

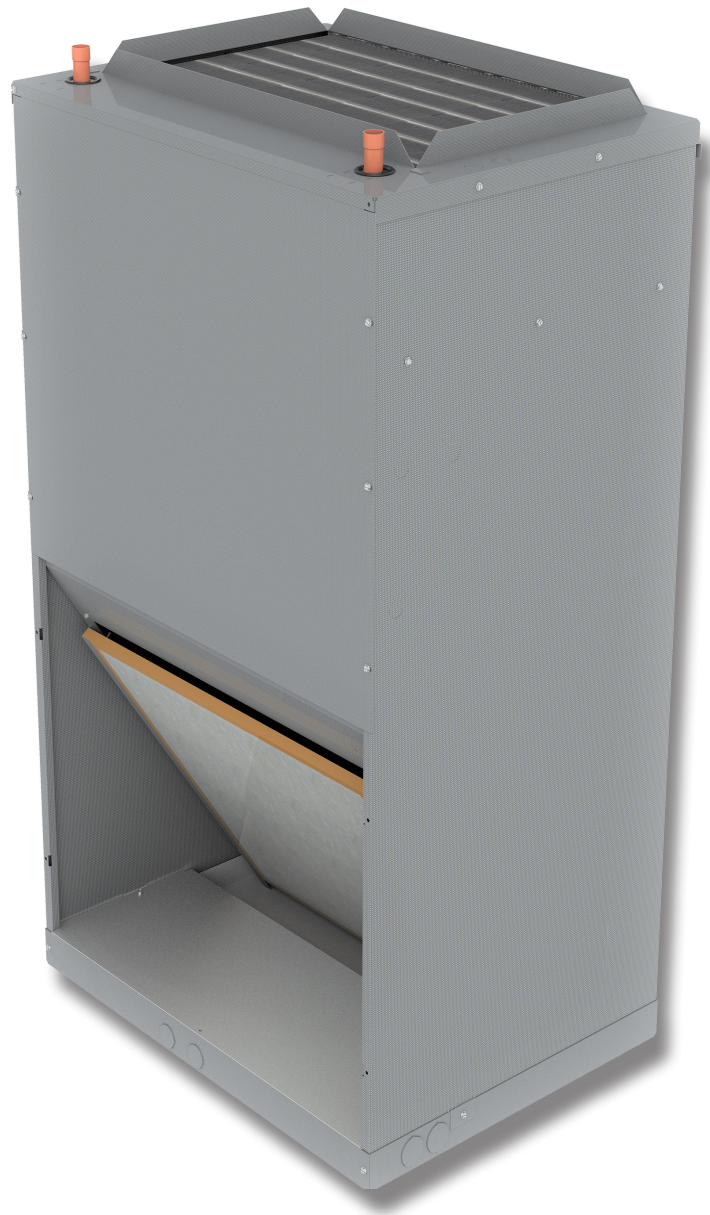


# UCQB

Air-Handlers



Wall / Closet Air Handler  
1.5 - 3 Tons Cooling or Heat Pump  
Up to 45,300 BTUH Hydronic Heat



# UCQB

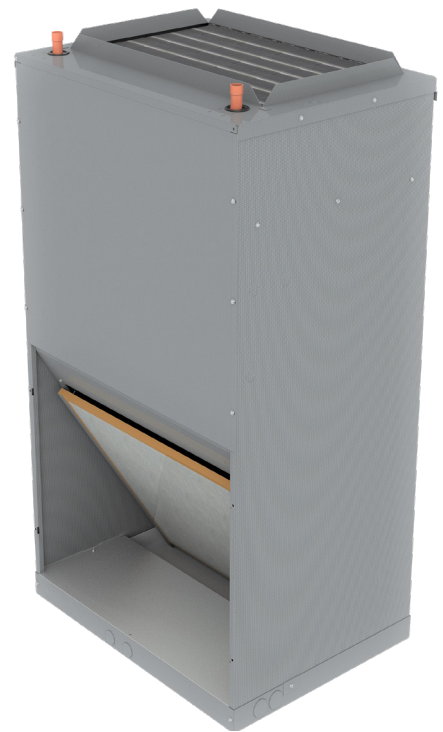
These upflow air handlers are designed for use with today's higher efficiency split-system heat pump and condensing units.

