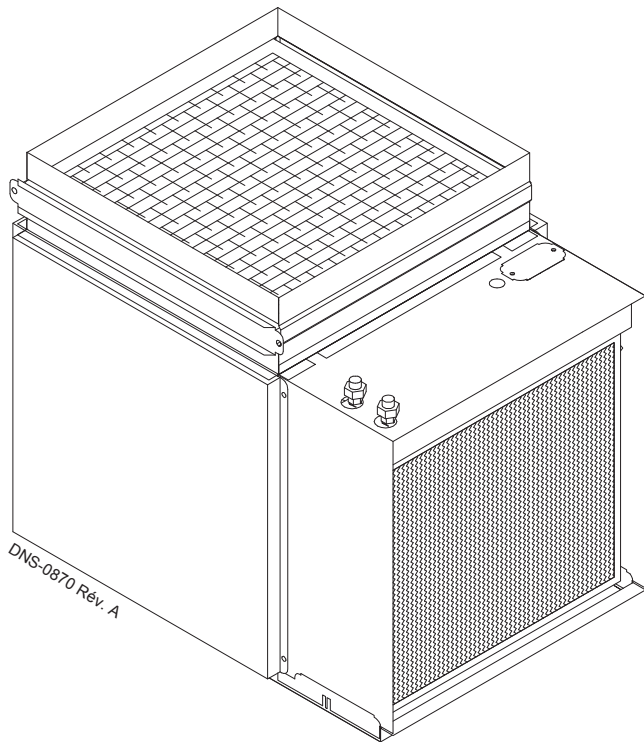


Installation instructions and homeowners manual



FAN COIL UNIT

Save these instructions for future reference.

Models :

FC000S-P-D-D

FC000S-P-D-H

Manufactured by :

International Comfort Product

Division of UTC Canada Corporation

3400, Industriel blvd, Sherbrooke, Qc, Canada

**Caution : Do not tamper with
the unit or its controls.**

**Call a qualified service
technician.**

PART 1 INSTALLATION

READ CAREFULLY AND LEAVE THESE INSTRUCTIONS WITH THE UNIT.

WE RECOMMEND THAT YOUR FAN COIL UNIT SHOULD BE INSTALLED BY A QUALIFIED AND RESPONSIBLE TECHNICIAN.

DANGER, WARNING AND CAUTION

The signal words DANGER, WARNING and CAUTION are used to identify levels of hazard seriousness. It is important that you understand the signification. You will find those words on the manual as followed :

DANGER

Immediate hazards which **WILL** result in death or serious injury.

WARNING

Hazards or unsafe practices which **COULD** result in death or injury.

CAUTION

Hazards or unsafe practices which **COULD** result in personal injury or product or property damage.

1.1 INSPECTION OF MERCHANDISE UPON ARRIVAL

Unpack carefully and inspect to see if any damage has occurred during shipment. Our responsibility ceases upon delivery to the carrier. If parts are missing or damage has occurred an immediate claim should be filed with the carrier. Then, check the contents of each carton against the packing slip, should there be any parts missing, send a detailed claim together with a copy of your packing slip, all shipments are checked by an inspector before they are accepted by the carrier.

1.2 LOCATION

Install the unit as indicated on figure 2 . No clearance (zero clearance) from combustible material are required. Be sure to install the unit in a clean and dry location.

1.3 INSTALLATION

This Fan coil unit has to be installed according to the rules and regulations of the authorities having jurisdictions. The heat supply to the unit must be provided by a DETTSON hot water boiler (HM or HMD model). Consult the boiler installation and instruction manual supplied with the boiler. Also, consult CSA B139 installation code.

1.4 HOOK-UP OF AIR HANDLING SYSTEM

As shown in figure 2, the Fan coil unit can be hooked up by a number of different ways to accommodate the air handling system. Insure that the unit is well supported and the fan and motor shafts are always installed horizontally and are leveled. Use flexible joints (preferably) between the air ducts and the unit inlet and outlet air connections. This will reduce greatly the possibility of noise transmission through the distribution system. The air inlet and outlet are both standard 20" x 20". Use taper transition and soft elbows to reduce the air turbulence in the distribution system. Refer to ASHRAE guide lines.

1.5 HOOK-UP OF WATER PIPING

The water piping hook-up should be in accordance with the DETTSON (HM or HMD) installation and instruction manual supplied with your boiler. The components specifications are the following (refer to figure 1) :

- circulator : Bell and Gosset SLC-25;
- expansion tank : X-trol 15 or equivalent (15 gallons);
- check valve (gravity) : Watts CV-1PS (3/4").

The water piping between the boiler and the unit should be 3/4" cooper.

Insulation of water pipes is strongly recommended.

1.6 WIRING AND CONTROL

The unit must be installed according to the appropriate wiring diagram. Refer to the list below and figures 4 and 5.

- figure 4 : Continuous ventilation;
- figure 5 : Intermittent ventilation;
(Fan start in conjunction with the circulator upon call for heat).

All the wiring must be done in accordance with CSA 22.10 and must follow the rules of the authorities having jurisdiction.

The high limit setting must be at a maximum of 93° C (200° F) and the operational control at least -7° C (20° F) below the high limit setting.

PART 2 OPERATION

2.1 BOILER START-UP

The boiler start-up must be done in accordance with the DETTSON installation and instruction supplied with your boiler.

2.2 FAN-COIL UNIT START-UP

You must make sure that the water lines between the boiler and the unit are full of water and free of air before starting the system. The filter module should be screwed in place as shown in figure 3 and the filter in its position. Check the maintenance cover is closed and secured in place before starting the unit.

