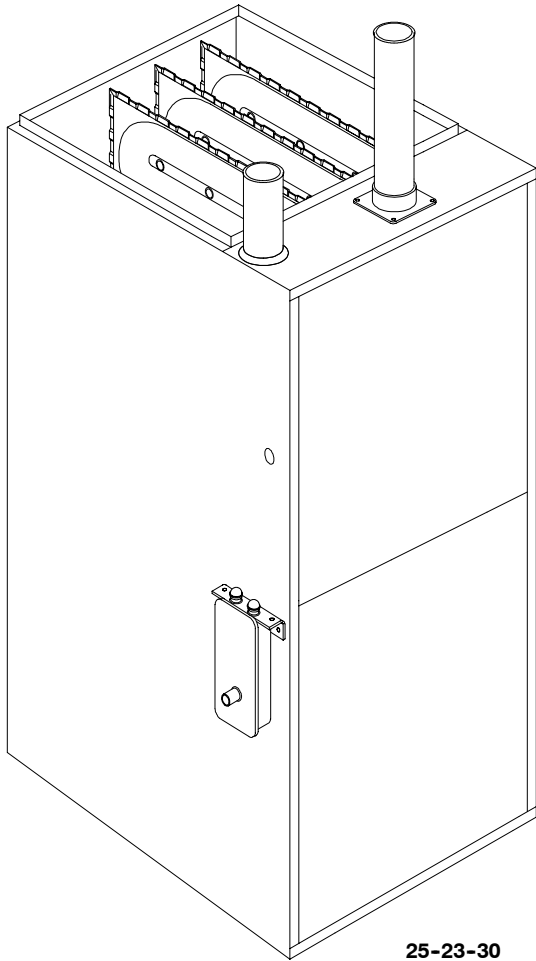


Technical Support Manual

Four Position Furnace

Models

Dual Certified
*9MPV050F12A
*9MPV075F12A
*9MPV100J20A
*9MPV125L20A



Manufactured by:
International Comfort Products Corporation (USA)
Lewisburg, TN USA 37091

Save This Manual For Future Reference

MODEL NUMBER IDENTIFICATION GUIDE

<p>Brand Identifier *</p> <p>T = Tempstar C = Comfortmaker/Keeprite H = Heil/Arcoaire N = Non-Brand Specific (Generic)</p> <p>Efficiency Identifier</p> <p>8 = Non-Condensing, 80+% Gas Furnace 9 = Condensing, 90+% Gas Furnace</p> <p>Installation Configuration</p> <p>UP = Upflow DN = Downflow UH = Upflow/Horizontal HZ = Horizontal DH = Downflow/Horizontal MP = Multiposition, Up/Down/Horizontal</p> <p>Major Design Feature</p> <p>1 = One (Single) Pipe N = Single Stage 2 = Two Pipe P = PVC Vent D = 1 or 2 Pipe T = Two Stage L = Low NOx V = Variable Speed</p>	<p>9</p>	<p>MP</p>	<p>V</p>	<p>075</p>	<p>F</p>	<p>12</p>	<p>A</p>	<p>1</p>	<p>Engineering Rev. Denotes minor changes</p> <p>Marketing Digit Denotes minor change</p> <p>Cooling Airflow 08 = 800 CFM 12 = 1200 CFM 14 = 1400 CFM 16 = 1600 CFM 20 = 2000 CFM</p> <p>Cabinet Width B = 15.5" Wide F = 19.1" Wide J = 22.8" Wide L = 24.5" Wide</p> <p>Input (Nominal MBTUH)</p>
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* Denotes brand (T, H or C)

Manufacturers Number (Mfr No -See Rating Plate)			
ALL Models			
Specifications			
General	Gas Type	Nat	LP
	Transformer Size (VA) T'stat Heat Anticipator	40 .10	
Gas & Ignition	Gas Valve Regulation Type	HW SV 9541 SNAP	HW SV 9541 SNAP
	Manifold Press. Hi Fire (" WC) Lo Fire (" WC)	3.5 1.7	10.0 4.9
	Pilot Orifice Size	.018	.011
	Ignition Type/Series	HW HSP	
Combustion	Standard Outlet Temp. (°)	<140	
	Comb. Blower (MFD/Volts)	4/370	
Limits & Controls	Fan Control (Type)	HW ST9162A	
	Fan Control On (Timed-secs) Off	30/60 60,100,140,180	
Gas Conversion Kits All Models	Nat to LP	*1011789	
	LP to Nat	*1011787	
		*Order from Service Parts	

Specifications									
	*9MPV050F12A		*9MPV075F12A		*9MPV100J20A		*9MPV125L20A		
General									
Input (Btuh) Std/Alt.	Hi Fire	50,000		75,000		100,000		125,000	
	Lo Fire	35,000		53,000		70,000		87,500	
Output (Btuh) Std/Alt.	Hi Fire	46,000		69,000		92,000		115,000	
	Lo Fire	32,200		48,800		64,400		80,500	
Temp. Rise (°F)	Hi Fire	35-65		40-70		40-70		40-70	
	Lo Fire	35-65		40-70		40-70		40-70	
Electrical (Volts/Hz/FLA)	115/60/9.8		115/60/8.9		115/60/9.0		115/60/11.2		
Gas & Ignition									
Gas Type	Nat.	L.P.	Nat.	L.P.	Nat.	L.P.	Nat.	L.P.	
Std. Main Orifices (No/Size)	2/42	2/54	3/42	3/54	4/42	4/54	5/42	5/54	
Combustion									
Flue Outlet Size (Inches)	2		2		3		3		
Std. Outlet Temp (°F)	<140		<140		<140		<140		
@ Blower / @ Transition Box (Hi Fire)									
Std. Pressures (" of WC)									
5' No Elbows	-1.80 / -2.60		-1.80 / -2.60		-1.80 / -2.60		-1.80 / -2.60		
40' +5-90° DWV Elbows	-1.30 / -2.30		-1.30 / -2.30		-1.70 / -2.50		-1.70 / -2.50		
@ Blower / @ Transition Box (Lo Fire)									
Std. Pressures (" of WC)									
5' No Elbows	-1.20 / -1.90		-1.20 / -1.90		-1.20 / -1.90		-1.30 / -2.30		
40' +5-90° DWV Elbows	-1.00 / -1.80		-1.00 / -1.80		-1.00 / -1.80		-1.20 / -2.20		
Limits & Controls									
Rollout Switch (°F)	300		300		300		300		
Limit Control Setting (°F)	260		220		240		190		
Std. Pressure Sw. (Part No)									
Blower Switch Pressure (Close)	1013515		1013515		1013515		1013166		
Blower Switch Pressure (Open)	0.95		0.95		0.95		1.30		
Blower Switch Pressure (Open)	0.80		0.80		0.80		1.10		
Transition Switch Pressure (Close)	1.70		1.70		1.70		1.80		
Transition Switch Pressure (Open)	1.50		1.50		1.50		1.60		
High Altitude Pressure Sw. (Part No)									
Blower Switch Pressure (Close)	1013165		1013165		1013165		1013157		
Blower Switch Pressure (Open)	0.70		0.70		0.70		0.85		
Blower Switch Pressure (Open)	0.55		0.55		0.55		0.70		
Transition Switch Pressure (Close)	1.40		1.40		1.40		1.70		
Transition Switch Pressure (Open)	1.20		1.20		1.20		1.50		
Blower Data									
Type & Size	11-8		11-10		11-10		11-10		
Motor Amps/Rpm	6.5/1050		6.5/1080		10.3/1150		10.4/1150		
Motor Type/H.p.	DC ¹ /1/2		DC/1		DC/1		DC/1		
Filter Type	16x25x1		16x25x1		16x25x1		16x25x1 (2)		
Min. Cool Cap. (Tons)	1.5		1.5		2		2		
Max. Cool Cap. (Tons)	3		3		5		5		

Circulation Air Blower Data - *9MPV

Heating, Cooling & Continuous Airflow Settings

Continuous Blower (CFM) @ 0.10" Static

Switch Settings		Furnace Model			
#1	#2	50K	75K	100K	125K
0*	0*	540	540	700	703
0	1	660	660	860	821
1	0	780	780	1020	1000
1	1	900	900	1180	1160