The **UCQB** can be installed on a closet platform, hung on a closet wall, or recessed in a wall between the studs.

These fan coils are compatible with any source of hot water that doesn't exceed 180°. These units are NSF/ANSI certified for use with domestic water. This certification only applies if the bronze pump is used and not the cast iron.

The **UCQB** is the most innovative hydronic heat air handler available today and is the only hydronic air handler with the following features:

- **Factory installed ECM Cast Iron or Standard low lead Bronze pump.**
- **Multi-function micro-processor circuit board with these standard features.**
  - **Automatic pump timer** - The pump operates for sixty seconds every six hours in order to purge the water from the hot water coil and piping (the pump timer cycle is skipped while the compressor is operating).
  - **Blower-on fan delay** (heating mode) - preheats the HW coil for 45 seconds.
  - **Blower-off fan delay** (heating and cooling modes) - blower continues to operate for 45 seconds after thermostat is satisfied for increased efficiency.
  - **TT Connections for boiler control**

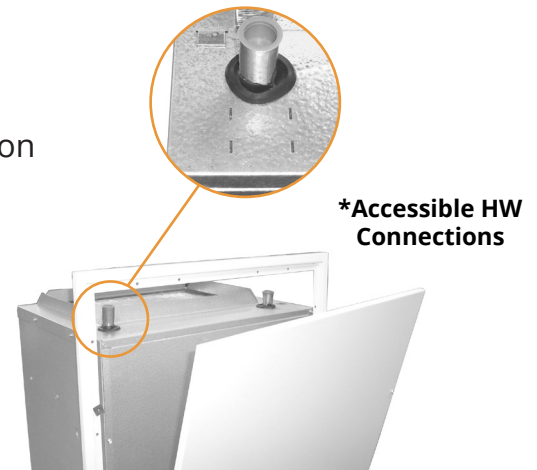


**Standard Unit**  
Closet application - Front Return Air

*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 certified indoor/outdoor combinations, go to [www.ahridirectory.org](http://www.ahridirectory.org) or [www.firstco.com](http://www.firstco.com).*

## STANDARD FEATURES

- Multi-function micro-processor board
- 120V motor, 24V controls
- Cooper tube/aluminum fin heating and cooling coils
- Blower door shut-off switch
- Separate compartment for drain connections
- Drain pan has 3/4" female primary and secondary fittings
- Higher efficiency cooling coil with piston-type metering device (contact factory for correct indoor/outdoor match)
- Convenient equalizer connection for field or factory installed R410A TXV (non-bleed type)
- Circulating pump with unique, easy access anti-syphon check valve, and air purge valve
- Easily accessible 1" filter
- Cabinet air leakage is no more than 2% tested in accordance with ASHRAE 193.

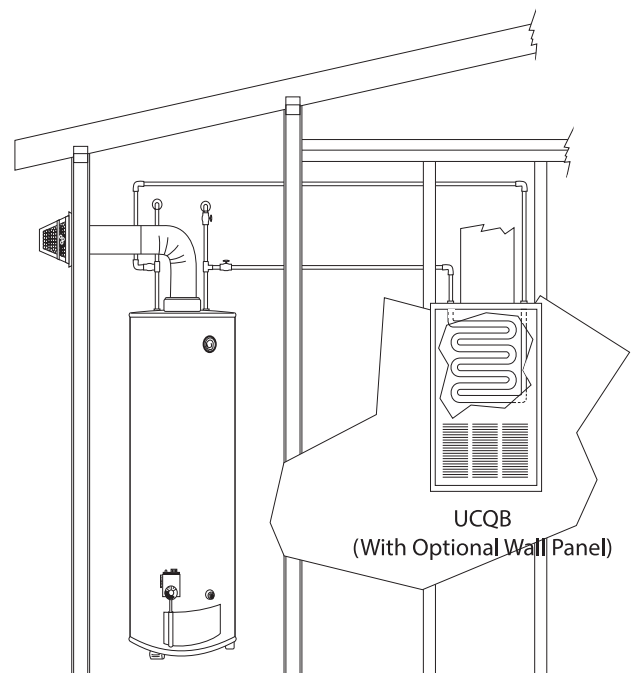


Unit shown with optional louvered wall panel  
Recessed wall application

## OPTIONAL FEATURES

(see p.4)

- Optional features include Wall Panels with Captive Screws Factory or Field installed TXV's (non-bleed type), Condensate Overflow Switch, Closet Hanger Bracket Kit, and Bottom Return Air Kit.
- In recessed wall applications utilizing the optional wall panel, the hot water coil can be removed without modifications to the drywall.
- To allow this feature, the top of the **UCQB** cabinet is notched for coil removal and the wall panel is 3" taller than the cabinet.

