

**VALUE 80™
UP-FLOW/HORIZONTAL GAS FURNACES**

80UHG

Bulletin No. 210215

November 1997

*80.0 to 80.5% A.F.U.E.

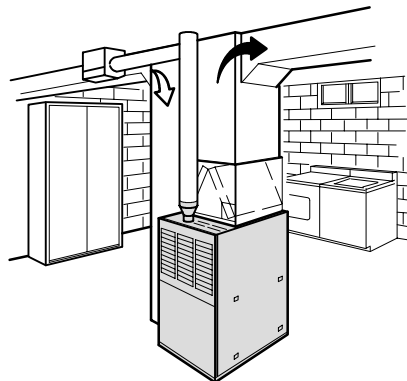
**45,000 to 120,000 Btuh (13.2 to 32.2 kW) Input Heating Capacity
1-1/2 thru 6 Tons (3.5 thru 21.1 kW) Nominal Add-on Cooling**

*Isolated Combustion System Rating for Non-Weatherized Furnaces

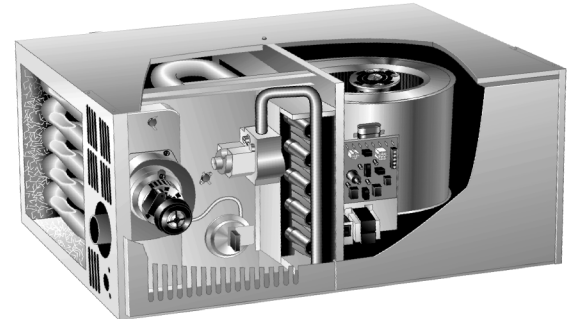


UP-FLOW POSITION

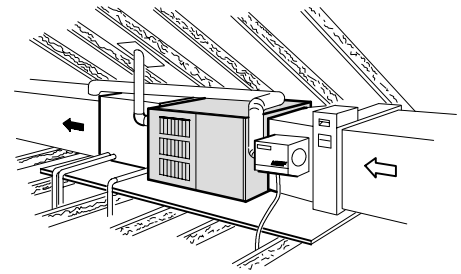
Typical Applications



Up-Flow Utility Room Installation
With Cooling Coil
and Automatic Humidifier



HORIZONTAL POSITION



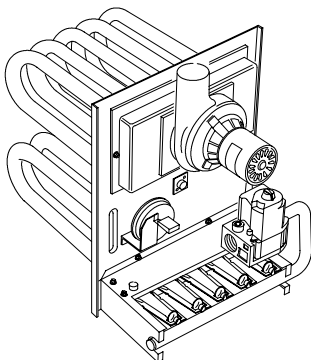
Horizontal Attic Installation
With Cooling Coil,
Electronic Air Cleaner
and Automatic Humidifier

FEATURES

Applications

- 80UHG series gas fired furnaces include ten models (natural gas or LPG/propane) with input capacities of 45,000, 60,000, 75,000, 100,000 and 120,000 Btuh (13.2, 17.6, 22.0, 29.3 and 32.2 kW)
- A.F.U.E. up to 80.5%.
- Up-flow or horizontal applications.
- Lennox add-on evaporator coils, electronic air cleaners and power humidifiers can be easily added to the furnace.
- Units are shipped factory assembled with all controls installed and wired.
- Each unit is factory test operated to insure proper operation.

Tubular Aluminized Steel Heat Exchanger



- Constructed of aluminized steel for superior resistance to corrosion and oxidation.
- Curving design allows complete exposure of heating surfaces to supply air stream.
- Round surfaces create minimum air resistance and allow air to surround all surfaces for excellent heat transfer.
- Compact design reduces space requirements in unit cabinet.

- Heat exchanger has been laboratory life cycle tested.

Approvals

- Units are certified by A.G.A./C.G.A. Laboratories
- Ratings are certified by GAMA.
- Units have been rated and tested according to U.S. DOE test procedures and FTC labeling regulations.
- 80UHG "X" models meet California Nitrogen Oxides (NO_x) Standards and California Seasonal Efficiency requirements.
- Blower data is from unit tests conducted in the Lennox Laboratory air test chamber.
- Units are approved for conventional or horizontal (sidewall) venting. NOTE - Horizontal venting requires sidewall power venting kit, see Optional Accessories.

Equipment Warranty

- Heat exchanger - limited warranty for ten years.
- Solid-state ignition module - limited warranty for three years.
- All other components - limited warranty for one year.
- Refer to the Lennox Equipment Limited Warranty certificate included with the equipment for details.