*Factory Setting

Lo Heat Air Temperature Adjustment (° F)**

Switch Settings			Furnace Model			
#3	#4	#5	50K	75K	100K	125K
0**	0**	0**	0	0	0	0
0	0	1	1	1	1	6
0	1	0	4	2	2	8
0	1	1	7	3	5	12
1	0	0	11	6	8	16
1	0	1	-7	-4	-5	-1
1	1	0	-11	-6	-9	-4
1	1	1	-15	-9	-11	-7

*Factory setting

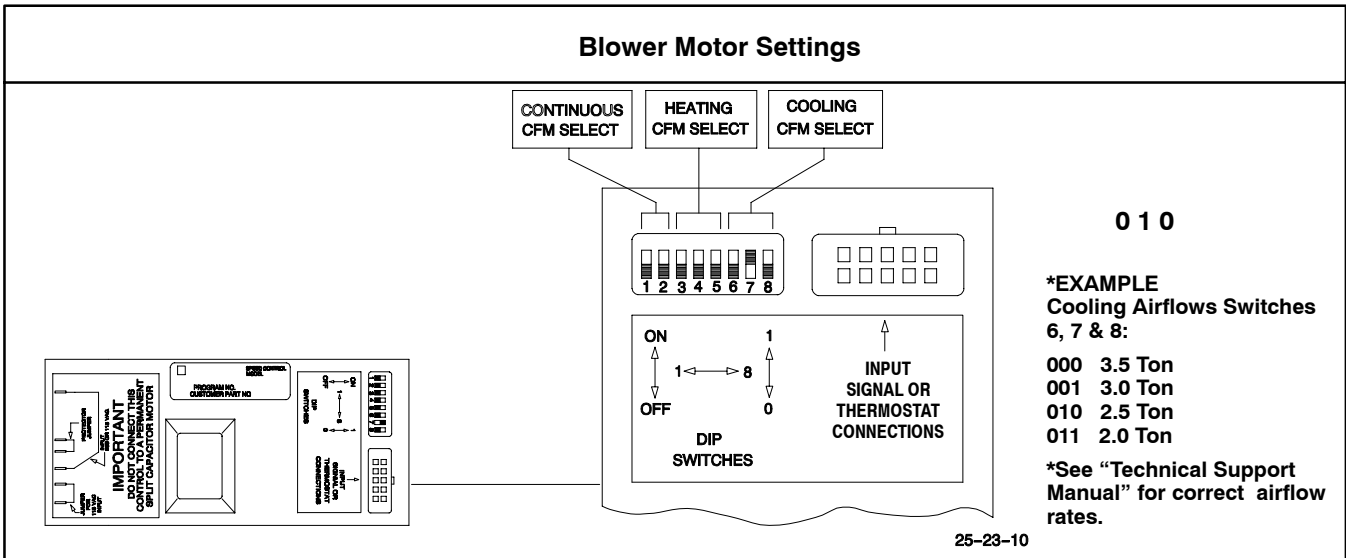
Hi Heat Air Temperature Adjustment (° F)**

Switch Settings			Furnace Model			
#3	#4	#5	50K	75K	100K	125K
0**	0**	0**	0	0	0	0
0	0	1	3	2	3	2
0	1	0	6	4	5	6
0	1	1	14	6	9	11
1	0	0	17	11	13	13
1	0	1	-8	-4	-4	-5
1	1	0	-13	-4	-7	-5
1	1	1	-17	-4	-9	-5

*Factory setting

**Approximate air temperature change from factory setting @ 0.20" static on high heat).

Blower Motor Settings



Circulation Air Blower Data - *9MPV

Heating, Cooling & Continuous Airflow Settings

Figure 1

***9MPV050 COOLING**
(CFM VS. EXTERNAL STATIC PRESSURE)

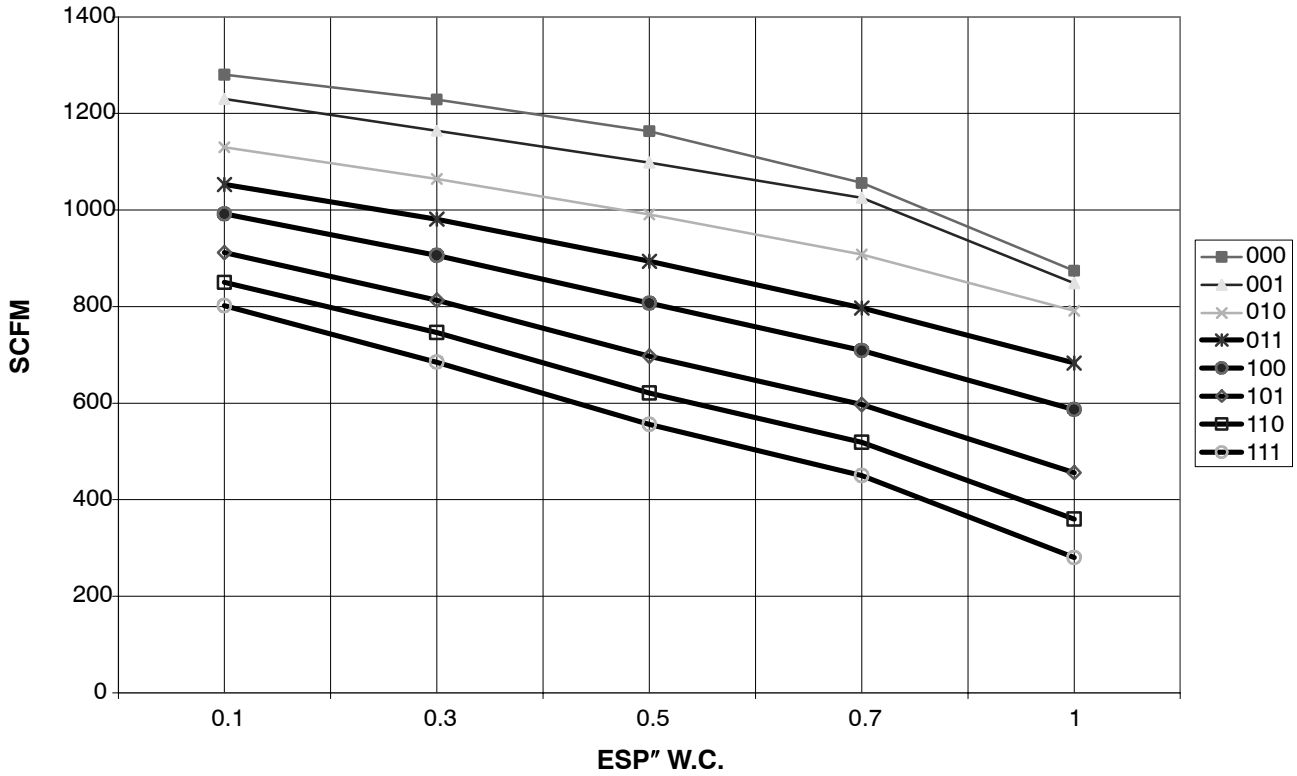
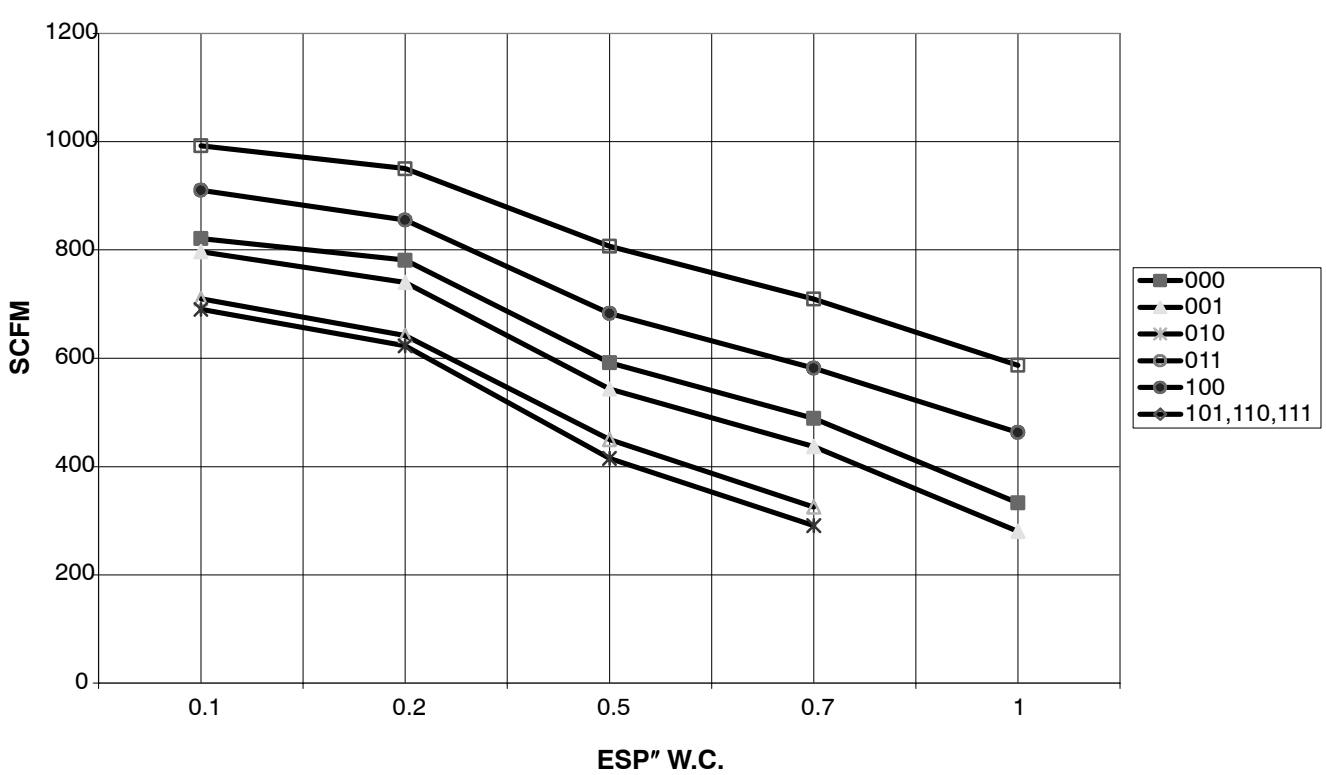


