

LENNOX®  
**UNIT HEATERS**



DESIGNED FOR EXCEPTIONAL PERFORMANCE



## UNIT HEATERS AT A GLANCE:

Designed for easy installation in a wide range of commercial and residential applications

Unit Heaters - Up to 83.8% thermal efficiency

Residential heating capacities from 30,000 - 105,000 BTU/h

Commercial heating capacities from 30,000 - 400,000 BTU/h

Separated Combustion capacities from 30,000 - 400,000 BTU/h

Stainless Steel heat exchangers available on 125,000 - 400,000 BTU/h models

All units are approved for horizontal and vertical venting.

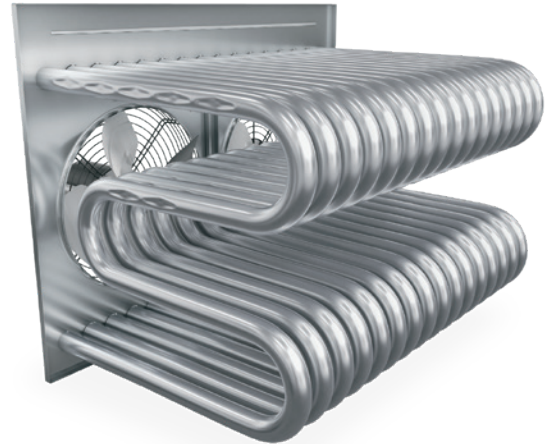
Stocked and available for quick delivery or pick up at a Lennox Store or Commercial Distribution Center near you.

## ENGINEERED FOR MAXIMUM EFFICIENCY

Lennox heating products are designed for superior reliability and peak performance, year after year. Advanced engineering and high-quality components produce a durable product that delivers comfort with maximum efficiency.

### TUBULAR HEAT EXCHANGER

A standard feature of all Lennox unit heaters is the dimpled, tubular heat exchanger, designed to enhance performance and reliability. The dimples maximize efficiency and provide excellent heat transfer by completely exposing the heating surface to the air stream. This tubular construction minimizes air resistance to allow for even heating across all surfaces increasing reliability.



### ENHANCED FEATURES

All unit heater models offer standard features such as the ignitor, flame sensor, and high limit switch. Hinged access doors allow easy access to the DSI control board featuring 11 diagnostic codes to quickly determine the unit's status. Additionally, all unit heaters include an in-shot cluster burner assembly that's simple to clean and easy to reach.



## EASY INSTALLATION

Each unit is factory wired and tested with complete cycles of startup and shutdown before being shipped to ensure a quick and easy start up. The 30-105 kBtuh models feature 180 degree installation position capability, which allows the installer to change the direction of the airflow without having to move the utilities. The 125-400 kBtuh models feature cage-nuts for all-thread installation, and all unit heaters feature hinged access doors and removable terminal blocks for both line voltage and thermostat wire connections.



## EFFICIENT by DESIGN

Lennox unit heaters are designed for superior reliability and long-lasting peak performance thanks to advanced engineering and high-quality components.

- **Most efficient non-condensing unit** heater in the industry\*
- **Delivers maximum performance** through dimpled tubular heat exchanger design
- **Superior separated combustion** seals through use of high-temperature silicone gaskets



## ULTIMATE SOUND QUALITY

The 25 series unit heaters were engineered to provide a warm and peaceful environment.

- **Superior sound quality with 25% less pure tones and projection** than leading competitors\*\*
- **Quieter space through improved chassis, mounting grill, and fan components**



## SIMPLIFIED INSTALLATION & SERVICE

Easily install and service Lennox unit heaters.

- **Easy set-up and service** with 180° installation position capability\*\*\*
- **Shorten service calls** by utilizing the new DSI board
- **Separated Combustion** fresh-air intake box can be rotated 180° on 125-400 kBtuh models

\* Lennox unit heaters are the most efficient unit heaters in the 80% thermal efficiency class for models that are dual qualified for commercial and residential application, LF25-30 thru LF25-105.

\*\* Lennox tests their products for sound and vibration in a reverberation room, which is designed to measure pressure and sound levels during steady state to the standard Section 4.4.4 AHRI 260-2012. The Lennox LF25-200 and Modine 200K BTUH model were compared in May 2019.

