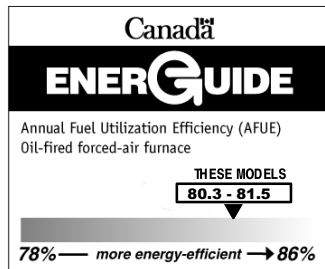




Illustrations and photographs are only representative.  
Some product models may vary.



ONLY applies to applications in Canada where the furnace is installed in the conditioned space, per sections 5.35.1.2 and 4.7.1.1 of CSA standard B212 dated October 2000.

### HI-BOY UPFLOW OIL FURNACE

#### FEATURES

- **Fan Control Switch** – for continuous low speed
- **Accessory terminals** – prewired for easy add-on electronic air cleaner and power humidifier. Air conditioning ready for easy add-on.
- **Large external front clean out** – for easy cleaning
- **Clean out** – sealed from blower compartment (no soot to spread)
- **Easy Access** – control panel
- **Sight Glass/View Port**
- **Furnaces** – available with high efficiency Beckett burners.
- **Test Ports** – factory install to provide efficient access for set-up and service
- **“Easy Access” heat exchanger** – manufactured from heavy gauge steel
- **Multi-Speed Direct Drive Motors** – permanently lubricated for long life performance
- **Heavy-duty insulated cabinet** – for quiet operation
- **Approved for 1” (25mm) clearance to combustibles** – for tight installations
- **Ceramic combustion chamber** – withstands temperature of 2600° F (1427° C) with unique “self aligning” design
- **Precision balanced blower** – ensures quiet, efficient air distribution
- **Raised cabinet base** – allows air to circulate under the cabinet. Eliminates dampness
- **Approved** – Chimney or Direct Vent applications
- **Efficient** – Up to 81.5% AFUE
- **Front Flue (Breach)**
- **Shipped complete** – Vestibule, barometric damper, burners and nozzles are installed

#### WARRANTY \*

- Lifetime heat exchanger limited warranty with timely registration
- 5 year parts limited warranty
  - With timely registration, an additional 5 year parts limited warranty
- \* Applies to original purchaser/homeowner, some limitations may apply. See warranty certificate for complete details.

HI-BOY UPFLOW OIL FURNACE					
Model Number	Input (BTU/h)	Efficiency AFUE	Cooling capacity @ .5 in wc (125 Pa)	Dimensions – in(mm) H x W x D†	Operating Wt. Lbs.(Kg)
NOUF105A12D	70,000 – 105,000	80.3 – 81.5	3 Tons	48 X 21 X 21 (1219 x 533 x 533)	200 (91)

† Depth with the burner

## FURNACE SPECIFICATIONS

Model:	NOUF105A12D			
<b>Rating and Performance</b>				
Firing Rate	.50	.63	.75	.72
Input (BTUh)	70,000	88,200	105,000	100,800
Heating capacity, chimney installation (BTUh)	59,800	74,600	87,800	83,900
Heating capacity, side-wall installation (BTUh)	59,400	73,200	88,200	84,200
Minimum - maximum Temperature Rise	11 - 24° C / 52 - 75° F			
Stack draft - Chimney (Side-wall)	-0.035" to -0.06" (+0.04" to +0.16")			
Overfire pressure - Chimney (Side-wall)	0.00" to +0.035" (+0.10" to +0.25")			
<b>Beckett Burner, Chimney Installation</b>				
<b>AFG-F0 (tube insertion 5½")</b>				
Low firing rate baffle	Yes	Yes	No	NA
Static disc. model	2 <sup>3</sup> / <sub>4</sub> #3383			NA
Nozzle (Delavan)	0.50-70A		0.60-70B	NA
Pump Pressure (PSIG)	100	156	156	NA
Combustion air adjustment (band/shutter)	0 / 4.5	0 / 8	0 / 7.5	NA
AFUE % (From CSA B212 standard and Canadian regulation)**	81.5	81.0	80.3	NA
AFUE % (From ASHRAE 103 standard and US regulation)	81.5	81.0	80.3	NA
<b>Beckett Burner, Side-wall Installation</b>				
<b>AFII-85 (tube insertion 4<sup>15</sup>/<sub>16</sub>")</b>				
Nozzle (Delavan)	0.50-60W		0.60-60W	NA
Pump Pressure (PSIG)	130	140	160	NA
Combustion air adjustment (screw/dial) and (dial only)	3 / 1.5	3 / 3	3 / 4.5	NA
AFUE % (From CSA B212 standard and Canadian regulation)**	81.5	81.0	80.3	NA
AFUE % (From ASHRAE 103 standard and US regulation)	81.5	81.0	80.3	NA
<b>Electrical System</b>				
Volts - Hertz - Phase	115-60-1			
Operating voltage range	104 - 132			
Rated voltage Amp	15.4			
Minimum ampacity for wiring sizing	17.7			
Max. fuse size (Amps.)	20			
Control transformer	40 VA			
Ext. control power available, cooling and accessories	30 VA			
<b>Blower Data</b>				
Blower speed at 0.50 in wc (125 Pa) static pressure	LOW	LOW	MED-HI	MED-HI
Blower speed at 0.25 in wc (62 Pa) static pressure	LOW	LOW	MED-LOW	MED-LOW
Maximum cooling speed	LOW	MED-LOW	MED-HI	HIGH
Maximum cooling tons at .50 in wc (125 Pa)	2	2.5	2.5	3
Motor (HP) / number of speeds	½ HP / 4 speeds			
Blower wheel size - in(mm)	10 x 10 (254 x 254)			
Filter quantity and size - in(mm)	(1) 20 x 20 (508 x 508)			
Weight - Lbs.(Kg.)	200 (91)			

