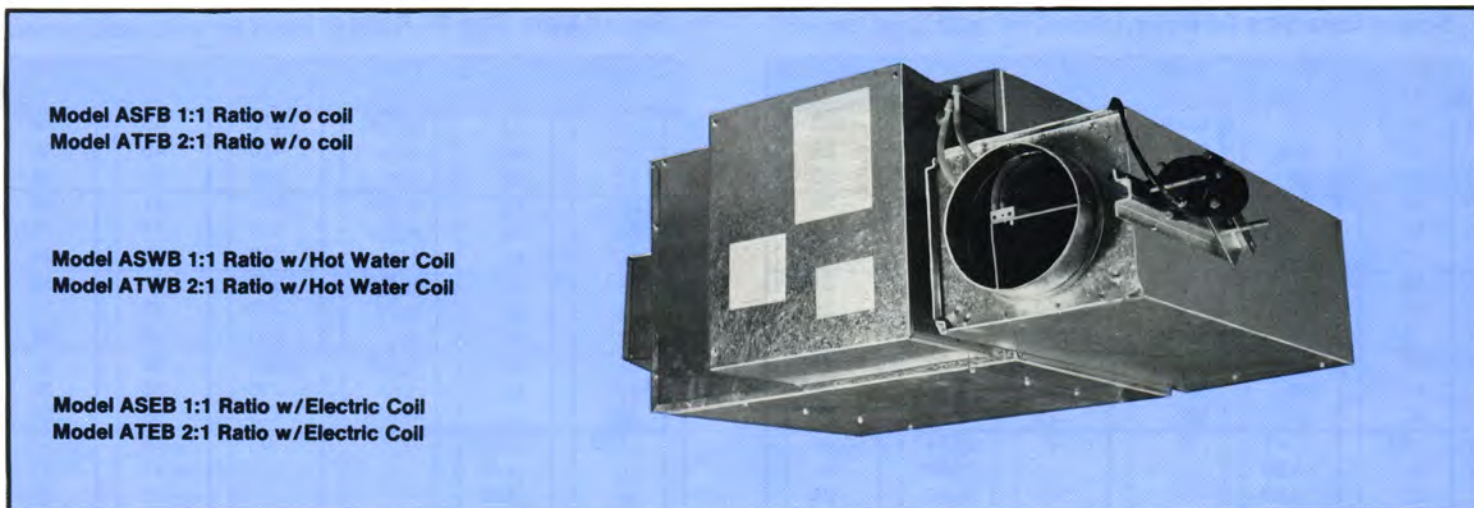


Fan Powered Units — Intermittent Volume



Model ASFB 1:1 Ratio w/o coil
Model ATFB 2:1 Ratio w/o coil

Model ASWB 1:1 Ratio w/Hot Water Coil
Model ATWB 2:1 Ratio w/Hot Water Coil

Model ASEB 1:1 Ratio w/Electric Coil
Model ATEB 2:1 Ratio w/Electric Coil

The Carnes intermittent fan terminal unit provides constant air volume to the space for reheat applications while retaining a variable air volume system during normal cooling operation.

The primary air control assembly operates independently as a standard throttling control valve for cooling loads. As cooling loads diminish, the secondary air supply fan is energized to induce warm ceiling plenum air. A wide variety of control sequences makes this fan powered unit compatible with the most energy efficient system design.

Typical Sequence of Operation

Central fan on — Day (occupied) operation.

When the central system fan is "on", the intermittent fan unit operates as a standard throttling control unit for cooling loads. As the cooling load diminishes and the control valve throttles to a minimum or closed position, the fan is energized by the P/E switch to draw in warm plenum air or hydronically or electrically reheated air.

Central fan off — Night (unoccupied) operation.

When the central system fan is "off", the primary air supply valve is closed. The unit fan is then turned on and off by the P/E switch on demands for heat and no heat respectively.

