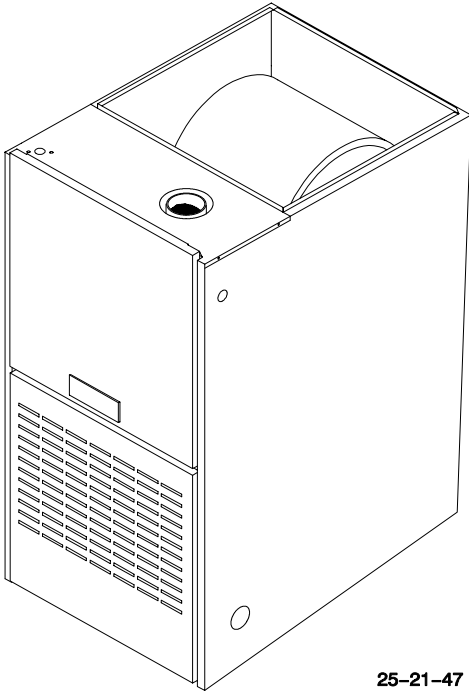


TDE GAS FURNACE

Arcoaire[®]
Air Conditioning & Heating

2-STAGE DOWNFLOW

SoftSound Plus™ 80



25-21-47

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.
- Enclosed burners for quiet operation.
- Hot surface pilot device.
- Induced draft combustion blower.
- Adjustable electronic fan control with low speed continuous fan feature provides maximum comfort.

HEAT EXCHANGER

- Aluminized steel heat exchanger.
- 25 year limited heat exchanger warranty.

VENTING

- Category I venting only in accordance with installation instructions and local codes.

BURNER ASSEMBLY

- In-shot monoport, low NOx burners.

BLOWER ASSEMBLY

- Multispeed, prelubricated PSC motors. Dynamically balanced. Heavy duty motor brackets. Resilient mounted motors.

WIRING CENTER

- 40VA transformer.
- Color coded wiring.
- Low voltage terminal board.
- Factory provided connections for electronic air cleaner and/or humidifier.
- Dependable electronic fan timer allows precise comfort control.

CABINET

- Prepainted cabinet & doors.
- Fully insulated cabinet.

SAFETY

- Controls monitors system for safety.
- Redundant gas valve.
- High temperature limit control.
- Flue blockage pressure switch.
- Blower door interlock switch.
- Flame roll out switch.

INSTALLATION

- Must be installed as a downflow furnace.
- Compact 40" design.
- Convertible to (LP) Propane Gas.
- 0" clearances on sides and back.
- Filters and filter rack standard.
- California NOx approved.
- Single or two-stage thermostat compatibility.



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

441 31 2207 04
5/2001

FURNACE SPECIFICATIONS DOWNFLOW

Model Number	NATURAL GAS	TDE050B12	TDE075B12	TDE100F16	TDE125J20
INPUT (btuh)	Hi Fire	50,000	75,000	100,000	125,000
	Lo Fire	35,000	52,500	70,000	87,500
HTG. CAP. (btuh)	Hi Fire	40,000	59,000	79,000	99,000
	Lo Fire	28,000	42,000	56,000	72,000
AFUE % (ICS)		80.0%	80.0%	80.0%	80.0%
CSE		73.0%	73.0%	73.0%	73.0%
NOx (Ng/l)		<40	<40	<40	<40
TEMP. RISE (deg. F)	Hi Fire	30 - 60	40 - 70	35 - 65	45 - 75
	Lo Fire	30 - 60	40 - 70	35 - 65	45 - 75
VOLTS/PH/Hz		115/60/1	115/60/1	115/60/1	115/60/1
F.L.A.		5.3	5.3	9.2	12
TRANSFORMER (V.A.)		40	40	40	40
GAS PIPE SIZE (IN.)		1/2	1/2	1/2	1/2
CATEGORY I VENT SIZE		3"	4"	4"	5"
COOLING CAP.		3.0 TON	3.0 TON	4 TON	5.0 TON
FILTER SIZE (IN.) (2 required)		16 x 18 x 1	16 x 18 x 1	16 x 18 x 1	16 x 18 x 1
FILTER SIZE (mm) (2 required)		406 x 457.2 x 25.4	406 x 457.2 x 25.4	406 x 457.2 x 25.4	406 x 457.2 x 25.4
SHIPPING WEIGHT (LBS.)		127	129	159	177
DIMENSIONS (in.) HEIGHT		40	40	40	40
WIDTH X DEPTH		15 ¹ / ₂ x 28 ¹ / ₂	15 ¹ / ₂ x 28 ¹ / ₂	19 ¹ / ₈ x 28 ¹ / ₂	22 ³ / ₄ x 28 ¹ / ₂
WIDTH X DEPTH (mm)		393.7 x 723.9	393.7 x 723.9	485.8 x 723.9	577.8 x 723.9