Induced Draft Blower

- Induced draft blower prepurges heat exchanger and safely vents flue products.
- Blower is controlled by the furnace control center board for a prepurge cycle (15 seconds) and a post purge cycle (5 seconds).
- Pressure switch proves blower operation before allowing gas valve to open.
- Induced draft blower operates only during heating cycle.



FEATURES

Inshot Burners

- Aluminized steel inshot burners provide efficient trouble free operation.
- Burner venturi mixes air and gas in correct proportion for proper combustion.
- Burner assembly is removeable from the unit as a single component for ease of service and each burner may be removed individually.

Gas Control Valve

- 24 volt redundant combination gas control valve combines a manual main shutoff valve, pressure regulation and automatic electric valve (dual) into one compact combination control.

Direct Spark Ignition

- Solid-state electronic direct spark ignition control provides positive and safe main burner ignition.
- Spark is intermittent and occurs only when required.
- Separate electronic flame sensor control assures safe and reliable operation.
- Should loss of flame occur, flame sensor controls will initiate a re-ignition trial before locking out unit operation for 60 minutes.
- Ignition control has LED to indicate status and as an aid in troubleshooting.
- Watchguard circuit automatically resets ignition controls after one hour of continuous thermostat demand after unit lockout, eliminating nuisance calls for service.

Cabinet

- Constructed of painted cold rolled steel.
- Cabinet surface temperatures are low due to foil faced fiberglass insulation on side and back panels of heat section.
- Complete service access is accomplished by removing panels
- Blower assembly may be completely removed from unit for service.
- Safety interlock switch located on blower access door automatically shuts off power to the unit when door is removed.
- Gas piping inlets are provided in both sides and top of cabinet.
- Electrical knockouts are provided in both sides, top and bottom of cabinet.
- Units have flanges on top and bottom of cabinet that may be bent out for duct connection to unit. See dimension drawing.
- Painted panel is furnished to block off bottom air return air. Return air entry is possible on either side or bottom of cabinet for up-flow applications. End return air entry is available for horizontal applications.

OPTIONAL ACCESSORIES (Must Be Ordered Extra)

LPG/Propane Conversion Kit (Optional)

- For LPG/propane models a conversion kit is required for field changeover from natural gas.
- Kit is not furnished and must be ordered extra. See specifications table for order number.

Thermostat (Optional)

- Heating thermostat is not furnished and must be ordered extra. See Thermostat bulletin and Lennox Price Book.
- For all-season applications, heating and cooling thermostat is available with the condensing unit.

Twinning Kit (Optional)

- Field installed kit (96J69) is available to operate two furnaces simultaneously.
- Kit consists of solid-state control board, power venter harness, (2) ACB blower control harnesses, and (2) left/right thermostat harnesses. Kit allows combinations of up to two stage heat/two stage cool. Board also has continuous fan switch. Diagnostic LED is furnished as an aid in servicing.
- Control also has built-in watchguard type circuit to prevent nuisance lockouts.
- Control board may be installed in any convenient location inside one of the furnaces.

Flame Rollout Switches

- Dual manual reset switches are furnished as standard and are factory installed on either side of the burner box.
- Switches prevent unit operation in the event combustion products passage through the flueway is reduced or blocked.

Limit Controls

- Factory installed and accurately located limit controls provide protection from abnormal operating conditions. primary limit is located on heating compartment vestibule panel.
- Two secondary limits are located on either side of the blower housing.

Furnace Control Center Board

- Furnished and factory installed.
- Solid-state board contains all necessary controls and relays to operate blower, gas valve, combustion air blower and ignition.
- Board also monitors flame, limit and gas valve operation.
- Fan control consists of blower timed-off delay (adjustable from 90 to 240 seconds. Factory setting is 180 seconds.) and non-adjustable blower timed-on delay (45 seconds).
- For air-conditioning applications, blower is automatically energized on thermostat demand for cooling.
- Continuous heating speed blower operation is furnished on board.
- Also included is a low voltage terminal strip for thermostat connections.
- Diagnostic LED is furnished on board as an aid in servicing the system.
- Three 120 volt accessory terminals are provided on control board for operation of accessories during unit operation.

Transformer

- 24 volt control transformer is furnished as standard equipment and is factory installed on control panel.

Direct Drive Blower

- Units are equipped with quiet multi-speed direct drive blower.
- Each blower assembly is statically and dynamically balanced.
- Multiple-speed leadless motor is resiliently mounted.
- Change in blower speeds is easily accomplished by simple wiring change at blower motor.
- See blower performance tables.