Refer to the table 1 below to see the characteristics of your unit. The maximum setting permitted on the high-limit is (93° C) 200° F.

TABLE 1

Model	Capacity		CFM	Static press ("W.C.)	Delta T (Deg.F)	Motor (H.P.)
	Min. MBH	Max. MBH				
FC75	0	74.8	800	0.20	85	0.33
FC-75-HPS	0	74.8	800	0.40	85	0.33
FC-94	0	93.5	1000	0.20	85	0.33
FC-94-HPS	0	93.5	1000	0.40	85	0.50
FC-113	0	112.2	1200	0.20	85	0.50
FC-113-HPS	0	112.2	1200	0.40	85	0.75
FC-131	0	130.9	1400	0.20	85	0.75

PART 3 MAINTENANCE

3.1 REGULAR MAINTENANCE

The Fan coil unit does not require a extensive maintenance program. Just follow these requirements :

- clean the air filter twice a year (figure 3);
- lubricate the motor once a year;
- check the belt tension once a year.

3.2 ADEQUATE SERVICING CLEARANCES

Although the unit is approved for zero clearance, you must allow a certain space around the unit for maintenance and servicing. Refer to figure 2 for the proper clearances relative to the air filter and motor depending on the installation position.

PART 4 INFORMATION

Model : _____ Serial number: _____

Date of installation of the furnace : _____

Service telephones - day : _____ Night : _____

Dealer's name and address : _____

RESULT OF START-UP TEST

Nozzle: _____ Pressure : _____ Lbpsi

Burner adjustments : Primary air _____

Fine air _____

Draw Assembly _____

CO₂ : _____ % Smoke scale : _____ (Bacharach)

Gross stack temperature: _____ ° F

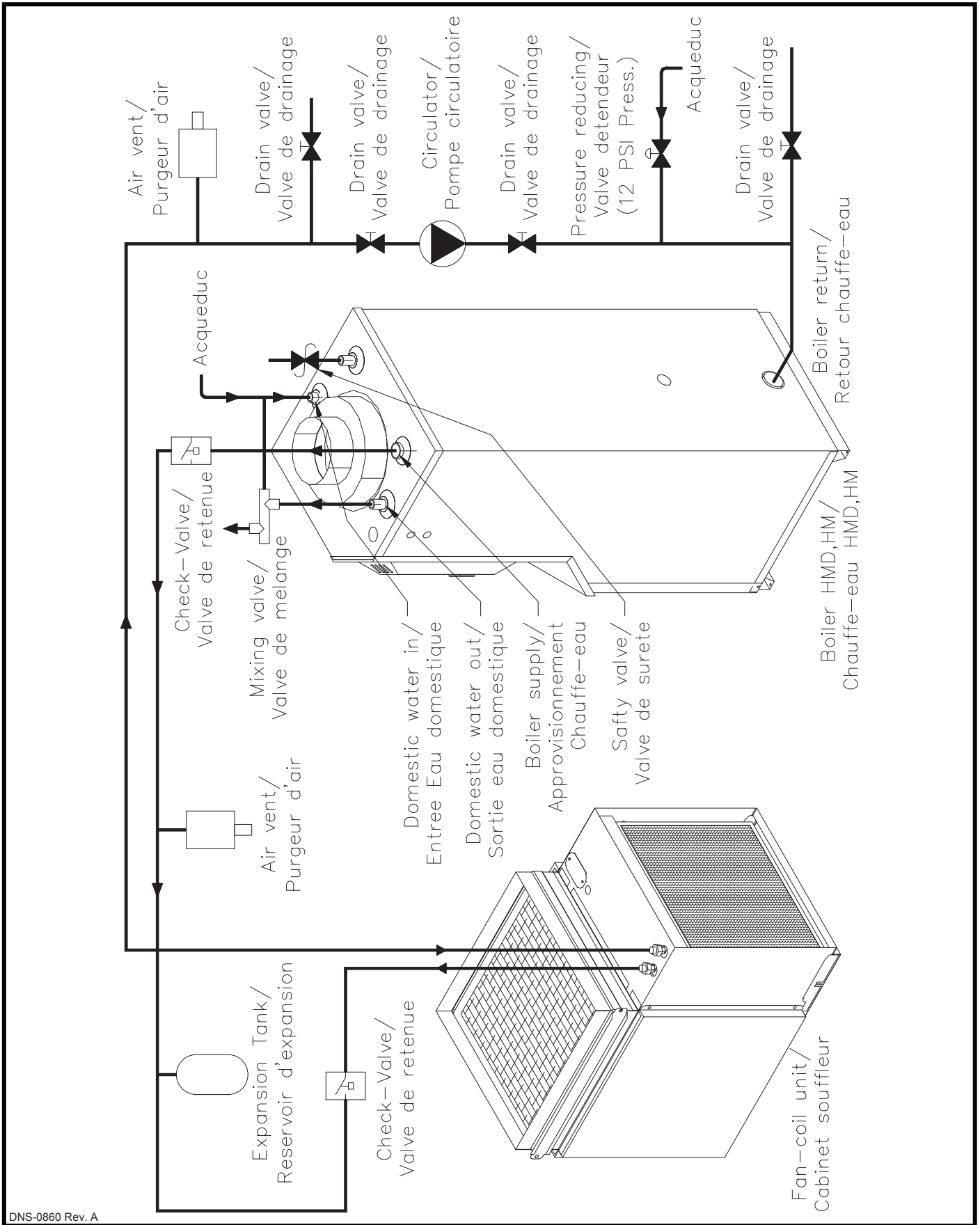
Ambiant temperature: _____ ° F

Chimney draft: _____ " C.E.

