

LS25 & LF25 Unit Heaters

RELIABLE LOCALIZED HEATING SOLUTIONS
FOR ROOMS AND WORKSPACES

BUILT TO LAST, SEASON AFTER SEASON

Designed and built for durability and peak performance, Allied Commercial unit heaters incorporate advanced technology and proven materials into dependable time-tested equipment.

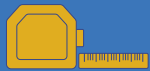


ALLIEDTM
Commercial

The LS25 Unit Heater

SEPARATED COMBUSTION UNITS IN THREE CABINETS

- Steady State Efficiency 82%
- Single-stage Heating
 - 30,000 to 105,000 BTU
- Single-stage Heating
 - 125,000 to 200,000 BTU
- Two-stage Heating
 - 250,000 to 400,000 BTU



Separate
Combustion
for harsh conditions



15 yr. Limited
Warranty
stainless steel heat exchanger

Overview:

- Heating capacities from 30,000-400,000 BTU/h
- Ideal for use in applications where indoor environment may contain airborne contaminants such as VOCs or dust
- Works in hard-to-heat applications with excess humidity or negative pressure
- Special tubular heat exchanger design improve efficiency and durability
- Optional stainless steel heat exchangers
- Side venting options
- Diagnostic board with LED display for easy trouble shooting

Flexible Design:

- Separated combustion offers superior heating solutions for harsh indoor environments*
- Fresh-air intake rotates for easy installation on 125,000 - 500,000 Btuh models for horizontal or vertical applications

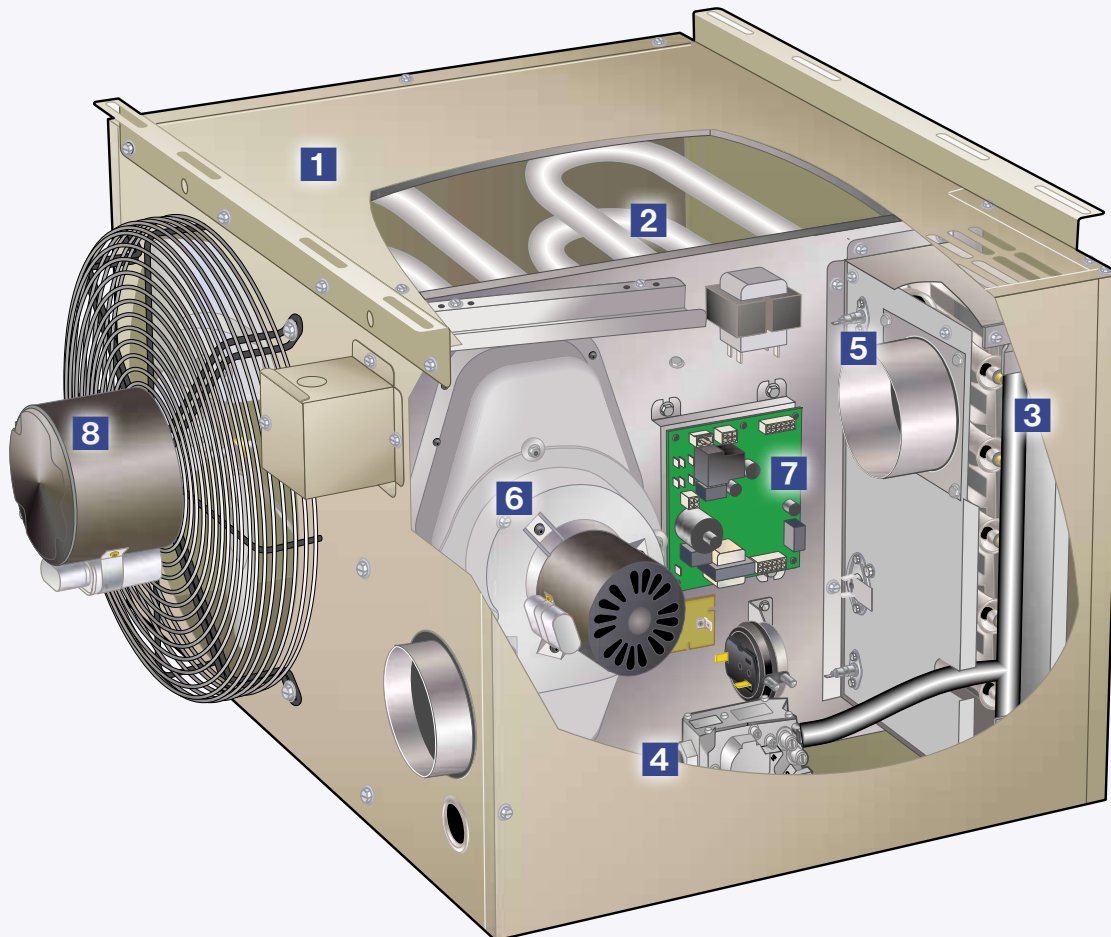
Easy Service

- Easy access gas connections
- Removable terminal block for line voltage and thermostats
- Hinged door allows easy access to components
- 10-year limited warranty on aluminized heat exchanger
- 1-year limited warranty on covered components

* See Technical Specifications for complete details.

