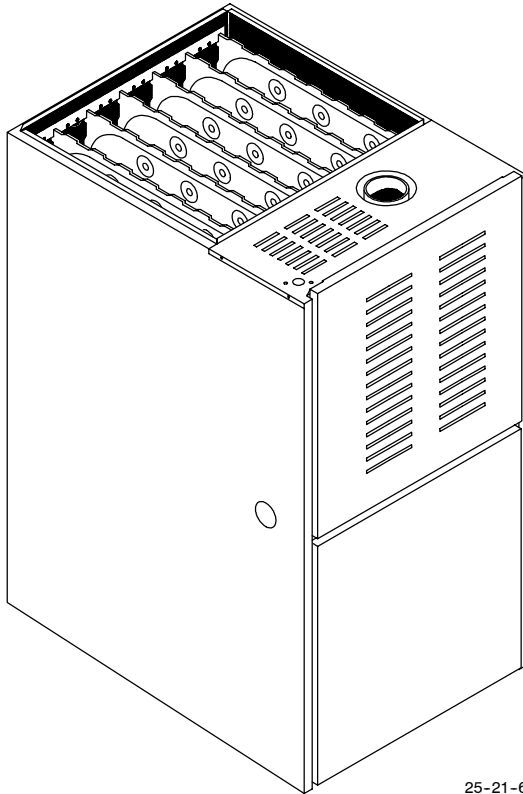


# FBF GAS FURNACE

**Arcoaire**<sup>®</sup>  
Air Conditioning & Heating

## 40" UPFLOW/HORIZONTAL 80%



25-21-65

Representative photo only, some models may vary in appearance.

**MANUFACTURED FOR NATURAL GAS  
CONVERTIBLE TO (LP) PROPANE GAS**

**NOTE:** These furnaces are not designed for installation in a corrosive atmosphere, containing Chlorine, Fluorine, or any other damaging chemicals.

### WARNING

This furnace is not designed for use inside mobile homes, trailers, or recreational vehicles. Such use could result in property damage, bodily injury, and/or death.

### OPERATION

- 80% AFUE efficiency range.
- Electronic ignition device.
- Induced draft combustion blower.

### HEAT EXCHANGER

- Four pass aluminized steel.
- 20 year limited heat exchanger warranty.

### VENTING

- Category I venting.
- Approved for use with optional linerless chimney vent kit.

### BURNER ASSEMBLY

- In-shot monoport burners.

### BLOWER ASSEMBLY

- Multispeed, pre-lubricated PSC motors, dynamically balanced, resilient mounted to reduce vibration and noise.
- Entire blower assembly mounted on rails for easy service.

### WIRING CENTER

- 40VA transformer.
- Terminal board allows easy selection of motor speeds.
- Electronic air cleaner and humidifier connections provided.

### CABINET

- Prepainted cabinet & doors.
- Fully insulated cabinet.

### SAFETY

- Flame sensor constantly monitors flame. Provides 100% gas shut off if flame is not sensed.
- Redundant gas valve.
- High temperature limit control.
- Flue blockage pressure switch.
- Blower door interlock switch prevents furnace operation if door is removed.

### INSTALLATION

- May be installed as an upflow furnace or as a horizontal left or right furnace.
- Compact 40" design.
- Convertible to (LP) Propane Gas.
- 0" clearances on sides and back.
- Twinning kit available to operate two furnaces in tandem.
- External side or bottom filter rack (sold separately).



INTERNATIONAL COMFORT PRODUCTS CORPORATION (USA)  
650 HEIL-QUAKER AVE.  
LEWISBURG, TENNESSEE 37091

RESIDENTIAL AND COMMERCIAL SYSTEMS • SPLIT SYSTEMS • PACKAGED AIR CONDITIONERS •  
COMBINATION GAS / ELECTRIC UNITS • HEAT PUMPS • AIR HANDLERS • MANUFACTURED HOME AIR  
CONDITIONERS • GAS, OIL AND ELECTRIC FURNACES

