



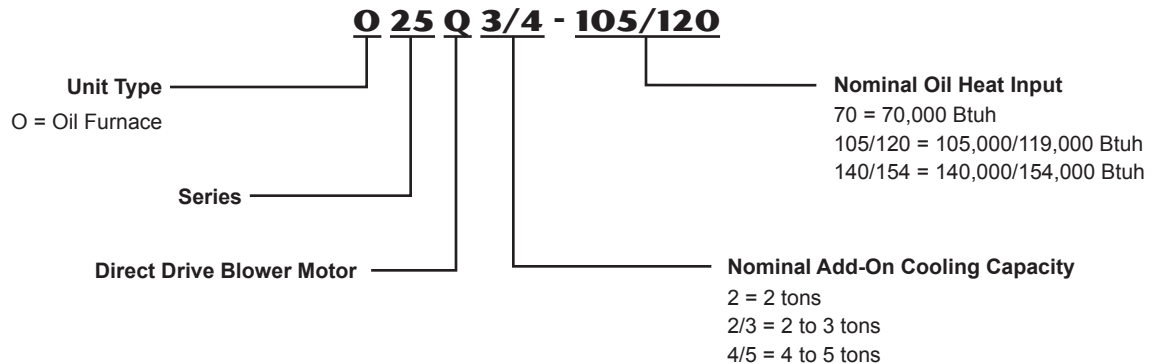
PRODUCT SPECIFICATIONS

Bulletin No. 210441
October 2010
Supersedes August 2008



AFUE - 84%
Input - 70,000 to 147,000 Btuh
Nominal Add-on Cooling - 2 to 5 Tons

MODEL NUMBER IDENTIFICATION



FEATURES

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EQUIPMENT WARRANTY

Heat exchanger - limited lifetime warranty in residential applications.

Oil burners and all other covered components - five year limited warranty in residential applications.

Refer to the Lennox Equipment Limited Warranty certificate included with the equipment for details.

APPROVALS

Units have been rated and tested according to U.S. Department of Energy (DOE) test procedures and Federal Trade Commission (FTC) labeling regulations.

Units are certified by AHRI.

Units are ETL/Intertek listed.

Developed in accordance with ISO 9001 quality standards.

APPLICATIONS

Suitable for installation in a residence, small business or commercial establishment.

Compact, rugged cabinet with side or bottom return air entry, will allow installation in a basement, closet, recreation or utility room.

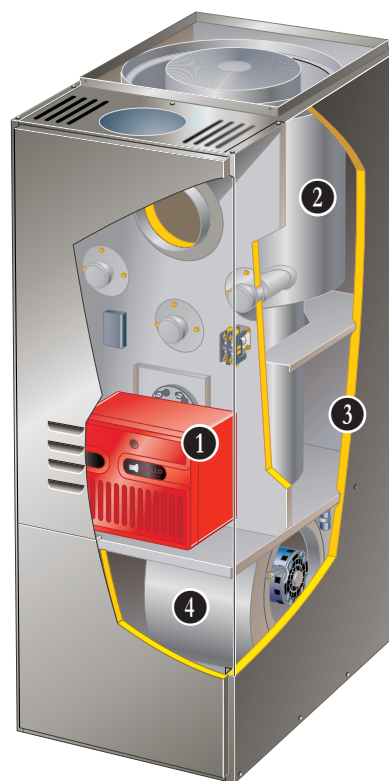
Approved for reduced clearances to combustibles.

Lennox add-on indoor coils, powered electronic air cleaners and humidifiers can be added to the furnace.

Quiet operating blowers have sufficient capacity to handle add-on cooling air volume requirements.

All units are shipped factory assembled including the oil burner, with all controls installed and wired.

Each unit is factory test operated insuring proper operation after shipment.



HEATING SYSTEM

1 Reillo Oil Burner

All burners are thoroughly quality-tested to ensure the highest performance in residential and light commercial applications.