Figure 2

***9MPV050 Hi HEAT**
(CFM VS. EXTERNAL STATIC PRESSURE)



Circulation Air Blower Data - *9MPV

Heating, Cooling & Continuous Airflow Settings

Figure 3

***9MPV050 Lo HEAT**
(CFM VS. EXTERNAL STATIC PRESSURE)

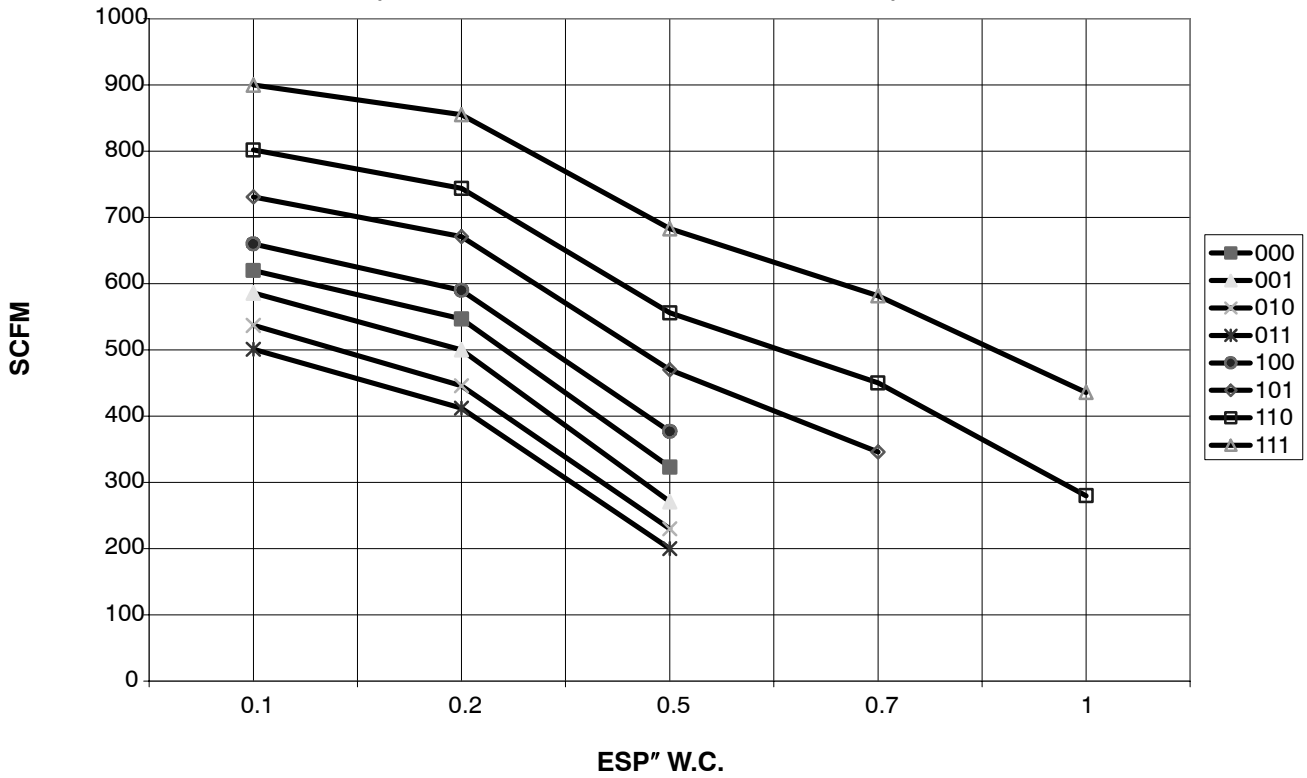
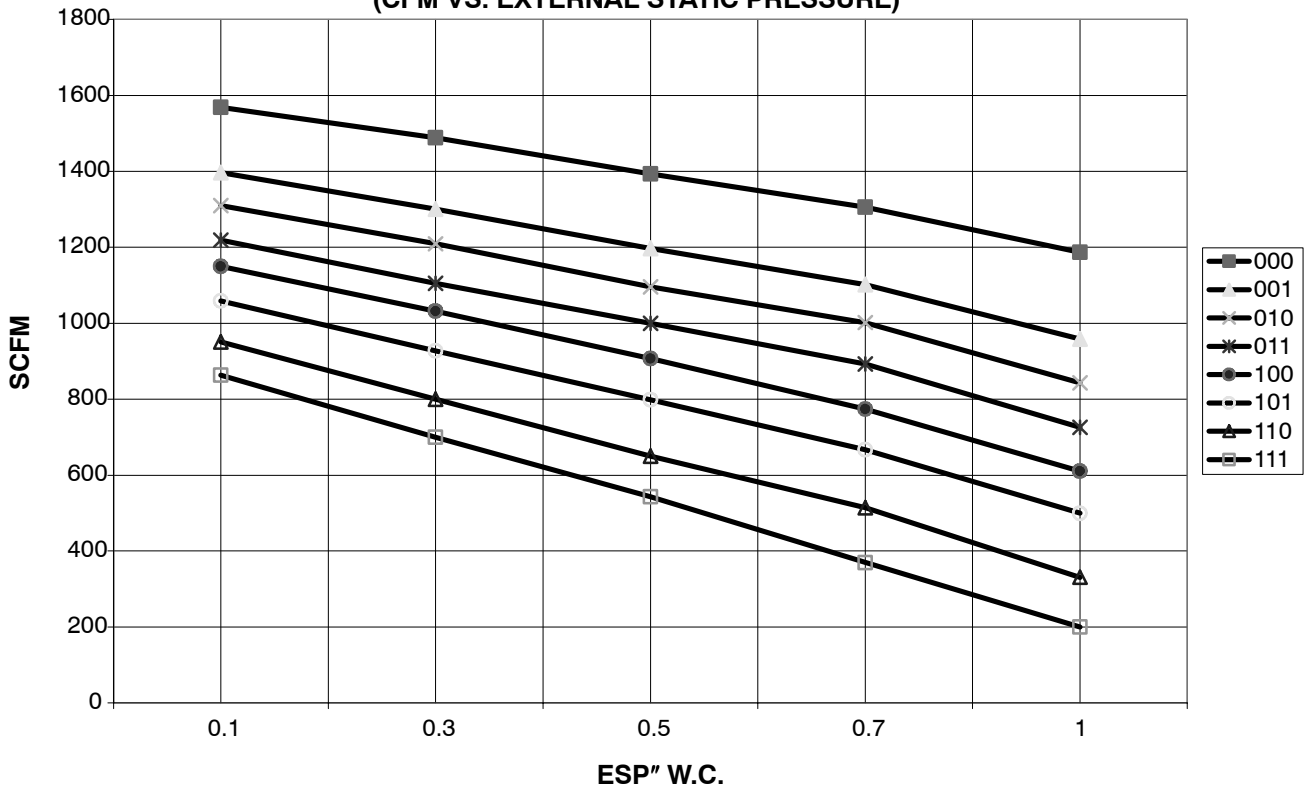


