					
504 4 inch	50	24	0.010	2.5	63	51	43	39	33	26	18	64	59	54	51	43	35	19	65	60	55	52	44	36	20	68	63	56	55	47	39	24				
	100	47	0.020	5.0	64	53	43	38	34	30	19	65	60	56	51	44	38	20	66	61	57	52	45	39	21	69	64	58	55	48	42	25				
	150	71	0.030	7.5	65	55	46	41	36	31	20	66	61	57	52	46	40	21	67	62	58	53	47	41	23	70	65	59	56	50	44	27				
	200	94	0.040	10.0	66	56	49	44	38	32	21	67	62	57	53	48	41	23	68	63	58	54	49	42	24	71	66	59	57	52	45	28				
	250	118	0.060	14.9	67	58	51	46	40	36	23	68	63	59	53	49	44	24	69	64	60	54	50	45	25	72	67	63	57	53	48	30				
505 5 inch	150	71	0.030	7.5	65	55	46	41	36	31	20	66	61	57	52	46	40	21	67	62	58	53	47	41	23	70	65	59	56	50	44	27				
	200	94	0.040	10.0	66	56	49	44	38	32	21	67	62	57	53	48	41	23	68	63	58	54	49	42	24	71	66	59	57	52	45	28				
	250	118	0.060	14.9	67	58	51	46	40	36	23	68	63	59	53	49	44	24	69	64	60	54	50	45	25	72	67	63	57	53	48	30				
	300	142	0.070	17.4	68	60	55	49	42	38	20	68	65	61	54	50	47	23	69	66	62	55	51	48	24	72	69	65	58	54	51	28				
506 6 inch	350	165	0.090	22.4	67	61	56	50	44	41	19	67	65	62	54	51	48	23	68	66	62	55	52	49	24	71	68	65	57	54	52	27				
	200	94	0.040	10.0	66	56	49	44	38	32	21	67	62	57	53	48	41	23	68	63	58	54	49	42	24	71	66	59	57	52	45	28				
507 7 inch	300	142	0.070	17.4	68	60	55	49	42	38	20	68	65	61	54	50	47	23	69	66	62	55	51	48	25	72	69	65	58	54	51	28				
	400	189	0.100	24.9	69	64	59	53	46	44	22	69	66	62	55	51	51	24	70	67	63	56	52	52	25	73	71	66	59	55	55	31				
	500	236	0.140	34.9	72	68	63	58	52	49	27	72	70	66	60	56	54	30	73	71	67	61	57	55	31	76	74	70	64	60	58	34				
	600	283	0.150	37.4	72	70	64	60	54	51	30	72	71	67	62	58	54	31	74	72	68	63	58	56	32	76	75	71	66	61	58	35				
	350	165	0.030	7.5	69	62	53	48	43	38	21	73	69	62	58	54	50	28	73	69	62	58	54	52	28	74	70	62	62	58	56	30				
508 8 inch	450	212	0.040	10.0	70	64	55	51	44	40	23	75	70	64	59	55	50	30	75	70	64	60	56	54	30	76	72	64	62	58	58	32				
	550	260	0.060	14.9	72	66	57	54	46	42	25	76	72	64	61	56	52	32	77	72	64	61	57	54	32	78	73	64	64	60	59	33				
	650	307	0.080	19.9	74	68	59	56	48	44	28	78	74	66	63	58	53	34	78	74	66	63	59	56	34	80	76	66	65	62	60	36				
	750	354	0.100	24.9	76	70	61	59	50	46	28	79	74	68	64	58	54	33	80	76	68	65	60	57	35	82	78	68	67	64	62	37				
509 9 inch	400	189	0.040	10.0	70	63	54	50	44	39	23	74	70	63	58	54	50	30	74	70	63	59	55	53	30	75	71	63	62	58	57	31				
	550	260	0.060	14.9	72	66	57	54	46	42	25	76	72	64	61	56	52	32	77	72	64	61	57	54	32	78	73	64	64	60	59	33				
	700	330	0.090	22.4	75	69	60	58	49	44	30	78	74	67	64	58	54	34	79	75	67	64	60	56	35	81	77	68	66	63	61	37				
	850	401	0.110	27.4	77	71	63	61	52	48	30	81	76	69	66	60	55	35	82	77	69	67	62	59	36	84	79	70	70	66	64	38				