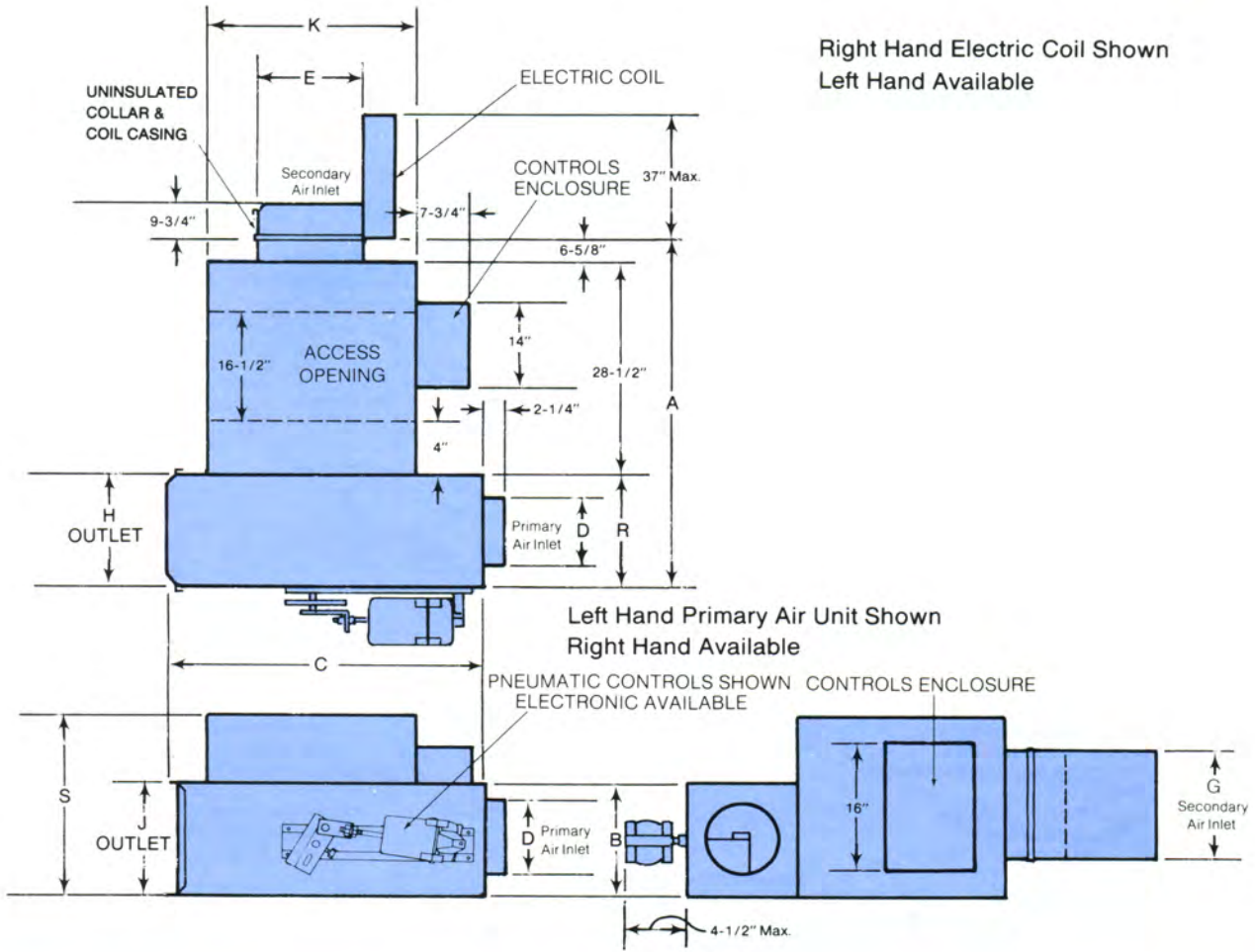
Features Include:

