

# Little Chill®

self-contained air conditioning unit



Little Chill Coolers from USA Coil & Air are the answer to your special cooling and dehumidification needs. For one thing, they fit right into a standard 2' x 4' suspended ceiling panel, with no floor space needed.

You can install Little Chill Coolers almost anywhere without cluttering up valuable wall, window or floor space. You can place a Little Chill Cooler in a ceiling directly over the area that needs air conditioning without rear-ranging interior space.

Like ordinary window air conditioners, Little Chill Coolers are self-contained units. They can be installed or repositioned with ease and less cost!. There's no outside condensers to worry about, no interconnecting refrigerant piping, and no centralized ductwork for air distribution.

Because you don't need to be close to exterior walls for outdoor ducting you get spot cooling for any room, any reason. That means you can install Little Chill Coolers practically anywhere; interior offices, computer rooms, booths, communication rooms, libraries, foyers, kitchens, work areas, etc.

An almost invisible look for any interior design. The only

part of an operating Little Chill Cooler you see is an attractive louvered grille. No cabinetry, wiring, or piping to clash with your decor. Whether you want spotcooling for a bank lobby or a factory, Little Chill Coolers will fit right in.

Little Chill Coolers direct cooled and dehumidified air and provide a ceiling-to-floor cooling path for efficiency and comfort exactly where it's needed. Because Little Chill Coolers install in the ceiling - usually the least cluttered of all interior surfaces - you can position each unit directly over the area to be cooled, eliminating the obstruction problems encountered with horizontal cooling paths. Side-by-side intake and discharge vents on the Little Chill Cooler create a highly efficient circular path cycle ideal for open or semi-open areas.

Side access panels, designed for easy servicing, on the Little Chill Cooler allow quick in-place servicing through adjacent removable 2' x 4' ceiling panels. In addition, a hinged intake grille opens up for quick filter changes and control adjustments.

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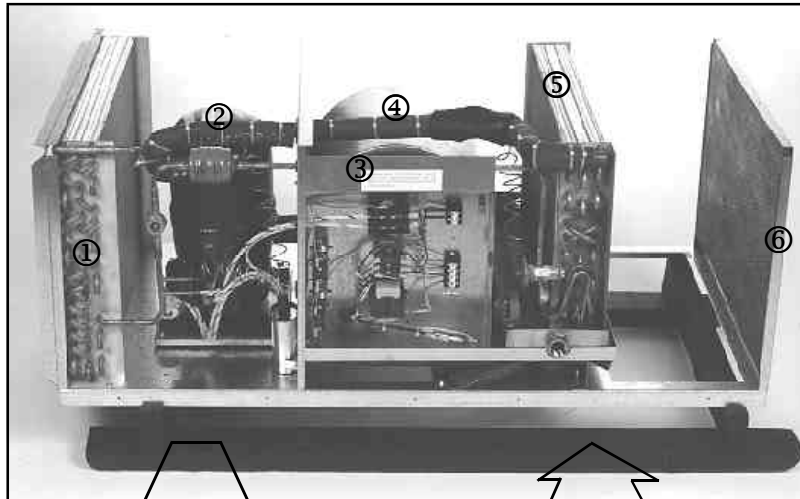
## TYPICAL APPLICATIONS:

- Word Processing Stations
  - Office Automation Areas
  - Computer Rooms
  - Offices, Add-on and Renovations
  - Laboratories & Pharmacies
  - Communication Switching Rooms
  - Conference Rooms
  - Retail Stores
  - Schools
  - Banks
  - Any Problem Heat Space
- 



**1-800-USA-COIL**  
**(1-800-872-2645)**  
**FAX: (610) 296-9763**

## Air Cooled Grille/Diffuser (FDAC)

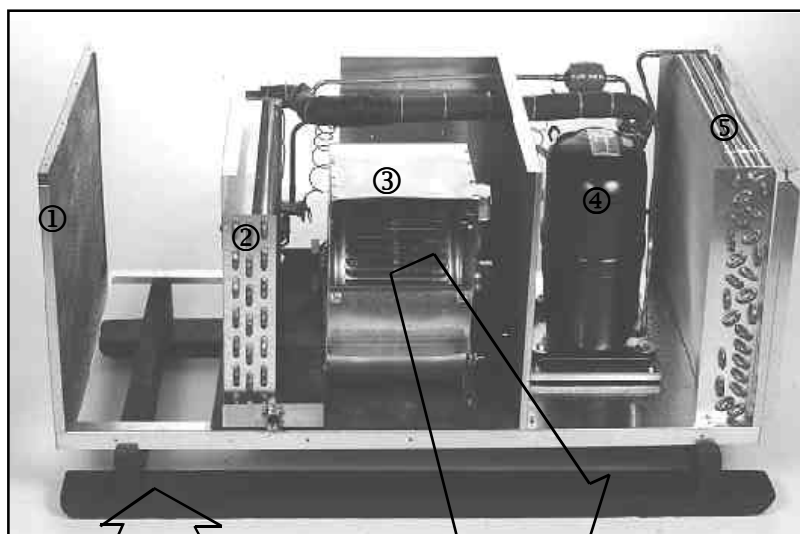


- 1 Condenser Coil
- 2 Compressor
- 3 Control panel
- 4 Evaporator Blower
- 5 Evaporator Coil
- 6 Back Panel

AIR OUT

AIR IN

## Air Cooled Single Duct (SDAC)

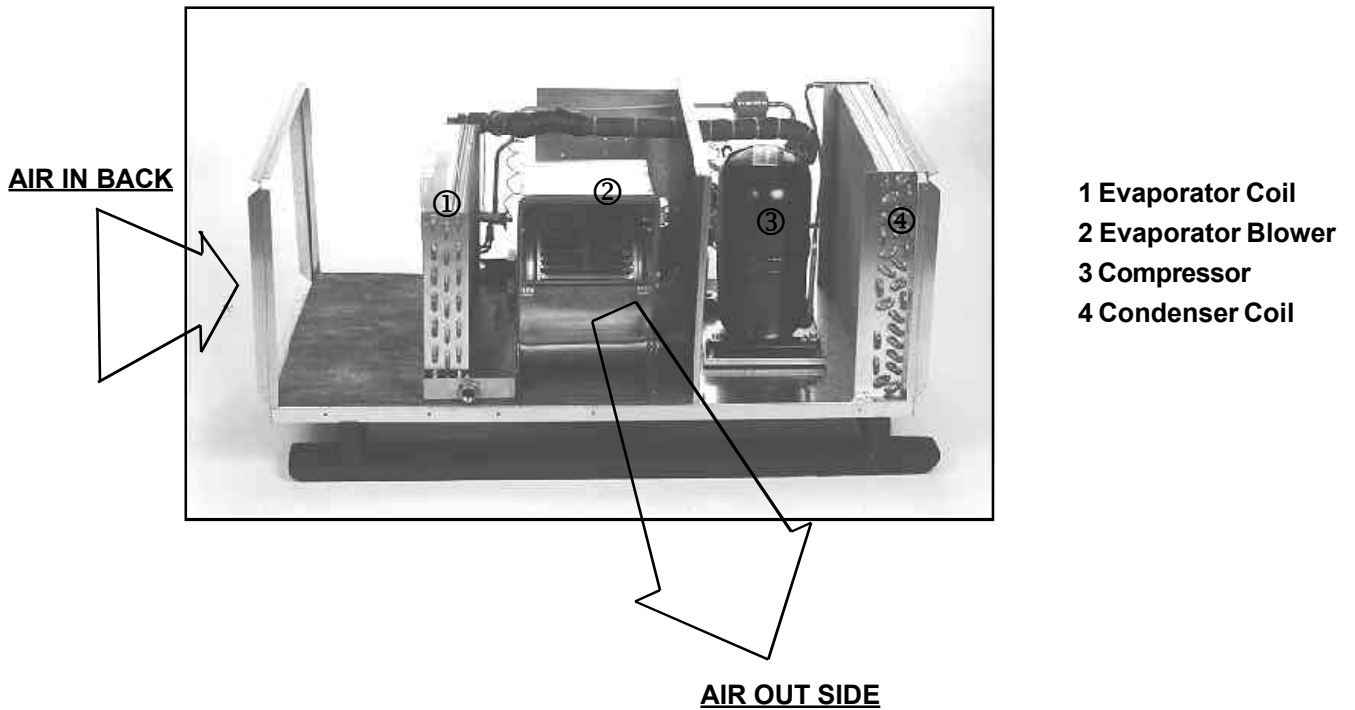


- 1 Back Panel
- 2 Evaporator Coil
- 3 Evaporator Blower
- 4 Compressor
- 5 Condenser Coil