\*\*\*LF25-30 thru LF25-105, LS25-30 thru LS25-105

## MORE FLEXIBILITY KEEPS EVERYONE COMFORTABLE

Lennox heating products are available in three unit designs to meet a wide range of commercial and residential applications. With 14 available heating capacities, it's easy to find the right size heater to keep your spaces comfortable. Horizontal and vertical wall venting options, as well as the 180° installation\* capability, allow the units to be placed in a number of locations.



\*Only compact models can be installed 180°

## BENEFITS OF LF25 UNIT HEATERS

- Ideal for a wide range of commercial and residential applications
- Heating capacities from 30,000 - 400,000 BTU/h
- Up to 83.8% thermal efficiency
- Stainless Steel heat exchanger available on 125,000 - 400,000 BTU/h models
- Sidewall venting eliminates roof penetrations
- Self-diagnostic board with LED display improves troubleshooting efficiency and accuracy

## APPLICATIONS FOR LF25 UNIT HEATERS

The LF25 gas-fired unit heaters are a reliable, low cost heating solution designed to provide comfort for a variety applications ranging from residential garages, to loading docks, to large warehouses.



## INCREASED APPLICATION FLEXIBILITY

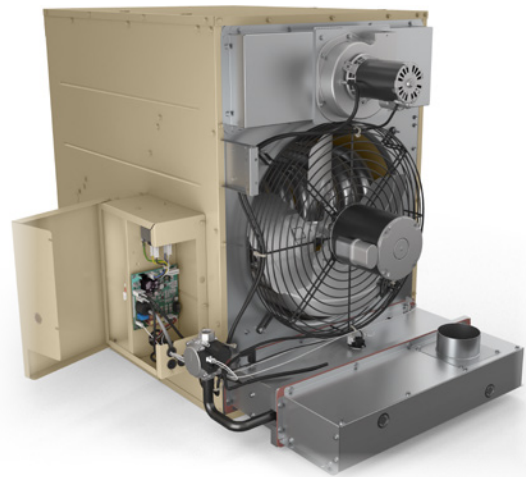


The LS25 Separated Combustion Unit Heaters utilize high-temperature silicone gaskets to provide a superior seal and leakage rates that are up to 57% lower\* than those allowed under ANSI Z83.8. Lennox goes above and beyond to deliver a tight, durable seal because that is the key to unmatched durability and efficiency over the life of a separated combustion product in harsh environments. The LS25 design simplifies installation of the unit by not disturbing any of the factory-installed seals or requiring messy, field-applied sealants.

## BENEFITS OF LS25 SEPARATED COMBUSTION UNITS

### INCREASED APPLICATION FLEXIBILITY

- Separated combustion units offer a robust heating solution for buildings with harsh indoor environments.
- Fresh-air intake can be rotated 180° degrees on the 125-400 kBtuh models for increased installation flexibility in retrofit applications, which can reduce the number of piping elbows needed to make venting connections.



### LOWER OPERATING COSTS

- The separated combustion technology enhances overall energy efficiency of the building by eliminating the continued replacement of conditioned air with unconditioned outside air.
- Up to 5% more efficient than standard efficiency direct-fired unit heaters\*\*
- LS25-250 through LS25-400 kBtuh models lower operating costs by efficiently meeting the demands of the space with two stages of heating.