Figure 4

***9MPV075 COOLING**
(CFM VS. EXTERNAL STATIC PRESSURE)



Circulation Air Blower Data - *9MPV

Heating, Cooling & Continuous Airflow Settings

Figure 5

***9MPV075 Hi HEAT**
(CFM VS. EXTERNAL STATIC PRESSURE)

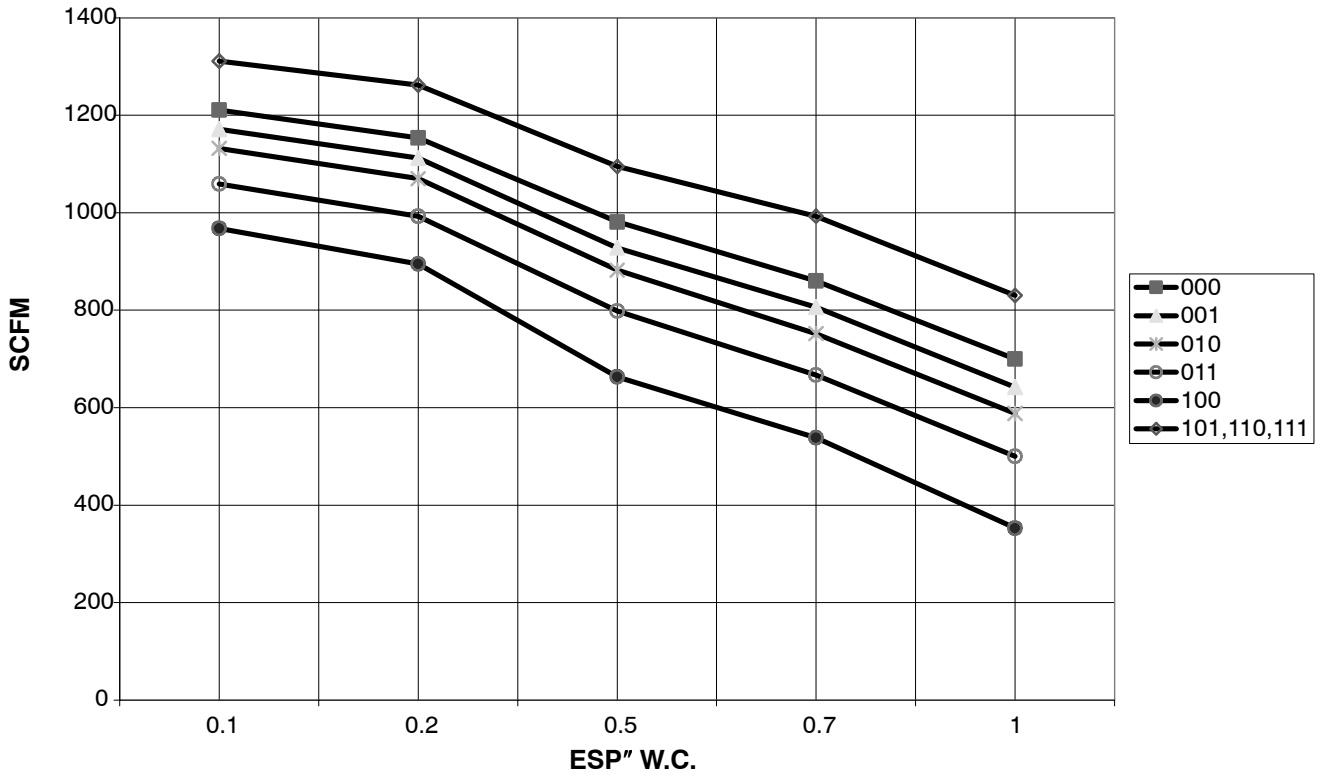
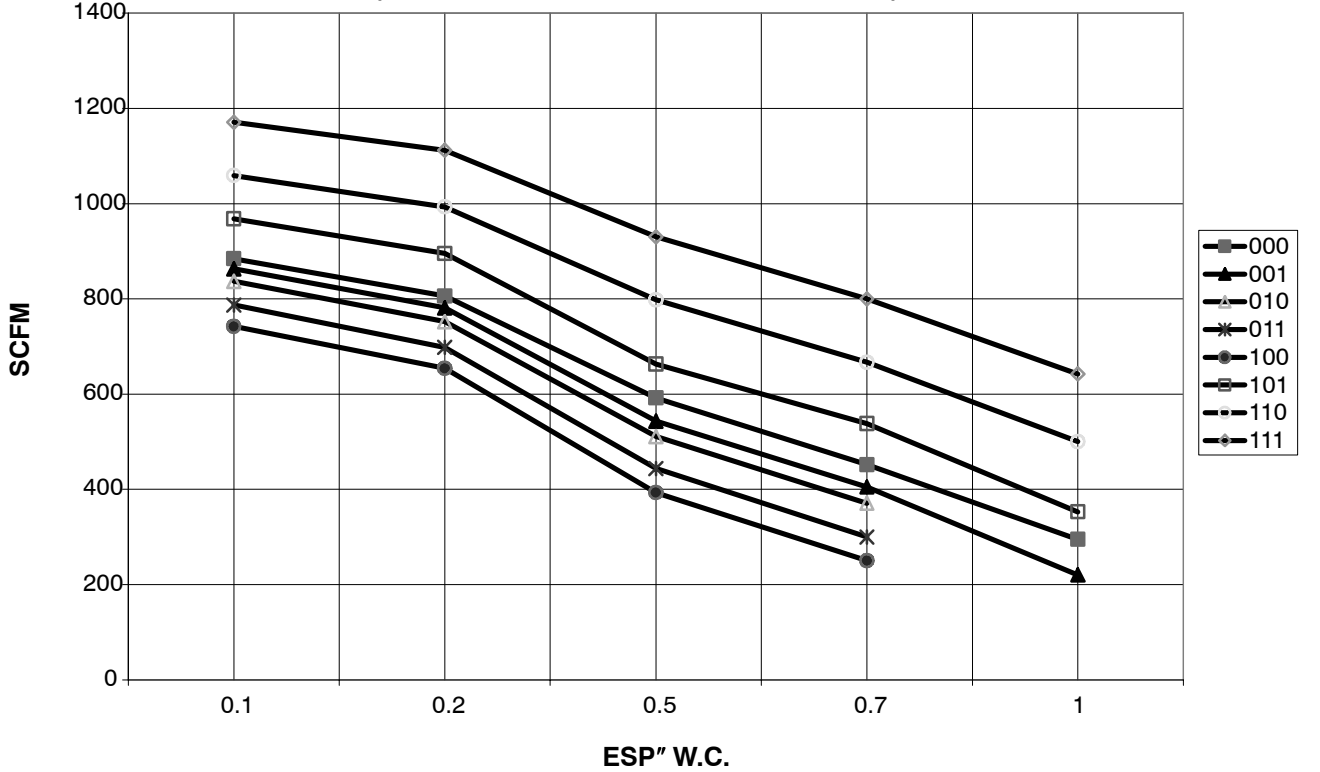