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5/2001

## FURNACE SPECIFICATIONS UPFLOW HORIZONTAL

Model Number NATURAL GAS	FBF050B12	FBF075B12	FBF075F16	FBF100F14	FBF100F20	FBF100J22	FBF125J20	FBF125J22
INPUT (btuh)	50,000	75,000	75,000	100,000	100,000	100,000	125,000	125,000
HTG. CAP. (btuh)	40,000	59,000	60,000	79,000	79,000	79,000	99,000	99,000
AFUE % (ICS)	80.0%	80.0%	80.0%	80.0%	80.0%	80.0%	80.0%	80.0%
CSE	73.0%	73.0%	73.0%	73.0%	73.0%	73.0%	73.0%	73.0%
TEMP. RISE (deg. F)	35 - 65	35 - 65	25 - 55	35 - 65	35 - 65	35 - 65	40 - 70	40 - 70
VOLTS/PH/Hz	115/60/1	115/60/1	115/60/1	115/60/1	115/60/1	115/60/1	115/60/1	115/60/1
F.L.A.	9	9	12	12	12	12	12	12
TRANSFORMER (V.A.)	40	40	40	40	40	40	40	40
GAS PIPE SIZE (IN.)	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2
CATEGORY I VENT SIZE	3"	4"	4"	4"	4"	4"	5"	5"
COOLING CAP.	3.0 TON	3.0 TON	4.0 TON	3.5 TON	5.0 TON	5.5 TON	5.0 TON	5.5 TON
SHIPPING WEIGHT (LBS.)	127	129	147	149	161	161	200	200
DIMENSIONS (in.) HEIGHT	40	40	40	40	40	40	40	40
WIDTH X DEPTH	15 <sup>1</sup> / <sub>2</sub> x 28 <sup>1</sup> / <sub>2</sub>	15 <sup>1</sup> / <sub>2</sub> x 28 <sup>1</sup> / <sub>2</sub>	19 <sup>1</sup> / <sub>8</sub> x 28 <sup>1</sup> / <sub>2</sub>	19 <sup>1</sup> / <sub>8</sub> x 28 <sup>1</sup> / <sub>2</sub>	19 <sup>1</sup> / <sub>8</sub> x 28 <sup>1</sup> / <sub>2</sub>	22 <sup>3</sup> / <sub>4</sub> x 28 <sup>1</sup> / <sub>2</sub>	22 <sup>3</sup> / <sub>4</sub> x 28 <sup>1</sup> / <sub>2</sub>	22 <sup>3</sup> / <sub>4</sub> x 28 <sup>1</sup> / <sub>2</sub>

## BLOWER PERFORMANCE

Model Number NATURAL GAS	FBF050B12	FBF075B12	FBF075F16	FBF100F14	FBF100F20	FBF100J22	FBF125J20	FBF125J22
BLOWER TYPE AND SIZE	10 x 8	10 x 8	10 x 10	10 x 10	11 x 10	11 x 10	11 x 10	11 x 10
MOTOR H.P. (TYPE)	<sup>1</sup> / <sub>3</sub>	<sup>1</sup> / <sub>3</sub>	<sup>1</sup> / <sub>2</sub>	<sup>1</sup> / <sub>3</sub>	<sup>3</sup> / <sub>4</sub>	<sup>3</sup> / <sub>4</sub>	<sup>3</sup> / <sub>4</sub>	<sup>3</sup> / <sub>4</sub>
MOTOR SPEEDS	4	4	3	4	4	4	4	4

## AIRFLOW DATA

.10 ESP IN. W.C.	LOW	675	675	1503	815	1210	1598	1264	1598
	MEDIUM LOW	859	859	-	1043	1441	1864	1520	1864
	MEDIUM	-	-	1722	-	-	-	-	-
	MEDIUM HIGH	1015	1015	-	1324	1773	2131	1841	2131
	HIGH	1394	1394	1887	1649	2104	2383	2161	2383
.20 ESP IN. W.C.	LOW	662	662	1460	783	1201	1586	1251	1586
	MEDIUM LOW	846	846	-	1030	1430	1839	1506	1839
	MEDIUM	-	-	1660	-	-	-	-	-
	MEDIUM HIGH	999	999	-	1302	1740	2086	1803	2086
.30 ESP IN. W.C.	HIGH	1342	1342	1810	1616	2078	2340	2132	2340
	LOW	651	651	1420	755	1197	1574	1249	1574
	MEDIUM LOW	819	819	-	1021	1453	1814	1486	1814
	MEDIUM	-	-	1608	-	-	-	-	-
.40 ESP IN. W.C.	MEDIUM HIGH	977	977	-	1280	1740	2048	1772	2048
	HIGH	1289	1289	1752	1592	2061	2299	2079	2299
	LOW	636	636	1370	735	1191	1550	1219	1550
	MEDIUM LOW	795	795	-	989	1441	1786	1456	1786
.50 ESP IN. W.C.	MEDIUM	-	-	1540	-	-	-	-	-
	MEDIUM HIGH	952	952	-	1255	1718	2018	1736	2018
	HIGH	1227	1227	1670	1546	2020	2253	2042	2253
	LOW	608	608	1318	704	1167	1516	1168	1516
.60 ESP IN. W.C.	MEDIUM LOW	765	765	-	968	1425	1752	1427	1752
	MEDIUM	-	-	1484	-	-	-	-	-
	MEDIUM HIGH	914	914	-	1218	1707	1976	1702	1976
	HIGH	1163	1163	1599	1502	2005	2193	1991	2193
.70 ESP IN. W.C.	LOW	564	564	1250	668	1160	1481	1178	1481
	MEDIUM LOW	735	735	-	941	1390	1699	1415	1699
	MEDIUM	-	-	1400	-	-	-	-	-
	MEDIUM HIGH	870	870	-	1171	1676	1914	1672	1914
.80 ESP IN. W.C.	HIGH	1086	1086	1520	1425	1953	2136	1914	2136
	LOW	514	514	1182	646	1130	1441	1143	1441
	MEDIUM LOW	685	685	-	881	1365	1630	1358	1630
	MEDIUM	-	-	1322	-	-	-	-	-
.90 ESP IN. W.C.	MEDIUM HIGH	818	818	-	1100	1654	1865	1614	1865
	HIGH	1002	1002	1425	1353	1917	2072	1838	2072