	1000	472	0.130	32.4	79	74	66	64	56	51	33	83	78	71	69	62	57	37	84	79	72	70	64	60	38	86	81	73	74	69	66	40				
510 10 inch	500	236	0.010	2.5	64	62	52	49	40	38	20	69	68	60	57	52	48	27	70	68	62	58	53	50	27	72	70	64	62	58	56	30				
	700	330	0.010	2.5	68	64	56	52	44	42	22	72	70	63	59	54	51	30	73	71	65	60	55	53	31	75	73	68	64	60	57	33				
	900	425	0.020	5.0	70	66	58	54	45	44	23	74	72	65	61	57	54	31	75	72	66	62	58	55	31	77	74	70	65	61	58	33				
	1100	519	0.040	10.0	72	68	61	57	49	47	25	76	73	67	62	59	56	32	76	74	68	63	60	56	33	78	76	72	66	63	59	35				
	1300	614	0.060	14.9	74	72	64	61	54	52	31	78	76	70	66	60	58	35	79	76	71	66	62	58	35	82	78	74	68	66	63	37				
512 12 inch	700	330	0.010	2.5	68	64	56	52	44	42	22	72	70	63	59	54	51	30	73	71	65	60	55	53	31	75	73	68	64	60	57	33				
	900	425	0.020	5.0	70	66	58	54	45	44	23	74	72	65	61	57	54	31	75	72	66	62	58	55	31	77	74	70	65	61	58	33				
	1100	519	0.040	10.0	72	68	61	57	49	47	25	76	73	67	62	59	56	32	76	74	68	63	60	56	33	78	76	72	66	63	59	35				
	1300	614	0.060	14.9	74	72	64	61	54	52	31	78	76	70	66	60	58	35	79	76	71	66	62	58	35	82	78	74	68	66	63	37				
	1500	708	0.080	19.9	77	75	66	64	58	56	34	81	79	72	70	64	60	38	81	79	72	70	64	61	38	84	82	76	72	68	65	42				
514 14 inch	800	378	0.020	5.0	61	59	56	54	50	44	15	66	63	58	57	55	52	20	67	63	58	58	55	53	20	70	65	59	60	57	56	22				
	1200	566	0.040	10.0	64	62	61	57	52	47	19	68	67	63	60	58	55	24	69	68	62	60	59	56	25	72	70	64	63	62	60	28				
	1600	755	0.080	19.9	66	64	63	59	55	50	21	71	70	66	63	62	59	28	72	71	66	64	63	60	30	75	74	69	67	66	64	33				
	2000	944	0.120	29.9	68	65	63	60	56	52	22	74	72	68	66	65	63	31	76	74	70	68	67	66	33	80	78	73	72	71	70	37				
	2400	1133	0.170	42.3	69	66	65	61	57	53	23	76	74	70	68	67	65	33	78	76	71	70	69	67	35	82	80	75	74	74	72	39				
516 16 inch	1000	472	0.020	5.0	50	43	43	41	35	28	<15	61	56	55	55	52	47	<15	65	60	59	60	57	52	16	72	68	66	67	65	61	25				
	1600	755	0.050	12.5	53	47	47	46	41	36	<15	64	59	58	59	56	52	16	68	63	62	63	60	57	21	74	70	69	70	68	65	28				
	2100	991	0.080	19.9	57	52	53	52	48	45	<15	66	61	61	62	61	58	22	69	64	64	66	65	62	26	75	71	70	72	72	69	32				
	2600	1227	0.120	29.9	62	56	56	55	52	51	15	69	63	63	64	63	61	25	72	66	66	67	66	64	28	77	72	71	73	73	71	34				
	3100	1463	0.160	39.8	67	60	57	57	55	57	21	71	65	64	65	64	63	27	73	68	66	68	68	66	29	78	73	72	74	74	72	35				
516 16 inch	1400	661	0.020	5.0	56	51	48	44	39	24	<15	68	62	59	56	54	50	19	70	66	62	60	59	56	23	76	70	68	66	66	62	28				
	2100	991	0.050	12.5	62	56	54	52	46	42	<15	70	66	64	60	58	55	23	73	68	66	64	62	59	25	78	73	70	69	68	65	32				
	2800	1321	0.080	19.9	68	62	62	59	53																											