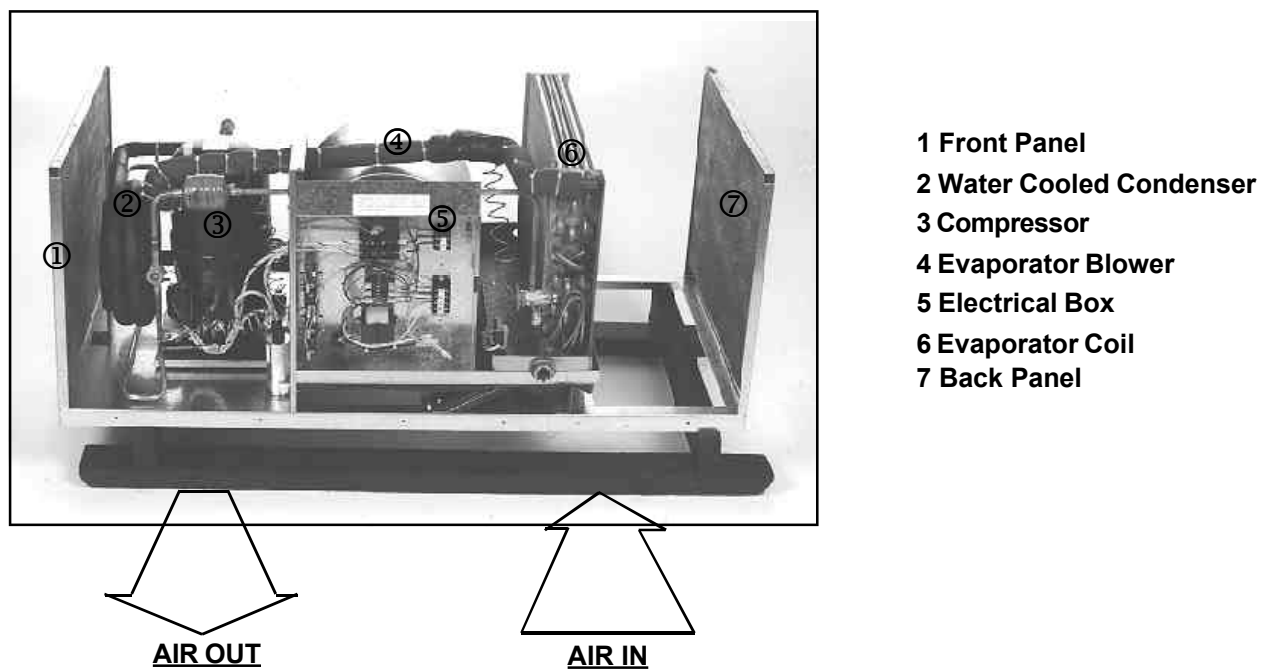
AIR IN

AIR OUT SIDE

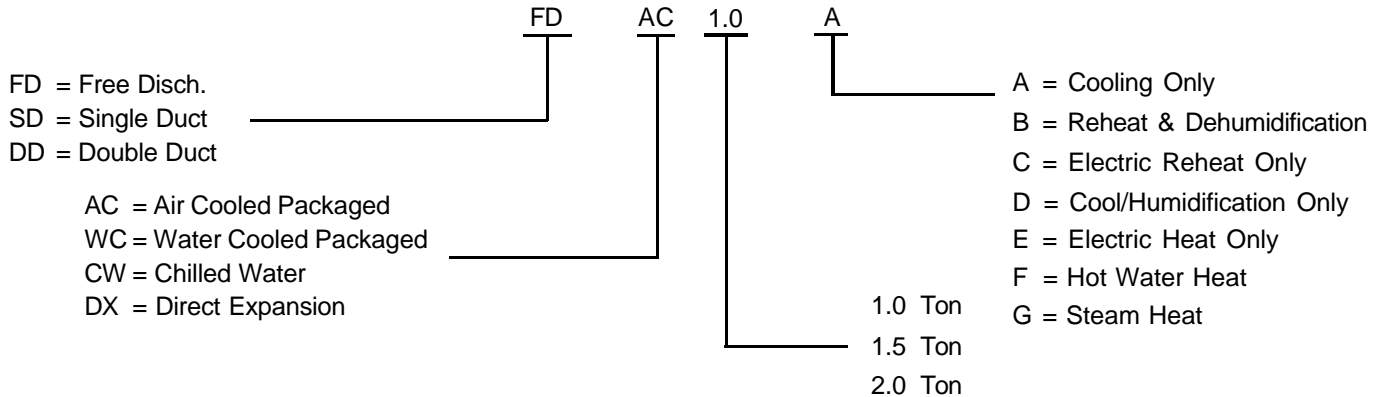
## Air Cooled Double Duct (DDAC)



## Water Cooled Grille/Diffuser (FDWC)



### MODEL NUMBER IDENTIFICATION



### STANDARD FEATURES

#### MAXIMUM DESIGN FLEXIBILITY

For both air cooled or water cooled applications. Units designed for mounting above 2 ft. x 4 ft. suspended panel opening. Provides comfort and temperature control for many types of areas.

#### COILS

Copper tube, aluminum fin, mounted in a stainless steel drain pan.

#### COMPRESSOR

Protected by thermal overload protection with both high (manual reset) and low (automatic reset) pressure switches. An expansion valve, a liquid line filter/dryer, and a sight moisture indicator provide a completely self-contained factory pre-charged refrigeration circuit.

#### ATTRACTIVE 3-WAY SUPPLY AIR DIFFUSER AND RETURN AIR GRILLE

Shipped loose for "no duct" units. Single duct units only require a return air grille and double units require neither.

#### MOTORS

3-speed, long life motors for single phase operation.

#### QUICK CLIP MOUNTING ISOLATORS

Mean fast and easy installation. Isolation is always an important factor for noise.

#### CONDENSATE DRAIN PANS

Stainless steel and elevated to allow for proper trapping of condensate. Drain connections (3/4" f.p.t.) are provided on each side of cabinet.

#### FLOAT SWITCH

Provided for each drain pan to prevent overflow in the event of a blocked drain line or if unit is not installed in a level position. Switch is wired to unit control panel.

#### ELECTRICAL CONTROL PANEL

Electrical Components to include: contactor (for AC or WC units only), relay(s), control transformer and power supply connections.

#### FAN(S)

Forward curved, direct drive for both supply fan and condenser fan (air cooled units only).

#### WATER REGULATING VALVE

Standard on water cooled units. Rated at 150 PSIG.

### OPTIONAL FEATURES

- Remote thermostat, wall mounted (can be combined w/3-speed switch).
- Low ambient control on air cooled units.
- Humidifier - evaporative media type - includes humidistat - remote wall-mounted.
- Electric reheat (Hot water or steam on request) with factory - wired contactor and remote dehumidistat.
- Remote condensate pump package.
- Transformer to 1-60-277 Volt.
- Remote status panel w/L.E.D. indicators for cooling, humidifying, condensate overflow.
- Flow control with a 2-way solenoid valve or a 3-way solenoid valve.