Figure 6

***9MPV075 Lo HEAT**
(CFM VS. EXTERNAL STATIC PRESSURE)



Circulation Air Blower Data - *9MPV

Heating, Cooling & Continuous Airflow Settings

Figure 7

***9MPV100 COOLING**
(CFM VS. EXTERNAL STATIC PRESSURE)

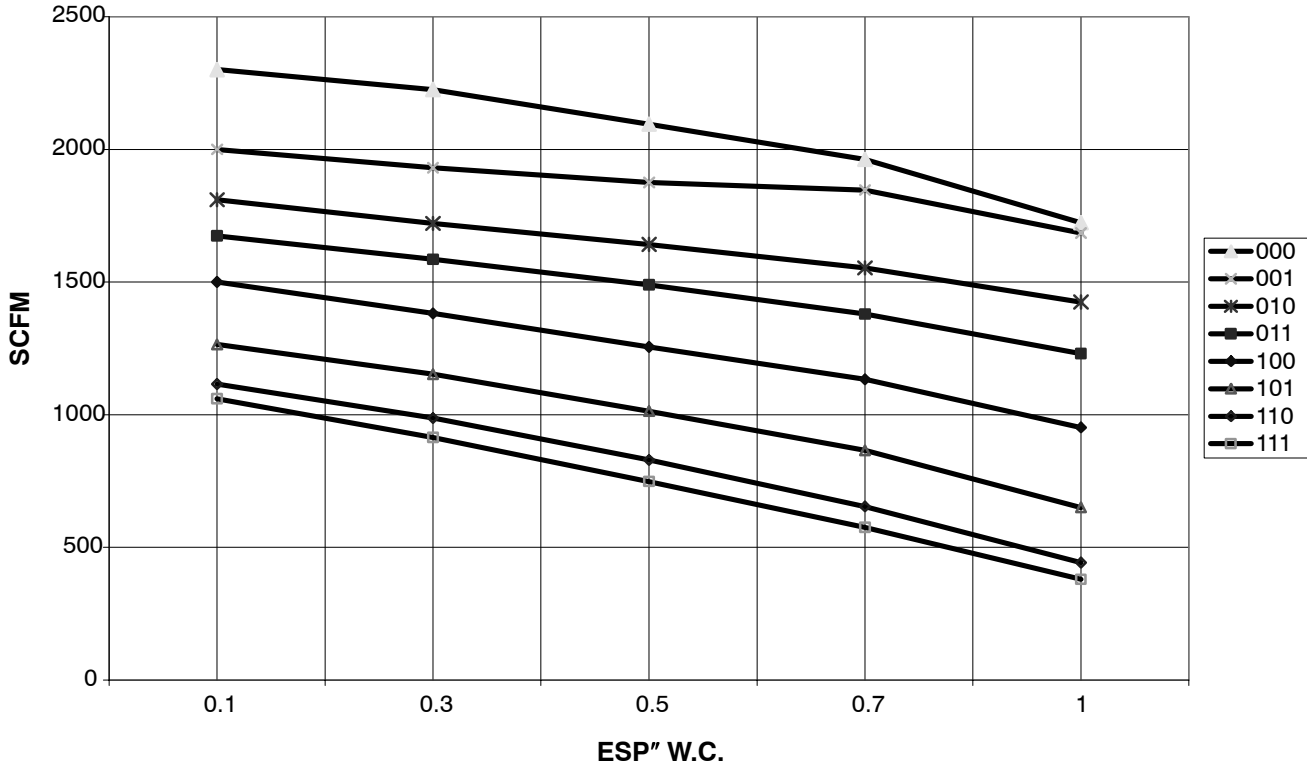
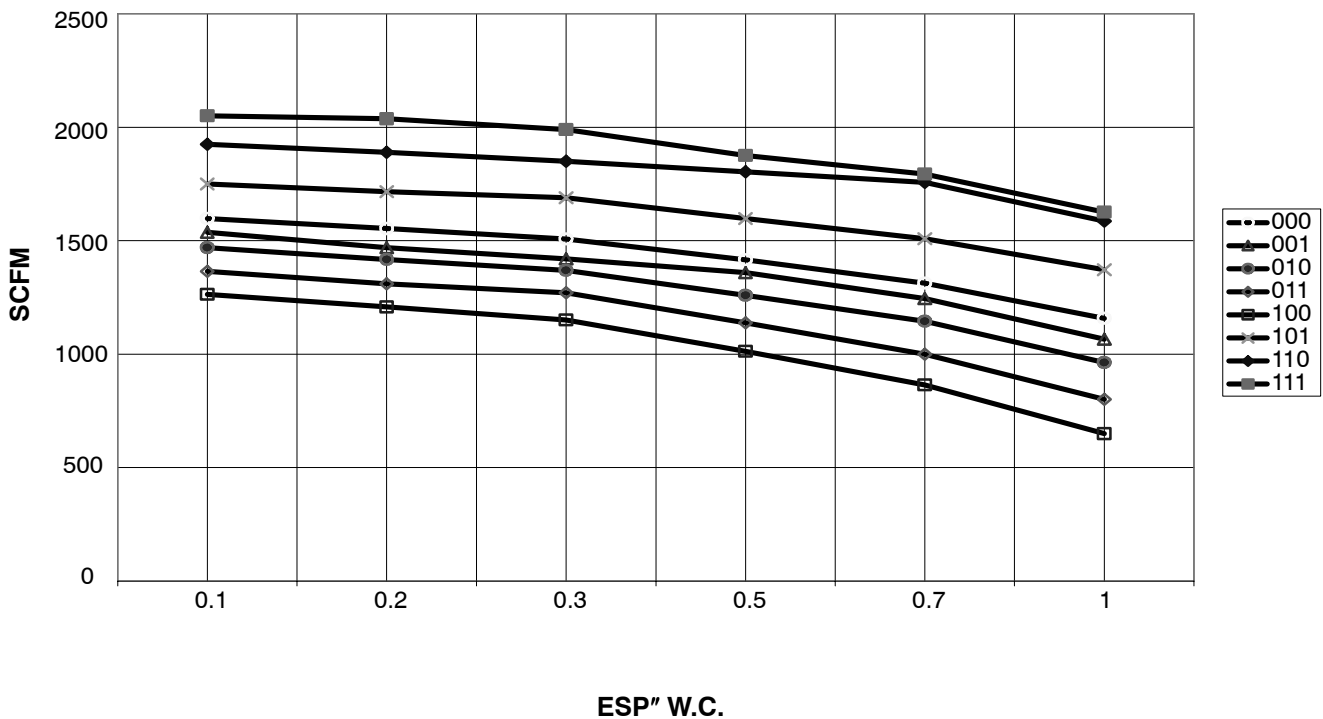