BLOWER PERFORMANCE

Model Number	NATURAL GAS	TDE050B12	TDE075B12	TDE100F16	TDE125J20
BLOWER TYPE AND SIZE		10 x 8	10 x 8	10 x 10	11 x 10
MOTOR H.P. (TYPE)		1/3	1/3	1/2	3/4
MOTOR SPEEDS		4	4	4	4

AIRFLOW DATA

.10 ESP IN. W.C.	LOW	675	675	954	1333
	MEDIUM LOW	859	859	1312	1573
	MEDIUM	-	-	-	-
	MEDIUM HIGH	1015	1015	1698	1840
	HIGH	1394	1394	1925	2148
.20 ESP IN. W.C.	LOW	662	662	950	1294
	MEDIUM LOW	846	846	1292	1544
	MEDIUM	-	-	-	-
	MEDIUM HIGH	999	999	1645	1816
	HIGH	1342	1342	1853	2093
.30 ESP IN. W.C.	LOW	651	651	946	1266
	MEDIUM LOW	819	819	1265	1500
	MEDIUM	-	-	-	-
	MEDIUM HIGH	977	977	1596	1776
	HIGH	1289	1289	1780	2041
.40 ESP IN. W.C.	LOW	636	636	915	1240
	MEDIUM LOW	795	795	1231	1467
	MEDIUM	-	-	-	-
	MEDIUM HIGH	952	952	1530	1726
	HIGH	1227	1227	1708	1981
.50 ESP IN. W.C.	LOW	608	608	878	1175
	MEDIUM LOW	765	765	1175	1419
	MEDIUM	-	-	-	-
	MEDIUM HIGH	914	914	1455	1665
	HIGH	1163	1163	1638	1906
.60 ESP IN. W.C.	LOW	564	564	830	1141
	MEDIUM LOW	735	735	1118	1357
	MEDIUM	-	-	-	-
	MEDIUM HIGH	870	870	1362	1607
	HIGH	1086	1086	1546	1828
.70 ESP IN. W.C.	LOW	514	514	778	1054
	MEDIUM LOW	685	685	1020	1308
	MEDIUM	-	-	-	-
	MEDIUM HIGH	818	818	1241	1538
	HIGH	1002	1002	1435	1751

* Furnace not NOx rated

NOTE: Filter supplied in unit allow 600 fpm velocity air flow. See installation instructions.

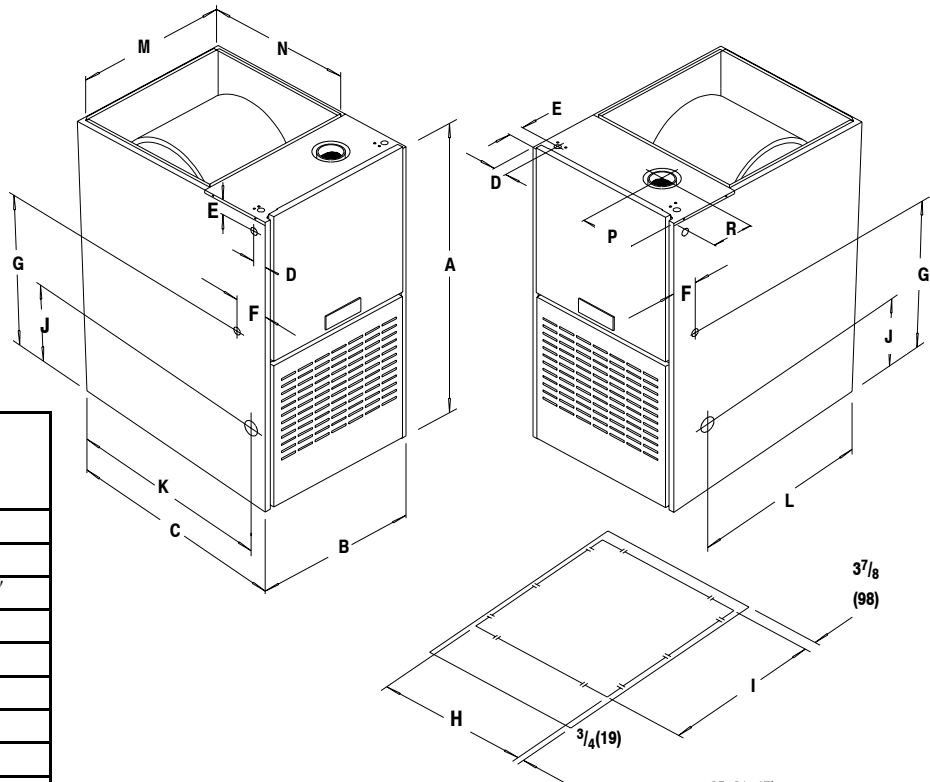
NOTE: Air flow data without filters.