Filter (Not Furnished)

- Filters are not furnished and must be ordered extra.
- External filter kits are available for up-flow or horizontal applications.
- See below and Specifications table.

Up-flow/Horizontal Filter Kit (Optional)

- Filter kits are furnished with units for field installation in up-flow or horizontal applications.
- Includes adjustable filter rack with access door, filter removal tool for bottom return air applications and filter. Available in single and ten packs. See Specifications table for filter sizes and catalog numbers.

Hanging Bracket Kit (Optional)

- Installed kit LB-69957 (46J66) available for easy suspension of unit in horizontal applications.
- Includes four vertical supports for mounting to joists and two horizontal channels.

Sidewall Power Venting Kit (Optional)

- Required for horizontal venting. Kit (79J15) includes E.T.L. listed power venter and control kit.
- Control kit includes junction box with pressure switch, aluminum tubing, tubing, conduit connectors and barometric draft control. See venting table for requirements.
- Flue piping must be field provided.

SPECIFICATIONS

| Model No. | | 80UHG2(X)-45 | 80UHG2(X)-60 | 80UHG3(X)-60 | 80UHG2(X)-75 | 80UHG3(X)-75 | 80UHG4(X)-75 |
|--|------|---|-------------------|-----------------|------------------|------------------------------|--------------|
| Input Btuh (kW) | | 45,000 (13.2) | 60,000 (17.6) | | 75,000 (22.0) | | |
| Output Btuh (kW) | | 36,900 (10.8) | 49,200 (14.4) | | 61,700 (18.1) | | |
| <input type="checkbox"/> A.F.U.E. | | 80.1% | 80.5% | | 80.1% | 80.0% | |
| California Seasonal Efficiency | | 75.4% | 76.4% | 75.9% | 76.8% | 76.8% | 76.3% |
| Flue size connection diameter - in. (mm) round | | 3 (76) | | | 4 (102) | | |
| Temperature rise range - °F (°C) | | 30 - 60 (17 - 33) | 45 - 75 (25 - 42) | | | | |
| High static certified by A.G.A./C.G.A. - in wg. (Pa) | | .50 (125) | | | | | |
| Gas Piping Size I.P.S. Natural or LPG/propane | | 1/2 (13) | | | | | |
| Blower wheel nominal diameter x width | in. | 9 x 7 | 10 x 7 | 9 x 7 | 10 x 7 | 12 x 8 | |
| | mm | 229 x 178 | 254 x 178 | 229 x 178 | 254 x 178 | 305 x 203 | |
| Blower motor output - hp (W) | | 1/4 (187) | 1/3 (224) | 1/4 (187) | 1/3 (224) | 1/2 (373) | |
| Nominal cooling that can be added | Tons | 1, 1-1/2 or 2 | 2, 2-1/2 or 3 | 1, 1-1/2 or 2 | 2, 2-1/2 or 3 | 2, 2-1/2, 3, 3-1/2 or 4 | |
| | kW | 3.5, 5.3 or 7.0 | 7.0, 8.8 or 10.6 | 3.5, 5.3 or 7.0 | 7.0, 8.8 or 10.6 | 7.0, 8.8, 10.6, 12.3 or 14.1 | |
| Shipping weight - lbs. (kg) 1 package | | 130 (59) | 135 (61) | | | 140 (64) | |
| Electrical characteristics | | 120 volts - 60 hertz - 1 phase (less than 12 amps) All models | | | | | |
| Optional Accessories (Must Be Ordered Extra) | | | | | | | |
| LPG/propane kit | | LB-69845L (38K84) | | | | | |
| Twinning Kit | | 96J69 - 5 lbs. (2 kg) | | | | | |
| Up-Flow/Horizontal Filter and Filter Rack Kits <input checked="" type="checkbox"/> No. & size of filters - in. (mm) | | Single (32J02) Ten Pack (66K64) (1) 16 x 20 x 1 (406 x 508 x 25) | | | | | |
| Sidewall Power Venting Kit | | 79J15 - 25 lbs. (11 kg) | | | | | |
| Hanging Bracket Kit | | LB-69957 (46J66) - 15 lbs. (8 kg) | | | | | |

Annual Fuel Utilization Efficiency based on U.S. DOE test procedures and according to FTC labeling regulations. Isolated combustion system rating for non-weatherized furnaces.
 Polyurethane frame type filter is furnished with kit.