ATU-PI 500 CASING LEAKAGE

Casing Leakage, CFM						
Inlet Size	0.25" ΔPs	0.50" ΔPs	1.00" ΔPs	1.50" ΔPs	2.0" ΔPs	3.0" ΔPs
6	4	5	6	7	8	9
8	4	5	7	8	8	10
10	5	6	8	10	11	12
12	5	7	9	11	12	14
14	6	8	11	13	14	17
16	7	9	12	14	16	19

ATU-PI 500 DAMPER LEAKAGE

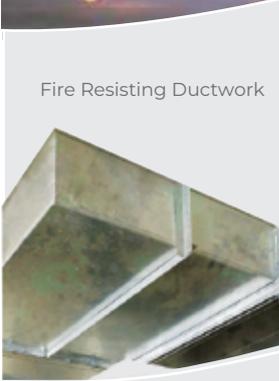
Damper Leakage, CFM			
Inlet Size	1.5" ΔPs	3.0" ΔPs	6.0" ΔPs
6	5	6	9
8	5	6	9
10	6	7	9
12	6	7	9
14	6	8	10
16	6	8	10



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AHU, FAHU, FCU, RTU, ERV & Ecology Units

BYPASS VAV

SINGLE DUCT AIR TERMINAL UNITS



ATU-BP VAV
SINGLE DUCT AIR TERMINAL UNITS



ATU-BP-600 BYPASS TERMINAL UNIT

The ATU-BP-600 Bypass Air Terminals are used to achieve variable air volume delivery of conditioned air to a space or zone where constant volume air handlers exist. Variable air volume control is achieved by directing air flow either to the space or to a bypass port in direct response to a signal from the room thermostat. The damper assembly design includes a galvanized single ½”

thick box damper providing superior rigidity and close off for accurate control without the use of cumbersome and high maintenance internal linkage. The damper rotates in a self-lubricating, low friction, long life thermal plastic bearing. A constant volume of air is delivered by the air terminal, but varying amounts are delivered to the space and the bypass plenum. A locking quadrant on the inlet balancing damper determines the total air flow through the air terminal. The primary air valve is enclosed in an insulated sheet metal casing. Control components are shipped piped and wired, and a piping/wiring diagram is affixed to the bottom of the unit for field reference.