### STANDARD FEATURES

#### GENERAL

Provide Little Chill Cooler environmental control system. Unit to be self-contained, factory tested and charged. Unit configuration shall be horizontal, designed for ceiling mounting and fit the 2' x 4' opening of the "Tee-Bar" ceiling grid. System shall be provided with ETL label.

#### UNIT CABINETS

Cabinet and chassis shall be constructed of heavy gauge galvanized steel and designed for easy installation and service access. All service access to be through the sides of the unit without removing the unit from the ceiling. Cabinet shall be insulated with 1-1/2 lb. density insulation providing thermal and acoustical treatment. Mounting kit shall include vibration isolators.

#### AIR DISTRIBUTION SYSTEM

The air flow system shall include a direct drive double width, double inlet forward curved centrifugal fan arranged to draw air through the evaporator. The blower motor shall be mounted on vibration isolators and shall have three speeds to allow air flow to be adjusted to the specific requirements of the installation. The return/supply grille assembly shall include three-way outlet grille and a hinged return grille for filter access. Filter shall be 1" disposable type.

#### REFRIGERATION SYSTEM

The refrigeration system shall be self contained, and include high-efficiency hermetic compressor designed for heat pump duty with vibration isolation. The copper tube alumi-

num fin evaporator coil shall be mounted in a stainless steel drain pan. The drain pan shall be equipped with single float switch to stop unit operation in the event of a drain failure. The system shall include an externally equalized thermostatic expansion valve, liquid line filter, dryer sight glass with moisture indicator, manual reset high pressure, automatic reset low pressure switch and pressure fittings for charging, evacuation and service.

#### ELECTRICAL SYSTEM

The electrical box shall include all contactors, relays and transformers required for unit operation. The electrical box shall be located to allow full service from the side of the unit.

#### AIR COOLED CONDENSER

(Air Cooled System Only) The condenser coil shall be copper tube aluminum fin and factory mounted, piped and charged. The blower box assembly shall include a direct drive centrifugal fan for use with either plenum air or outside air via ductwork.

#### WATER COOLED CONDENSER

(Water Cooled Systems Only) A factory piped coaxial condenser equipped with an adjustable water regulating valve is provided for head pressure control. Water pressures up to 150 psig.

#### CHILLED WATER SYSTEMS

Chilled water systems shall include a copper tube aluminum fin cooling coil.

### OPTIONAL FEATURES

#### ELECTRIC HEAT

The factory installed electric heat/reheat shall be low watt density type mounted downstream of the evaporator coil. Automatic reset safety switch plus a fusible link shall provide for shutdown.

#### HOT WATER/STEAM HEAT

The factory installed copper tube/aluminum fin hot water/steam coil shall be mounted down stream of the evaporator coil.

#### HUMIDIFIER

The factory installed humidifier shall be an evaporative pad type mounted in a stainless steel housing. All controls, including solenoid valve, strainer, and flow control assembly shall be factory provided. Humidistat shall be factory provided for field mount.

#### CONDENSATE PUMP

Provide low profile condensate pump capable of 30 gph @ 14' of head suitable for mounting below the drain outlet and above the ceiling tiles including all traps, and associated piping. Pump to be U.L. listed and include built-in check valve and stainless steel motor shaft, and mounting brackets for attachment to unit.

#### STATUS PANEL

Provide multiple light status panel to monitor and display unit functions. Indicator shall indicate: Fan-on, Cool, Heat, Humidify, Dehumidify and Condensate Overflow. Panel to include a push to test button to verify that all indicator lights are working.

#### THREE SPEED FAN SWITCH

Provide factory installed 3-speed fan switch to allow selection of high - medium - low fan speed.

#### LOW AMBIENT CONTROL

Provide factory installed pressure switch to control head pressure when ambient temperature is as low as 35°F.

#### 277/1/60 TRANSFORMER

Provide field wired transformer to allow unit operation on 277v circuit.

#### 2-WAY OR 3-WAY CHILLED WATER VALVE

Provide 2/3-way solenoid valve to control water flow through the cooling coil. (Chilled water units only).

#### THERMOSTAT

Remote thermostat, wall mounted.

# Standard Performance

Air Cooled

## AC SERIES (AIR COOLED)\*

SERIES	FDAC GRILLE/DIFFUSER			SDAC SINGLE DUCTED (1)			DDAC DOUBLE DUCTED (2)		
	1.0	1.5	2.0	1.0	1.5	2.0	1.0	1.5	2.0
NOMINAL TONS	1.0	1.5	2.0	1.0	1.5	2.0	1.0	1.5	2.0
MODEL NUMBER	FDAC-1	FDAC-1.5	FDAC-2	SDAC-1	SDAC-1.5	SDAC-2	DDAC-1	DDAC-1.5	DDAC-2
TOTAL COOLING MBH (3)	13.0	18.9	24.2	12.4	20.6	23.3	13.5	19.9	22.4
SENSIBLE COOLING MBH	8.7	13.1	17.0	8.4	14.1	16.0	9.3	13.8	15.6
AIR FLOW CFM (NOMINAL)	400	600	800	400	600	800	400	600	800
FAN MOTOR HP	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4
FAN SPEEDS	3 SPD	3 SPD	3 SPD	3 SPD	3 SPD	3 SPD	3 SPD	3 SPD	3 SPD
FAN MOTOR AMPS	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
COMPRESSOR AMPS	8.3	7.2	9.6	8.3	7.2	9.6	8.3	7.2	9.6
FAN MOTOR HP	1/3	1/3	1/3	1/3	1/3	1/3	1/3	1/3	1/3
FAN MOTOR AMPS	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
AIR FLOW CFM (ACTUAL)	415(M)	611(M)	765(H)	469(H)	690(H)	719(H)	444(H)	654(H)	681(H)
COOLING CIRCUIT FLA	12.6	11.5	13.9	12.6	11.5	13.9	12.6	11.5	13.9
COOLING CIRCUIT MCA	14.6	13.3	16.3	14.6	13.3	16.3	14.6	13.3	16.3
COOLING CIRCUIT MFS	20	20	25	20	20	25	20	20	25
HEATING CIRCUIT FLA	11	20	25	11	20	25	11	20	25
HEATING CIRCUIT MCA	20	25	25	20	25	25	20	25	25
HEATING CIRCUIT MFS	20	25	25	20	25	25	20	25	25
WEIGHT (APPROX. LBS.)	287	302	320	282	297	315	277	292	310

### NOTES:

1. CFM delivered on any single duct unit assumes an external static pressure of .05".
2. CFM delivered on any double duct unit assumes an external static pressure of .10".
3. Performance based on the following: 80°F DB/67°F WB entering air, 95°F ambient entering condenser air.
4. FLA = Full load amps  
MCA = Minimum circuit amps - (2) Separate power supplies required for heating and cooling in same unit.  
MFS = Maximum fuse size

\*See expanded performance charts on page 11.