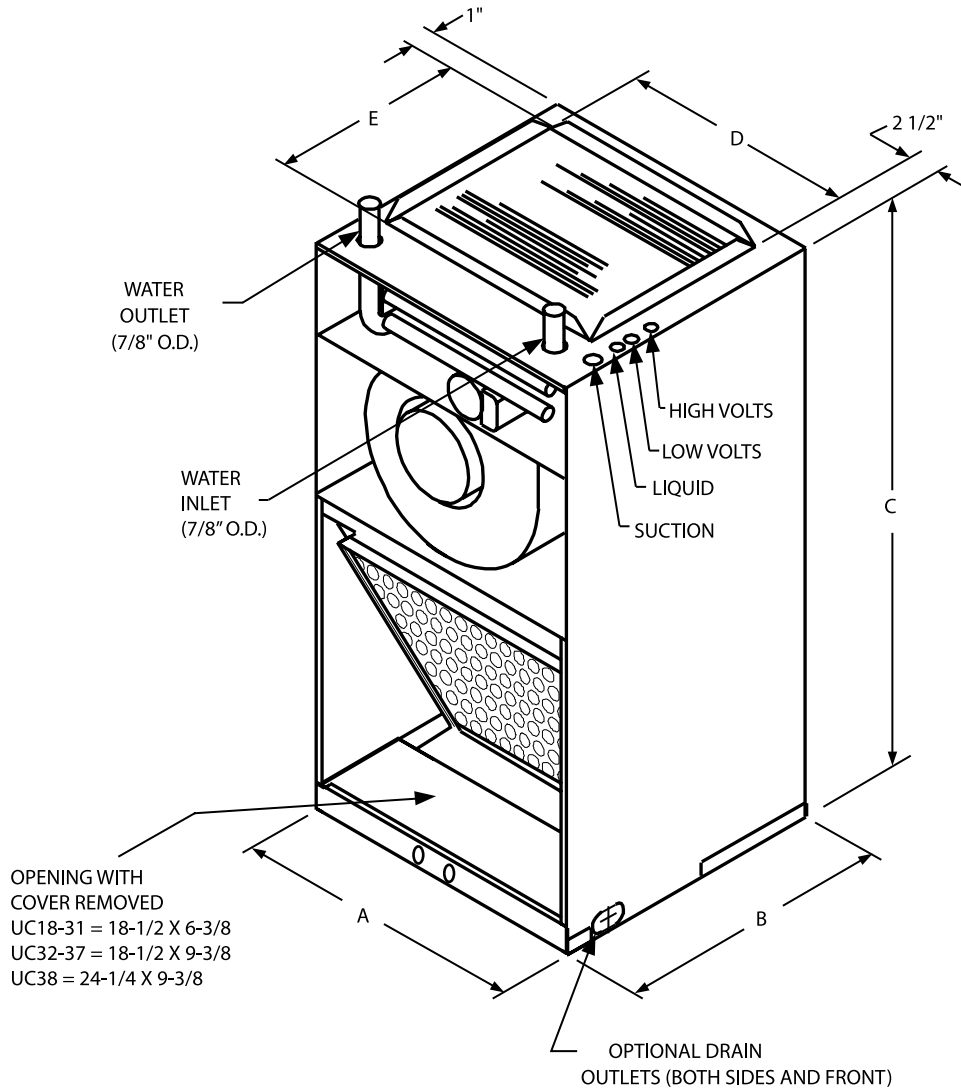


# UCQB

## COMPATIBLE WITH GAS FIRED WATER HEATERS OR BOILERS

UP TO 45,300 BTUH HYDRONIC HEAT

(See P. 3 for Model Numbers)



PHYSICAL DIMENSIONS								
UNIT MODEL	A	B	C	D	E	FILTER SIZE	LIQUID LINE	SUCTION LINE
18-25UCQB	22-1/8	18	43	18	12-1/2	18 X 18	3/8" O.D.	5/8" O.D.
26/31UCQB	22-1/8	18	43	18	12-1/2	18 X 20	3/8" O.D.	3/4" O.D.
32-37UCQB	22-1/8	21	43	18	15-1/2	18 X 24	3/8" O.D.	3/4" O.D.
38UCQB	28-1/8	21	46	24-1/8	15-3/4	24 X 24	3/8" O.D.	7/8" O.D.