Overfire draft : _____ " C.E.

Test made by : _____

FIGURE 1



DNS-0860 Rev. A

FIGURE 2

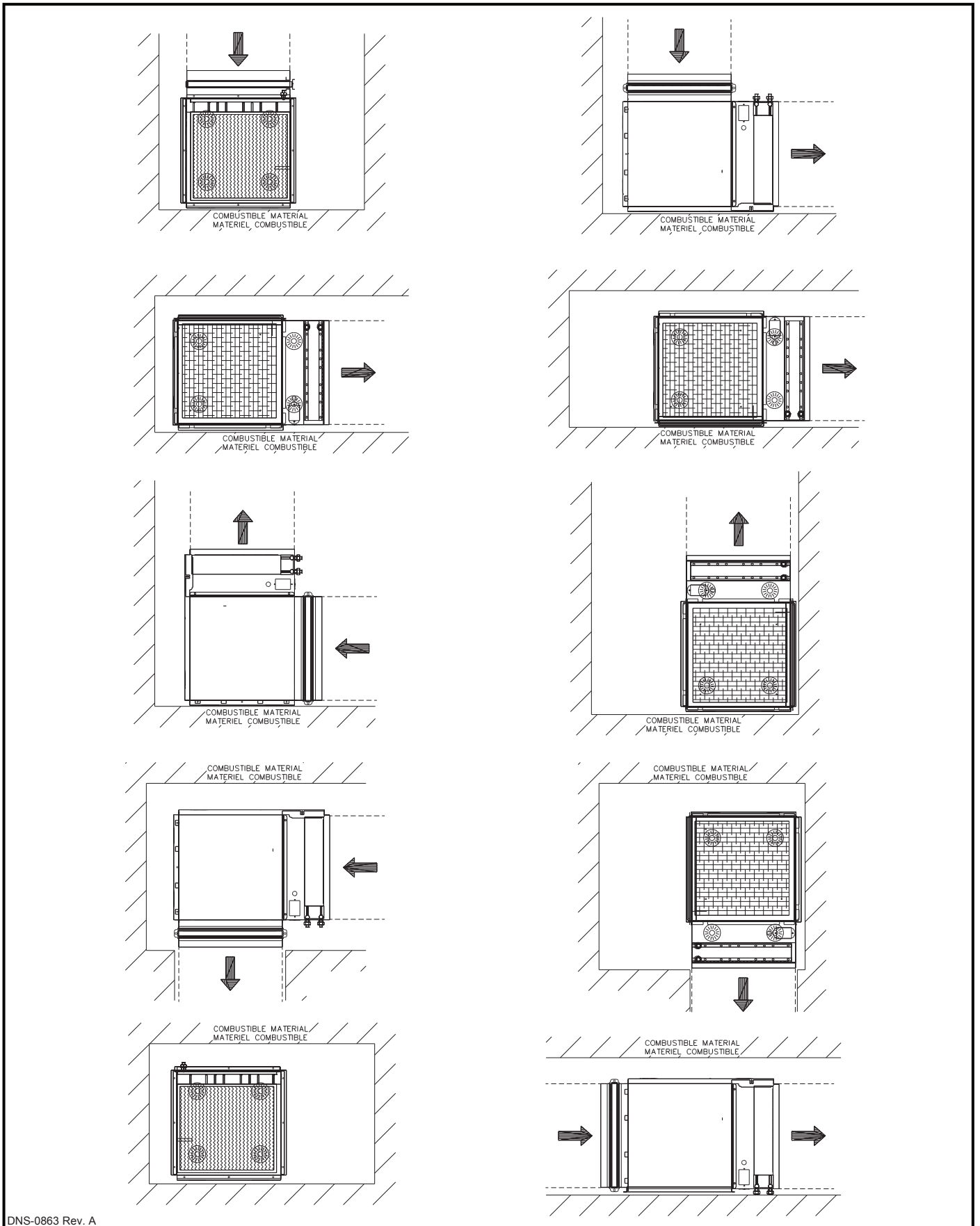


FIGURE 3

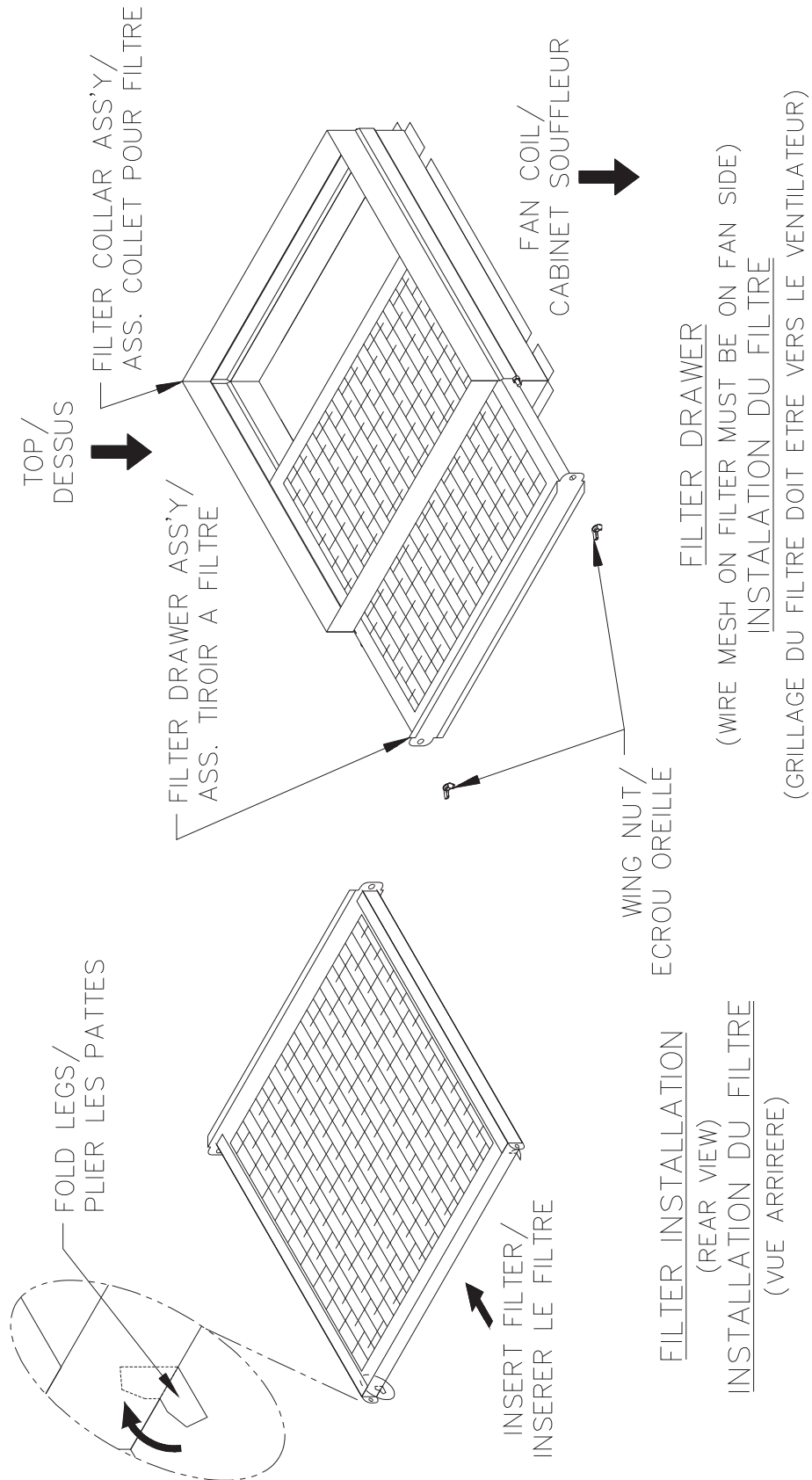


FIGURE 4
Continuous venting

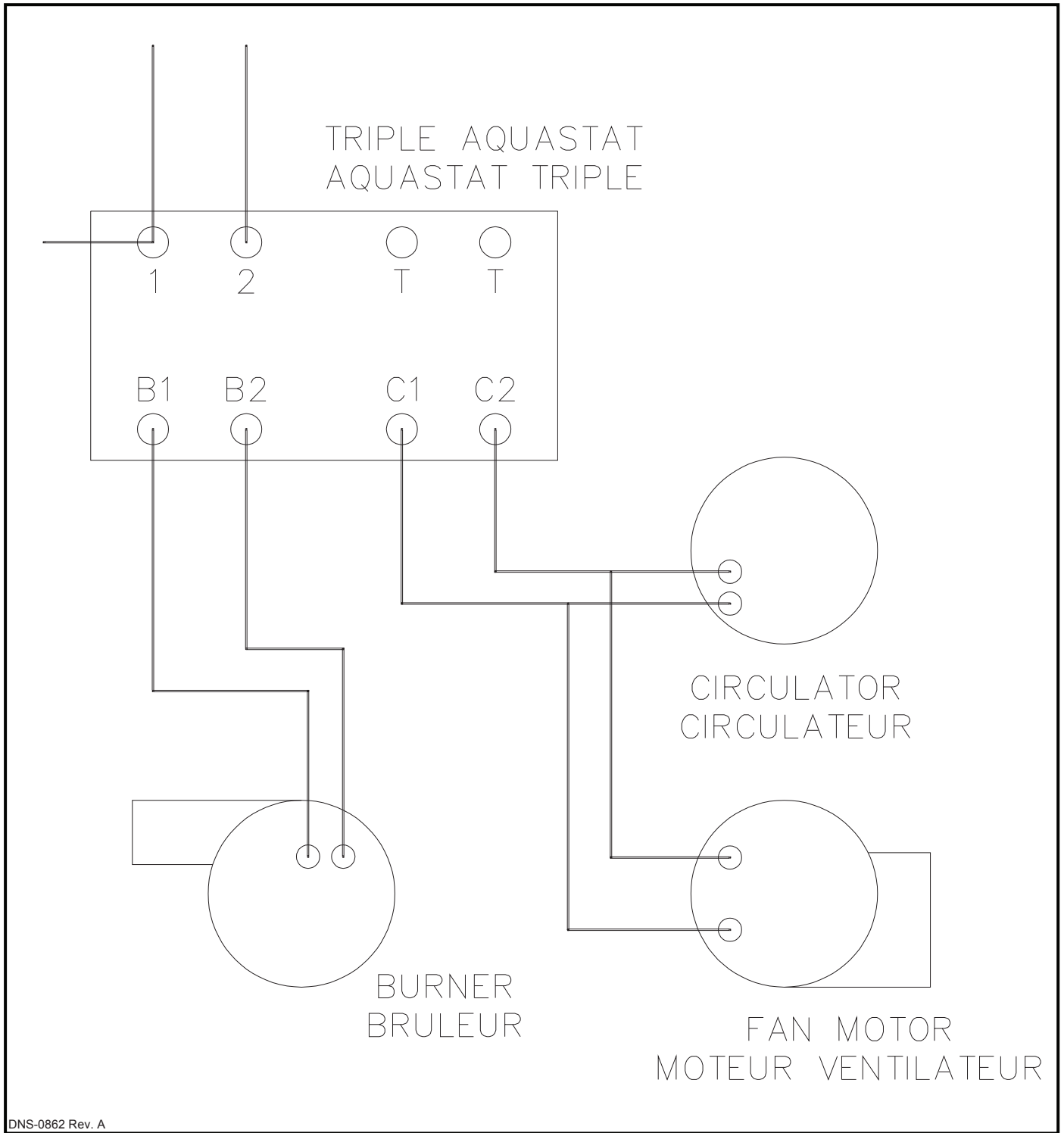
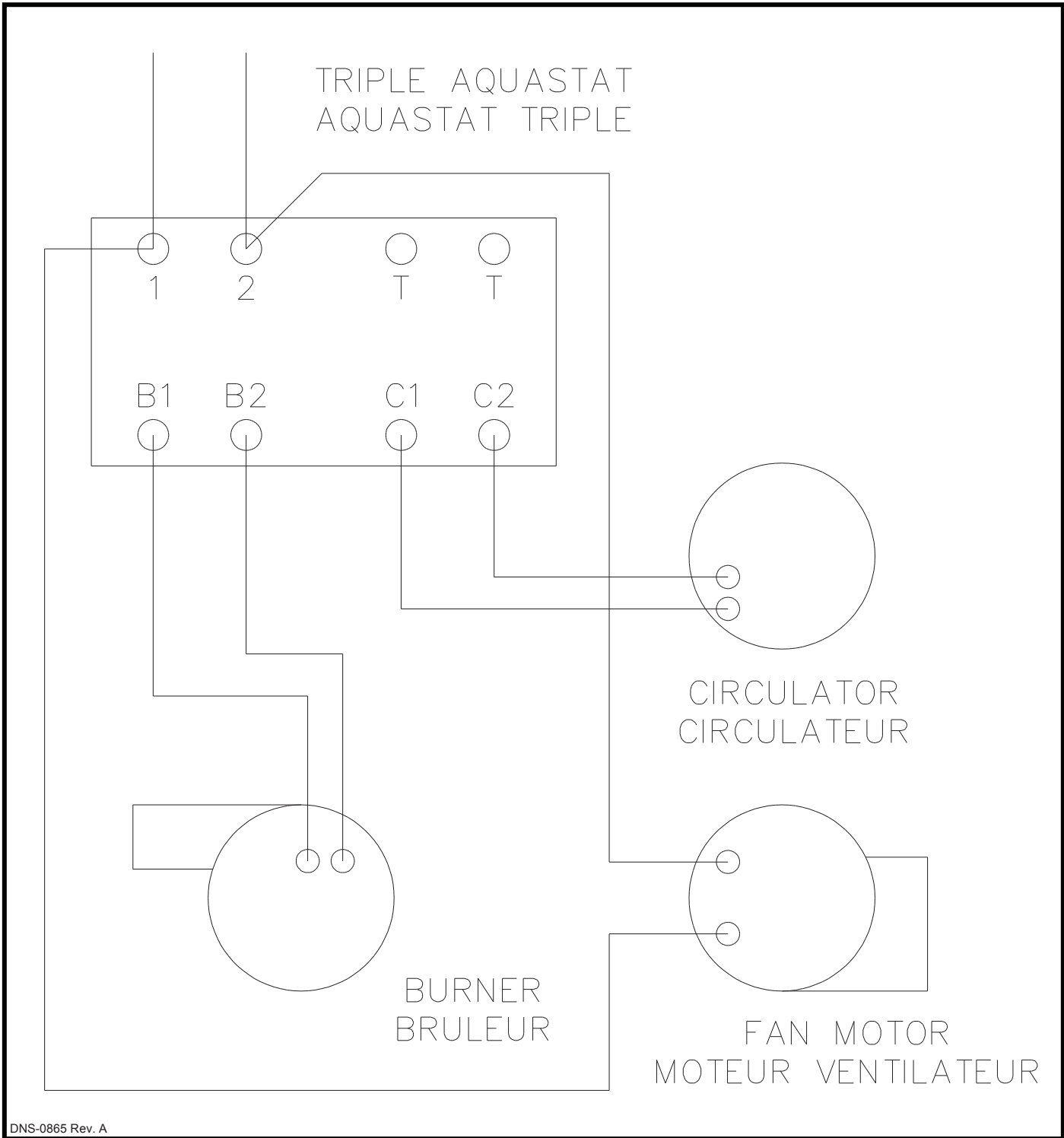


FIGURE 5
Intermittent venting



DNS-0865 Rev. A

MOTOR 1/3 HP

TABLE 2.1

CAPACITÉ DE CHAUFFAGE ET VENTILATION AVEC L'EAU À 140° F HEATING AND VENTILATION CAPACITY AT 140° F								
Press. Sta. (Po. Eau)	VITESSE SÉLECTIONNÉE DU MOTEUR 1/3 HP À ENTRAÎNEMENT DIRECT SELECTED SPEED OF 1/3 HP DIRECT DRIVE MOTOR							
Sta. Press. (W.C.)	HIGH		MED. HIGH		MED. LOW		LOW	
(W.C.)	(BTUH)	(PCM / CFM)	(BTUH)	(PCM / CFM)	(BTUH)	(PCM / CFM)	(BTUH)	(PCM / CFM)
0.2	65000	1350	58000	1250	52000	1080	45000	880
0.3	62000	1303	56000	1190	50000	1020	43000	824
0.4	57000	1210	54000	1115	48000	990	43000	815
0.5	55000	1123	50000	1030	45000	865	39000	740
0.6	50000	1021	47000	940	42000	777	34000	615
0.7	45000	863	42000	777	36000	660	29000	550