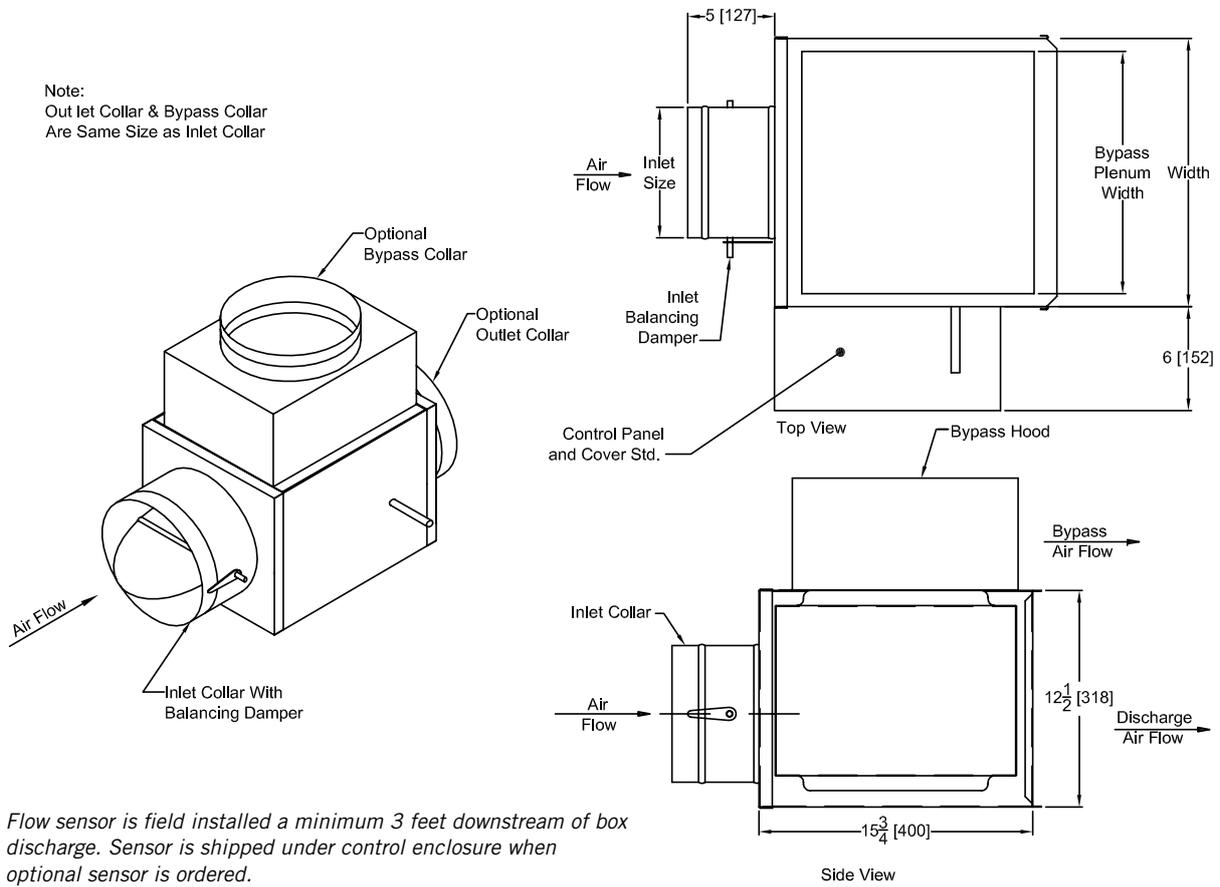
STANDARD FEATURES

- ❑ ATU-BP-600 available in 6 unit sizes to handle 200-4000 CFM
- ❑ Casing constructed of 22 ga. galvanized steel.
- ❑ Damper assembly includes a galvanized single ½” thick box damper providing superior rigidity and close off for accurate control without the use of internal linkage.
- ❑ Insulation is 1/2" thick, 1.5lb / ft³ dual density coated fiberglass that complies with NFPA 90A, ASTM C-665, and UL-181 requirements.
- ❑ 3-beaded inlet connection tube for added rigidity and secure flex duct connections.

Single Duct Air Terminal Units

ATU-BP-600 BYPASS AIR TERMINAL UNIT

Note:
Out let Collar & Bypass Collar
Are Same Size as Inlet Collar



Flow sensor is field installed a minimum 3 feet downstream of box discharge. Sensor is shipped under control enclosure when optional sensor is ordered.

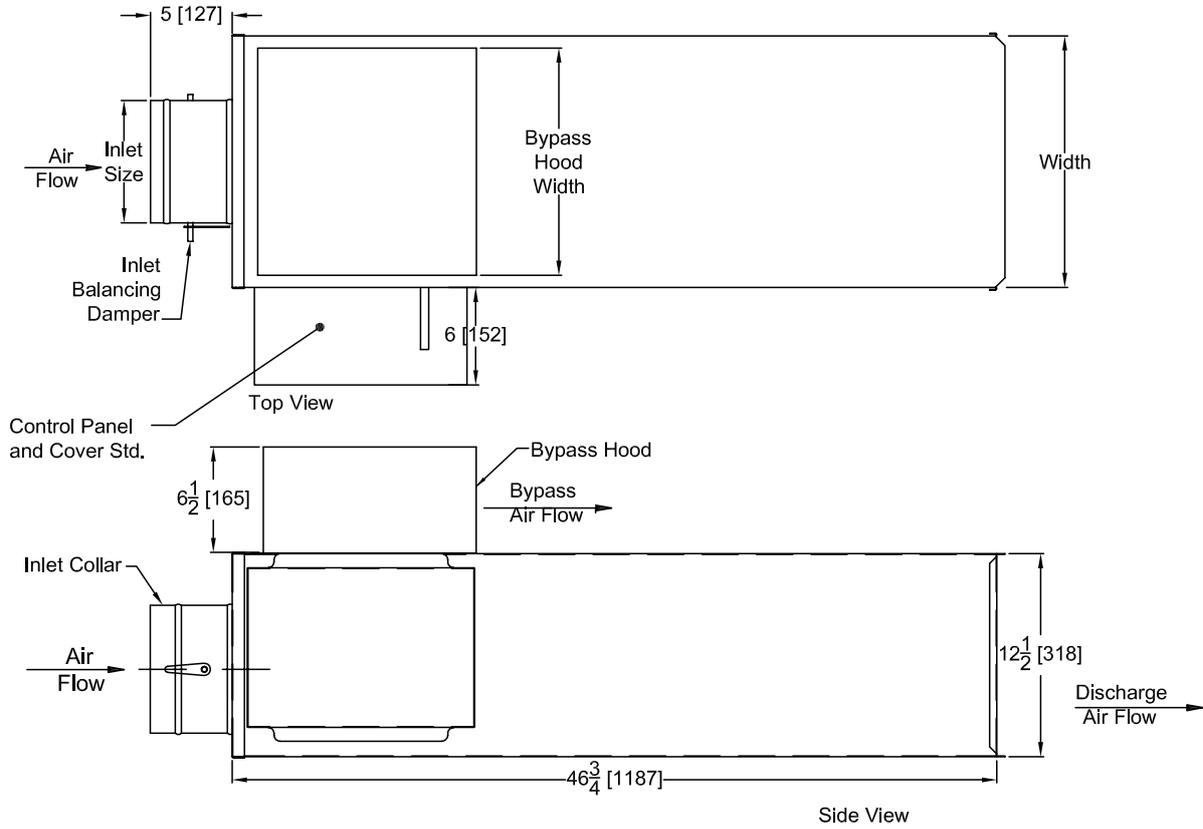
The standard location for control panel is Right Hand on Model ATU-BP. Looking in the direction of airflow, the control panel is on the right.

