

VAQ Series

Vertical Upflow Air Handler

(Convertible to Horizontal - except 18VAQ) (See #9 below)

DX Cooling / Hot Water Heating

1-1/2 through 4 tons, up to 66,000 BTUH Heating

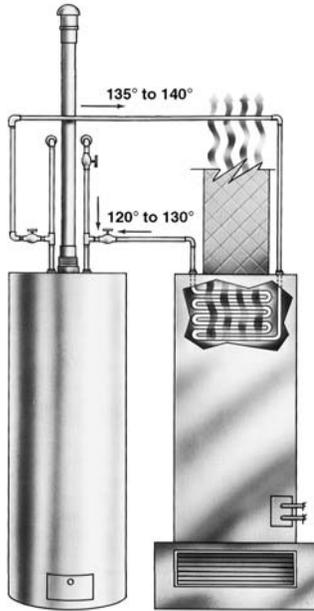


**WITH
EASY ACCESS
CHECK VALVE**

Description :

The **VAQ** series air handler is designed primarily for upflow installations but can be used horizontally in attics and crawl spaces with the addition of a field installed horizontal drain pan. Each air handler includes a cooling coil, a separate hot water coil, circulating pump, air purge valve, hot water check valve, flue gas door switch, 120V blower motor, throw away filter, and 24V transformer. This air handler converts a properly sized gas or oil-fired water heater into a highly efficient, multi - purpose appliance that can heat an apartment, condominium, or home in addition to providing domestic hot water. When space heating is needed, the wall thermostat energizes the circulating pump which circulates hot water from the water heater to the hot water coil in the air handler. As the fan motor forces cool return air from the home over the hot water coil, the air absorbs heat from the hot water. This warm air (105-110°F) is then circulated throughout the duct system and into the home. The water leaving the hot water coil is then returned to the water heater to be reheated.

AQUA THERM® AIR HANDLER

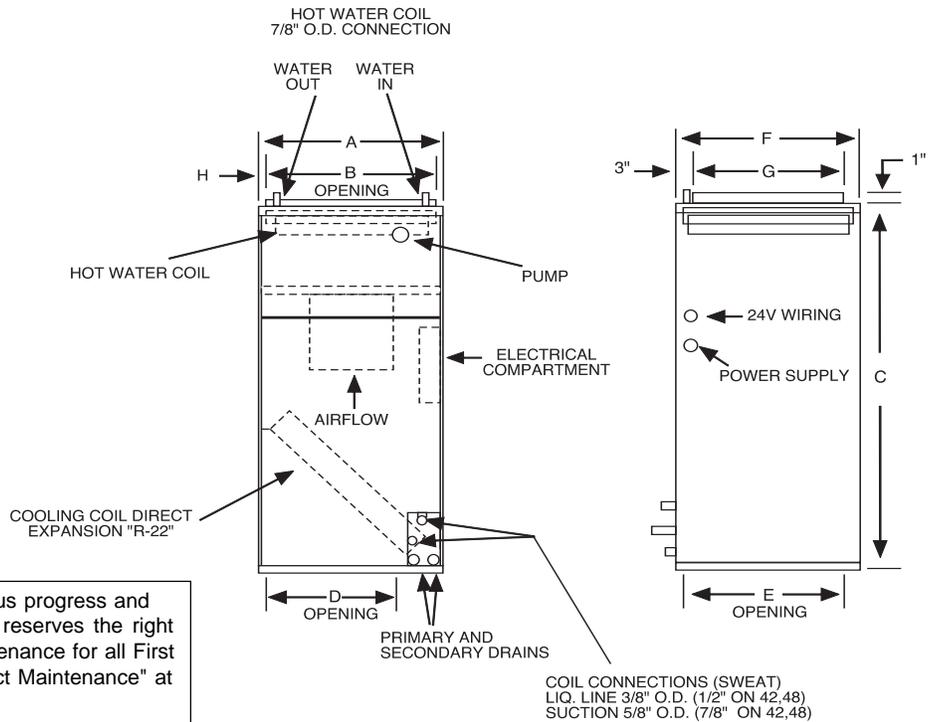


FEATURES:

1. Built-in **circulating pump, air purge valve**, and easy access hot water **check valve**
2. **Piston-type** metering device on cooling coil
3. Flue gas **door switch**
4. **Copper tube** heating and cooling coils
5. Compatible with all properly sized gas or oil-fired **water heaters**
6. Compatible with most major brands of **split condensing units**
7. Factory installed **filter**
8. Primary and secondary cooling coil **drain connections**
9. **Horizontal drain pan** for 24-36VAQ is Part No. **935-1 (will not fit 18VAQ)**. Airflow from right to left
Horizontal drain pan for 42 and 48VAQ is Part No. **935-2**. Airflow from right to left
10. **Freeze protector** for hot water coil is Part No. **941-1** (brings pump on below 38 degrees)

VAQ Series

DX COOLING HOT WATER HEATING



In keeping with its policy of continuous progress and product improvement, First Operations reserves the right to make changes without notice. Maintenance for all First Co. products is available under "Product Maintenance" at www.firstco.com.