| Model No. | | 80UHG3/4(X)-100 | 80UHG4/5(X)-100 | 80UHG3/4-120 | 80UHG4/5(X)-120 |
|--|------|---|--------------------------|------------------------------|--------------------------|
| Input Btuh (kW) | | 100,000 (29.3) | | 120,000 (35.2) | |
| Output Btuh (kW) | | 82,000 (24.0) | | 98,400 (28.8) | |
| <input type="checkbox"/> A.F.U.E. | | 80.1% | 80.0% | | 80.1% |
| California Seasonal Efficiency | | 76.5% | 77.0% | Not Available | 75.5% |
| Flue size connection diameter - in. (mm) round | | 4 (102) | | | |
| Temperature rise range - °F (°C) | | 45 - 75 (25 - 42) | 35 - 65 (19 - 36) | 45 - 75 (25 - 42) | |
| High static certified by A.G.A./C.G.A. - in wg. (Pa) | | .50 (125) | .65 (162) | .50 (125) | |
| Gas Piping Size I.P.S. Natural or LPG/propane | | 1/2 (13) | | | |
| Blower wheel nominal diameter x width | in. | 12 x 8 | 12 x 9 | 12 x 8 | 12 x 9 |
| | mm | 305 x 203 | 305 x 229 | 305 x 203 | 305 x 229 |
| Blower motor output - hp (W) | | 1/2 (373) | 3/4 (560) | 1/2 (373) | 3/4 (560) |
| Nominal cooling that can be added | Tons | 2, 2-1/2, 3, 3-1/2 or 4 | 3-1/2, 4, 5 or 6 | 2, 2-1/2, 3, 3-1/2 or 4 | 3-1/2, 4, 5 or 6 |
| | kW | 7.0, 8.8, 10.6, 12.3 or 14.1 | 12.3, 14.1, 17.6 or 21.1 | 7.0, 8.8, 10.6, 12.3 or 14.1 | 12.3, 14.1, 17.6 or 21.1 |
| Shipping weight - lbs. (kg) 1 package | | 175 (79) | | | |
| Electrical characteristics | | 120 volts - 60 hertz - 1 phase (less than 12 amps) All models | | | |
| Optional Accessories (Must Be Ordered Extra) | | | | | |
| LPG/propane kit | | LB-69845K (81J14) | | | |
| Twinning Kit | | 96J69 - 5 lbs. (2 kg) | | | |
| Up-Flow/Horizontal Filter and Filter Rack Kits <input checked="" type="checkbox"/> No. & size of filters - in. (mm) | | Single (46J14) Ten Pack (66K65) (1) 20 x 20 x 1 (508 x 508 x 25) | | | |
| Sidewall Power Venting Kit | | 79J15 - 25 lbs. (11 kg) | | | |
| Hanging Bracket Kit | | LB-69957 (46J66) - 15 lbs. (8 kg) | | | |

Annual Fuel Utilization Efficiency based on U.S. DOE test procedures and according to FTC labeling regulations. Isolated combustion system rating for non-weatherized furnaces.
 Polyurethane frame type filter is furnished with kit.

INSTALLATION CLEARANCES - inches (mm)

UP-FLOW POSITION

| Vent Type | Type "B" | Type "C" |
|-----------------|--------------------|--------------------|
| Sides | 0 inches (0 mm) | 0 inches (0 mm) |
| Rear | 0 inches (0 mm) | 0 inches (0 mm) |
| Top | 1 inch (25 mm) | 1 inch (25 mm) |
| Front | 2 inches (51 mm) | 2 inches (25 mm) |
| Front (service) | 24 inches (610 mm) | 24 inches (610 mm) |
| Floor | Combustible | Combustible |
| Flue | 1 inch (25 mm) | 6 inch (152 mm) |

NOTE-Air for combustion and supply air ventilation must conform to the methods outlined in American National Standard (ANSI-Z223.1) National Fuel Gas Code or National Standard of Canada CAN/CGA-149.1, & CAN/CGA-149.2 "Installation Code for Gas Burning Appliances".

NOTE-In the U.S. flue sizing must conform to the methods outlined in current GAMA/A.G.A. venting tables, American National Standard (ANSI-Z223.1) National Fuel Gas Code or applicable provisions of local building codes. In Canada flue sizing must conform to the methods outlined in National Standard of Canada CAN/CGA-149.1 and .2.