## APPLICATIONS FOR SEPARATED COMBUSTION

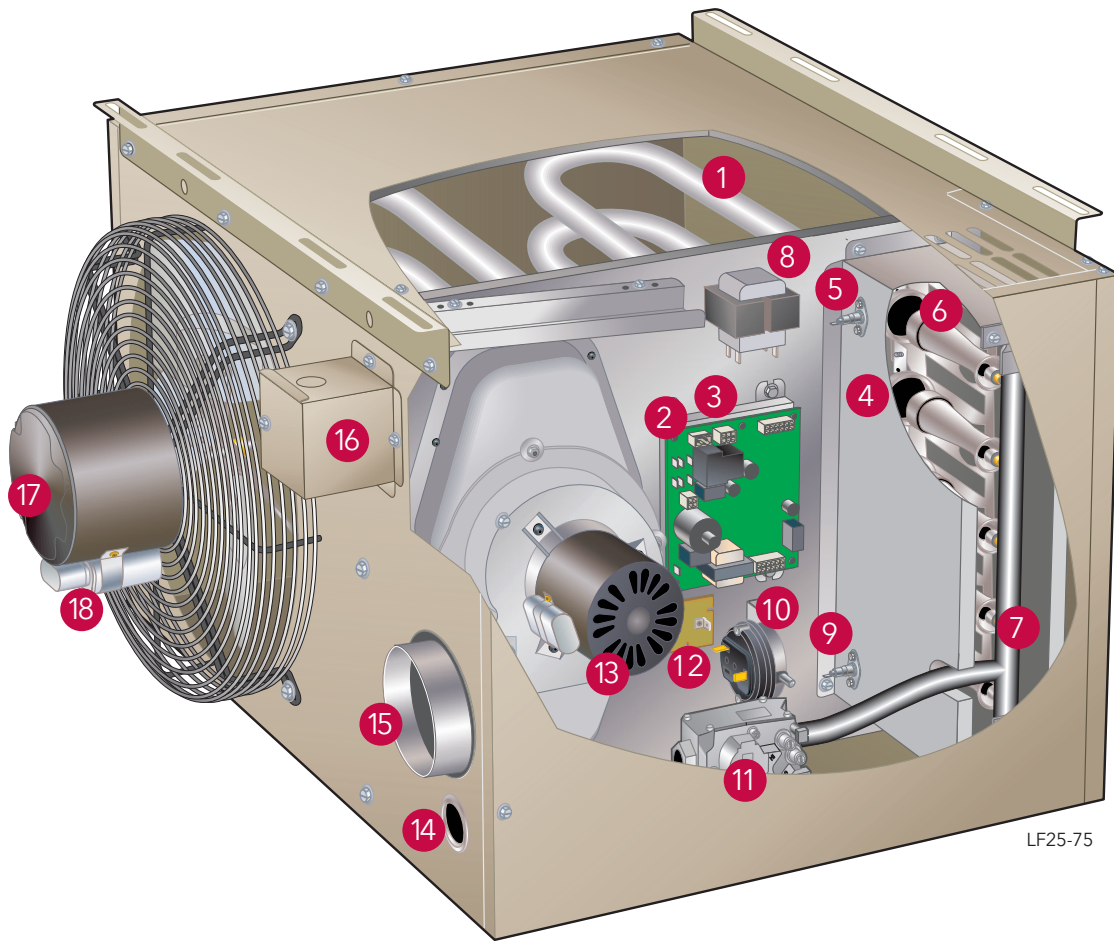
Separated combustion LS25 models use outside air for combustion and are designed for use in applications where the indoor environment may contain airborne contaminants, VOC's and/or dust that would normally be harmful to the combustion process and components.



\* LS25-200A-1 ANSI Z83.8 Leakage Test 5.29.7

\*\*Compared to 80% thermal efficiency unit heater when outside air is 0°F and occupied space is 65°F.

IMPROVED PERFORMANCE, INSTALLATION, AND SERVICEABILITY



LF25-75

- 1 **Dimpled Tubular Heat Exchanger** improves efficiency and increases durability
- 2 **DSI Control Board** offers the most diagnostic codes to speed up installation and service
- 3 **Removable Thermostat and Power Connections** for speed of installation
- 4 **Flame Rollout Switches** improves safety
- 5 **Flame Sensor** improves safety
- 6 **In-shot Cluster Burners**
- 7 **Gas Manifold**
- 8 **24V Transformer**
- 9 **Direct Spark Igniter** improves operation and efficiency
- 10 **Pressure Switch** verifies flue pipe is clear for safe operation (not shown)
- 11 **Gas Valve** with 100% safety shut off
- 12 **Primary Limit Switch**
- 13 **Combustion Air Inducer**
- 14 **Gas Inlet**
- 15 **Flue Outlet**
- 16 **Field Power Connection** for quick install
- 17 **Fan Motor**
- 18 **Capacitor**