NOTE: Applications of FBF100F20, FBF100J22, FBF125J20 & FBF125J22 above 1650 CFM requires two side returns, bottom return or use accessory stand-off filter kit for single return.

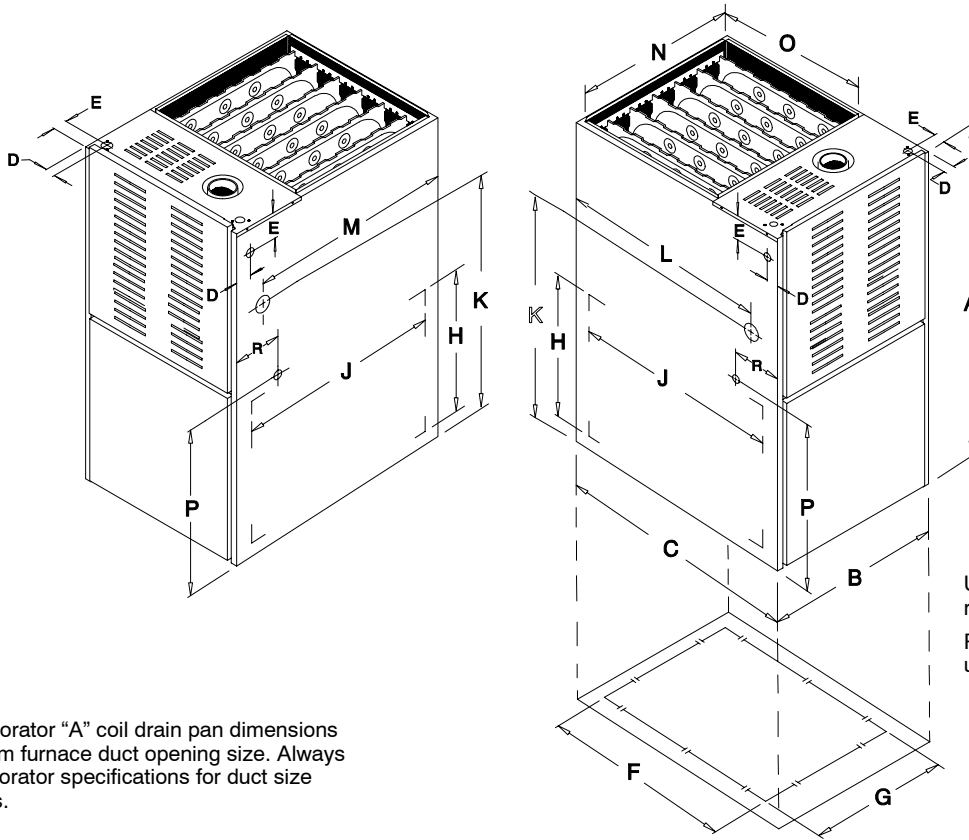
To achieve 2000 CFM with the stand-off filter kit you will still need a bottom return or 2 side filters.

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

## MODEL NUMBER IDENTIFICATION GUIDE

MODEL NUMBER	FB	F	050	B	12	G
PRODUCT SERIES						
FURNACE						
NOMINAL INPUT MBTUH						
						<b>MARKETING REVISION</b> <b>NOMINAL AIR FLOW (Tons)</b> 8 = 800                      18 = 1800 12 = 1200                    20 = 2000 14 = 1400                    22 = 2200 16 = 1600
						<b>WIDTH</b> B = 15 <sup>1</sup> / <sub>2</sub> J = 22 <sup>3</sup> / <sub>4</sub> F = 19 <sup>1</sup> / <sub>8</sub> N = 26 <sup>3</sup> / <sub>8</sub>

## UNIT DIMENSIONS



**NOTE:** Evaporator "A" coil drain pan dimensions may vary from furnace duct opening size. Always consult evaporator specifications for duct size requirements.