HORIZONTAL POSITION

| Vent Type | Type "B" | Type "C" |
|-----------------|--------------------|--------------------|
| Ⓜ Sides | Ⓜ 2 inches (51 mm) | Ⓜ 2 inches (51 mm) |
| Rear | 0 inches (0 mm) | 0 inches (0 mm) |
| Ⓜ Top | Ⓜ 0 inches (0 mm) | Ⓜ 0 inches (0 mm) |
| Front | 2 inches (25 mm) | 2 inches (25 mm) |
| Front (service) | 24 inches (610 mm) | 24 inches (610 mm) |
| Floor | 0 inches (0 mm) | 0 inches (0 mm) |
| Flue | 1 inch (25 mm) | 6 inch (152 mm) |

NOTE-Air for combustion and supply air ventilation must conform to the methods outlined in American National Standard (ANSI-Z223.1) National Fuel Gas Code or National Standard of Canada CAN/CGA-149.1, & CAN/CGA-149.2 "Installation Code for Gas Burning Appliances".

NOTE-In the U.S. flue sizing must conform to the methods outlined in current GAMA/A.G.A. venting tables, American National Standard (ANSI-Z223.1) National Fuel Gas Code or applicable provisions of local building codes. In Canada flue sizing must conform to the methods outlined in National Standard of Canada CAN/CGA-149.1 and .2.

Ⓜ Line contact installation permissible between jacket top or sides and building joists.

BLOWER DATA

80UHG2-45, 80UHG2-60 AND 80UHG2-75 BLOWER PERFORMANCE

| External Static Pressure | | Air Volume at Various Blower Speeds | | | | | | | |
|--------------------------|-----|-------------------------------------|-----|-------------|-----|------------|-----|-----|-----|
| | | High | | Medium-High | | Medium-Low | | Low | |
| in. w.g. | Pa | cfm | L/s | cfm | L/s | cfm | L/s | cfm | L/s |
| 0 | 0 | 1270 | 600 | 980 | 460 | 770 | 365 | 570 | 270 |
| .05 | 12 | 1245 | 590 | 975 | 460 | 770 | 365 | 565 | 265 |
| .10 | 25 | 1220 | 575 | 975 | 460 | 770 | 365 | 565 | 265 |
| .15 | 37 | 1195 | 565 | 965 | 455 | 765 | 360 | 560 | 265 |
| .20 | 50 | 1170 | 550 | 960 | 455 | 760 | 360 | 560 | 265 |
| .25 | 62 | 1140 | 540 | 950 | 450 | 760 | 360 | 555 | 260 |
| .30 | 75 | 1110 | 525 | 940 | 445 | 760 | 360 | 550 | 260 |
| .40 | 100 | 1060 | 500 | 910 | 430 | 750 | 355 | 545 | 255 |
| .50 | 125 | 990 | 465 | 880 | 415 | 740 | 350 | 540 | 255 |
| .60 | 150 | 900 | 425 | 810 | 380 | 690 | 325 | 530 | 250 |
| .70 | 175 | 800 | 380 | 740 | 350 | 630 | 295 | 520 | 245 |

NOTE - All air data is measured external to unit with 1 in. (25 mm) cleanable filter (not furnished) in place. Also see Filter Air Resistance table

80UHG3-60 AND 80UHG3-75 BLOWER PERFORMANCE

| External Static Pressure | | Air Volume at Various Blower Speeds | | | | | | | |
|--------------------------|-----|-------------------------------------|-----|-------------|-----|------------|-----|-----|-----|
| | | High | | Medium-High | | Medium-Low | | Low | |
| in. w.g. | Pa | cfm | L/s | cfm | L/s | cfm | L/s | cfm | L/s |
| 0 | 0 | 1425 | 670 | 1240 | 585 | 1000 | 470 | 800 | 380 |
| .05 | 12 | 1415 | 670 | 1230 | 580 | 995 | 470 | 800 | 380 |
| .10 | 25 | 1400 | 660 | 1220 | 575 | 990 | 465 | 795 | 375 |
| .15 | 37 | 1385 | 655 | 1200 | 565 | 985 | 465 | 795 | 375 |
| .20 | 50 | 1370 | 645 | 1180 | 555 | 980 | 460 | 790 | 375 |
| .25 | 62 | 1350 | 635 | 1160 | 545 | 970 | 460 | 780 | 370 |
| .30 | 75 | 1330 | 630 | 1140 | 540 | 955 | 450 | 770 | 365 |
| .40 | 100 | 1280 | 605 | 1095 | 515 | 925 | 435 | 750 | 355 |
| .50 | 125 | 1210 | 570 | 1040 | 490 | 900 | 425 | 720 | 340 |
| .60 | 150 | 1135 | 535 | 985 | 465 | 860 | 405 | 680 | 320 |
| .70 | 175 | 1070 | 505 | 920 | 435 | 800 | 380 | 630 | 300 |

NOTE - All air data is measured external to unit with 1 in. (25 mm) cleanable filter (not furnished) in place. Also see Filter Air Resistance table