FDAC (Grille/Diffuser)	SDAC (Single Duct)	DDAC (Double Duct)
1 Ton = Med. Speed	1 Ton = Hi Speed	1 Ton = Hi Speed
1 1/2 Ton = Med. Speed	1 1/2 Ton = Hi Speed	1 1/2 Ton = Hi Speed
2 Ton = Hi Speed	2 Ton = Hi Speed	2 Ton = Hi Speed

### WC SERIES (WATER COOLED)\*

SERIES	FDWC GRILLE/DIFFUSER			SDWC SINGLE DUCTED (1)			DDWC DOUBLE DUCTED (2)		
	1.0	1.5	2.0	1.0	1.5	2.0	1.0	1.5	2.0
NOMINAL TONS	1.0	1.5	2.0	1.0	1.5	2.0	1.0	1.5	2.0
MODEL NUMBER	FDWC-1	FDWC-1.5	FDWC-2	SDWC-1	SDWC-1.5	SDWC-2	DDWC-1	DDWC-1.5	DDWC-2
TOTAL COOLING MBH (3)	13.0	18.9	24.2	14.1	20.6	23.3	13.5	19.9	22.4
SENSIBLE COOLING MBH	8.7	13.1	17.0	9.6	14.1	16.0	9.3	13.8	15.6
AIR FLOW CFM (NOMINAL)	400	600	800	400	600	800	400	600	800
FAN MOTOR HP	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4
FAN SPEEDS	3 SPD	3 SPD	3 SPD	3 SPD	3 SPD	3 SPD	3 SPD	3 SPD	3 SPD
FAN MOTOR AMPS	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
AIR FLOW CFM (ACTUAL)	415(M)	611(M)	765(H)	469(H)	690(H)	719(H)	444(H)	654(H)	681(H)
GPM	3.0	4.5	6.0	3.0	4.5	6.0	3.0	4.5	6.0
PSI	5.4	4.6	7.7	5.4	4.6	7.7	5.4	4.6	7.7
COOLING CIRCUIT FLA	12.6	11.5	13.9	12.6	11.5	13.9	12.6	11.5	13.9
COOLING CIRCUIT MCA	14.6	13.3	16.3	14.6	13.3	16.3	14.6	13.3	16.3
COOLING CIRCUIT MFS	20	20	25	20	20	25	20	20	25
HEATING CIRCUIT FLA	11	20	20	11	20	20	11	20	20
HEATING CIRCUIT MCA	20	25	25	20	25	25	20	25	25
HEATING CIRCUIT MFS	20	25	25	20	25	25	20	25	25
WEIGHT (APPROX. LBS.)	287	250	263	232	245	258	227	240	253

**NOTES:**

1. CFM delivered on any single duct unit assumes an external static pressure of .05".
2. CFM delivered on any double duct unit assumes an external static pressure of .10".
3. Performance based on the following: 80°F DB / 67°F WB entering air, 85°F E.W.T. condenser, 3.0 GPM/ton.
4. FLA = Full load amps  
 MCA = Minimum circuit amps - (2) Separate power supplies required for heating and cooling in same unit.  
 MFS = Maximum fuse size

**\*See expanded performance charts on page 12**

FDWC (Grille/Diffuser)	SDWC (Single Duct)	DDWC (Double Duct)
1 Ton = Med. Speed	1 Ton = Hi Speed	1 Ton = Hi Speed
1 1/2 Ton = Med. Speed	1 1/2 Ton = Hi Speed	1 1/2 Ton = Hi Speed
2 Ton = Hi Speed	2 Ton = Hi Speed	2 Ton = Hi Speed

### DX EVAPORATOR

SERIES	FDDX GRILLE/DIFFUSER		
	1.0	1.5	2
NOMINAL TONS	1.0	1.5	2
MODEL NUMBER	FDDX-1	FDDX-1.5	FDDX-2
TOTAL COOLING MBH (3)	13.0	18.9	24.2
SENSIBLE COOLING MBH	8.7	13.1	17.0
AIR FLOW CFM (NOMINAL)	400	600	800
FAN MOTOR HP	1/4	1/4	1/4
FAN SPEEDS	3 SPD	3 SPD	3 SPD
FAN MOTOR AMPS	2.0	2.0	2.0
HEATING CIRCUIT FLA	11	20	20
HEATING CIRCUIT MCA	20	25	25
HEATING CIRCUIT MFS	20	25	25
WEIGHT (APPROX. LBS.)	162	165	167

1 Ton = Med. Speed  
 1 1/2 Ton = Med. Speed  
 2 Ton = Hi Speed

**\*See expanded performance charts on page 13.**

**NOTES:**

1. CFM delivered on any single duct unit assumes an external static pressure of .05".
2. CFM delivered on any double duct unit assumes an external static pressure of .10".
3. Performance based on the following: 80°F DB/67°F WB entering air.
4. FLA = Full load amps  
 MCA = Minimum circuit amps - (2) Separate power supplies required for heating and cooling in same unit.  
 MFS = Maximum fuse size

### CHILLED WATER

SERIES	FDCW GRILLE/DIFFUSER		
	1.0	1.5	2
NOMINAL TONS	1.0	1.5	2
MODEL NUMBER	FDCW-1	FDCW-1.5	FDCW-2
TOTAL COOLING MBH (3)	13.7	17.2	26.4
SENSIBLE COOLING MBH	9.7	12.5	18.9
AIR FLOW CFM (NOMINAL)	400	600	800
FAN MOTOR HP	1/4	1/4	1/4
FAN SPEEDS	3 SPD	3 SPD	3 SPD
FAN MOTOR AMPS	2.0	2.0	2.0
HEATING CIRCUIT FLA	11	20	20
HEATING CIRCUIT MCA	20	25	25
HEATING CIRCUIT MFS	20	25	25
WEIGHT (APPROX. LBS.)	172	175	177

1 Ton = Med. Speed  
 1 1/2 Ton = Med. Speed  
 2 Ton = Hi Speed

**\*See expanded performance charts on page 13.**

**NOTES:**

1. CFM delivered on any single duct unit assumes an external static pressure of .05".
2. CFM delivered on any double duct unit assumes an external static pressure of .10".
3. Performance based on the following: 80°F DB/67°F WB entering air, 45°F entering water temp.
4. FLA = Full load amps  
 MCA = Minimum circuit amps - (2) Separate power supplies required for heating and cooling in same unit.  
 MFS = Maximum fuse size

**EXPANDED PERFORMANCE - AIR COOLED UNITS\***

MODEL	TYPE	SPEED CFM	TOTAL/SENS MBH		
			80/67	75/62.5	72/60
FDAC-1.0 (MED)	AIR COOLED	H	14.7/10.2	10.7/8.7	8.6/7.8
	1.0 TON	M	13.0/8.7	9.4/7.4	7.6/6.7
	NO DUCT	L	11.9/8.0	8.6/6.8	7.0/6.1
FDAC-1.5 (MED)	AIR COOLED	H	21.5/15.1	15.6/12.9	12.6/11.5
	1.5 TON	M	18.9/13.1	13.8/11.3	11.1/10.1
	NO DUCT	L	17.3/12.0	12.6/10.2	10.1/8.9
FDAC-2.0 (HI)	AIR COOLED	H	24.2/17.0	17.6/14.6	14.3/13.1
	2.0 TON	M	20.9/14.5	15.2/12.4	12.3/11.1
	NO DUCT	L	17.8/11.9	13.0/10.2	10.5/9.1
SDAC-1.0 (HI)	AIR COOLED	H	14.1/9.6	10.2/8.2	8.3/7.3
	1.0 TON	M	12.4/8.4	9.0/7.2	7.2/6.5
	SINGLE DUCT	L	11.9/8.0	8.6/6.8	7.0/6.1
SDAC-1.5 (HI)	AIR COOLED	H	20.6/14.1	15.0/12.1	12.1/10.8
	1.5 TON	M	18.1/12.4	13.2/10.6	10.6/9.5
	SINGLE DUCT	L	16.5/11.3	12.0/9.6	9.7/8.6
SDAC-2.0 (HI)	AIR COOLED	H	23.3/16.0	16.9/14.1	13.7/12.6
	2.0 TON	M	20.0/13.6	14.6/11.6	11.7/10.4
	SINGLE DUCT	L	17.0/11.5	12.3/9.8	10.0/8.8
DDAC-1.0 (HI)	AIR COOLED	H	13.5/9.3	9.8/8.0	7.9/7.2
	1.0 TON	M	11.9/8.0	8.6/6.8	7.0/6.1
	DOUBLE DUCT	L	10.4/7.0	7.5/5.9	6.1/5.3
DDAC-1.5 (HI)	AIR COOLED	H	19.9/13.8	14.4/11.8	11.6/10.6
	1.5 TON	M	17.4/12.1	12.7/10.3	10.2/9.0
	DOUBLE DUCT	L	15.8/10.9	11.5/9.3	9.3/8.4
DDAC-2.0 (HI)	AIR COOLED	H	22.4/15.6	16.3/13.3	13.2/4.9
	2.0 TON	M	19.2/13.2	14.0/11.3	11.3/10.1
	DOUBLE DUCT	L	16.3/11.1	11.9/9.5	9.6/8.5

**\*Contact factory for performance other than shown.**

**NOTES:**

Air Cooled

All units performance based on 95°F ambient air to condensers and proper condenser air flow. Single and double duct airflows and capacity based on .05" external static pressure against supply fan (SD) and .10" (DD).