# LF/LS25 UNIT HEATER SPECIFICATIONS

LF25 RESIDENTIAL AND COMMERCIAL UNIT HEATERS MODEL	GAS HEATING PERFORMANCE				CONNECTIONS			FAN DATA			
	INPUT HEATING CAPACITY BTU/H [KW]	OUTPUT HEATING CAPACITY <sup>1</sup> BTU/H [KW]	STEADY STATE EFFICIENCY NATURAL GAS	TEMP. RISE °F [°C]	GAS PIPING SIZE INCHES	FLUE SIZE IN [MM]	NUMBER OF FANS	AIR VOLUME CFM [M <sup>3</sup> /MIN]	FULL LOAD MOTOR AMPS (115V)	MAXIMUM OVERCURRENT PROTECTION (115V)	
LF25-30	30,000 [8.8]	24,900 [7.3]	83.4%	37 [2.8]	1/2	4 [102]	1	625 [17.7]	2	15	
LF25-45	45,000 [13.2]	37,350 [11.0]	83.7%	52 [11.1]	1/2	4 [102]	1	665 [18.8]	2	15	
LF25-60	60,000 [17.6]	49,800 [14.6]	83.7%	47 [8.3]	1/2	4 [102]	1	1000 [28.3]	2	15	
LF25-75	75,000 [22.0]	62,250 [18.3]	83.4%	65 [18.3]	1/2	4 [102]	1	1200 [34.0]	2	15	
LF25-90	90,000 [26.4]	74,700 [21.9]	83.8%	43 [6.1]	1/2	4 [102]	1	1600 [45.3]	3	15	
LF25-105	105,000 [30.8]	87,150 [25.6]	83.5%	59 [15.0]	1/2	4 [102]	1	1500 [42.5]	3	15	

LF25 COMMERCIAL UNIT HEATERS MODEL	GAS HEATING PERFORMANCE				CONNECTIONS			FAN DATA			
	INPUT HEATING CAPACITY BTU/H [KW]	OUTPUT HEATING CAPACITY <sup>1</sup> BTU/H [KW]	STEADY STATE EFFICIENCY NATURAL GAS	TEMP. RISE °F [°C]	GAS PIPING SIZE INCHES	FLUE SIZE IN [MM]	NUMBER OF FANS	AIR VOLUME CFM [M <sup>3</sup> /MIN]	FULL LOAD MOTOR AMPS (115V)	MAXIMUM OVERCURRENT PROTECTION (115V)	
LF25-125	125,000 [36.6]	103,750 [30.4]	83%	50 [10]	1/2	4 [102]	1	1950 [55.2]	5	15	
LF25-150	150,000 [44.0]	124,500 [36.5]	83%	62 [16.7]	1/2	4 [102]	1	1950 [55.2]	5	15	
LF25-175	175,000 [51.3]	145,250 [42.6]	83%	58 [14.4]	1/2	5 [127]	1	2350 [66.5]	7	15	
LF25-200	200,000 [58.6]	166,000 [48.6]	83%	59 [15.0]	1/2	5 [127]	1	2350 [66.5]	7	15	
LF25-250	250,000 [73.3]	207,500 [60.8]	83%	51 [10.6]	3/4	5 [127]	2	4000 [113.3]	8	15	
LF25-300	300,000 [87.9]	246,000 [72.1]	82%	57 [13.9]	3/4	5 [127]	2	4000 [113.3]	8	15	
LF25-350	350,000 [102.6]	290,500 [85.2]	83%	58 [14.4]	3/4	6 [152]	2	5500 [155.7]	11	15	
LF25-400	400,000 [117.2]	328,000 [96.1]	82%	65 [18.3]	3/4	6 [152]	2	5500 [155.7]	11	15	