Electronic control box combines uninterrupted ignition, five-second safety shutoff, and a ten-second prepurge cycle controlling the solenoid valve for smoke-free starts.

High-speed, permanent split capacitor (PSC) motor, with an exclusive low-voltage tap for the primary control and automatic reset on thermal overload, provides for low power consumption, long-life and maintenance-free operation.

Integrated fuel pump is driven directly from the PSC motor via a nylon drive key which eliminates coupling failure while maximizing stability and efficiency.

High static pressure combustion head with the ideal flame geometry burns ultra-clean. A titanium end cone eliminates air tube failure.

Sound deadening acoustic insulation inside the heavy-gauge metal cover provides quiet operation, even at full output.

Balanced high-efficiency fan.

FEATURES

HEATING SYSTEM (CONTINUED)

2 EZ Clean Heat Exchanger

Streamlined drum type heat exchanger exposes maximum surface area to the air stream with minimum air resistance.

Constructed of heavy gauge steel for maximum service life.

Strategically placed ports allow easy cleaning.

Heavy gauge mounting channels are provided in cabinet base for support of heat exchanger.

Combustion Chamber

All models have a factory installed, specially designed alumina silica ceramic fiber combustion chamber.

Combustion chamber can withstand temperatures of up to 2550°F resulting in more complete combustion and higher efficiencies.

Flame Inspection Tube

Conveniently located at the front of the unit.

Opening is large enough for normal inspection mirror.

OPTIONS

Oil Filter

Recommended for proper oil filtration. See Specifications table for order number.

Two Stage Oil Pump

Two stage oil pump is available.

See Specifications table for order number.

CONTROLS

Fan/Limit Control

Factory installed on vestibule panel.

Control has two switches.

One switch opens the limit circuit if the temperature exceeds the preset safety limit (automatic reset).

Limit control has fixed temperature setting and protects unit from abnormal operating conditions.

The second switch turns the fan on and off.

Control turns blower on when the preset temperature is reached; approximately 60 to 90 seconds after burner ignites.

Temperature-start fan control assures proper blower operation and has adjustable blower-off temperature setting.

Blower Cooling Relay

Blower cooling relay activates the blower operation during the cooling cycle.

Transformer

24 volt (40VA) control transformer with circuit breaker is furnished as standard and factory installed.

Barometric Draft Control

Furnished as standard equipment and field installed in flue pipe.

OPTIONS

Thermostat

See Thermostat bulletins in Controls section and Lennox Price Book.

BLOWER

- 3** Units are equipped with quiet, three-speed, direct drive blowers.

Each blower assembly is statically and dynamically balanced.

Multiple-speed motor is resiliently mounted.

A choice of blower speeds is available on each blower.

See blower performance charts.

Change in blower speed is easily accomplished by simple wiring change

CABINET

- 4** Constructed of heavy gauge steel with a pre-painted, textured finish.

Entire heating section is lined with foil faced fiberglass insulation keeping cabinet surface temperatures low.

Removal of louvered heating section door allows access to oil burner, inspection door and control compartment.

Door is equipped with handhold for ease of removal.

Control compartment is totally enclosed to provide a safe, compact and clean area.

Large blower access door gives complete service access to blower.

Blower compartment is completely insulated.

Blower assembly easily slides completely out of unit for service.

Oil line and electrical inlet openings are provided in sides of cabinet, see dimension drawing.

Return air entry is possible on either side or bottom of cabinet.

FILTER

Side Filter Adaptor Kit

Furnished with the unit and field installed.

Adaptor is completely assembled and can be installed on either side of the cabinet.

A large cleanable frame type filter is also furnished and slides in the rack.

Adaptor has flanges for ease of duct connection. See dimension drawing.