# Expanded Performance

Water Cooled

## EXPANDED PERFORMANCE - WATER COOLED UNITS

MODEL	TYPE	SPEED CFM	TOTAL/SENS MBH		
			80/67	75/62.5	72/60
FDWC-1.0 (MED)	WATER COOLED	H	14.7/10.2	10.7/8.7	8.6/7.8
	1.0 TON	M	13.0/8.7	9.4/7.4	7.6/6.7
	NO DUCT	L	11.9/8.0	8.6/6.8	7.0/6.1
FDWC-1.5 (MED)	WATER COOLED	H	21.5/15.1	15.6/12.9	12.6/11.5
	1.5 TON	M	18.9/13.1	13.8/11.3	11.1/10.1
	NO DUCT	L	17.3/12.0	12.6/10.2	10.1/8.9
FDWC-2.0 (HI)	WATER COOLED	H	24.2/17.0	17.6/14.6	14.3/13.1
	2.0 TON	M	20.9/14.5	15.2/12.4	12.3/11.1
	NO DUCT	L	17.8/11.9	13.0/10.2	10.5/9.1
SDWC-1.0 (HI)	WATER COOLED	H	14.1/9.6	10.2/8.2	8.3/7.3
	1.0 TON	M	12.4/8.4	9.0/7.2	7.2/6.5
	SINGLE DUCT	L	11.9/8.0	8.6/6.8	7.0/6.1
SDWC-1.5 (HI)	WATER COOLED	H	20.6/14.1	15.0/12.1	12.1/10.8
	1.5 TON	M	18.1/12.4	13.2/10.6	10.6/9.5
	SINGLE DUCT	L	16.5/11.3	12.0/9.6	9.7/8.6
SDWC-2.0 (HI)	WATER COOLED	H	23.3/16.0	16.9/14.1	13.7/12.6
	2.0 TON	M	20.0/13.6	14.6/11.6	11.7/10.4
	SINGLE DUCT	L	17.0/11.5	12.3/9.8	10.0/8.8
DDWC-1.0 (HI)	WATER COOLED	H	13.5/9.3	9.8/8.0	7.9/7.2
	1.0 TON	M	11.9/8.0	8.6/6.8	7.0/6.1
	DOUBLE DUCT	L	10.4/7.0	7.5/5.9	6.1/5.3
DDWC-1.5 (HI)	WATER COOLED	H	19.9/13.8	14.4/11.8	11.6/10.6
	1.5 TON	M	17.4/12.1	12.7/10.3	10.2/9.0
	DOUBLE DUCT	L	15.8/10.9	11.5/9.3	9.3/8.4
DDWC-2.0 (HI)	WATER COOLED	H	22.4/15.6	16.3/13.3	13.2/4.9
	2.0 TON	M	19.2/13.2	14.0/11.3	11.3/10.1
	DOUBLE DUCT	L	16.3/11.1	11.9/9.5	9.6/8.5

**\*Contact factory for performance other than shown.**

**NOTES:**

Water Cooled

All unit performance based on condenser water in at 85°F and 3 GPM flow per 1.0 ton, 4.5 GPM per 1.5 ton and 6 GPM per 2 ton models.

## EXPANDED PERFORMANCE - CHILLED WATER UNITS

MODEL	TYPE	SPEED CFM	TOTAL SENS MBH		
			80/67	75/62.5	72/60
FDCW-1.0 (MED)	CHILLED WATER	H	15.5/11.1	10.9/9.6	8.8/8.6
	1.0 TON	M	13.7/9.7	9.7/8.3	7.6/7.4
	NO DUCT	L	12.5/8.8	8.7/7.5	7.8/6.1
FDCW-1.5 (MED)	CHILLED WATER	H	19.1/14.2	13.5/12.2	11.0/11.0
	1.5 TON	M	17.2/12.5	12.0/10.7	9.7/9.7
	NO DUCT	L	15.7/11.4	11.0/9.7	8.8/8.8
FDCW-2.0 (HI)	CHILLED WATER	H	26.4/18.9	18.5/16.1	15.1/14.7
	2.0 TON	M	22.5/15.9	16.0/13.6	12.9/12.3
	NO DUCT	L	19.3/13.4	13.6/11.4	11.0/10.3

**\*Contact factory for performance other than shown.**

NOTES:

Chilled Water

All unit performance based on Ent. Water at 45°F and leaving at 55°F.

To figure required GPM, MBN x 1.000 = BTUN ÷ 5000 = GPM flow.

## EXPANDED PERFORMANCE - DX UNITS

MODEL	TYPE	SPEED CFM	TOTAL/SENS MBH		
			80/67	75/62.5	72/60
FDDX-1.0 (MED)	DIRECT EXP.	H	14.7/10.2	10.7/8.7	8.6/7.8
	1.0 TON	M	13.0/8.7	9.4/7.4	7.6/6.7
	NO DUCT	L	11.9/8.0	8.6/6.8	7.0/6.1
FDDX-1.5 (MED)	DIRECT EXP.	H	21.5/15.1	15.6/12.9	12.6/11.5
	1.5 TON	M	18.9/13.1	13.8/11.3	11.1/10.1
	NO DUCT	L	17.3/12.0	12.6/10.2	10.1/8.9
FDDX-2.0 (HI)	DIRECT EXP.	H	24.2/17.0	17.6/14.6	14.3/13.1
	2.0 TON	M	20.9/14.5	15.2/12.4	12.3/11.1
	NO DUCT	L	17.8/11.9	13.0/10.2	10.5/9.1

**\*Contact factory for performance other than shown.**

NOTES:

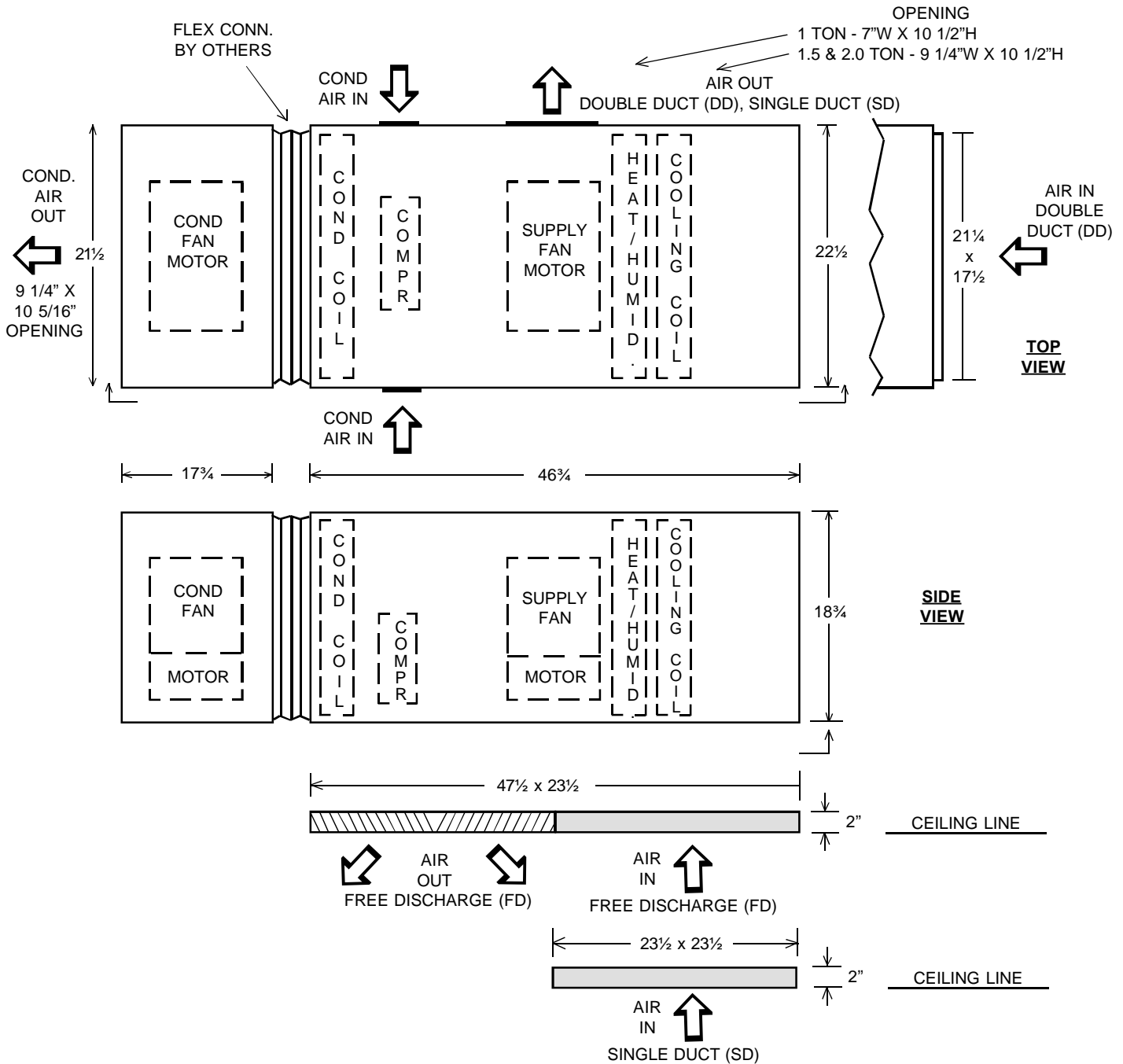
DX units

All unit performance based on remote condensing unit to be R-22 at 45° SST and match required capacity.