Unit is designed for bottom return or side return.  
Return air through back of unit is NOT allowed.

25-22-28

Unit Capacity	Cabinet			Electrical Connections						Supply Air		Return Air				Gas Connections			
				Top		Left/Right Side		Low Volt				Bottom	Side	Right Side		Left Side			
	A	B	C	D	E	D	E	R	P	O	N	F	G	J	H	M	K	L	K
50B12 & 75B12	40	15 <sup>1</sup> / <sub>2</sub>	28 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>2</sub>	1 <sup>5</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>2</sub>	4 <sup>1</sup> / <sub>2</sub>	17 <sup>5</sup> / <sub>16</sub>	18 <sup>1</sup> / <sub>2</sub>	14	23 <sup>1</sup> / <sub>8</sub>	12 <sup>5</sup> / <sub>8</sub>	22 <sup>1</sup> / <sub>2</sub>	12 <sup>1</sup> / <sub>4</sub>	23 <sup>7</sup> / <sub>8</sub>	28 <sup>1</sup> / <sub>4</sub>	26	28 <sup>1</sup> / <sub>4</sub>
75F16, 100F14 & 100F20	40	19 <sup>1</sup> / <sub>8</sub>	28 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>2</sub>	1 <sup>5</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>2</sub>	4 <sup>1</sup> / <sub>2</sub>	17 <sup>5</sup> / <sub>16</sub>	18 <sup>1</sup> / <sub>2</sub>	17 <sup>5</sup> / <sub>8</sub>	23 <sup>1</sup> / <sub>8</sub>	14 <sup>3</sup> / <sub>4</sub>	22 <sup>1</sup> / <sub>2</sub>	14 <sup>1</sup> / <sub>2</sub>	23 <sup>7</sup> / <sub>8</sub>	28 <sup>1</sup> / <sub>4</sub>	26	28 <sup>1</sup> / <sub>4</sub>
100J22, 125J20 & 125J22	40	22 <sup>3</sup> / <sub>4</sub>	28 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>2</sub>	1 <sup>5</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>2</sub>	4 <sup>1</sup> / <sub>2</sub>	17 <sup>5</sup> / <sub>16</sub>	18 <sup>1</sup> / <sub>2</sub>	21 <sup>1</sup> / <sub>4</sub>	23 <sup>1</sup> / <sub>8</sub>	18 <sup>3</sup> / <sub>4</sub>	22 <sup>1</sup> / <sub>2</sub>	14 <sup>1</sup> / <sub>2</sub>	23 <sup>7</sup> / <sub>8</sub>	28 <sup>1</sup> / <sub>4</sub>	26	28 <sup>1</sup> / <sub>4</sub>

ALL DIMENSIONS IN INCHES

## ACCESSORIES

Furnace Model Number	14"x25" Filter Kit Side or Bottom	20"x25" Bottom Return Filter Kit	16"x25" Filter Kit Side or Bottom	20"x25" Duct Stand-off with Filter	Nat. To LP Kit	LP To Nat. Gas Kit	High Alt. Nat. Gas Kit	LP High Alt.	Twinning Kit
FBF050B12 FBF075B12	NAHA003FF	N/A	N/A	NAHA001TK	NAHL002LP *1160991	NAHF002NG *1009510	*1160993	*1160992	NAHA003WK
FBF075F16 FBF100F14 FBF100F20**	N/A		NAHA001FF <sup>1</sup>						
FBF100J22** FBF125J20** FBF125J22**	N/A	NAHA002FF**							

\* Fast part number.

\*\* Applications of FBF100F20, FBF100J22, FBF125J20 & FBF125J22 above 1650 CFM requires two side returns, bottom or NAHA001TK 20" x 25" duct stand-off filter kit for single side return.

To achieve 2000 CFM with the stand-off filter kit you will still need a bottom return or 2 side filters.

\*\* Applications of FBF100J22, FBF125J20 & FBF125J22 use the 20" x 25" bottom return filter kit, NAHA002FF.

<sup>1</sup> Applications of FBF075B12, FBF100F14 & FBF100F20 bottom or side return use NAHA001FF.

Applications of FBF125J20 use NAHA001FF side return only.

N/A Not Applicable

## Masonry Chimney Draft Hood Chart

Furnace Model No.	Masonry Chimney Draft Hood Kit Required	Draft Hood Outlet Dia.
FBF050B12 FBF075B12	NAHL007DH	4"
FBF075F16	NAHL008DH	5"
FBF100F14 FBF100F20	NAHL009DH	5"
FBF100J22 FBF125J20	NAHL010DH	5"