TABLE 2.2

CAPACITÉ DE CHAUFFAGE ET VENTILATION AVEC L'EAU À 180° F HEATING AND VENTILATION CAPACITY AT 180° F								
Press. Sta. (Po. Eau)	VITESSE SÉLECTIONNÉE DU MOTEUR 1/3 HP À ENTRAÎNEMENT DIRECT SELECTED SPEED OF 1/3 HP DIRECT DRIVE MOTOR							
Sta. Press. (W.C.)	HIGH		MED. HIGH		MED. LOW		LOW	
(W.C.)	(BTUH)	(PCM / CFM)	(BTUH)	(PCM / CFM)	(BTUH)	(PCM / CFM)	(BTUH)	(PCM / CFM)
0.2	100000	1350	95000	1250	85000	1080	71000	880
0.3	97000	1303	93000	1190	83000	1020	69000	824
0.4	93000	1210	87000	1115	79000	990	69000	815
0.5	87000	1123	83000	1030	70000	865	64000	740
0.6	83000	1021	76000	940	68000	777	50000	615
0.7	70000	863	68000	777	54000	660	45000	550

TABLE 2.3

CAPACITÉ DE CHAUFFAGE ET VENTILATION AVEC L'EAU À 200° F HEATING AND VENTILATION CAPACITY AT 200° F								
Press. Sta. (Po. Eau)	VITESSE SÉLECTIONNÉE DU MOTEUR 1/3 HP À ENTRAÎNEMENT DIRECT SELECTED SPEED OF 1/3 HP DIRECT DRIVE MOTOR							
Sta. Press. (W.C.)	HIGH		MED. HIGH		MED. LOW		LOW	
(W.C.)	(BTUH)	(PCM / CFM)	(BTUH)	(PCM / CFM)	(BTUH)	(PCM / CFM)	(BTUH)	(PCM / CFM)
0.2	117000	1350	112000	1250	102000	1080	85000	880
0.3	115000	1303	110000	1190	98000	1020	82000	824
0.4	110000	1210	105000	1115	96000	990	82000	815
0.5	105000	1123	98000	1030	85000	865	75000	740
0.6	98000	1021	94000	940	78000	777	60000	615
0.7	85000	863	78000	777	64000	660	54000	550

MOTOR 3/4 HP

TABLE 3.1

CAPACITÉ DE CHAUFFAGE ET VENTILATION AVEC L'EAU À 140° F HEATING AND VENTILATION CAPACITY AT 140° F								
Press. Sta. (Po. Eau)	VITESSE SÉLECTIONNÉE DU MOTEUR 3/4 HP À ENTRAÎNEMENT DIRECT SELECTED SPEED OF 3/4 HP DIRECT DRIVE MOTOR							
Sta. Press. (W.C.)	HIGH		MED. HIGH		MED. LOW		LOW	
	(BTUH)	(PCM / CFM)	(BTUH)	(PCM / CFM)	(BTUH)	(PCM / CFM)	(BTUH)	(PCM / CFM)
0.2	90710	1930	80132	1742	67488	1406	54621	1071
0.3	88877	1891	80323	1709	64925	1325	54132	1041
0.4	85305	1815	77760	1620	60956	1244	48412	931
0.5	82272	1714	73200	1525	60736	1168	44944	848
0.6	76464	1593	71000	1420	57888	1072	42900	780
0.7	75608	1454	70200	1300	52164	966	39160	712