80UHG4-75, 80UHG3/4-100 AND 80UHG3/4-120 BLOWER PERFORMANCE

| External Static Pressure | | Air Volume at Various Blower Speeds | | | | | | | | | |
|--------------------------|-----|-------------------------------------|-----|-------------|-----|--------|-----|------------|-----|-----|-----|
| | | High | | Medium-High | | Medium | | Medium-Low | | Low | |
| in. w.g. | Pa | cfm | L/s | cfm | L/s | cfm | L/s | cfm | L/s | cfm | L/s |
| 0 | 0 | 1830 | 865 | 1600 | 755 | 1325 | 625 | 1070 | 505 | 880 | 415 |
| .05 | 12 | 1815 | 855 | 1585 | 750 | 1320 | 625 | 1070 | 505 | 880 | 415 |
| .10 | 25 | 1800 | 850 | 1570 | 740 | 1315 | 620 | 1070 | 505 | 880 | 415 |
| .15 | 37 | 1875 | 885 | 1550 | 730 | 1310 | 620 | 1065 | 505 | 875 | 415 |
| .20 | 50 | 1750 | 825 | 1530 | 720 | 1300 | 615 | 1060 | 500 | 875 | 415 |
| .25 | 62 | 1725 | 815 | 1515 | 715 | 1290 | 610 | 1050 | 495 | 870 | 410 |
| .30 | 75 | 1700 | 800 | 1500 | 710 | 1275 | 600 | 1040 | 490 | 870 | 410 |
| .40 | 100 | 1650 | 780 | 1460 | 690 | 1245 | 590 | 1020 | 480 | 860 | 405 |
| .50 | 125 | 1600 | 755 | 1420 | 670 | 1210 | 570 | 1000 | 470 | 840 | 395 |
| .60 | 150 | 1550 | 730 | 1380 | 650 | 1170 | 550 | 980 | 460 | 820 | 385 |
| .70 | 175 | 1480 | 700 | 1330 | 630 | 1130 | 535 | 960 | 455 | 790 | 375 |

NOTE - All air data is measured external to unit with 1 in. (25 mm) cleanable filter (not furnished) in place. Also see Filter Air Resistance table

BLOWER DATA

80UHG4/5-100 AND 80UHG4/5-120 BLOWER PERFORMANCE

| External Static Pressure | | Air Volume at Various Blower Speeds | | | | | | | | | |
|--------------------------|-----|-------------------------------------|------|-------------|------|--------|-----|------------|-----|------|-----|
| | | High | | Medium-High | | Medium | | Medium-Low | | Low | |
| in. w.g. | Pa | cfm | L/s | cfm | L/s | cfm | L/s | cfm | L/s | cfm | L/s |
| 0 | 0 | 2450 | 1155 | 2160 | 1020 | 1970 | 930 | 1700 | 800 | 1500 | 710 |
| .05 | 12 | 2440 | 1150 | 2155 | 1015 | 1965 | 925 | 1695 | 800 | 1500 | 710 |
| .10 | 25 | 2430 | 1145 | 2150 | 1015 | 1960 | 925 | 1690 | 800 | 1495 | 705 |
| .15 | 37 | 2415 | 1140 | 2135 | 1010 | 1950 | 920 | 1685 | 795 | 1495 | 705 |
| .20 | 50 | 2400 | 1135 | 2120 | 1000 | 1940 | 915 | 1680 | 795 | 1490 | 705 |
| .25 | 62 | 2380 | 1125 | 2105 | 995 | 1930 | 910 | 1675 | 790 | 1480 | 700 |
| .30 | 75 | 2360 | 1115 | 2090 | 985 | 1915 | 905 | 1670 | 790 | 1470 | 695 |
| .40 | 100 | 2310 | 1090 | 2050 | 965 | 1870 | 880 | 1650 | 780 | 1440 | 680 |
| .50 | 125 | 2260 | 1065 | 2000 | 945 | 1810 | 855 | 1610 | 760 | 1410 | 665 |
| .60 | 150 | 2180 | 1030 | 1950 | 920 | 1750 | 825 | 1560 | 735 | 1370 | 645 |
| .70 | 175 | 2100 | 990 | 1890 | 890 | 1700 | 800 | 1520 | 715 | 1330 | 630 |

NOTE - All air data is measured external to unit with 1 in. (25 mm) cleanable filter (not furnished) in place. Also see Filter Air Resistance table