IMPORTANT - Contact the factory for compatible air handler / condensing unit combinations.

| ELECTRICAL DATA | | | | | |
|-----------------|-----------------|-------|------|--------------------|-------------------|
| UNIT MODEL | MOTOR HP (120V) | AMPS | | MIN. CIR. AMPACITY | MAX. HACR BREAKER |
| | | MOTOR | PUMP | | |
| 18VAQ2 | 1/6 | 6.0 | 0.57 | 9 | 15 |
| 18VAQ3 | 1/6 | 6.0 | 0.57 | 9 | 15 |
| 24VAQ3 | 1/3 | 6.5 | 0.57 | 9 | 15 |
| 30VAQ3 | 1/3 | 6.5 | 0.57 | 9 | 15 |
| 36VAQ3 | 1/2 | 8.5 | 0.57 | 12 | 15 |
| 42VAQ4 | 1/2 | 8.5 | 0.57 | 12 | 15 |
| 48VAQ4 | 3/4 | 10.2 | 0.57 | 14 | 15 |

| PHYSICAL DIMENSIONS | | | | | | | | | |
|---------------------|--------|--------|----|--------|--------|----|----|-------|-----------------------------|
| UNIT MODEL | A | B | C | D | E | F | G | H | FILTER SIZE |
| 18VAQ 24VAQ | 14 | 12-1/2 | 40 | 8-3/4 | 18 | 20 | 16 | 1 | 16 X 20 X 1 |
| 30VAQ 36VAQ | 20 | 18 | 42 | 14-1/2 | 18 | 20 | 16 | 1 | 20 X 20 X 1 |
| 42VAQ 48VAQ | 21-1/4 | 18 | 48 | 15-3/8 | 26-1/8 | 28 | 24 | 1-5/8 | 14 X 20 X 1 (2 Required) |

| PERFORMANCE DATA | | | | | BLOWER DATA | | | | | | | |
|------------------|--------------------------|---------------|------------------------------|--|-------------|-------|----------------------------------|------|------|------|------|------|
| UNIT MODEL | NOMINAL COOLING BTUH (1) | GPM (HEATING) | P.D. (FT. WATER) (COIL ONLY) | (2, 3) BTUH (1000) AT ENTERING WATER TEMPERATURE | | | CFM vs. EXTERNAL STATIC PRESSURE | | | | | |
| | | | | 120°F | 140°F | 180°F | 0.05 | 0.10 | 0.15 | 0.20 | 0.25 | 0.30 |
| 18VAQ2 | 18,000 | 3 | 3.8 | 15.7 | 21.8 | 34.3 | 740 | 720 | 680 | 620 | 580 | 520 |
| 18VAQ3 | 18,000 | 3 | 5.0 | 19.7 | 27.6 | 43.4 | 725 | 700 | 660 | 610 | 570 | 520 |
| 24VAQ3 | 18,000/24,000 | 3 | 5.0 | 21.4 | 30.0 | 47.1 | 930 | 910 | 860 | 810 | 760 | 700 |
| 30VAQ3 | 24,000/30,000 | 3 | 1.9 | 29.6 | 41.5 | 65.2 | 1130 | 1100 | 1040 | 980 | 915 | 850 |
| 36VAQ3 | 30,000/36,000 | 3 | 1.9 | 30.9 | 43.2 | 67.9 | 1230 | 1200 | 1130 | 1050 | 980 | 890 |
| 42VAQ4 | 36,000/42,000 | 4 | 1.45 | 43.0 | 60.2 | 94.6 | 1640 | 1600 | 1540 | 1470 | 1400 | 1300 |
| 48VAQ4 | 42,000/48,000 | 4 | 1.45 | 47.1 | 66.0 | 103.7 | 1860 | 1830 | 1760 | 1700 | 1620 | 1530 |

1. Cooling BTUH varies with the matched condensing unit
2. Heating output will not exceed output of water heater
3. Heat BTUH is at 70°F entering air temperature

NOTES:

- (1) Approved for installation with 0" clearance to combustible materials
- (2) Motors are 120V (2 speed) but operate on high speed for both heating and cooling