- Air flow capacities to 6000 CFM Primary Air and 3200 CFM Secondary Air.
- Two primary to secondary air ratio configurations are available.
- Access panel for internal components.
- Forward curved centrifugal type fan assemblies with SCR speed controlled permanent split capacitor type 115 or 277 volt fractional horsepower motors.
- Fan/motor assemblies are isolated from the casing using rubber isolators to minimize vibration transmission.
- Field adjustable P/E and air flow switches.
- All units are equipped with pneumatic or electronic pressure independent controls.
- Insulation is 1½ lb. density fiberglass with surface treated to prevent erosion, meets NFPA 90A requirements.
- Optional one or two row hot water coils (*Models ASWB/ATWB*). Coil is attached to secondary air inlet.
- Optional one, two or three stage electric reheat coils (*Models ASEB/ATEB*). Coil is attached to secondary air inlet.
- Velocity sensor and calibration chart for measuring air flow through the primary air damper.
- Optional filter rack.
- Optional quick release access panel.
- Optional fire rated tubing.
- Optional coated insulation (hospital, laboratory, etc. applications).

Available Modules:

- Basic control unit—Models ASFB/ATFB.
- Basic control unit with hot water coil—Models ASWB/ATWB
- Basic control unit with or without electric coil—Models ASEB/ATEB.
- Discharge sound attenuator—Model AXAA. (See Section 5-Accessories.)
- Multi-Discharge adaptor—Model AXMA. (See Section 5-Accessories.)

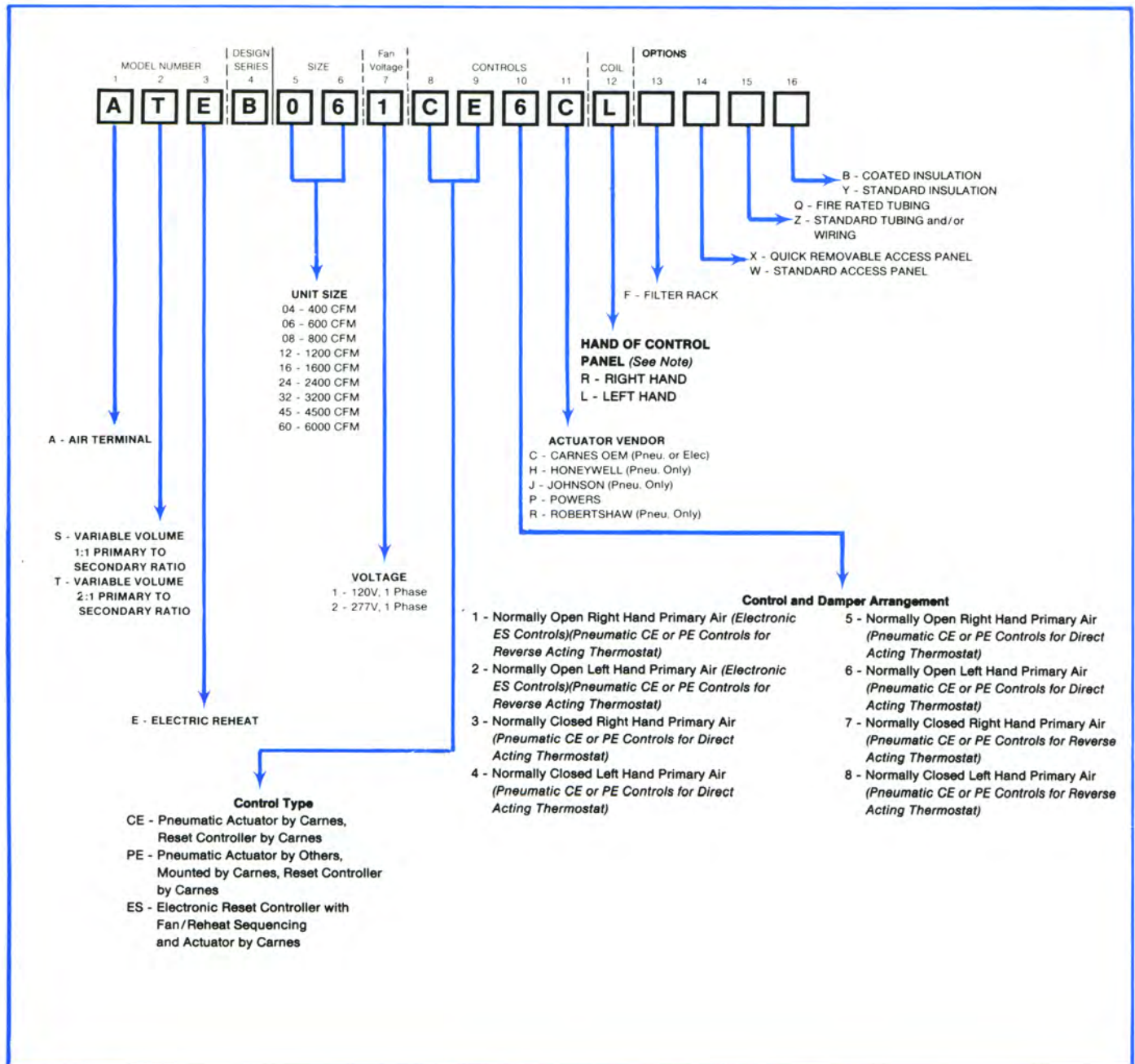
Dimensional Data—Models ASEB/ATEB-Intermittent Volume Fan Powered Unit with Electric Coil