SPECIFICATIONS

		Model Number	O25Q2-70	O25Q2/3-105/120	O25Q4/5-140/154
Oil Heating Performance	Input - Btuh	Low	70,000	105,000	140,000
		¹ High	---	112,000	147,000
	Output - Btuh	Low	57,000	85,000	113,000
		¹ High	---	91,000	120,000
	² AFUE	Low	84.0%	82.0%	81.5%
		¹ High	---	82.0%	81.2%
	Temperature rise range	Low	45 - 75°F	50 - 80°F	45 - 75°F
		¹ High	---	50 - 80°F	50 - 80°F
Flue Connection Size - Diameter			6 in.	6 in.	6 in.
Oil Burner	Nozzle rating	Low	.50 gph	.65 gph	.85 gph
		¹ High	---	.75 gph	1.00 gph
	Nozzle spray angle	Low	80° A	80° B	80° B
		¹ High	---	80° B	80° B
	Oil Burner Pump Pressure	Low	135 psig	140 psig	140 psig
		¹ High	---	140 psig	140 psig
	Oil Burner Pump		1 Stage	1 Stage	1 Stage
	Oil Burner Air Inlet Connection - diameter		4 in.	4 in.	4 in.
Indoor Blower	Blower Motor Output		1/3 hp	1/3 hp	3/4 hp
	Blower wheel nominal diameter x width - in.		10 x 6	10 x 8	12 x 9
	Nominal tons of add-on cooling		2 thru 2.5	2 thru 3.5	3 thru 5
³ Filter	Number and size of filters	(1) 16 x 25 x 1 in.	(1) 16 x 25 x 1 in.	(⁴ 2) 16 x 25 x 1 in.	
Shipping weight - 1 package			225 lbs.	225 lbs.	275 lbs.
Electrical	Characteristics		115V-60hz-1ph	115V-60hz-1ph	115V-60hz-1ph
	Maximum overcurrent protection (amps)		15	15	15

OPTIONAL ACCESSORIES - MUST BE ORDERED EXTRA

Blocked Flue Switch Kit (Canada only)		10W52	10W52	10W52
Oil Filters	10 micron without mounting bracket	81P89	81P89	81P89
	10 micron with mounting bracket	53P92	53P92	53P92
	Replacement cartridge - 10 micron, 45 gph	53P93	53P93	53P93
	Filter restriction indicator gauge	53P90	53P90	53P90
Two-Stage Oil Pump		65A44	65A44	65A44

¹ Nozzle must be field provided for field conversion to higher heating input.

² Annual Fuel Utilization Efficiency based on U.S. DOE test procedures and FTC labeling regulations. Isolated combustion system rating for non-weatherized furnaces.

³ Cleanable frame type filters. Furnished with unit in Side Filter Adaptor Kit for field installation external to the cabinet.

⁴ Requires return air from both sides of cabinet.

BLOWER DATA

O25Q2-70 BLOWER PERFORMANCE

External Static Pressure (in. w.g.)	Air Volume (cfm) at Various Blower Speeds		
	High	Medium	Low
.20	1260	870	520
.30	1205	825	500
.40	1135	780	480
.50	1050	720	450
.60	960	660	410

NOTE - All air data is measured external to the unit with the air filter in place.

NOTE - Shaded area are not recommended for heating.

O25Q2/3-105/120 BLOWER PERFORMANCE

External Static Pressure (in. w.g.)	Air Volume (cfm) at Various Blower Speeds		
	High	Medium	Low
.20	1350	1215	1080
.30	1280	1180	1060
.40	1210	1140	1040
.50	1180	1085	1000
.60	1110	1025	950

NOTE - All air data is measured external to the unit with the air filter in place.

NOTE - Shaded area are not recommended for heating.

O25Q4/5-140/154 BLOWER PERFORMANCE

External Static Pressure (in. w.g.)	Air Volume (cfm) at Various Blower Speeds		
	High	Medium	Low
.20	1950	1620	1250
.30	1900	1590	1230
.40	1880	1560	1210
.50	1850	1540	1190
.60	1800	1490	1155

NOTE - All air data is measured external to the unit with the air filter in place.