FILTER AIR RESISTANCE

| cfm (L/s) | in. w.g. (Pa) |
|-------------|---------------|
| 0 (0) | 0.00 (0) |
| 200 (95) | 0.01 (2) |
| 400 (185) | 0.03 (7) |
| 600 (280) | 0.04 (10) |
| 800 (375) | 0.06 (15) |
| 1000 (470) | 0.09 (22) |
| 1200 (560) | 0.12 (30) |
| 1400 (655) | 0.15 (37) |
| 1600 (750) | 0.19 (47) |
| 1800 (845) | 0.23 (57) |
| 2000 (935) | 0.27 (67) |
| 2200 (1030) | 0.33 (82) |
| 2400 (1125) | 0.38 (95) |
| 2600 (1220) | 0.44 (110) |

HIGH ALTITUDE DERATE

Unit does not require gas pressure adjustment when operating at elevations of 0 to 7500 feet (0 to 2285 m). See table for correct manifold pressures for natural and LPG/Propane gases.

In Canada, certification for installation at altitudes over 4500 feet (1372 m) above sea level is the jurisdiction of local authorities.

MANIFOLD GAS PRESSURE

| ALTITUDE ft. (m) | Fuel | Manifold Pressure (Outlet) in. w.g. (kPa) |
|-------------------|-------------|---|
| 0-7500 (0 - 2285) | Natural Gas | 3.5 (0.87) |
| 0-7500 (0 - 2285) | LPG/Propane | 9.0 - 9.5 (2.24 - 2.37) |

HORIZONTAL VENTING REQUIREMENTS (Thru The Wall)

| Furnace Model No. | Vent Pipe Diameter Furnace Connection | | Vent Pipe Minimum Equivalent Length | | Vent pipe Maximum Equivalent Length | | Horizontal Venting Transition Required | |
|---|---------------------------------------|-----|-------------------------------------|--------|-------------------------------------|--------|--|------------|
| | in. | mm | feet | meters | feet | meters | in. | mm |
| 80UHG2-45 80UHG2-60 80UHG3-60 | 3 | 76 | 10 | 3.0 | 60 | 18.0 | ①3 to 4 | ①76 to 102 |
| 80UHG2-75 80UHG3-75 80UHG4-75 80UHG3/4-100 80UHG4/5-100 80UHG3/4-120 80UHG4/5-120 | 4 | 102 | 10 | 3.0 | 60 | 18.0 | ---- | ---- |

VENTING NOTES - Elbows -

One 3 inch (76 mm) diameter 45° elbow is equivalent to 3 feet (1.0 m) of straight vent pipe.
 One 4 inch (102 mm) diameter 45° elbow is equivalent to 4 feet (1.2 m) of straight vent pipe.
 One 3 inch (76 mm) 90° elbow is equivalent to 5 feet (1.5 m) of straight vent pipe.
 One 4 inch (102 mm) 90° elbow is equivalent to 7 feet (2.1 m) of straight vent pipe.
 Two 45° elbows are equal to one 90° elbow.

Tees -

One 3 inch (76 mm) diameter tee is equivalent to 19 feet (5.8 m).of straight vent pipe.
 One 4 inch (102 mm) diameter tee is equivalent to 25 feet (7.6 m).of straight vent pipe.

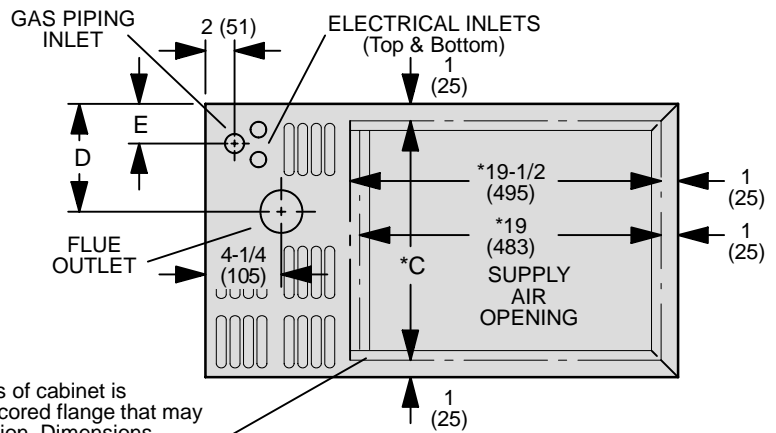
Transition -

3 inch to 4 inch (76 mm to 102 mm) transition is equivalent to 2 feet (0.61 m) of straight vent pipe.

① Transition furnished with power venter should be installed on top of flue adaptor at induced draft blower.

NOTE - All horizontal venting applications require optional Sidewall Power Venting Kit.