# Dimensions

Air Cooled

## AIR COOLED UNITS 1, 1½, 2 TONS • FREE DISCH. (FD), SINGLE DUCT (SD), DOUBLE DUCT (DD)



### FLOWS

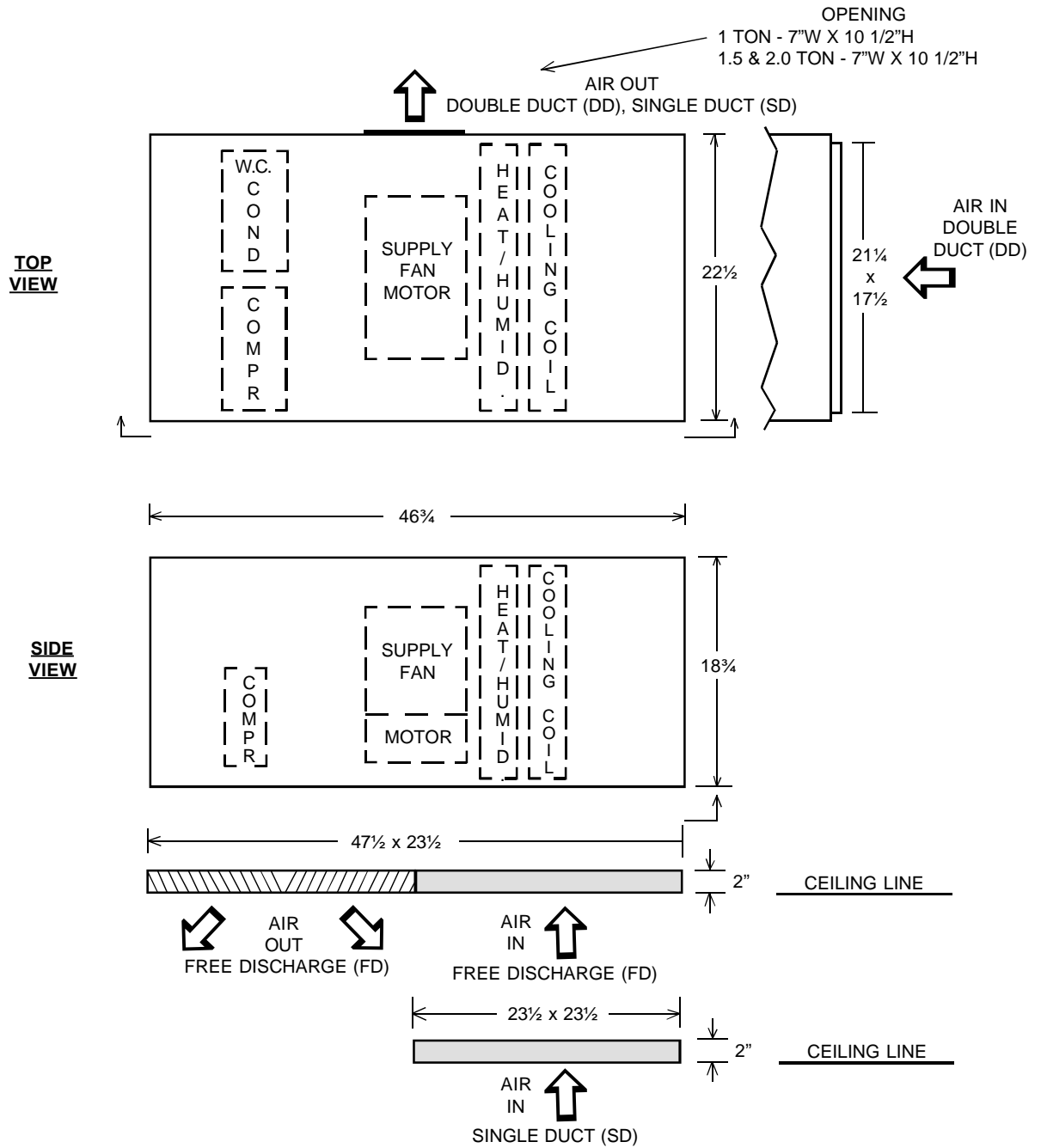
AIR COOLED CONDENSER SIDE: AIR IN BOTH SIDES, THRU COND. BLOWER AND DUCTED OUT

FREE DISCHARGE: RETURN AIR IN GRILLE AND SUPPLY AIR OUT THE OTHER SIDE OF GRILLE

SINGLE DUCT: RETURN AIR IN GRILLE AND SUPPLY AIR OUT (DUCTED) THE SIDE OF UNIT

DOUBLE DUCT: RETURN AIR DUCTED IN BACK OF UNIT AND SUPPLY AIR OUT (DUCTED) THE SIDE OF UNIT

**WATER COOLED UNITS 1, 1½, 2 TONS • FREE DISCH. (FD), SINGLE DUCT (SD), DOUBLE DUCT (DD)**



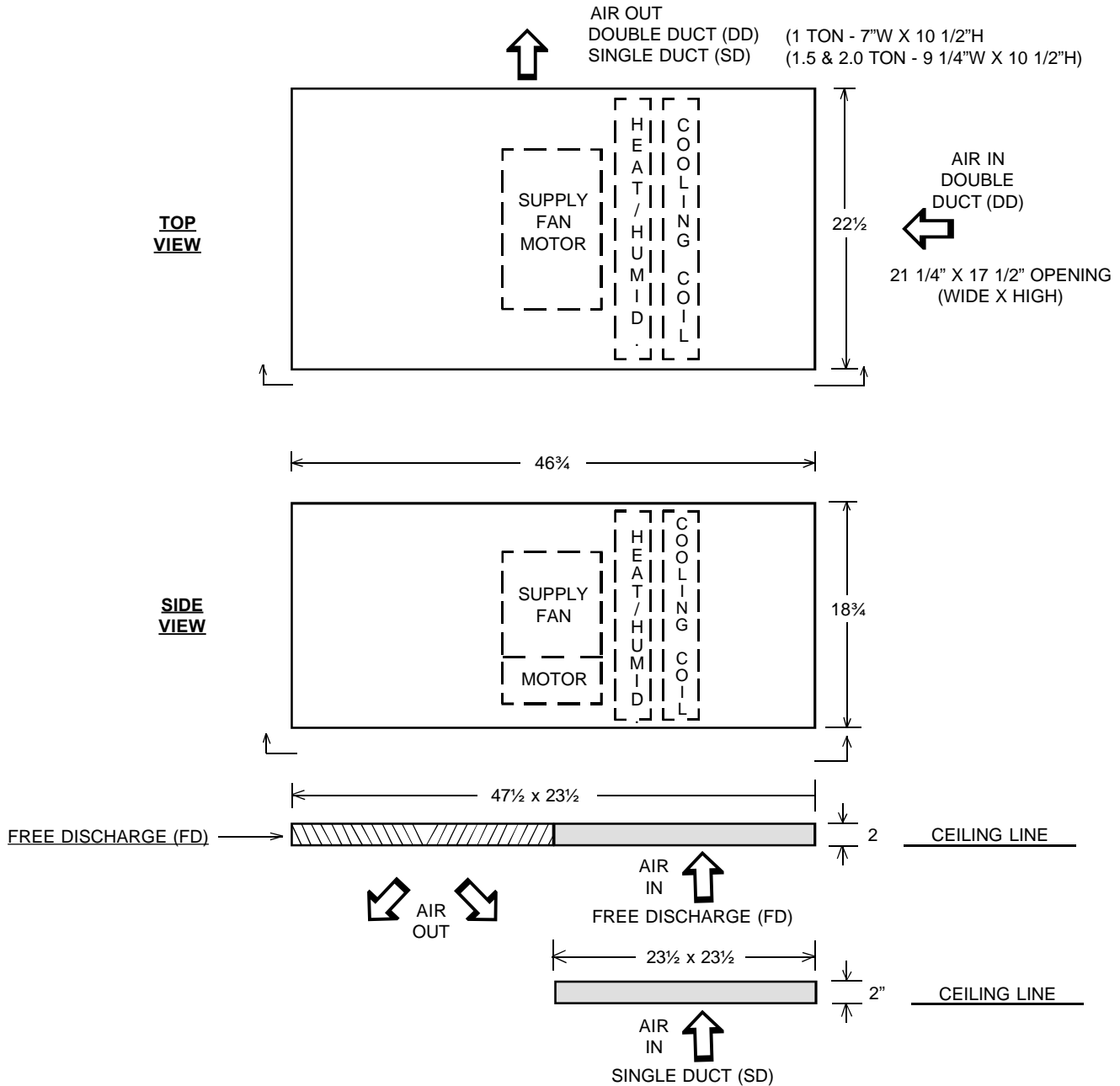
**FLOWS**

FREE DISCHARGE: RETURN AIR IN GRILLE AND SUPPLY AIR OUT THE OTHER SIDE OF GRILLE

SINGLE DUCT: RETURN AIR IN GRILLE AND SUPPLY AIR OUT (DUCTED) THE SIDE OF UNIT

DOUBLE DUCT: RETURN AIR DUCTED IN BACK OF UNIT AND SUPPLY AIR OUT (DUCTED) THE SIDE OF UNIT

### CHILLED WATER (CW) DIRECT EXPANSION (DX) 1, 1½, 2 TON • FREE DISCHARGE (FD)



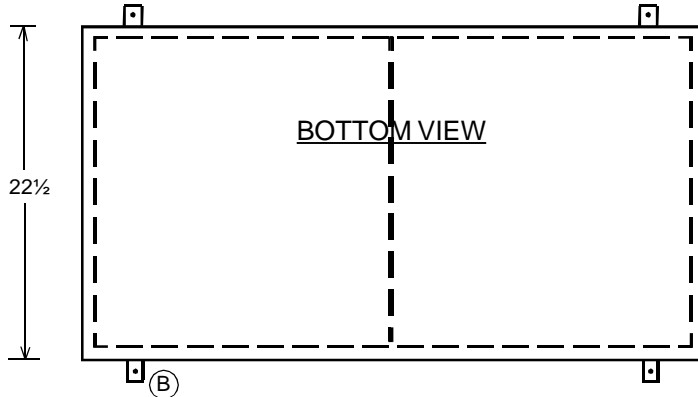
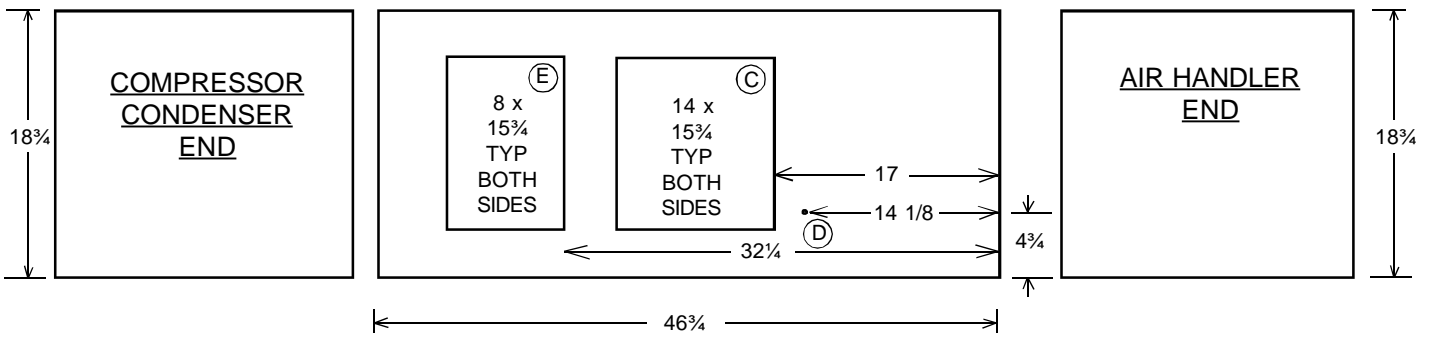
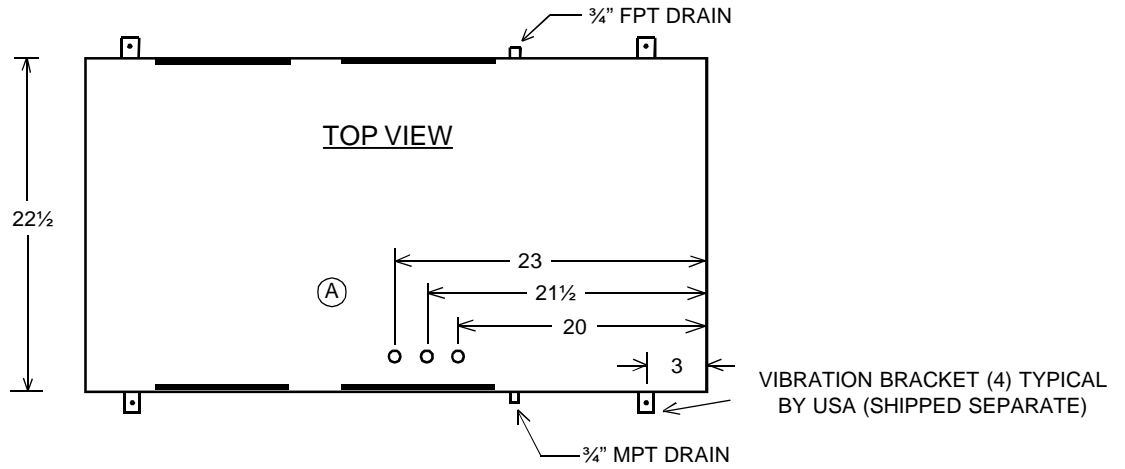
#### FLAWS

