

TAQ Series

Low-Boy Air Handler (Max. 30" tall)

DX Cooling / Hot Water Heating

1-1/2 - 3 tons cooling / up to 55,000 BTUH Heating



MEETS 2006
DOE REQUIREMENTS (1)

Description:

The **TAQ** Series air handler is designed to be mounted on a closet wall over a standard low-boy natural gas or LP water heater. After piping to the water heater, the TAQ air handler uses the water heater to provide total space heating as well as domestic hot water. This system offers high efficiency, competitive first cost, compact installation in a standard closet, longer water heater tank life, and lower maintenance costs. **NO SPECIAL WATER HEATER IS REQUIRED!** Contact the factory for assistance in water heater sizing.

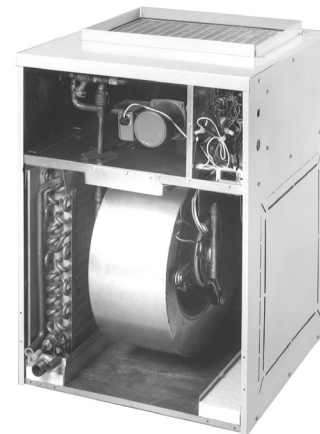
Each air handler includes a hot water coil, circulating pump, air purge valve, hot water check valve, flue gas safety switch, 120V blower motor, and 24/120V relay/transformer. An optional cooling coil is available for field installation, with right or left side return air capability.

(1) **First Co's customer is ultimately responsible for confirming which fan coil models are compatible with selected outdoor unit(s) and which expansion valves (if any) are required. To determine approved indoor/outdoor matches, go to www.firstco.com or contact the factory.**

Note: State of MA, .248 CMR code of the state of MA requires a pump timer. (60 seconds every 6 hours)

How the Heating System Works:

When space heating is needed, the wall thermostat energizes the circulating pump which circulates hot water (135-140 degrees) from the water heater to the hot water coil. 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 degrees) is then circulated throughout the duct system and into the home. The water leaving the hot water coil returns to the water heater to be reheated. Contact the factory or your local representative for sizing information.



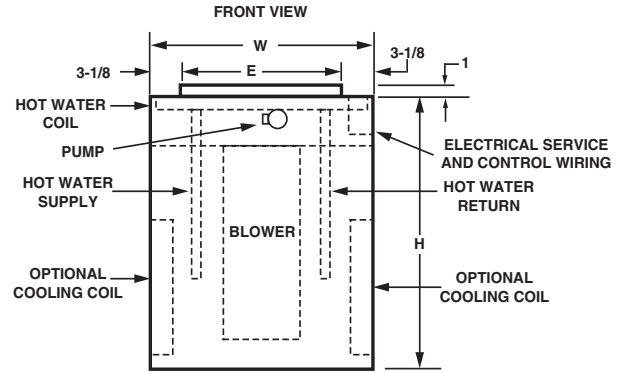
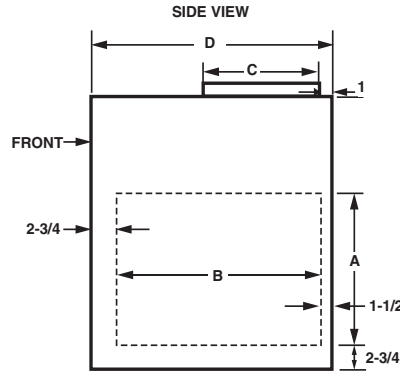
FEATURES

(with cooling coil installed)

1. Built-in **circulating pump with easily accessible hot water check valve, and air purge valve**
2. **Optional field installed cooling coil** with piston-type metering device or field installed R22 or R410a TXV's and insulated drain pan (Heat pump or cooling only.)
3. Blower door **safety switch** - keeps flue gases from being delivered to the conditioned space if the blower door is not in place
4. **Copper tube / aluminum fin** heating and cooling coils
5. Air handler **compatible with all** properly sized natural gas, LP, or **oil-fired water heaters**
6. 2 speed motors for accurate CFM control
7. **Compatible with all** major brands of **split condensing units**
8. Side panels of air handler are notched for **right or left side return air connection**
9. **Hanger bracket provided** to facilitate wall mounting of air handler

TAQ Series

Heat Pump/DX / Hot Water Heating



NOTES: 1. COOLING COIL CAN BE FIELD INSTALLED FOR EITHER RIGHT OR LEFT SIDE RETURN AIR
 2. A FILTER IS NOT PROVIDED, THEREFORE A FILTER/GRILLE MUST BE FIELD INSTALLED