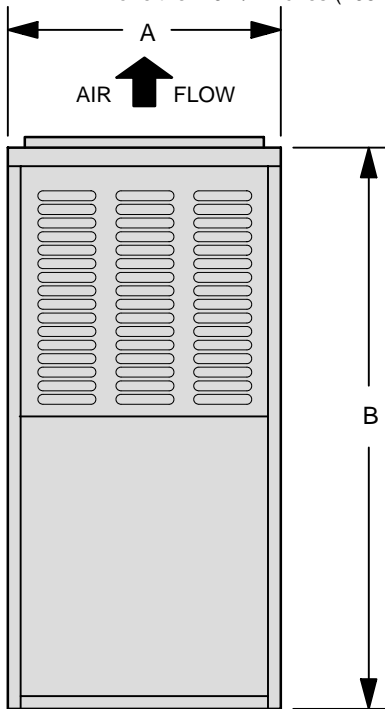
DIMENSIONS - inches (mm)



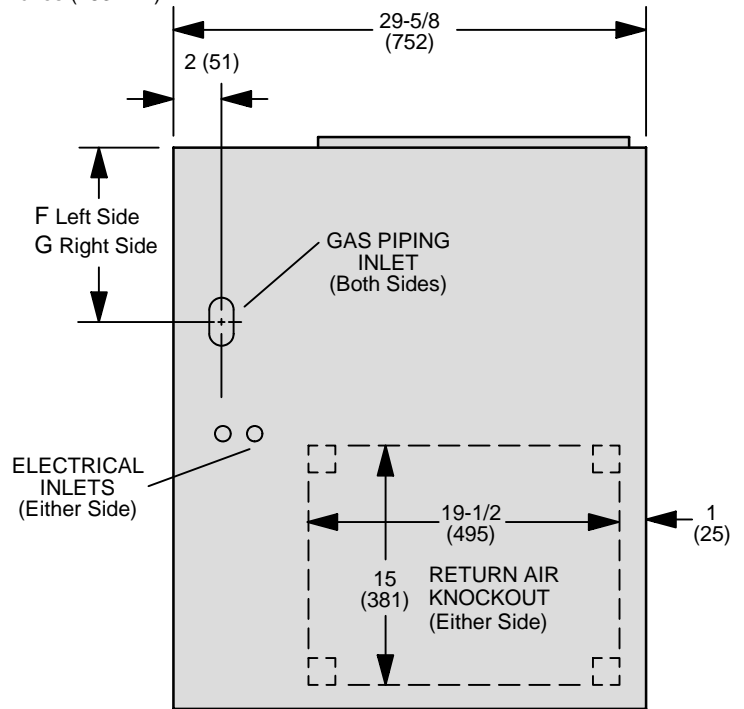
*NOTE- Supply air opening at rear and sides of cabinet is equipped with a 3/4 inch (19 mm) scored flange that may be bent out 90° for plenum connection. Dimensions shown are after flange is bent out.

TOP VIEW

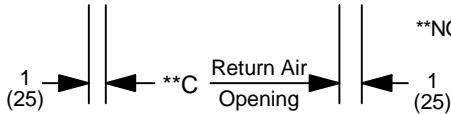
Double scored flange at front of supply air opening may be bent out for a total opening dimension (front to rear) of either 19-1/2 inches (495 mm) or 19 inches (483 mm).



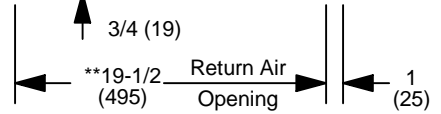
FRONT VIEW



SIDE VIEW



**NOTE- Return air opening is equipped with a 3/4 inch (19 mm) flange that may be bent out 90° for plenum connection. Dimensions shown are after flange is bent out,



| Model No. | | A | B | C | D | E | F | G |
|--|-----|--------|--------|--------|-------|--------|-------|--------|
| 80UHG2-45 80UHG2-60 80UHG2-75 | in. | 17 | 36-1/4 | 15 | 6-3/4 | 2-7/16 | 6-1/2 | 12 |
| | mm | 432 | 921 | 381 | 171 | 62 | 114 | 254 |
| | mm | 432 | 921 | 381 | 171 | 62 | 114 | 254 |
| 80UHG3/4-100 80UHG3/4-120 80UHG4/5-100 80UHG4/5-120 | in. | 20-1/2 | 39 | 18-1/2 | 8-3/8 | 4-1/4 | 8 | 13-1/2 |
| | mm | 521 | 991 | 470 | 213 | 108 | 203 | 343 |
| | mm | 521 | 991 | 470 | 213 | 108 | 203 | 343 |