LS25 UNIT HEATERS

IMPROVED PERFORMANCE, INSTALLATION, AND SERVICEABILITY
COMPACT CABINET 30,000 - 105,000 BTU



1 HEAVY GAUGE STEEL CABINET

- Constructed of pre-painted heavy gauge cold rolled steel
- Unit may be rotated 180 degrees (top for bottom) for ease of installation of gas, electrical and flue locations

2 TUBULAR HEAT EXCHANGER

- Dimpled tubes with wrinkle bends allow for maximum heat transfer

3 INSHOT BURNER ASSEMBLY

- Burner assembly is removable from the unit as a single component for ease of service

4 GAS CONTROL VALVE

- Combined manual shut off switch (On-Off), automatic electric valve (dual) and gas pressure regulation

5 SEPARATED COMBUSTION

- Combustion air is separate from the air in the heated space
- Using outside air for combustion prevents dirt, lint, dust and other contaminants in the heated space from entering the combustion area of the unit heater

- Sealed combustion air and burner compartments for optimum performance and reliability
- Combustion air intake box may be rotated 180 degrees to facilitate top or bottom combustion air piping installations

6 COMBUSTION AIR INDUCER

- Prepurges heat exchanger and safely vents combustion products

7 COMBINATION IGNITION / FAN TIMER CONTROL

- Electronic direct spark ignition control provides positive and safe main burner ignition.
- Direct plug-in wiring harness.

8 DIRECT DRIVE FAN

- Efficient and quiet operating direct drive propeller type fan
- Permanently lubricated fan motor

The LF25 Unit Heater

- Steady state efficiency - up to 83.8%
- Durability and Peak Performance in three cabinets
- Compact Cabinet
 - 30,000 to 105,000 BTU
 - single stage heating
- Standard Cabinet
 - 125,000 to 200,000 BTU
 - single stage heating
- Standard Cabinet
 - 250,000 to 400,000 BTU
 - 2-stage heating



Vertical
or horizontal installation



15 yr. Limited
Warranty
stainless steel heat exchanger

Overview:

- Two-stage heating now standard on 250,000 - 400,000 Btu/h models
- Tubular heat exchanger is designed for high thermal efficiency and low wear over time
 - Curved design exposes the heating \ surface, resulting in excellent heat transfer
 - Rounded surfaces reduce air resistance, creating more even heating and reduced metallic stress
- Quieter operation due to improved chassis, mounting grill, and fan components
- Factory tested and wired

Flexible Design:

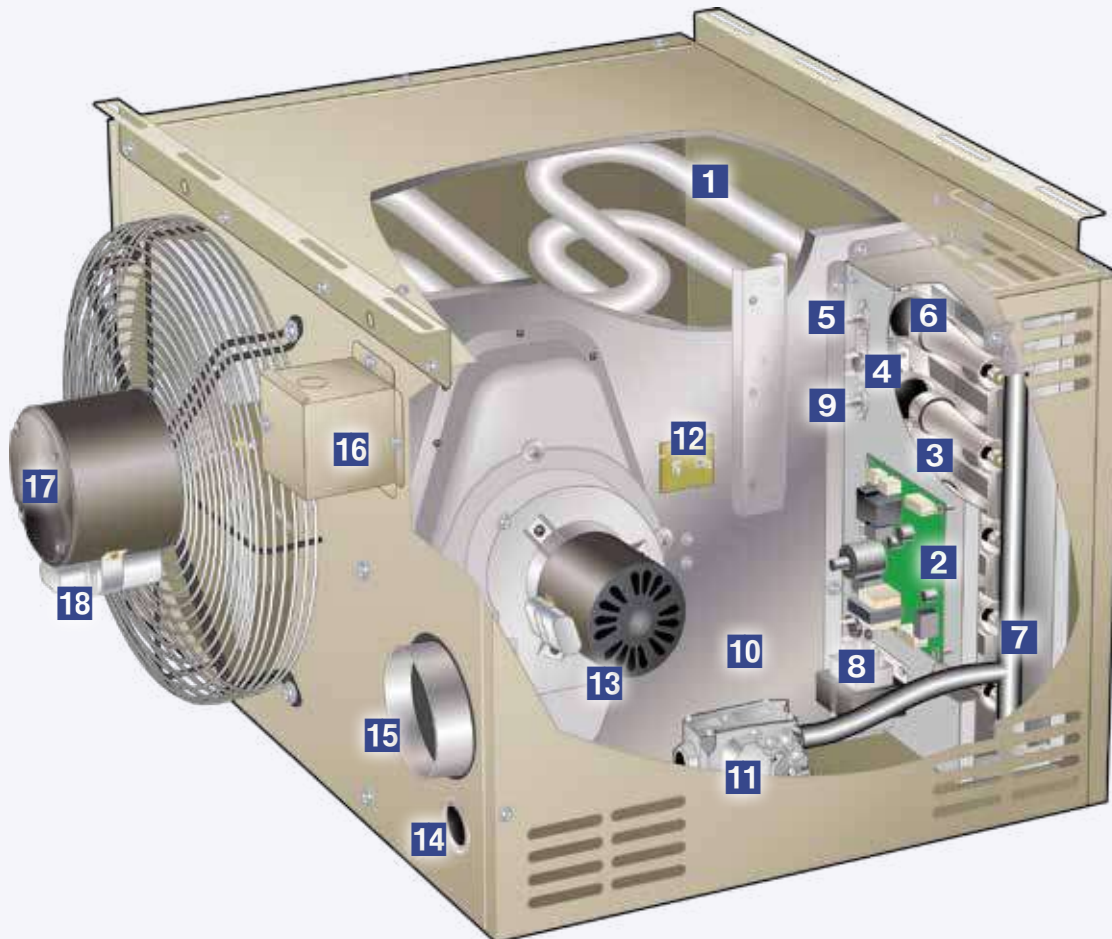
- Backwards compatibility with all LF24 models
- Flexible vent mounting for horizontal or vertical applications
- Stainless heat exchanger available with Standard Cabinet