Model Number	Nominal Size	CFM Range	Width	Shipping Weight (lbs.)
ATU-BP 606	6 (152) Round	0-600	12 (305)	23
ATU-BP 608	8 (203) Round	0-1000	14 (356)	26
ATU-BP 610	10 (254) Round	0-1600	16 (406)	29
ATU-BP 612	12 (305) Oval	0-2200	18 (457)	31
ATU-BP 614	14 (356) Oval	0-3000	24 (610)	34
ATU-BP 616	6 (406) Oval	0-4000	28 (673)	38

Single Duct Air Terminal Units

ATU-BP-600

BYPASS AIR TERMINAL UNIT WITH INTEGRAL SOUND ATTENUATOR



The standard location for control panel is Right Hand on Model BP.
Looking in the direction of airflow, the control panel is on the right.

Model Number	Nominal Size	CFM Range	Width	Shipping Weight (lbs.)
ATU-BP 606	6 (152) Round	0-600	12 (305)	37
ATU-BP 608	8 (203) Round	0-1000	14 (356)	42
ATU-BP 610	10 (254) Round	0-1600	16 (406)	47
ATU-BP 612	12 (305) Oval	0-2200	18 (457)	50
ATU-BP 614	14 (356) Oval	0-3000	24 (610)	55
ATU-BP 616	6 (406) Oval	0-4000	28 (673)	62

ATU-BP-600

Radiated Sound Power, Minimum Ps

Unit Size	Min Ps	CFM	Octave Band					
			2	3	4	5	6	7
4	0.05	200	35	35	29	29	20	20
5	0.05	200	35	35	29	29	20	20
6	0.13	400	50	46	45	43	36	29
8	0.05	700	60	53	45	40	31	27
10	0.05	1100	57	49	45	40	33	28
12	0.10	1600	59	53	47	42	35	29
14	0.10	2100	57	54	53	49	43	41
16	0.12	2800	60	62	61	57	50	43

Discharge Sound Power, Minimum Ps

Unit Size	Min Ps	CFM	Octave Band					
			2	3	4	5	6	7
4	0.05	200	35	35	29	29	20	20
5	0.05	200	35	35	29	29	20	20
6	0.13	400	61	57	52	51	44	39
8	0.05	700	65	59	56	53	45	38
10	0.05	1100	66	62	58	54	46	41
12	0.10	1600	64	60	59	56	49	43
14	0.10	2100	64	65	65	58	53	50
16	0.12	2800	66	63	64	63	56	51

STANDARDS

- Dual-density fiberglass insulation meets UL 181 and NFPA 90A requirements.
- Insulation meets ASHRAE 62.1 requirements for resistance to mold growth and erosion.