DIMENSION IN INCHES																
Unit Type	Unit Size	Prim. Nom. CFM	Sec. Nom. CFM	Fan H.P.	A	B	C	D	Secondary Air Inlet		S & Drive Outlet		K	L	R	S
									E	G	H	J				
ASEB 1:1 Ratio	04	400	400	1/8	45 1/8	8	27 1/2	6	10	8	10	8	19 1/2	5 7/8	10	18
	06	600	600	1/6	47 7/8	10	30 7/8	7	12	10	12	10	24	5 7/8	12	18
	08	800	800	1/4	47 7/8	10	33 3/8	8	14	12	12	10	26	5 1/2	12	18
	12	1200	1200	1/3	49 7/8	12	40	10	16	14	14	12	31	6 3/4	14	18
	16	1600	1600	1/2	51 1/8	14	41 1/2	12	18	16	16	14	33 1/2	6 1/8	16	18
	24	2400	2400	(2) 1/3	53 7/8	16	57 7/8	14	20	18	18	16	42	13 3/4	18	18
ATEB 2:1 Ratio	32	3200	3200	(2) 1/2	55 7/8	18	59 7/8	16	24	18	20	18	46 1/2	12 1/4	20	20
	08	800	400	1/8	45 7/8	10	29 3/8	8	10	8	12	10	19 1/2	8	12	18
	12	1200	600	1/6	49 7/8	12	33 3/8	10	12	10	14	12	24	7 3/4	14	18
	16	1600	800	1/4	51 1/8	14	36 3/8	12	14	12	16	14	26	8 1/2	16	18
	24	2400	1200	1/3	53 7/8	16	42 3/8	14	16	14	18	16	31	9 3/4	18	18
	32	3200	1600	1/2	55 7/8	18	45 1/2	16	18	16	20	18	33 1/2	10 7/8	20	18
	45	4500	2400	(2) 1/3	59 7/8	18	59 7/8	18 x 16	20	18	24	18	42	15 3/4	24	18
	60	6000	3200	(2) 1/2	67 7/8	18	59 7/8	24 x 16	24	18	32	18	46 1/2	12 1/4	32	20

See Section 4 for specific information on electric coils.

2 Model Numbering System—Models ASEB/ATEB-Control Unit



- NOTES:**
1. Hand of primary air side of unit is determined by facing the unit in the direction of air flow into the unit.
 2. Standard motor voltages for 1:1 unit type are 277 volts for sizes 04-32 and 115 volts for sizes 04-16. Standard motor voltages for 2:1 unit type are 277 volts for sizes 08-60 and 115 volts for sizes 08-32.
 3. Filter not included with filter rack.
 4. Model ES 24 volt control to be provided by the electric coil transformer.
 5. Hand of the coil is selected by facing the outside of the coil control panel and determining the direction of the control panel overhang from the coil section.