Figure 8

***9MPV100 Hi HEAT**
(CFM VS. EXTERNAL STATIC PRESSURE)



Circulation Air Blower Data - *9MPV

Heating, Cooling & Continuous Airflow Settings

Figure 9

***9MPV100 Lo HEAT
(CFM VS. EXTERNAL STATIC PRESSURE)**

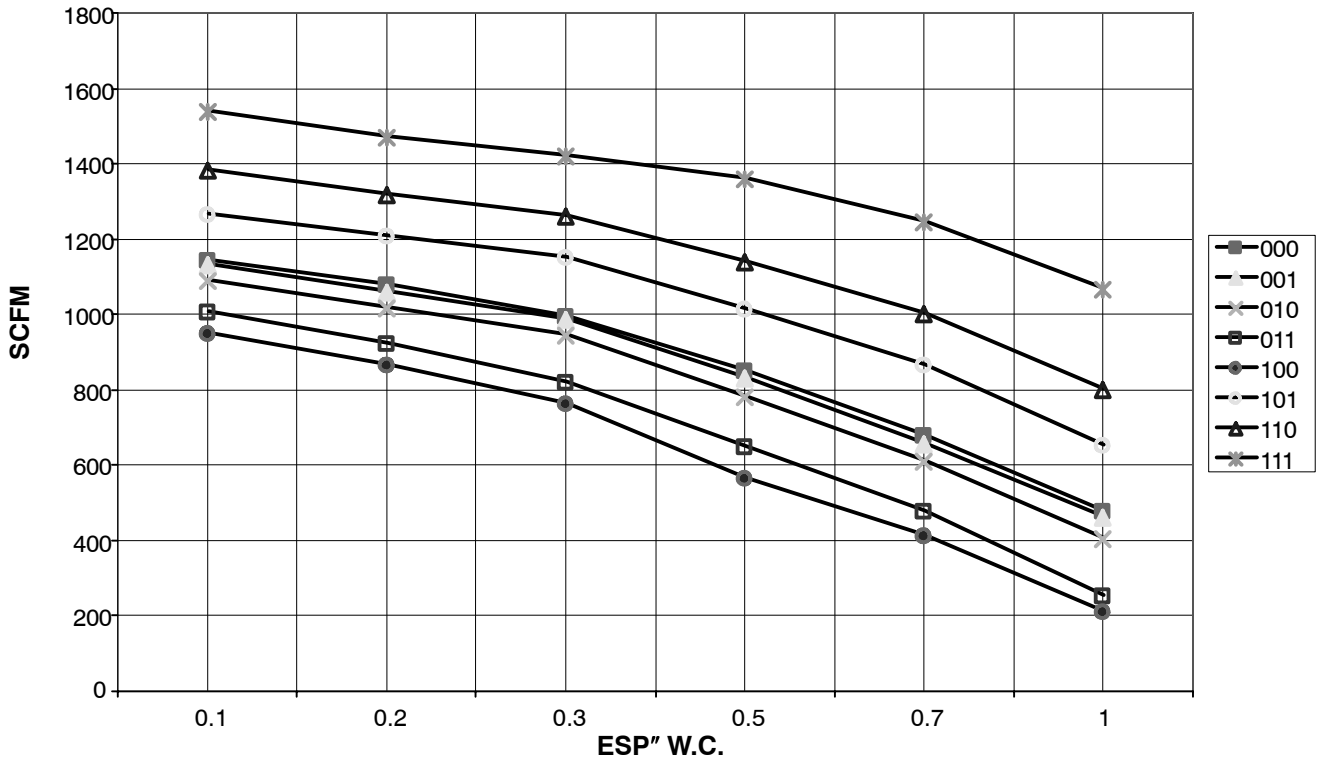
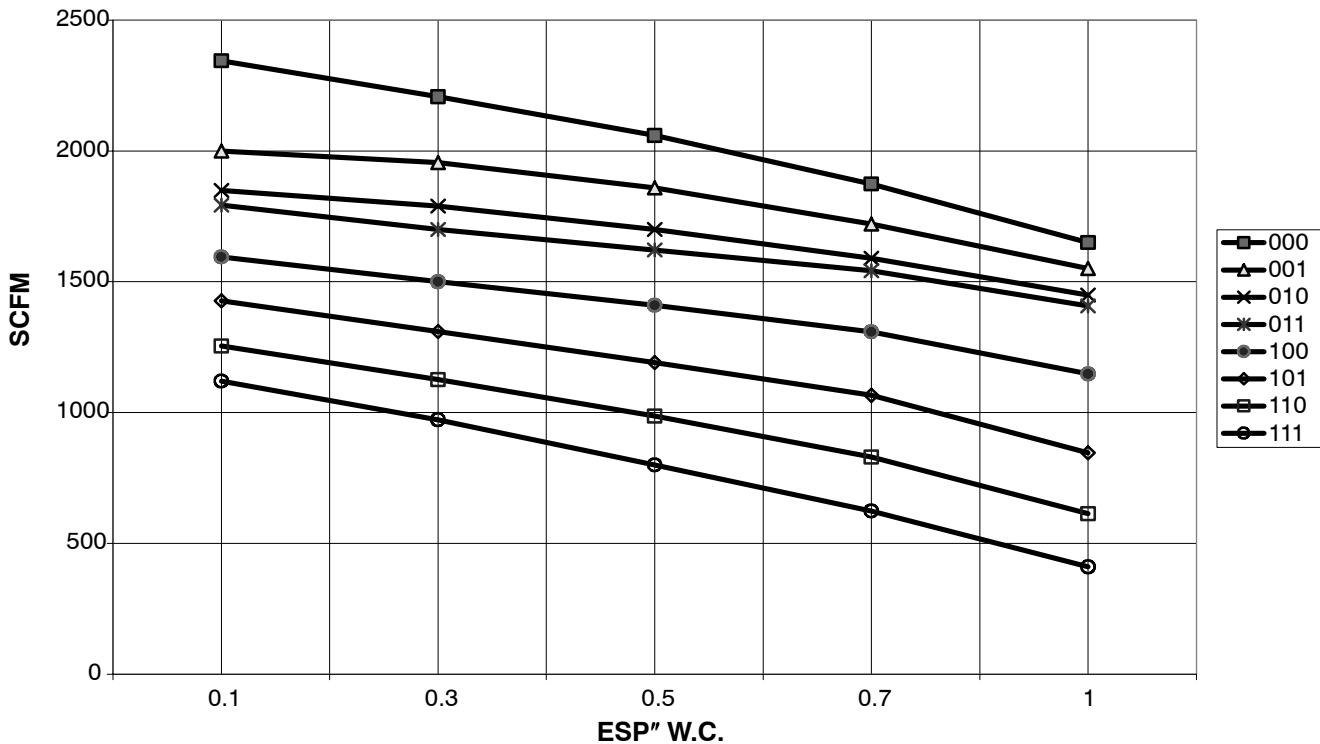