Single Duct Air Terminal Units

BP-600

RADIATED SOUND POWER at Minimum Pressures and $\Delta P_s = 1.0$ in. wg

Unit Size	CFM (L/s)		Min Ps in. wg (Pa)		Min Ps							$\Delta P_s = 1.0$ in. wg (250 Pa)								
					Octave Band Sound Power, Lw, dB							NC	Octave Band Sound Power, Lw, dB							NC
					2	3	4	5	6	7	2		3	4	5	6	7			
604 / 605 4 & 5 inch	100	(47)	0.005	(1.2)	35	29	26	22	19	17	<15	35	29	26	22	19	17	<15		
	150	(71)	0.012	(3.0)	35	29	26	22	19	17	<15	44	39	37	31	29	25	<15		
	200	(94)	0.050	(12.4)	35	35	29	29	20	20	<15	53	48	47	40	38	33	21		
	250	(118)	0.055	(13.7)	40	37	36	32	24	20	<15	57	51	48	43	40	36	22		
606 6 inch	200	(94)	0.050	(12.4)	35	35	29	29	20	20	<15	53	48	47	40	38	33	21		
	300	(142)	0.080	(19.9)	45	39	42	35	27	20	15	60	54	48	45	42	38	22		
	400	(189)	0.130	(32.4)	50	46	45	43	36	29	19	60	54	49	46	44	41	23		
	600	(283)	0.300	(74.7)	54	49	46	47	41	39	20	62	56	50	51	46	45	25		
608 8 inch	400	(189)	0.020	(5.0)	45	38	33	26	20	20	<15	61	56	50	46	42	36	25		
	500	(236)	0.030	(7.5)	51	42	37	33	23	20	<15	63	57	53	48	46	38	27		
	700	(330)	0.050	(12.4)	60	53	45	40	31	27	22	66	59	53	50	48	40	30		
	1000	(472)	0.100	(24.9)	66	55	48	46	40	35	30	72	61	53	52	46	42	38		
610 10 inch	600	(283)	0.020	(5.0)	56	35	30	23	20	20	17	65	59	49	43	38	34	29		
	800	(378)	0.030	(7.5)	51	43	38	32	24	20	<15	67	60	55	50	41	37	31		
	1100	(519)	0.050	(12.4)	57	49	45	40	33	28	19	69	63	61	51	44	41	35		
	1600	(755)	0.100	(24.9)	59	51	52	46	40	35	26	72	65	63	54	48	45	38		
612 12 inch	1100	(519)	0.040	(10.0)	50	48	45	37	28	20	19	71	65	56	51	46	42	36		
	1200	(566)	0.050	(12.4)	50	46	46	40	31	23	20	70	67	58	52	48	44	38		
	1500	(708)	0.082	(20.4)	55	51	47	41	33	26	21	72	68	59	54	49	45	40		
	1600	(755)	0.099	(24.5)	59	53	47	42	35	29	21	74	70	60	55	50	46	41		
	2200	(1038)	0.150	(37.3)	63	57	50	45	38	32	26	75	70	63	57	53	49	41		
614 14 inch	1500	(708)	0.050	(12.4)	58	49	47	42	34	25	21	68	67	63	59	55	50	38		
	1800	(850)	0.070	(17.4)	58	50	48	44	37	33	22	69	67	62	60	56	51	38		
	2100	(991)	0.100	(24.9)	57	54	53	49	43	41	27	72	68	64	62	58	52	39		
	2400	(1133)	0.130	(32.4)	56	58	58	53	48	49	33	74	69	65	63	59	53	41		
	3000	(1416)	0.200	(49.8)	71	68	64	57	52	50	39	76	73	68	66	60	55	45		
616 16 inch	2000	(944)	0.060	(14.9)	57	54	53	48	40	21	27	70	70	68	55	51	46	44		
	2800	(1321)	0.120	(29.9)	60	62	61	57	50	43	36	74	73	71	58	52	49	47		
	3200	(1510)	0.160	(39.8)	62	63	62	59	52	40	37	74	74	72	60	54	51	48		
	3600	(1699)	0.210	(52.3)	67	68	67	64	58	53	43	75	75	73	62	57	57	49		
	4000	(1888)	0.250	(62.2)	72	71	67	62	58	55	43	77	77	75	65	60	60	51		

1. Performance data is in accordance with AHRI 880-2011 and ANSI / ASHRAE 130-2008.
2. NC values are calculated using attenuation credits outlined in Appendix E of AHRI 885-2008.
3. Discharge Sound power levels shown with End Reflection Corrections Included in dB (ref: 10^{-12} watts).
4. Minimum Ps is the static pressure drop across the air terminal unit while the inlet damper is in the wide-open position at a given airflow rate.