**NOTE:**

1. All coil connections are sweat

# UCQB

## COMPATIBLE WITH GAS FIRED WATER HEATERS OR BOILERS

UP TO 45,300 BTUH HYDRONIC HEAT

(See P. 3 for Model Numbers)

BLOWER DATA										
UNIT MODEL	MOTOR H.P. (120V)	MOTOR AMPS (120V)	FAN SPEED	CFM vs. EXTERNAL STATIC PRESSURE						
				0.10	0.15	0.20	0.25	0.30	0.40	0.50
18/19UCQB	1/3	5.4	MED-HIGH	790	775	760	745	730	700	670
			MED-LOW	710	695	680	665	650	630	610
			LOW	560	550	540	525	510	490	460
20UCQB	1/3	5.4	MED-HIGH	770	750	730	710	690	650	610
			MED-LOW	690	675	660	645	630	590	550
			LOW	540	525	510	495	480	450	420
24/25UCQB	1/3	5.4	HIGH	840	820	800	780	760	710	660
			MED-HIGH	770	750	730	710	690	650	610
			MED-LOW	690	665	660	645	630	590	550
26UCQB	1/3	5.4	HIGH	860	845	830	810	790	750	700
			MED-HIGH	780	765	750	735	720	680	640
			MED-LOW	700	685	670	655	640	600	560
30/31UCQB	1/2	8.1	HIGH	1070	1045	1020	995	970	920	850
			MED-HIGH	1020	1000	980	960	940	890	820
			MED-LOW	760	755	750	735	720	680	640
32UCQB	1/2	8.1	MED-HIGH	1140	1110	1080	1050	1020	960	900
			MED-LOW	900	885	870	855	840	790	740
			LOW	650	645	640	635	630	610	580
36/37UCQB	1/2	8.1	HIGH	1160	1135	1110	1080	1050	990	930
			MED-HIGH	1120	1095	1070	1045	1020	970	900
			MED-LOW	890	875	860	845	830	790	740
38UCQB	1/2	8.1	HIGH	1400	1375	1350	1325	1300	1250	1200
			MED	1260	1245	1230	1210	1190	1150	1100
			LOW	1090	1080	1070	1055	1040	1010	970

**NOTES:**

1. Add nominal .05 static when optional wall panel is used.
2. Shaded areas are factory motor settings.



RECOGNIZED COMPONENT



NSF/ANSI  
169:2016

**Intertek**

NOTE: If cast iron pump is used then the unit is not NSF/ANSI rated.



# UCQB

## COMPATIBLE WITH GAS FIRED WATER HEATERS OR BOILERS

UP TO 45,300 BTUH HYDRONIC HEAT

(See P. 4 for Optional Accessories)

### MODEL NUMBERS

MODEL SIZE (BTU)	MODEL (PISTON)	FACTORY INSTALLED TXV'S
		MODEL (R410A TXV)
18,000	18UCQB	18UCQB R410 TXV
18,000	19UCQB	19UCQB R410 TXV
18,000	20UCQB	20UCQB R410 TXV
24,000	24UCQB	24UCQB R410 TXV
24,000	25UCQB	25UCQB R410 TXV
24,000	26UCQB	26UCQB R410 TXV
30,000	30UCQB	30UCQB R410 TXV
30,000	31UCQB	31UCQB R410 TXV
30,000	32UCQB	32UCQB R410 TXV
36,000	36UCQB	36UCQB R410 TXV
36,000	37UCQB	37UCQB R410 TXV
36,000	38UCQB	38UCQB R410 TXV

**All TXV's are approved for cooling only or heat pump operation (non-bleed type).**

NOTE:  
Expansion valve requirement depends on the selected outdoor unit. Go to: [www.firstco.com](http://www.firstco.com) or contact the factory for assistance.