NOTE: AFUE value established after minimum 20 hours of continuous operation.

\*\* Applies to applications in Canada where the furnace is installed in the conditioned space, per sections 5.35.1.2 and 4.7.1.1 of CSA standard B212 dated October 2000.

### BLOWER PERFORMANCE DATA

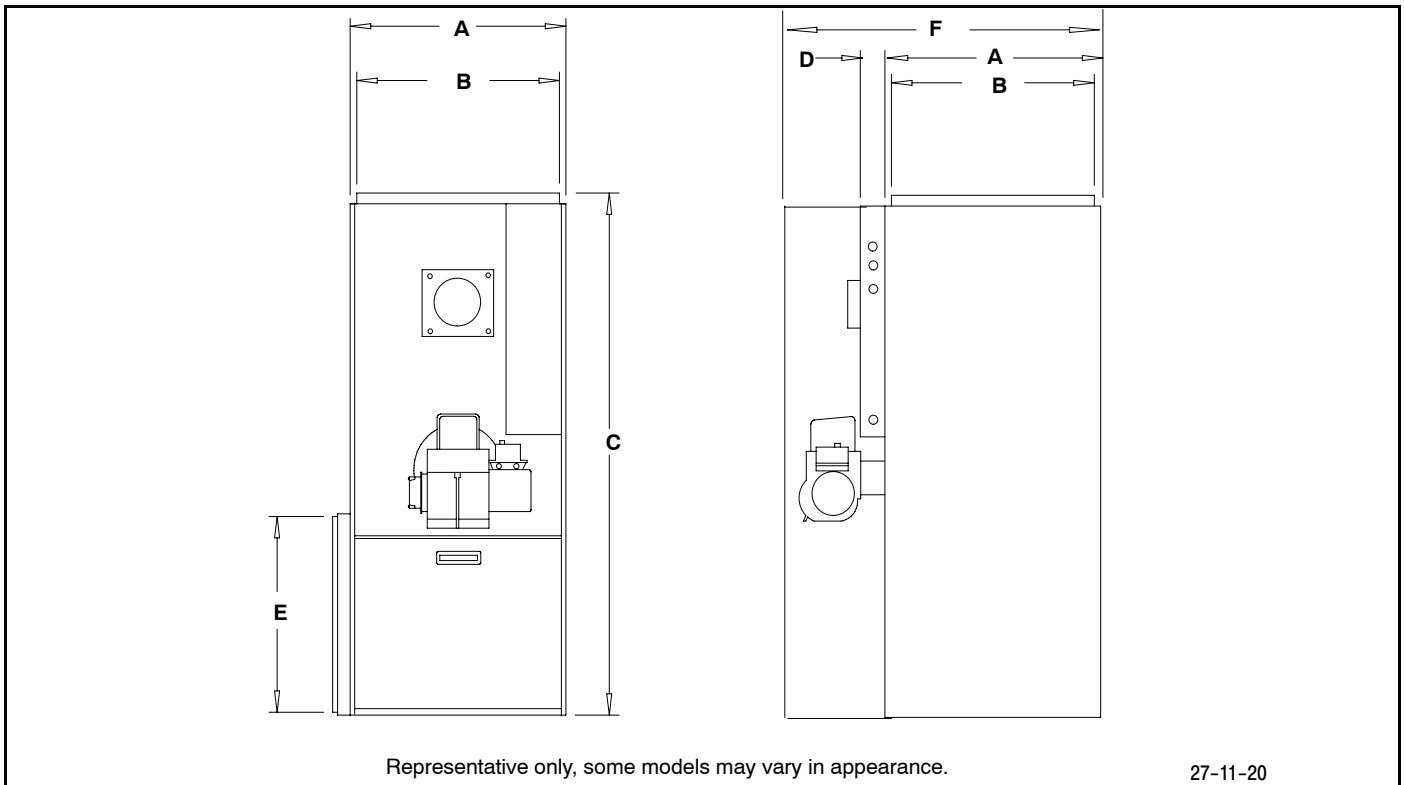
Air delivery - with air filter

EXTERNAL STATIC PRESSURE - in wc								EXTERNAL STATIC PRESSURE - Pa							
SPEED	0.1	0.2	0.3	0.4	0.5	0.6	0.7	SPEED	25	50	75	100	125	149	174
	CFM								L/s						
LOW	984	968	952	936	920	904	888	LOW	464	457	449	442	434	427	419
MED-LO	1160	1120	1080	1040	1000	960	920	MED-LO	547	528	510	491	472	453	434
MED-HI	1390	1330	1270	1210	1150	1090	1030	MED-HI	656	628	599	571	543	514	486
HIGH	1670	1590	1510	1430	1350	1270	1190	HIGH	788	750	713	675	637	599	562

## MODEL NUMBER IDENTIFICATION GUIDE

<b>MODEL NUMBER</b> Blank = Burners & Accessories ordered separately N = Complete furnace w/burners + vestibule		<b>N</b>	<b>O</b>	<b>U</b>	<b>F</b>	<b>105</b>	<b>A</b>	<b>12</b>	<b>D</b>
<b>FUEL</b> O = Oil									
<b>PRODUCT GROUP</b> U = Upflow H = Horizontal T = Upflow/Horizontal L = Lo-Boy		D = Downflow C = Downflow/Horizontal M = Multiposition							
<b>SERIES</b> F = Front Breech R = Rear Breech									
									<b>REVISION</b>
									<b>AIR FLOW</b> 08 = 800 CFM 12 = 1200 CFM 18 = 1800 CFM 20 = 2000 CFM
									<b>SUPPLY PLENUM SIZE</b> A = 20 x 20 B = 24 x 24
									<b>INPUT, MBTUH</b>

## DIMENSIONS



Furnace Dimensions								
A	B	C	D	E		F	Flue	Vestibule Width
				Depth	Height			
in								