FREE DISCHARGE: RETURN AIR IN GRILLE AND SUPPLY AIR OUT THE OTHER SIDE OF GRILLE

SINGLE DUCT: RETURN AIR IN GRILLE AND SUPPLY AIR OUT (DUCTED) THE SIDE OF UNIT

DOUBLE DUCT: RETURN AIR DUCTED IN BACK OF UNIT AND SUPPLY AIR OUT (DUCTED) THE SIDE OF UNIT

**CABINET ORIENTATION • ACCESS DOORS • ELECTRICAL CONNECTIONS (ALL UNITS)**



- (A) ELECTRICAL CONNECTIONS (POWER)
- (B) HANGERS FOR MOUNTING
- (C) CONTROL ACCESS PANEL
- (D) 3/4" FPT DRAIN CONN. (BOTH SIDES)
- (E) COMPRESSOR ACCESS, COND. AIR IN - AIR COOLED
- (F) NOTE: WIRING HARNESS PROVIDED FOR CONNECTION OF AIR COOLED BLOWER SECTION TO ELECTRICAL CONNECTIONS (POWER)

# Installation Instructions

## GENERAL GUIDELINES

Little Chill self-contained A/C units have been designed for installation in a standard two foot by four foot ceiling tile opening. Controls and normal service can be provided through access to one side of the unit. Twenty-four inch clearance on all sides is recommended, although clearance on one side is sufficient for routine service.

The units are designed to be mounted with 3/8" all-thread rods. Mount the all-thread through the mounting bracket and vibration isolator provided. Raise the unit above the ceiling at least three inches. Secure with locknuts.

Slide the filter/grille assembly into the suspended ceiling frame.

Lower the unit down on the filter/grille assembly, approximately 1/2" inch. The unit is ready for electrical and water connections.

## AIR COOLED UNITS

The condenser blower assembly must be suspended above the ceiling, utilizing all-thread rods or suitable strapping. The rear flanges are designed to be secured to the rear of the main unit with screws. It is recommended, where possible, to utilize

a field-fabricated flexible connector between the blower assembly and the main unit.

The condenser/blower assembly for indoor operation can be utilized with ductwork. Ductwork for the condenser blower assembly for outdoor operation must be sized to accommodate the published external static pressures.

## ELECTRICAL

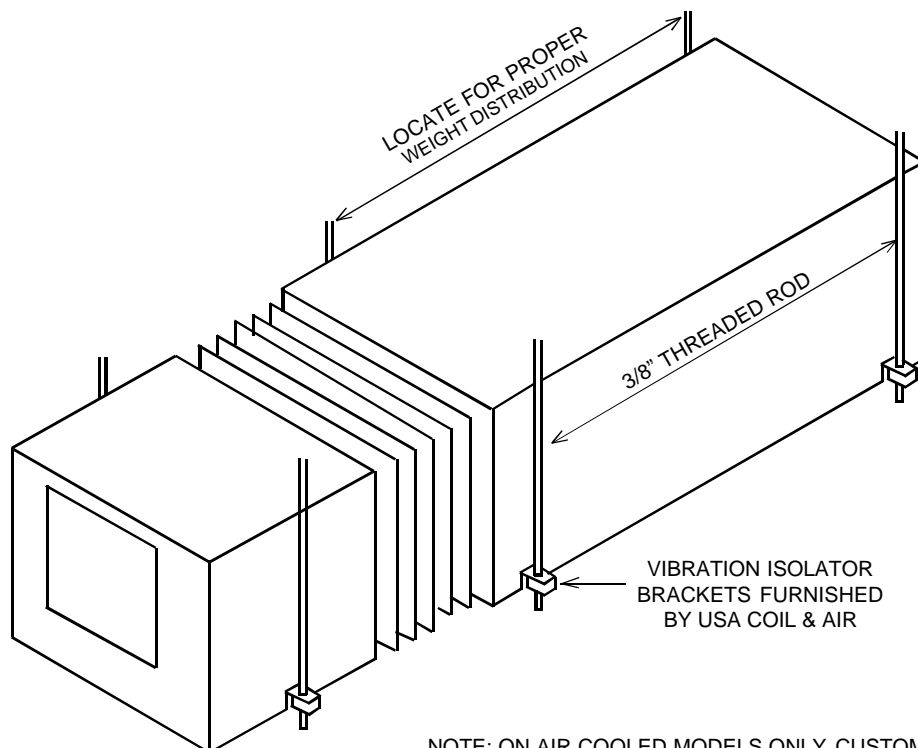
An externally fused disconnect or circuit breaker must be provided for 208/230 Volt - 1 Phase/60 Hertz service as required by local code. Connect power wiring in accordance with electrical diagram in control compartment and local code.

## PIPING

For the water cooled and chilled water models, 1/2 inch MPT supply and return connections are provided. Install water shut-off valves and unions (by others) on both the supply and return lines.

A 3/4" FPT line must be connected to the condensate drain. The drain line must run separately to the building drain or a drain receptacle.

## MOUNTING DETAIL



NOTE: ON AIR COOLED MODELS ONLY, CUSTOMER TO SUPPLY 2 - 6" PIECES OF 1- 1/4" ANGLE AND INSTALL ON BOTTOM OF CONDENSER BLOWER HOUSING. UNIT IS PROVIDED WITH SIX VIBRATION ISOLATOR BRACKETS

# Warranty

USA COIL & AIR WARRANTS TO THE ORIGINAL OWNER/ USER OF THE USA COIL & AIR UNIT IDENTIFIED ABOVE TO BE FREE OF ORIGINAL DEFECTS IN MATERIAL OR WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM THE EFFECTIVE DATE OF THIS WARRANTY.

The Warranty extends for twelve (12) months from date of start-up, but no longer than eighteen (18) months from the date of shipment. The warranty does not include the filter.

This Warranty on the units obligates USA Coil & Air to repair or replace, free of charge, any part or parts that show evidence of being defective in material and workmanship and are deemed so defective by personnel of USA Coil & Air. The part must be returned for replacement with the proper information as required.

USA Coil & Air assumes no obligation for labor required to replace the defective part or parts nor the freight or postage required to return or to secure the part which shall be at the cost and expense of the Original Owner/User. Warranty does not include breakage or rupture of water tubing and/or water condenser coil when subjected to freezing temperatures.

USA Coil & Air, will replace the defective part or parts within 21 days after the return to the USA Coil & Air of such defective part or parts provided notice of such defect was given by Original Owner/User within the Warranty period.

An optional, additional four-year protection plan on the compressor is available at modest cost at the time of original

unit sale only. This obligates USA Coil & Air to replace f.o.b. factory, a defective compressor with a comparable compressor of equal capacity free of charge. No responsibility is assumed by USA Coil & Air for refrigerant, labor, or freight to and from factory.

THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER EXPRESS WARRANTIES. ALL IMPLIED WARRANTIES, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE ARE LIMITED IN DURATION TO ONE (1) YEAR FROM EFFECTIVE DATE OF THIS WARRANTY. USA COIL & AIR IS NOT LIABLE FOR CONSEQUENTIAL DAMAGES RESULTING FROM ANY DEFECT IN PART. THERE ARE NO OTHER OBLIGATIONS ON THE PART OF THE USA COIL & AIR.

## Warranty of Fitness

USA Coil & Air does not provide a warranty of fitness since, in good faith USA Coil & Air cannot anticipate or control the many different conditions under which the products of USA Coil & Air may be used.

Little Chill is a registered trademark of USA Coil & Air.

# LittleChill<sup>®</sup>

self-contained air conditioning unit

## TYPICAL APPLICATIONS:

- Word Processing Stations
- Office Automation Areas
- Computer Rooms
- Offices, Add-on and Renovations
- Laboratories & Pharmacies
- Communication Switching Rooms
- Conference Rooms
- Retail Stores
- Schools
- Banks
- Any Problem Heat Space

**USA COIL  
& AIR**

**1-800-USA-COIL  
(1-800-872-2645)**

**FAX: (610) 296-9763**