PERFORMANCE DATA										
UNIT MODEL	NOMINAL COOLING BTUH	HEATING BTUH (1000) ENTERING TEMPERATURE Delta -T 20°F & GPM				AMPS (MOTOR) (120V)	AMPS low flow bronze pump	AMPS med. flow cast iron pump	MIN. CIRCUIT	MAX. FUSE OR HACR BREAKER
		120°F	GPM	140°F	GPM					
18-20UCQB	18,000	18.5	1.9	25.9	2.6	5.4	0.75	0.54	8	15
24-26UCQB	24,000 / 18,000	22.1	2.2	31.0	3.1	5.4	0.75	0.54	8	15
30-31UCQB	30,000 / 24,000	25.0	2.5	35.1	3.5	8.1	0.75	0.54	11	15
32UCQB	30,000 / 24,000	27.0	2.7	37.7	3.8	8.1	0.75	0.54	11	15
36/37UCQB	36,000 / 30,000	29.6	3.0	41.3	4.1	8.1	0.75	0.54	11	15
38UCQB	36,000 / 30,000	32.3	3.2	45.3	4.5	8.1	0.75	0.54	11	15

**NOTES:**

1. Heating output will not exceed output of hot water source.
  2. Approved for installation with 0" clearance to combustible materials.
  3. Contact factory for correct matches with outdoor unit.
- (1) Heat BTUH is at 70°F entering air temperature.  
(2) Based on 20° Delta -T. Velocity not to exceed 4ft./sec.

**Pump options:**

- 6 -Low lead bronze NSF Compliant max. head pressure 9.5FT
- 7- Cast Iron non potable max. head pressure 10.0FT
- 8- Low lead bronze NSF Compliant max. head pressure 15FT

In keeping with its policy of continuous progress and product improvement, First Co. reserves the right to make changes without notice.



ALL UCQB OPTIONAL ACCESSORIES (FIELD INSTALLED)				
DESCRIPTION	PART NO.	FOR	DIMENSIONS	
WALL PANEL (1)	9PWUC03L	18-37UCQB	49-3/8 X 25-5/8	46-3/8 x 22-5/8
	9PWUC04L	38UCQB	52-1/2 X 31-5/8 (Outside Frame)	49-1/2 X 28-5/8 (Inside Frame)
CLOSET BRKT.	90PK3	18-37UCQB	1-3/4 X 22-1/8	---
	90PK31	38UCQB	1-3/4 X 27-15/16	---
BOTTOM RETURN AIR KIT	90PK5	18-37UCQB	20-7/16 X 22	---
	90PK51	38UCQB	20-5/8 X 28	---
CONDENSATE OVERFLOW SWITCH	SS3	ALL UCQB	---	---
FREEZE (2) PROTECTOR	941-1	ALL UCQB	---	---

EXPANSION VALVE KITS (Heat Pump or Cooling Only) (FIELD INSTALLED)		
PART NO.	TYPE	FOR
9EVR410-1	R410A	18 - 38UCQB (1-1/2 - 3 TON)

**NOTES:**

- Expansion valve kits are approved for both cooling only (non heat pump) or heat pump applications.
- Valves are non-bleed type. Field added. Hard start kit may be required.
- Valves mount inside unit cabinet

**NOTES:**

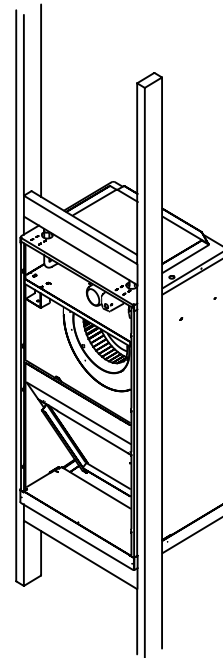
- Wall Panels are taller than the UCQB cabinet to allow access to hot water coil connections.
- Energizes the pump if HW coil temperature falls below 40°



**Unit shown with optional bottom return air kit**



**Unit shown with front panel removed**



**Typical recessed wall installation**



**Optional wall panel**  
Recessed wall application



**Condensate Overflow Switch #SS3**



**Condensate drain connections**  
With drain cover removed  
Thermoplastic pan shown



FIRST CO.  
P.O. BOX 270969 - DALLAS, TEXAS 75227  
PH. (214) 388-5751 | FAX (214) 388-2255  
[WWW.FIRSTCO.COM](http://WWW.FIRSTCO.COM)  
APRIL 2024