Single Duct Air Terminal Units

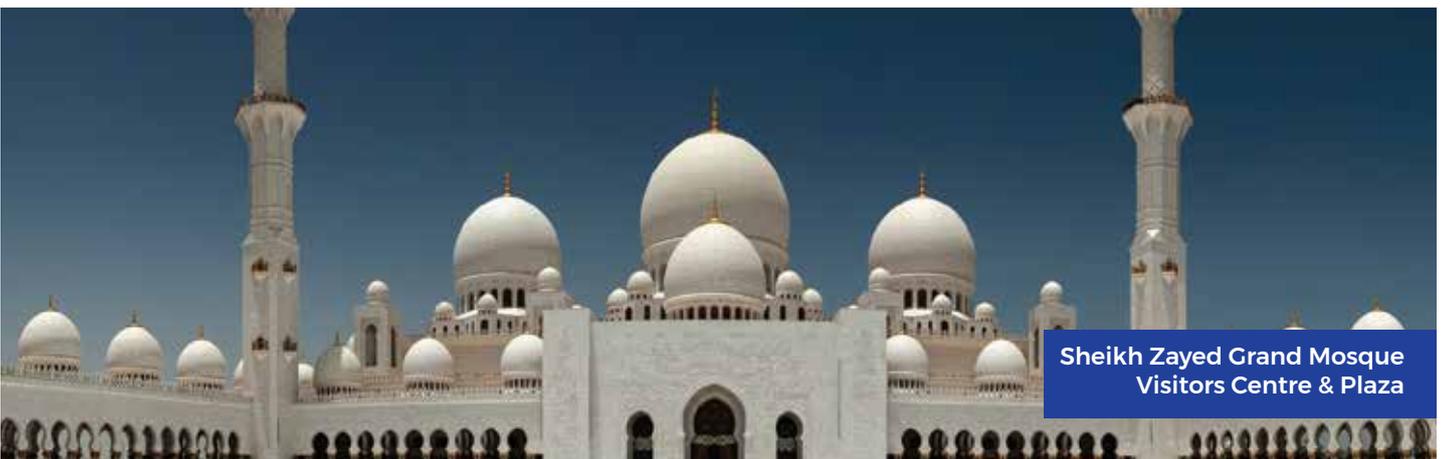
ATU-BP-600

DISCHARGE SOUND POWER at Minimum Pressures and $\Delta P_s = 1.0$ in. wg

Unit Size	CFM (L/s)		Min Ps in. wg (Pa)		Min Ps							$\Delta P_s = 1.0$ in. wg (250 Pa)								
					Octave Band Sound Power, Lw, dB							NC	Octave Band Sound Power, Lw, dB							NC
					2	3	4	5	6	7	2		3	4	5	6	7			
604 / 605 4 & 5 inch	100	(47)	0.005	(1.2)	51	36	30	26	24	16	<15	60	55	51	48	43	41	<15		
	150	(71)	0.012	(3.0)	54	39	33	29	27	19	<15	63	58	54	51	46	44	18		
	200	(94)	0.050	(12.4)	57	42	36	32	30	22	<15	66	61	57	54	49	47	22		
	250	(118)	0.055	(13.7)	57	46	40	38	33	24	<15	67	64	59	58	51	49	24		
606 6 inch	200	(94)	0.050	(12.4)	57	42	36	32	30	22	<15	66	61	57	54	49	47	22		
	300	(142)	0.080	(19.9)	56	50	45	43	35	25	<15	68	66	62	61	53	51	25		
	400	(189)	0.130	(32.4)	61	57	52	51	44	39	<15	71	68	65	65	56	54	27		
	600	(283)	0.300	(74.7)	72	68	64	62	55	52	27	77	76	72	73	63	60	37		
608 8 inch	400	(189)	0.020	(5.0)	63	46	40	36	36	25	<15	68	66	64	64	55	52	25		
	500	(236)	0.030	(7.5)	63	51	46	43	33	23	<15	71	67	65	66	57	53	26		
	700	(330)	0.050	(12.4)	65	59	56	53	45	38	17	75	71	70	70	61	57	31		
	1000	(472)	0.100	(24.9)	72	68	64	63	55	49	26	80	77	76	75	67	62	37		
610 10 inch	600	(283)	0.020	(5.0)	62	48	43	37	28	24	<15	68	65	65	62	55	53	24		
	800	(378)	0.030	(7.5)	63	56	50	46	37	27	<15	73	70	69	65	58	56	28		
	1100	(519)	0.050	(12.4)	66	62	58	54	46	41	19	75	73	72	69	62	59	32		
	1600	(755)	0.100	(24.9)	70	65	66	61	58	54	22	79	76	77	74	66	64	35		
612 12 inch	1100	(519)	0.040	(10.0)	59	51	48	45	37	27	<15	71	69	68	61	66	56	27		
	1200	(566)	0.050	(12.4)	63	53	51	48	40	32	<15	72	70	68	67	61	58	28		
	1500	(708)	0.082	(20.4)	63	60	58	55	48	42	16	74	72	74	72	66	61	31		
	1600	(755)	0.099	(24.5)	64	60	59	56	49	43	16	74	73	74	73	67	62	32		
	2200	(1038)	0.150	(37.3)	67	62	62	61	55	51	19	77	76	77	76	70	65	35		
614 14 inch	1500	(708)	0.050	(12.4)	58	59	54	47	41	36	15	74	73	71	65	61	58	32		