LS25 SEPARATED COMBUSTION UNIT HEATERS MODEL	GAS HEATING PERFORMANCE				CONNECTIONS			FAN DATA			
	INPUT HEATING CAPACITY BTU/H [KW]	OUTPUT HEATING CAPACITY <sup>1</sup> BTU/H [KW]	STEADY STATE EFFICIENCY NATURAL GAS	TEMP. RISE °F [°C]	GAS PIPING SIZE INCHES	FLUE SIZE IN [MM]	COMBUSTION AIR SIZE <sup>2</sup> IN [MM]	NUMBER OF FANS	AIR VOLUME CFM [M <sup>3</sup> /MIN]	FULL LOAD MOTOR AMPS (115V)	MAXIMUM OVERCURRENT PROTECTION (115V)
LS25-30	30,000 [8.8]	24,600 [7.2]	82%	37 [2.8]	1/2	3 [76]	3 [76]	1	625 [17.7]	2	15
LS25-45	45,000 [13.2]	36,900 [10.8]	82%	52 [11.1]	1/2	3 [76]	3 [76]	1	665 [18.8]	2	15
LS25-60	60,000 [17.6]	49,200 [14.4]	82%	47 [8.3]	1/2	4 [102]	4 [102]	1	1000 [28.3]	2	15
LS25-75	75,000 [22.0]	61,500 [18.0]	82%	65 [18.3]	1/2	4 [102]	4 [102]	1	1200 [34.0]	2	15
LS25-90	90,000 [26.4]	73,800 [21.6]	82%	43 [6.1]	1/2	4 [102]	4 [102]	1	1600 [45.3]	3	15
LS25-105	105,000 [30.8]	86,100 [25.2]	82%	59 [15]	1/2	4 [102]	4 [102]	1	1500 [42.5]	3	15
LS25-125	125,000 [36.6]	102,000 [29.9]	82%	50 [10]	1/2	4 [102]	4 [102]	1	1950 [55.2]	5	15
LS25-150	150,000 [44.0]	123,000 [36.0]	82%	62 [16.7]	1/2	4 [102]	4 [102]	1	1950 [55.2]	5	15
LS25-175	175,000 [51.3]	143,500 [42.1]	82%	58 [14.4]	1/2	5 [127]	5 [127]	1	2350 [66.5]	7	15
LS25-200	200,000 [58.6]	164,000 [48.1]	82%	59 [15.0]	1/2	5 [127]	5 [127]	1	2350 [66.5]	7	15
LS25-250	250,000 [73.3]	205,000 [60.1]	82%	51 [10.6]	3/4	5 [127]	5 [127]	2	4000 [113.3]	8	15
LS25-300	300,000 [87.9]	246,000 [72.1]	82%	57 [13.9]	3/4	5 [127]	5 [127]	2	4000 [113.3]	8	15
LS25-350	350,000 [102.6]	287,000 [84.1]	82%	58 [14.4]	3/4	6 [152]	6 [152]	2	5500 [155.7]	11	15
LS25-400	400,000 [117.2]	328,000 [96.1]	82%	65 [18.3]	3/4	6 [152]	6 [152]	2	5500 [155.7]	11	15

<sup>1</sup> CSA Rating for altitudes up to 2,000 ft.

<sup>2</sup> Smaller or larger vent pipe diameters may be allowed. Refer to unit installation instructions.

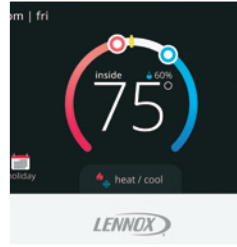
# SOLUTIONS FOR CUSTOMIZED COMFORT

Don't just choose a Lennox product – choose a Lennox® Commercial Comfort System. These complete packages of HVAC solutions provide tools to create a healthy and comfortable environment.



## PACKAGED UNITS

- Model L™ Rooftop Units
- Emergence® Rooftop Units
- Landmark® Rooftop Units
- Raider® Rooftop Units
- Accessories



## COMMERCIAL CONTROLS

- Systems Integration Solutions
- Commercial Thermostats and Sensors



## VRF

- Outdoor Units
- Indoor Units
- Controls
- Accessories



## MINI-SPLIT SYSTEMS

- Heat Pump Mini-Splits
- Low Ambient Heat Pump Mini-Splits
- Air Conditioning Mini-Splits
- Indoor Units
- Controls



## HEATING

- Unit Heaters
- Duct Furnaces
- Furnaces



## INDOOR AIR QUALITY

- Lennox DOAS
- Humiditrol® Dehumidification System
- Demand Control Ventilation
- High Efficiency MERV Filters
- UVC Lamps



## SPLIT SYSTEMS

- Elite® Series Large and Small Split Systems
- Merit® Series Heat Pumps
- T-Class™ Air Conditioners
- Air Handlers
- Indoor Coils



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