21	19 <sup>3</sup> / <sub>4</sub>	48	2.4	18.9	18.9	33 <sup>1</sup> / <sub>2</sub>	5	21 <sup>1</sup> / <sub>2</sub>
mm								
533	502	1219	61	480	480	851	127	546

Minimum Installation Clearances from Combustible Material - in(mm)		
Sides	Furnace	1 (25.4)
	Supply plenum, warm air duct within 6' (1.8 m) of furnace	1 (25.4)
Back	Furnace	1 (25.4)
Top	Furnace casing or plenum	1 (25.4)
Bottom	Furnace - combustible floor	0
Front	Furnace	24 (609.6)

## ACCESSORIES

Product Model No.	Burners	Nozzle (not supplied)	Coil Adapter	External Filter Rack	Accessories (installed)
NOUF105A12	N01J040 (Beckett-chimney)	(0.50 – 70A) – N03F015	OCA20	B30083	HBVEST1 Vestibule Kit
		0.60–70B – N03H014			

## ADDITIONAL ACCESSORIES

Accessories Model No	Description	Use With
Q034	Mounting Bracket Kit for Filters	ALL Models
Q035	Mounting Restriction Gauge	ALL Models
Z08F001	7 Micron Media Filter and Head	ALL Models
Z08F004	7 Micron Media Filter Replacement	ALL Models

## ACCESSORY DESCRIPTION

Accessories Model No	Description
N01J040	Beckett AFG-F0 Oil Burner for 5" (127mm) Breech Models
N01J039	Beckett AFG-F6 Oil Burner for 6" (154mm) Breech Models
HBVEST1	Vestibule Kit for 5" (127mm) Breech Hi Boy Models
HBVEST2	Vestibule Kit for 6" (152mm) Breech Hi Boy Models
OCA20	Cased Coil Adapter 20" x 20" (508 x 508mm)
OCA24	Cased Coil Adapter 20" x 24" (508 x 610mm)
B30656	External Filter Rack
B30083	External Filter Rack
N03F015	Nozzle, Oil Burner, Delavan, 0.5 GPH/70° A
N03F024	Nozzle, Oil Burner, Delavan, 0.75 GPH/70° B
N03H001	Nozzle, Oil Burner, Delavan, 1.0 GPH/70° B
N03H014	Nozzle, Oil Burner, Delavan, 0.6 GPH/70° B