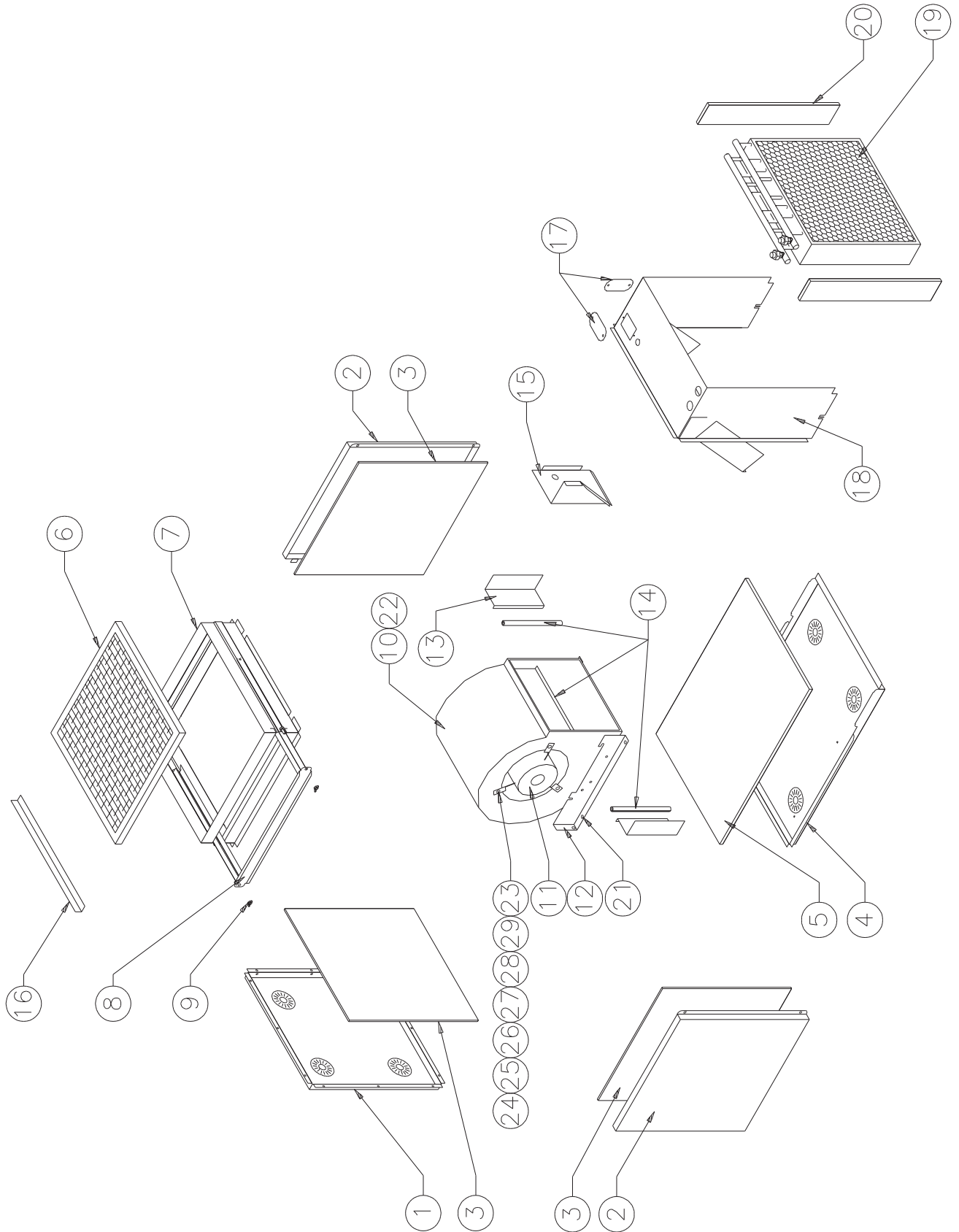
TABLE 3.2

CAPACITÉ DE CHAUFFAGE ET VENTILATION AVEC L'EAU À 180° F HEATING AND VENTILATION CAPACITY AT 180° F								
Press. Sta. (Po. Eau)	VITESSE SÉLECTIONNÉE DU MOTEUR 3/4 HP À ENTRAÎNEMENT DIRECT SELECTED SPEED OF 3/4 HP DIRECT DRIVE MOTOR							
Sta. Press. (W.C.)	HIGH		MED. HIGH		MED. LOW		LOW	
	(BTUH)	(PCM / CFM)	(BTUH)	(PCM / CFM)	(BTUH)	(PCM / CFM)	(BTUH)	(PCM / CFM)
0.2	142820	1930	132392	1742	109668	1406	85680	1071
0.3	139934	1891	133302	1709	107325	1325	83280	1041
0.4	137940	1815	126360	1620	100764	1244	74480	931
0.5	131978	1714	122000	1525	94608	1168	67840	848
0.6	129033	1593	115020	1420	90048	1072	63180	780
0.7	117774	1454	113100	1300	81144	966	58384	712

TABLE 3.3

CAPACITÉ DE CHAUFFAGE ET VENTILATION AVEC L'EAU À 200° F HEATING AND VENTILATION CAPACITY AT 200° F								
Press. Sta. (Po. Eau)	VITESSE SÉLECTIONNÉE DU MOTEUR 3/4 HP À ENTRAÎNEMENT DIRECT SELECTED SPEED OF 3/4 HP DIRECT DRIVE MOTOR							
Sta. Press. (W.C.)	HIGH		MED. HIGH		MED. LOW		LOW	
	(BTUH)	(PCM / CFM)	(BTUH)	(PCM / CFM)	(BTUH)	(PCM / CFM)	(BTUH)	(PCM / CFM)
0.2	165980	1930	155038	1742	132164	1406	102816	1071
0.3	166408	1891	157228	1709	127200	1325	103059	1041
0.4	163350	1815	152280	1620	120668	1244	93100	931
0.5	159402	1714	144875	1525	114464	1168	84800	848
0.6	151335	1593	142000	1420	107200	1072	77220	780
0.7	142492	1454	131300	1300	96600	966	69776	712