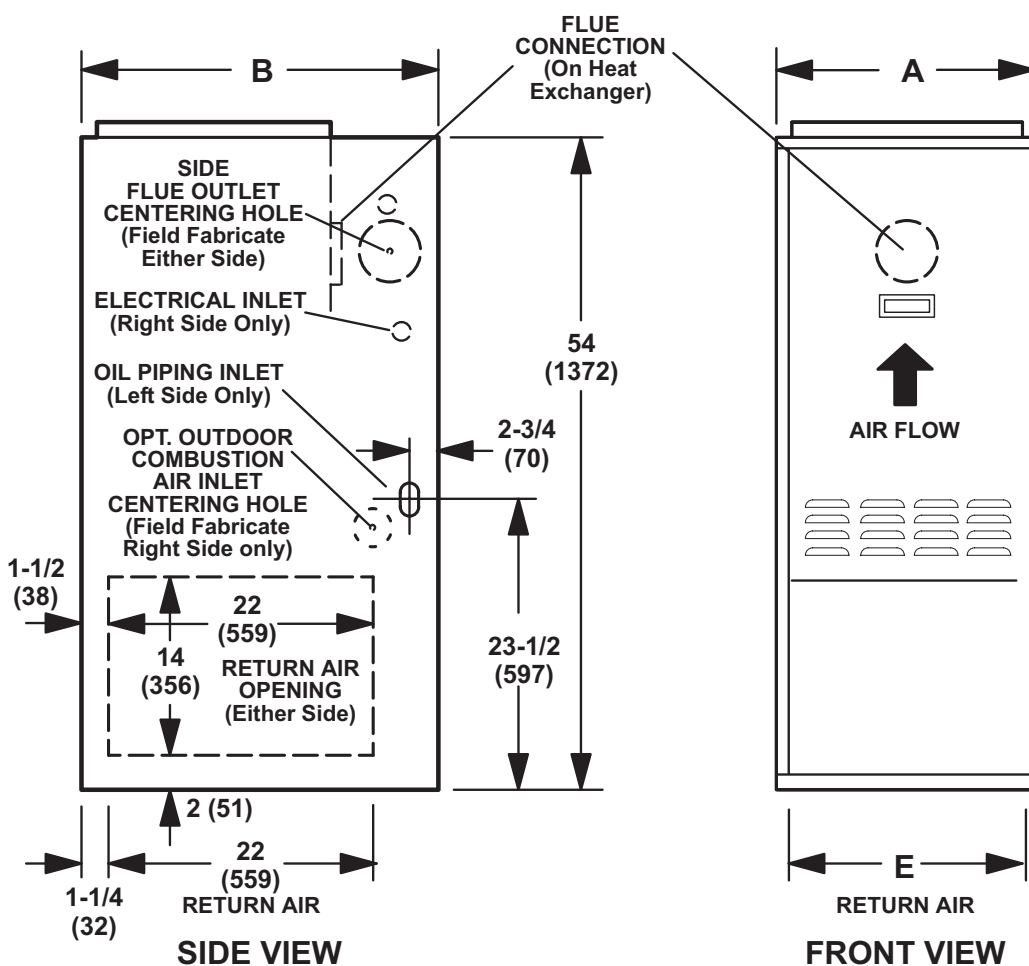
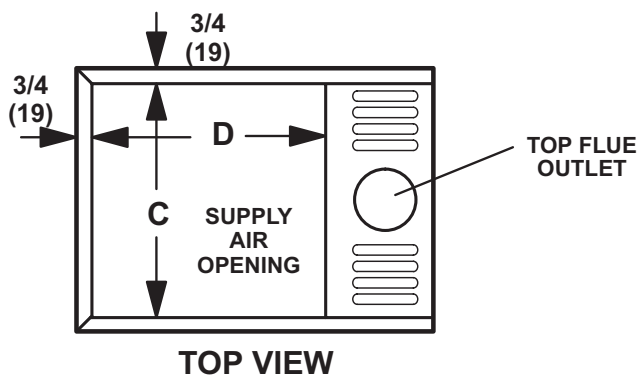
NOTE - Shaded area are not recommended for heating.