Figure 10

***9MPV125 COOLING
(CFM VS. EXTERNAL STATIC PRESSURE)**



Circulation Air Blower Data - *9MPV

Heating, Cooling & Continuous Airflow Settings

Figure 11

***9MPV125 Lo HEAT**
(CFM VS. EXTERNAL STATIC PRESSURE)

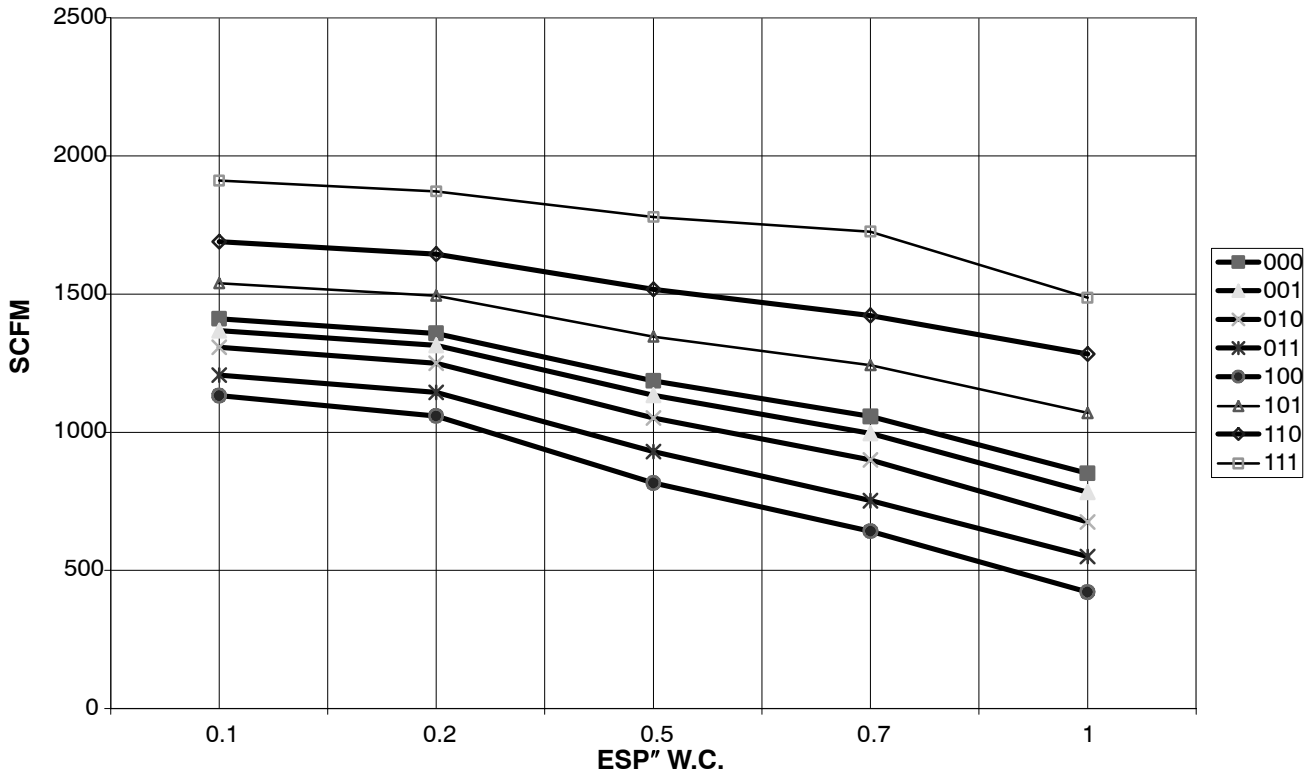
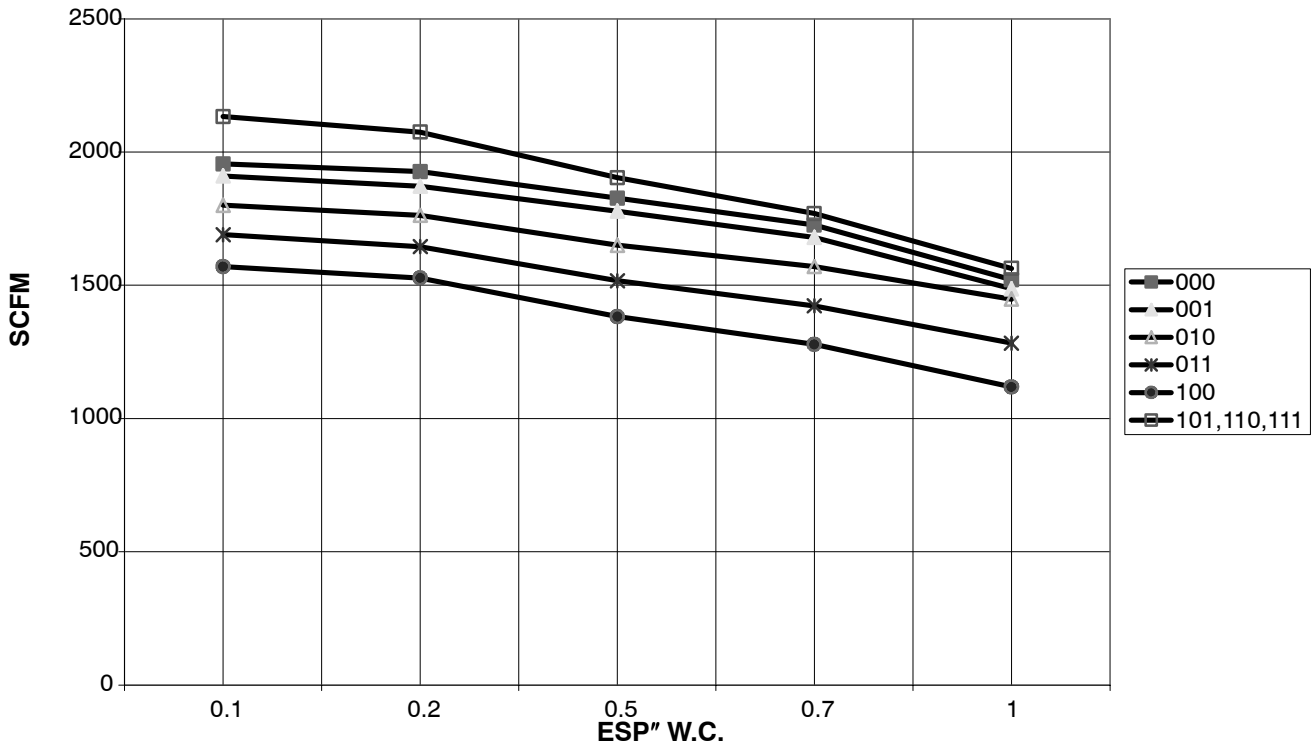
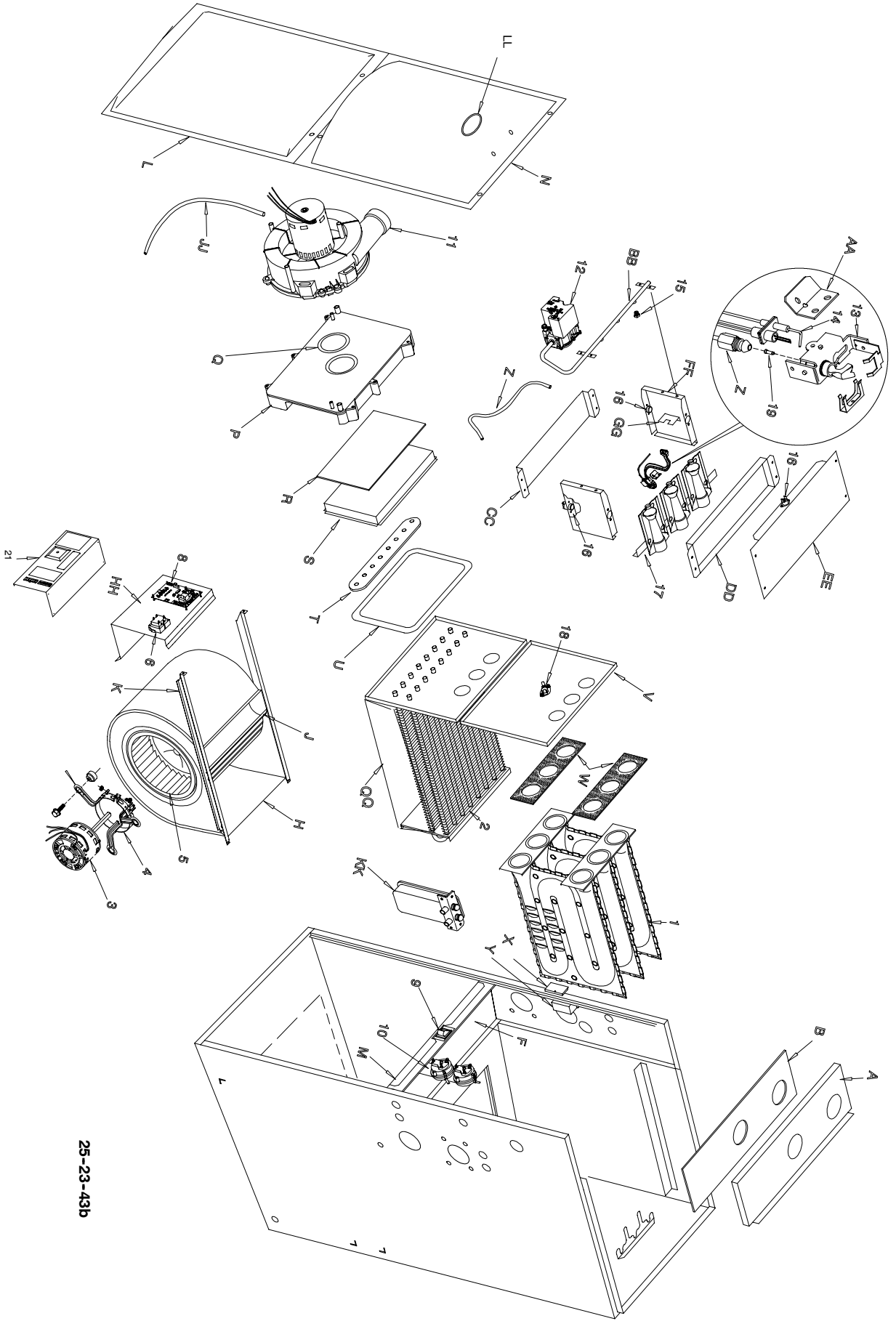


Figure 12

***9MPV125 Hi HEAT**
(CFM VS. EXTERNAL STATIC PRESSURE)



2. (*9MPV)



Representative drawing only, some models may vary in appearance.

25-23-43b

Replacement Parts - *9MPV

Models - *9MPV050F12A1, *9MPV075F12A1, *9MPV100J20A1 & *9MPV125L20A1 (Natural Gas)

Replacement part supplied will be current active part. For parts not listed, consult place of purchase.