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

MODEL NUMBER IDENTIFICATION GUIDE

MODEL NUMBER	T	D	E	050	B	12	G
PRODUCT GROUP	G = Gas T = 2-Stage Gas						MARKETING REVISION
FUEL	C = Downflow / Horizontal D = Downflow H = Horizontal N = Upflow / Horizontal U = Upflow						NOMINAL AIR FLOW (Cfm) 08 = 800 16 = 1600 12 = 1200 18 = 1800 14 = 1400 20 = 2000
SERIES							FURNACE WIDTH B = 15 ¹ / ₂ J = 22 ³ / ₄ F = 19 ¹ / ₈ N = 26 ³ / ₈
							NOMINAL INPUT MBTUH

UNIT DIMENSIONS



25-21-47b

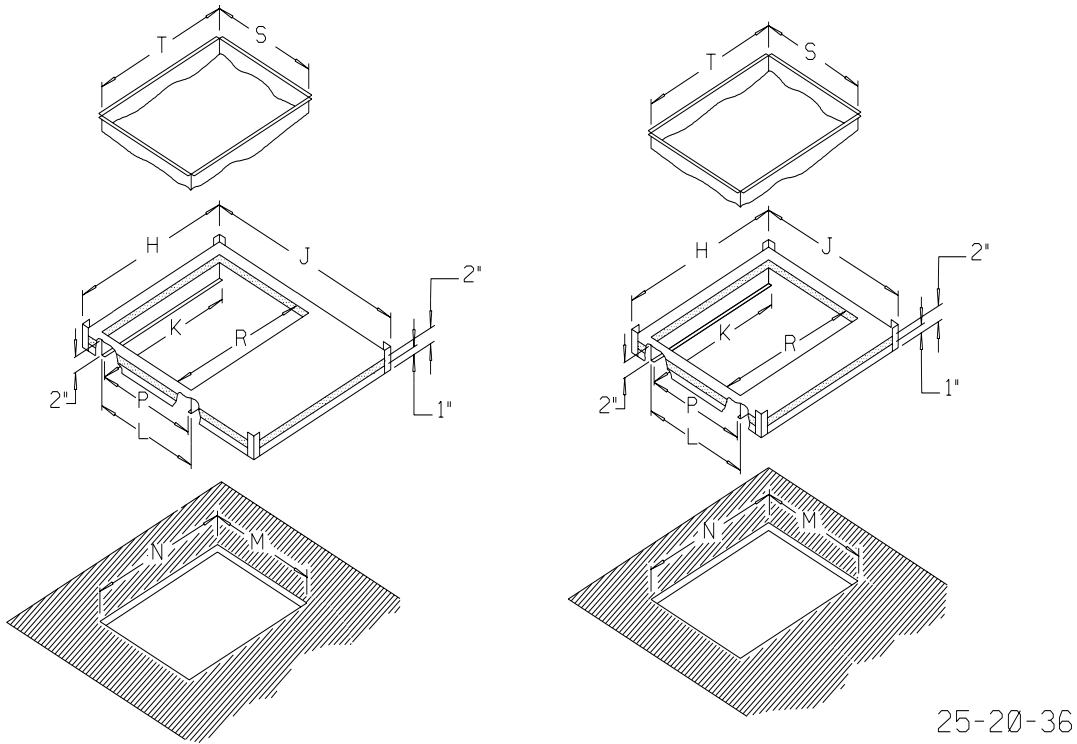
MINIMUM CLEARANCES TO COMBUSTIBLE MATERIALS FOR ALL UNITS

REAR	0
FRONT	3"
For Service	30"
ALL SIDES OF SUPPLY PLENUM	1"
SIDES	0
VENT	
Single Wall Vent	6"
Type B-1 Double Wall Vent	1"
TOP OF FURNACE	1"