Easy Service

- Easily cleaned in-shot burner assembly
- No maintenance lubricated blower motor
- Simplified venting options
- 10-year limited warranty on aluminized heat exchanger
- 1-year limited warranty on covered components

LF25 UNIT HEATERS

IMPROVED PERFORMANCE, INSTALLATION, AND SERVICEABILITY
COMPACT CABINET 30,000 - 105,000 BTU



- 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**

LS25 UNIT HEATER SPECIFICATIONS

| LS25 SEPARATED COMBUSTION UNIT HEATERS MODEL | GAS HEATING PERFORMANCE | | | | CONNECTIONS | | | FAN DATA | | | |
|---|-------------------------------------|---|---------------------------------------|----------------------|------------------------|---------------------|--|----------------|---------------------------|-------------------------------|---------------------------------------|
| | "INPUT HEATING CAPACITY BTU/H [KW]" | "OUTPUT HEATING CAPACITY ¹ BTU/H [KW]" | "STEADY STATE EFFICIENCY NATURAL GAS" | "TEMP. RISE °F [°C]" | GAS PIPING SIZE INCHES | "FLUE SIZE IN [MM]" | COMBUSTION AIR SIZE ² IN [MM] | NUMBER OF FANS | "AIR VOLUME CFM [M3/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 |

¹ CSA Rating for altitudes up to 2,000ft.

² Smaller or large vent pipe diameters may be allowed. Refer to unit installation instructions.

LF25 UNIT HEATER SPECIFICATIONS

| LF25 COMPACT UNIT HEATERS MODEL | GAS HEATING PERFORMANCE | | | | CONNECTIONS | | FAN DATA | | | |
|--|-------------------------------------|---|---------------------------------------|----------------------|------------------------|---------------------|----------------|---------------------------|-------------------------------|---------------------------------------|
| | "INPUT HEATING CAPACITY BTU/H [KW]" | "OUTPUT HEATING CAPACITY ¹ 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 [M3/MIN]" | "FULL LOAD MOTOR AMPS (115V)" | MAXIMUM OVERCURRENT PROTECTION (115V) |
| LF25-030 | 30,000 [8.8] | 24,900 [7.3] | 83.4% | 37 [2.8] | 1/2 | 4 [102] | 1 | 625 [17.7] | 2 | 15 |
| LF25-045 | 45,000 [13.2] | 37,350 [11.0] | 83.7% | 52 [11.1] | 1/2 | 4 [102] | 1 | 665 [18.8] | 2 | 15 |
| LF25-060 | 60,000 [17.6] | 49,800 [14.6] | 83.7% | 47 [8.3] | 1/2 | 4 [102] | 1 | 1000 [28.3] | 2 | 15 |
| LF25-075 | 75,000 [22.0] | 62,250 [18.3] | 83.4% | 65 [18.3] | 1/2 | 4 [102] | 1 | 1200 [34.0] | 2 | 15 |
| LF25-090 | 90,000 [26.4] | 74,700 [21.9] | 83.8% | 43 [6.1] | 1/2 | 4 [102] | 1 | 1600 [45.3] | 2 | 15 |
| LF25-105 | 105,000 [30.8] | 87,150 [25.6] | 83.5% | 59 [15.0] | 1/2 | 4 [102] | 1 | 1500 [42.5] | 2 | 15 |

| LF25 STANDARD UNIT HEATERS MODEL | GAS HEATING PERFORMANCE | | | | CONNECTIONS | | FAN DATA | | | |
|---|-------------------------------------|---|---------------------------------------|----------------------|------------------------|---------------------|----------------|---------------------------|-------------------------------|---------------------------------------|
| | "INPUT HEATING CAPACITY BTU/H [KW]" | "OUTPUT HEATING CAPACITY ¹ 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 [M3/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 |

¹ CSA Rating for altitudes up to 2,000ft.

² Smaller or large vent pipe diameters may be allowed. Refer to unit installation instructions.



Visit us at www.allied-commercial.com
or contact us at 1-800-448-5872.

*Check that equipment complies with all applicable
building codes, laws, and regulations for its
intended use prior to installation.*



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