	1800	(850)	0.070	(17.4)	58	62	61	54	49	46	19	75	74	75	67	63	59	33		
	2100	(991)	0.100	(24.9)	64	65	65	58	53	50	22	77	76	77	70	65	61	35		
	2400	(1133)	0.130	(32.4)	69	68	68	62	56	53	26	79	78	79	72	67	63	38		
	3000	(1416)	0.200	(49.8)	77	74	74	68	63	60	33	82	81	84	76	70	67	41		
616 16 inch	2000	(944)	0.060	(14.9)	59	54	55	53	45	38	<15	75	70	69	67	62	58	28		
	2800	(1321)	0.120	(29.9)	66	63	64	63	56	51	20	77	77	76	74	68	64	37		
	3200	(1510)	0.160	(39.8)	70	78	68	67	60	55	38	79	78	78	76	70	66	38		
	3600	(1699)	0.210	(52.3)	73	71	73	72	65	60	29	79	80	81	78	72	66	40		
	4000	(1888)	0.250	(62.2)	76	74	74	72	65	60	33	82	80	82	80	74	69	40		

1. Performance data is in accordance with AHRI 880-2011 and ANSI / ASHRAE 130-2008.
2. NC values are calculated using attenuation credits outlined in Appendix E of AHRI 885-2008.
3. Discharge Sound power levels shown with End Reflection Corrections Included in dB (ref: 10^{-12} watts).
4. Minimum Ps is the static pressure drop across the air terminal unit while the inlet damper is in the wide-open position at a given airflow rate.

Projects References



Projects References



Product Range

- ▶ Fire-Resisting Ductwork (BS & EN)
- ▶ Fire-rated Insulation (ASTM & UL)
- ▶ Sound Attenuators (ASTM & BS)
- ▶ VAV Boxes (AHRI)
- ▶ Life Safety Dampers (UL)
- ▶ Control Dampers (AMCA & BS)
- ▶ Access Doors (BS & EN)
- ▶ Louvers (AMCA)
- ▶ Smoke Exhaust, Building, Car Park & Tunnel Ventilation Fans (AMCA & EN)
- ▶ Domestic and Industrial Ventilation Fans
- ▶ AHU, FAHU, FCU, RTU, ERV & Ecology Units (Eurovent, TUV & AHRI)
- ▶ Electrostatic Precipitators (ESPs) & UL Listed Air Filters (UL)

Our Brands



Control Dampers, Louvers,
Sound Attenuators & VAV Boxes



Non-Coated Fire-Resisting Ductwork
& Life Safety Dampers



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CVS Arabia L.L.C

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**Badr and Asfour
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