Unit Dimensions	Cabinet			Electrical Connections								Supply		Gas Connections		
				Top		Left Side		Low Voltage								
	A	B	C	D	E	D	E	Right		Left		H	I	J	K	L
								(F)	(G)	(F)	(G)					
050 & 075B12A	40	15 ¹ / ₂	28 ¹ / ₂	1 ¹ / ₂	1 ¹ / ₂	1 ⁵ / ₈	1 ¹ / ₂	3 ¹⁵ / ₁₆	25 ³ / ₄	3 ¹³ / ₁₆	24 ³ / ₄	14	16 ⁵ / ₈	9 ¹ / ₂	26 ¹ / ₁₆	23 ⁷ / ₈
100F16A	40	19 ¹ / ₈	28 ¹ / ₂	1 ¹ / ₂	1 ¹ / ₂	1 ⁵ / ₈	1 ¹ / ₂	3 ¹⁵ / ₁₆	17 ⁵ / ₈	3 ¹³ / ₁₆	25 ³ / ₄	17 ⁵ / ₈	16 ⁵ / ₈	9 ¹ / ₂	26 ¹ / ₁₆	23 ⁷ / ₈
125J20A	40	22 ³ / ₄	28 ¹ / ₂	1 ¹ / ₂	1 ¹ / ₂	1 ⁵ / ₈	1 ¹ / ₂	3 ¹⁵ / ₁₆	21 ¹ / ₄	3 ¹³ / ₁₆	25 ³ / ₄	21 ¹ / ₄	16 ⁵ / ₈	9 ¹ / ₂	26 ¹ / ₁₆	23 ⁷ / ₈

Unit Dimensions	Return		Flue	
	M	N	P	R
050 & 075B12A	14	18 ¹ / ₂	3 ⁷ / ₈	5 ¹ / ₄
100F16A	17 ⁵ / ₈	18 ¹ / ₂	5 ⁵ / ₁₆	5 ¹ / ₄
125J20A	21 ¹ / ₄	18 ¹ / ₂	7 ¹ / ₂	5 ¹ / ₄

SUBBASE DIMENSIONS



25-20-36

Use for	Subbase Model Number	H	J	K	L	M	N	P	R	S	T
Furnace	NAHH001SB	15 ¹¹ / ₁₆	28 ³ / ₄	14 ⁹ / ₁₆	16	16 ¹ / ₄	14 ⁵ / ₈	15	13 ¹ / ₂	15	13 ¹ / ₂
	NAHH002SB	19 ¹ / ₄		18 ³ / ₁₆			18 ¹ / ₄		17 ¹ / ₈ (435)		17 ¹ / ₈
	NAHH003SB	23		21 ¹³ / ₁₆			21 ⁷ / ₈		19 ³ / ₄		19 ³ / ₄
Cased Coil	NAHH004SB	15 ¹¹ / ₁₆	20 ⁹ / ₁₆	14 ⁹ / ₁₆	16	16 ¹ / ₄	14 ⁵ / ₈	15	13 ¹ / ₂	15	13 ¹ / ₂
	NAHH005SB	19 ¹ / ₂		18 ³ / ₁₆			18 ¹ / ₄		17 ¹ / ₈		17 ¹ / ₈
	NAHH006SB	23		21 ¹³ / ₁₆			21-7/8		19 ³ / ₄		19 ³ / ₄

ALL DIMENSIONS IN INCHES(mm)

ACCESSORIES

Model Number	Natural Gas To LP Kit LP High Alt. Kit	LP To Natural Gas Kit
TDE050 & 075B12A	1011789*	1011787*
TDE100F16A		
TDE125J20A		

* Fast Parts Number

COMBUSTIBLE FLOOR SUBBASES FOR CASSED COIL APPLICATION

Model Number	Use With
NAHH004SB	Subbase Furnace w/15 ¹ / ₂ " cased coil
NAHH005SB	Subbase Furnace w/19 ¹ / ₄ " cased coil
NAHH006SB	Subbase Furnace w/22 ³ / ₄ " cased coil

COMBUSTIBLE FLOOR SUBBASES FOR FURNACE ONLY APPLICATION

Model Number	Use With
NAHH001SB	TDE050 & 075B12A
NAHH002SB	TDE100F16A
NAHH003SB	TDE125J20A