INSTALLATION CLEARANCES

Approved for closet or alcove installation. When installing in a confined space, two ventilation openings must be provided into the the space; one 6 in. (152 mm) from the top and one 6 in. (152 mm) from the bottom. Each opening should be 8 x 16 in. (203 x 406 mm).

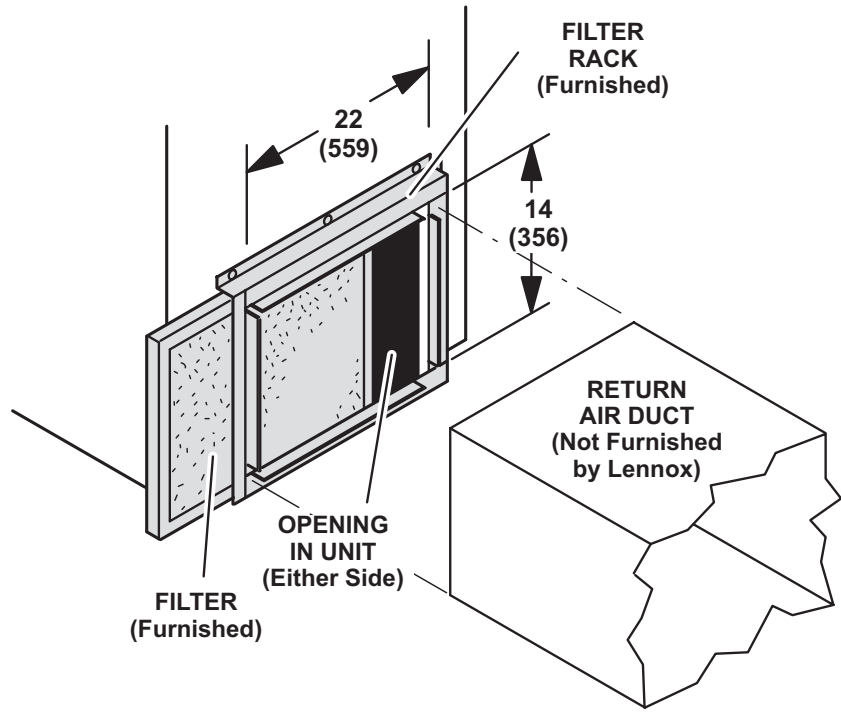
Top of Cabinet	2 in.	51 mm
Sides & Rear of Cabinet	0 in.	0 mm
Front of Cabinet	4 in.	102 mm
Service Clearance (Front)	24 in.	610 mm
Top of Plenum	2 in.	51 mm
Sides of Plenum	3 in.	76 mm
Horizontal Warm Air Duct within 3 feet (1 m) of furnace	2 in.	51 mm
Flue Pipe Vertical or Horizontal	6 in.	152 mm
Floor	Combustible	Combustible

DIMENSIONS - INCHES (MM)



Model No.	A		B		C		D		E	
	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
O25Q2-70 O25Q2/3-105/120	19-1/2	495	30-5/8	778	18	457	19-5/8	498	18	457
O25Q4/5-140/154	22-1/2	572	33-1/8	841	21	533	22-1/8	562	21	533

ACCESSORY DIMENSIONS - INCHES (MM)



REVISIONS

Sections	Description of Change
Document	Updated to new publishing software. No changes to data.



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Contact us at 1-800-4-LENNOX

NOTE - Due to Lennox' ongoing commitment to quality, Specifications, Ratings and Dimensions subject to change without notice and without incurring liability. Improper installation, adjustment, alteration, service or maintenance can cause property damage or personal injury. Installation and service must be performed by a qualified installer and servicing agency.

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