Key No.	Description Functional	Part Number	*9MPV			
			050 F12A	075 F12A	100 J20A	125 L20A
1	Heat Exchanger, Primary	1012850	1	-	-	-
		1012854	-	1	-	-
		1012858	-	-	1	-
		1012862	-	-	-	1
2	Ht Exchanger, Secondary	1012565	1	-	-	-
		1012569	-	1	-	-
		1012573	-	-	1	-
		1012577	-	-	-	1
3	Motor, Blower	1012478	1	-	-	-
		1012479	-	1	1	1
4	Mount, Motor kit	522020024	1	1	1	1
5	Wheel, Blower	1013011	1	-	-	-
		1011420	-	1	1	1
6	Transformer	1012722	1	1	1	1
8	Control, Fan Timer	1012084	1	1	1	1
9	Switch, Interlock	1012351	1	1	1	1
10	Switch, Pressure	1013166	-	-	-	1
		1013515	1	1	1	-
11	Blower, Exhaust	1013357	1	1	1	-
		1013376	-	-	-	1
12	Valve, Gas HSP Nat. 2 Stage	1013351	1	1	1	1
13	Burner, Pilot HSP	1008731	1	1	1	1
14	Igniter/Sensor HSP	1009524	1	1	1	1
15	Orifice, Burner #42 Nat.	1011351	2	3	4	5
16	Switch, Limit (Rollout)	1013102	3	3	3	3
17	Burner Assembly	1008723	1	-	-	-
		1008724	-	1	-	-
		1008725	-	-	1	-
		1008726	-	-	-	1
18	Switch, Limit (Main)	1320366	1	-	-	-
		1320367	-	1	-	-
		34335002	-	-	1	1
		1008445	-	-	-	-
19	Orifice, Pilot .018	503211	1	1	1	1
20	Filter,HH 16X25X1/2"	1010365	1	1	2	2
21	Control, Mtr Variable Spd	1013410	1	-	-	-
		1013411	-	1	-	-
		1013412	-	-	1	-
		1013413	-	-	-	1

Key No.	Description	Part Number	*9MPV			
			050 F12A	075 F12A	100 J20A	125 L20A
A	Panel, Top	1012342	1	1	-	-
		1012343	-	-	1	-
		1012344	-	-	-	1
B	Gasket, Top Panel	1012603	1	1	-	-
		1012604	-	-	1	-
		1012605	-	-	-	1
F	Partition, Blower	1013164	1	-	-	-
		1012877	-	1	-	-
		1013162	-	-	1	-
		1013163	-	-	-	1
H	Housing, Blower	1012972	1	-	-	-
		1012888	-	1	1	1
J	Panel, Blower Cutoff	721020013	1	-	-	-
		721020008	-	1	1	1
K	Hanger, Blower	1012328	2	2	2	2
L	Door, Blwer (Cmaker only) (Cmaker only) (Cmaker only) (Heil only) (Heil only) (Heil only) (Tstar only) (Tstar only) (Tstar only)	1013141	1	1-	-	-
		1013142	-	-	1	-
		1013143	-	-	-	1
		1013138	1	1	-	-
		1013139	-	-	1	-
		1013140	-	-	-	1
		1013394	1	1	-	-
		1013395	-	-	1	-
1013396	-	-	-	1		
M	Bracket, Door Filler	1013516	1	-	-	-
		1012896	-	1	-	-
		1012897	-	-	1	-
		1012898	-	-	-	1
N	Door, Front (Cmaker only) (Cmaker only) Cmaker only) (Heil only) (Heil only) (Heil only) (Tstar only) (Tstar only) (Tstar only)	1013148	1	1	-	-
		1013149	-	-	1	-
		1013150	-	-	-	1
		1013145	1	1	-	-
		1013146	-	-	1	-
		1013147	-	-	-	1
		1013397	1	1	-	-
		1013398	-	-	1	-
1013399	-	-	-	1		
P	Transition Assembly	1012281	1	1	-	-
		1012282	-	-	1	-
		1012283	-	-	-	1
Q	Gasket, Exhaust Blower	1012588	1	1	1	-
		1013415	-	-	-	1
R	Board, Insulating	1012418	1	1	-	-
		1012419	-	-	1	-
		1012420	-	-	-	1
S	Box, Collector	1012244	1	1	-	-
		1012245	-	-	1	-
		1012246	-	-	-	1
T	Gasket, Transition	1013263	1	-	-	-
		1013080	-	1	-	-
		1013083	-	-	1	-
		1013084	-	-	-	1
U	Gasket, Collector Box	1012594	1	1	-	-
		1012595	-	-	1	-
		1012596	-	-	-	1

Replacement Parts - *9MPV

Models - *9MPV050F12A1, *9MPV075F12A1, *9MPV100J20A1 & *9MPV125L20A1 (Natural Gas)

Replacement part supplied will be current active part. For parts not listed, consult place of purchase.

Key No.	Description	Part Number	*9MPV			
			050 F12A	075 F12A	100 J20A	125 L20A
V	Partition, Front Ht Exchger	1012650	1	-	-	-
		1012648	-	1	-	-
		1012651	-	-	1	-
		1012653	-	-	-	1
W	Gasket, Attachment Plate	1012542	2	-	-	-
		1012543	-	2	-	-
		1012544	-	-	2	-
		1012545	-	-	-	2
X	Cover, Junction Box	1012350	1	1	1	1
Y	Box, Junction	1012349	1	1	1	1
Z	Tube, Pilot	1012832	1	-	1	-
		1013189	-	1	-	-
		1013077	-	-	-	1
AA	Bracket, Pilot	1010901	1	1	1	1
BB	Manifold	1012970	1	-	-	-
		1012971	-	1	-	-
		1012278	-	-	1	-
		1012279	-	-	-	1
CC	Bottom, Burner Box	1012334	1	1	-	-
		1012335	-	-	1	-
		1012336	-	-	-	1
DD	Baffle, Burner Box	1012338	1	1	-	-
		1012339	-	-	1	-
		1012340	-	-	-	1
EE	Top, Burner Box	1012330	1	1	-	-
		1012331	-	-	1	-
		1012332	-	-	-	1
FF	Bracket, Manifold Support	1012377	2	2	2	2
GG	Bracket, Burner Box Side	1012532	2	2	2	2
HH	Bracket, Control Mounting	1012321	1	1	1	1
JJ	Tube, Sensor	1009238	1	1	1	1
KK	Trap, Drain Assembly	1012322	1	1	1	1
LL	Sightglass (Tstar only)	1013235	1	1	1	1
		1013236	1	1	1	1
MM	Wrapper, Filter Rack	741010039	1	1	2	2
NN	Front, Filter Rack	741020001	1	1	2	2
OO	Cover, Filter	2791043	1	1	2	2
PP	Clip, Filter	1008482	3	3	3	3

Key No.	Description	Part Number	*9MPV			
			050 F12A	075 F12A	100 J20A	125 L20A
(	PART NOT ILLUSTRATED)
(	Elbow Vent Asy 90+	1013495	1	1	1	1
(	Coupling, Air Intake	1012284	1	1	1	1
(	Gasket, Air Intake	1012583	1	1	1	1
(	Gasket, Trap	1012610	1	1	1	1
(	Elbow, Vent Asy. 90+	1012617	1	1	1	1
(	Hose, Drain 1/2"	1012695	1	1	1	1
(	Hose, Drain 5/8"	1012696	1	1	1	1
(	Tube, Drain Rigid	1013356	1	1	-	-
		1013427	-	-	1	-
		1013428	-	-	-	1
(	Clamp, Hose 5/8"	1012975	2	2	2	2
(	Clamp, Hose 3/4"	1012976	4	4	4	4
(	Grommet, Vent	1012697	1	1	1	1
(	Clamp, Hose	1002793	2	2	2	2
(	Bushing, Strain Relief	1945287	1	1	1	1
(	Grommet, Vinyl	1009535	1	1	1	1
(	Plug, Rubber	1057573	1	1	1	1
(	Harness, Wire	1013358	1	1	-	-
		1013359	-	-	1	1
(	Harness, Wire Lo Voltage	1012520	1	1	1	1
(	Harness, Wire Hi Voltage	1012521	1	1	1	1
(	Manual, Tech / Parts List	44003201102	1	1	1	1
(	Manual, Users	44002101001	1	1	1	1
(	Manual, Installation	44001201003	1	1	1	1
Gas Conversion Kits - All models						
Nat to LP			*1011789			
LP to Nat			*1011787			
*Must be ordered from Service Parts						