PART LIST
Model : FC (075,094,113,131) PDD

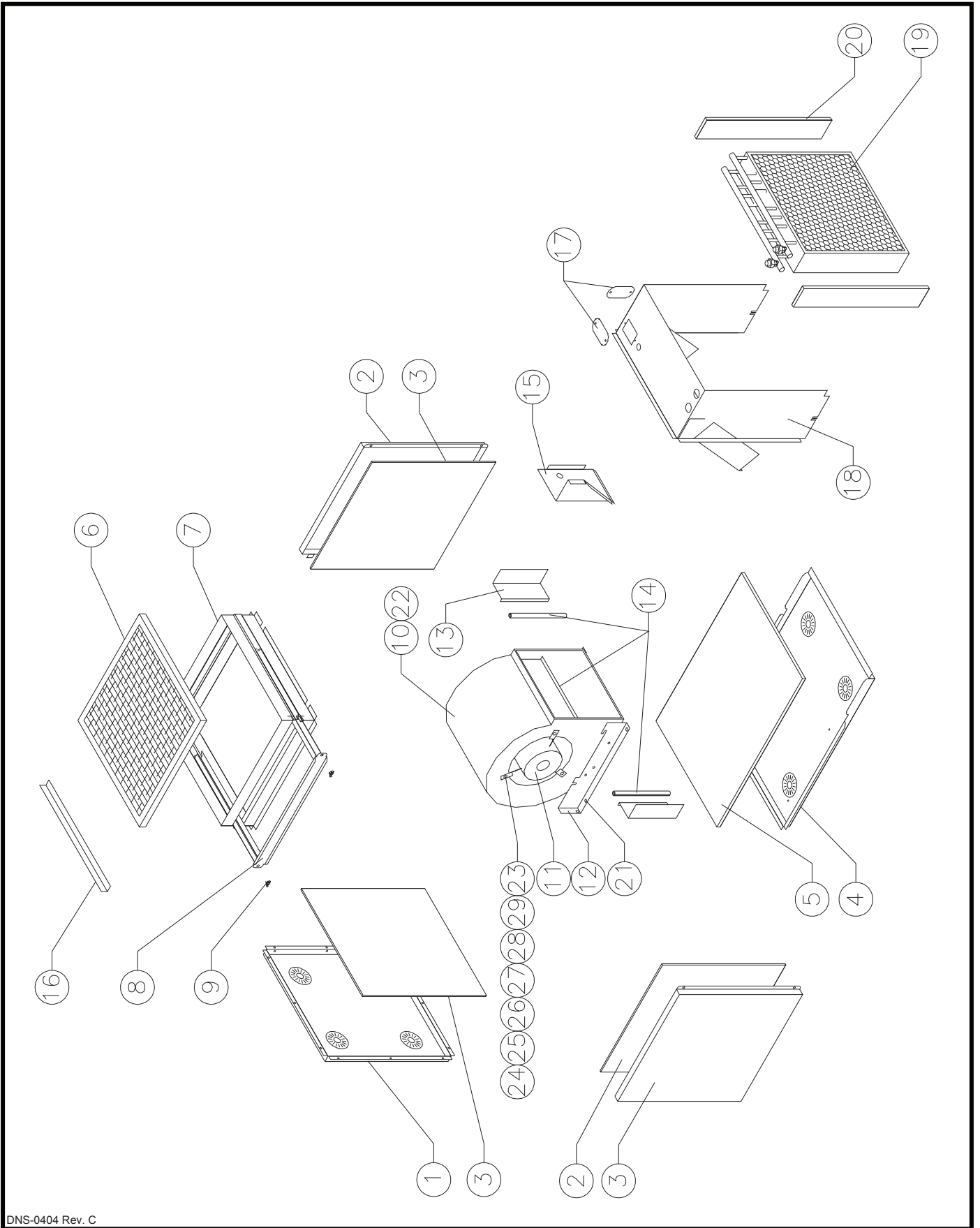


PART LIST
Model : FC (075,094,113,131) PDD

ITEM	DESCRIPTION	NUMBER	COMMENTS
1	Rear panel	B00613	Include insulation
2	Left / right panel	B00614-03	Include insulation
3	Insulation panel	B00590	
4	Floor	B00612	only
5	Floor insulation	B00592	
6	Air filter 20 x 20 x 1	Z04F004	
7	Filter support	B00582	
8	Filter drawer	B00581-01	
9	Wing nut kit	K10001	2 by kit
10	Blower wheel 10 x 10	Z01L002	
11	Direct drive 1/3 HP motor	L06G003	
12	Blower attaching kit	K10002	Include supports
13	Side divider panel	B00538	
14	Blower insulation kit	K10003	Includes top and sides
15	Electric box	B00539	
16	Installation guide	B00580	
17	Electric box cover	B00601	
18	Coil cover	B00583	
19	Heating coil	B00575	Includes unions
20	Coil insulation kit	K10004	2 by kit
21	Blower anchor kit	K10005	Includes 6 screws and shocks absorber
22	Blower 10 X 10	Z01I001	Includes housing and wheel
23	Motor mounting kit	B01888	
24	Motor mounting band	Z01F012	
25	Motor legs	Z01F016	
26	Motor mounting screws	F03F023	
27	Motor mounting legs washer	F03F010	
28	Motor mounting bolts	F07J001	
29	Motor mounting band hex. Nut	F05F015	

PART LIST

Model : FC (075,094,113,131) PDH



PART LIST

Model : FC (075,094,113,131) PDH

ITEM	DESCRIPTION	NUMBER	COMMENTS
1	Rear panel	B00613	Include insulation
2	Left / right panel	B00614-03	Include insulation
3	Insulation panel	B00590	
4	Floor	B00612	only
5	Floor insulation	B00592	
6	Air filter 20 x 20 x 1	Z04F004	
7	Filter support	B00582	
8	Filter drawer	B00581-01	
9	Wing nut kit	K10001	2 by kit
10	Blower wheel 12 x 10	Z01L003	
11	Direct drive 3/4 h.p. motor	L06I004	
12	Blower attaching kit	K10002	Include supports
13	Side divider panel	B00538	
14	Blower insulation kit	K10003	Includes top and sides
15	Electric box	B00539	
16	Installation guide	B00580	
17	Electric box cover	B00601	
18	Coil cover	B00583	
19	Heating coil	B00575	Includes unions
20	Coil insulation kit	K10004	2 by kit
21	Blower anchor kit	K10005	Includes 6 screws and shocks absorber
22	Blower 12 X 10	Z01I008	Includes housing and wheel
23	Motor mounting kit	B01889	
24	Motor mounting band	Z01F012	
25	Motor legs	Z01I017	
26	Motor mounting screws	F03F023	
27	Motor mounting legs washer	F03F010	
28	Motor mounting bolts	F07J001	
29	Motor mounting band hex. Nut	F05F015	