ELECTRICAL DATA					
UNIT MODEL	MOTOR HP (120V)	AMPS		MIN. CIR. AMPACITY	MAX HACR BREAKER
		MOTOR	PUMP		
24TAQ3 24TAQ4	1/5	2.8	0.57	5	15
36TAQ4	1/2	8.1	0.57	11	20

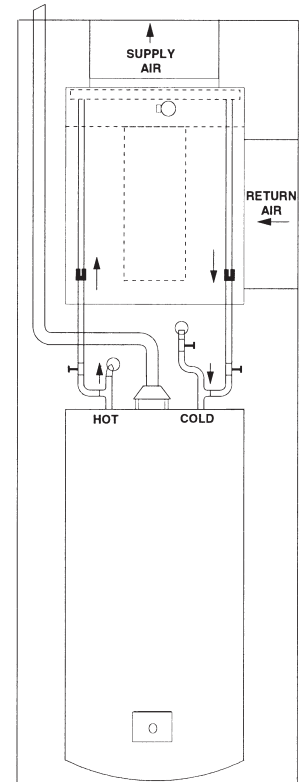
PHYSICAL DIMENSIONS								
UNIT MODEL	H	W	D	A	B	C	E	SHIP. WT. (LBS)
24TAQ3 24TAQ4	27-1/2	22-1/4	24-1/4	15	20	12	16	110
36TAQ4	29-1/4	26-1/4	26-1/4	17	22	16	18	120

HEATING PERFORMANCE			
UNIT MODEL	NOM. CFM	BTUH 130°F ENTERING WATER TEMP.	BTUH 140°F ENTERING WATER TEMP.
24TAQ3	600	21,250	25,000
	700	23,120	27,200
	800	24,650	29,000
24TAQ4	600	25,700	30,000
	700	28,300	33,000
	800	30,800	36,000
36TAQ4	1000	42,000	49,000
	1200	47,000	55,000

Heating BTUH is at 70°F Entering Air Temperature.

COOLING COIL DATA (Field Installed)				
PRODUCT NUMBER	NOMINAL COOLING (TONS)	METERING DEVICE	DIMENSIONS (H X W X D)	SHIP. WT. (LBS.)
996-24THP (fits 24TAQ)	1-1/2 or 2	PISTON	16 X 23-3/4 X 4	21
996-36THP (fits 36TAQ4)	2-1/2 or 3	PISTON	18 X 26 X 4	26

CLG COIL CONNECTIONS (LIQ. & SUCT.)	HTG. COIL CONNECTIONS
3/8 I.D. - 5/8 I.D. (SWEAT)	1/2 I.D. (SWEAT)
HANGER BRACKET (Shipped with Air Handler)	
PART #	DIMENSIONS
919-2	26W X 1-1/2H



NOTES:
 1. Coils are shipped with pistons installed for largest cooling tons. Extra pistons are furnished for matching coil with smaller condensing unit.

BLOWER DATA						
UNIT MODEL	FAN SPEED	CFM vs. EXTERNAL STATIC PRESSURE				
		0.05	0.10	0.20	0.30	0.40
24TAQ3 (Without cooling coil)	HIGH	800	795	790	775	745
	LOW	700	695	685	665	645
24TAQ4 (With cooling coil)	HIGH	790	770	735	700	650
	LOW	690	670	650	610	560
36TAQ4 (Without cooling coil)	HIGH	1480	1440	1380	1310	1250
	LOW	1270	1246	1180	1130	1080
36TAQ4 (With cooling coil)	HIGH	1280	1250	1180	1120	1050
	LOW	1140	1120	1060	1010	950

EXPANSION VALVE KITS (Field installed) (cooling only or heat pump)	
PART NUMBER	FITS
R22	
9EVR22-2	24/36TAQ
R410a	
9EVR410-1	24/36TAQ

NOTES:
 1. Above expansion valve kits are approved for both cooling only (non heat pump) and heat pump applications.
 2. Valves are external equalizing, internal bleed.
 3. Valves have screw-on connections.

NOTES:
 1. Motor is multi-speed but factory wired for low speed operation.
 2. When cooling coil is added, blower speed should be changed to high speed in the field.
 3. Contact factory for assistance in water heater sizing.

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.