



# LC burner series



## Quick Information

Burner Model:  
**LC450**

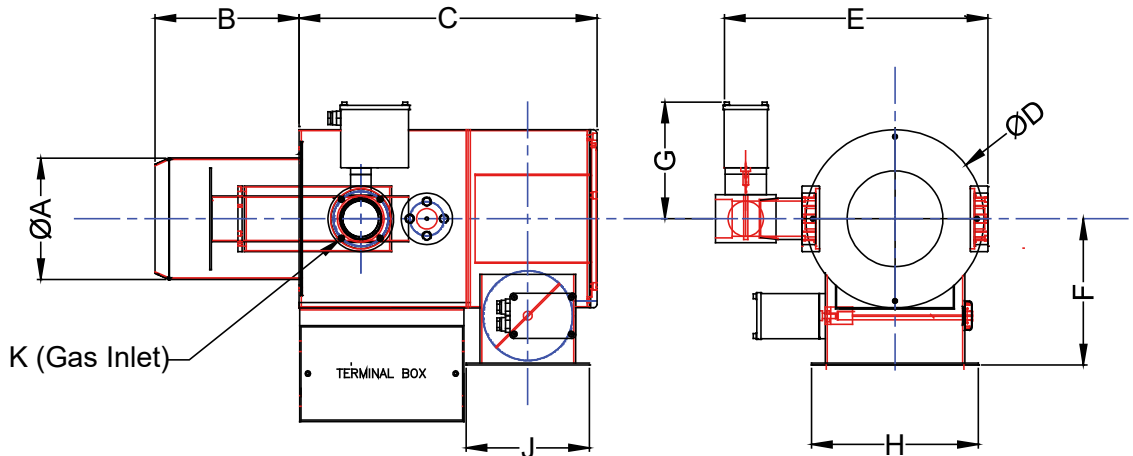
Firing rate:  
45,000 kW/hr  
153,000,000 Btu/hr

Turndown:  
6:1 Gas Firing  
4:1 Oil firing

Fuels:  
- Natural Gas  
- No.2 Oil  
- Dual fuel  
*Other fuels on request*

Modulation Controls:  
Autoflame System

## DIMENSIONAL DATA



| LC450  | A     | B     | C     | D     | E     | F     | G     | H     | J     | K         |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----------|
| mm     | 1027  | 1285  | 2,163 | 1,506 | 1626  | 1,029 | 372   | 1248  | 1008  | 10" 150lb |
| Inches | 40.43 | 50.59 | 85.16 | 59.29 | 64.02 | 40.51 | 14.65 | 49.13 | 39.69 | 10" 150lb |

*Note: The dimensions shown are standard sizes. Dimensions A & B may change to suit a specific project*

## EMISSION DATA

### Emissions:

#### Natural gas

- O<sub>2</sub> 3%
- CO<sub>2</sub> 10%
- CO < 10 ppm
- NO<sub>x</sub> < 30 ppm (with FGR)

#### No. 2 Fuel Oil

- O<sub>2</sub> 3 to 4%
- CO<sub>2</sub> 12.5 – 13.5 %
- Smoke less than Number 1

### Turndown:

- 6:1 (Natural gas)
- 4:1 (No.2 Fuel oil)

Sound Emissions with silencer: 85 dba @ 1m

*Note: Emission data is based on natural gas having a calorific value of 1000 Btu/cuft and No.2 fuel oil having a heating value of 140,000 Btu per gallon. All burner capacities are based at sea level up to 1,000 ft. For elevations higher than this, please contact Limpsfield.*

For more information on the Limpsfield burner range,  
please do not hesitate to contact us.



Website: [www.limpsfield.co.uk](http://www.limpsfield.co.uk)  
Tel: 00 44 (0)1959 576 633





# BURNER DATA SHEET

## SET-UP DATA

| General                            |       |         |        |         |
|------------------------------------|-------|---------|--------|---------|
| Item                               | Units | Setting | Units  | Setting |
| Diffuser O.D                       | mm    | 781     | Inches | 30.75   |
| Diffuser Flap setting              | mm    | 3       | Inches | 0.12    |
| Blat tube tip to diffuser distance | mm    | 576     | Inches | 22.68   |
| Gas split setting                  | mm    | 5       | Inches | 0.20    |
| Pilot injector setting             | mm    | 2       | Inches | 0.08    |
| Electrode setting                  | mm    | 3       | Inches | 0.12    |
| Gas head length                    | mm    | 1214    | Inches | 47.80   |

## BURNER DATA

| Burner Data                                 |       |              |         |                |
|---|-------|--------------|---------|----------------|
| Details                                     |       | Metric Units |         | Imperial Units |
| Burner rating                               | MW    | 45.00        | Mmbtu   | 153.00         |
| Air at 15% Excess                           | m3/hr | 48499.6      | Cuft/hr | 1712739        |
| Air + FGR @62.9°C / 145.22°F                | m3/hr | 60624.5      | Cuft/hr | 2140923        |
| No.2 Oil input rate (137,080 btu/gal)       | L/hr  | 5073.4       | GPH     | 1116.0         |
| Gas input rate (1000 btu/cuft)              | m3/hr | 4332.50      | Cuft/hr | 153000         |
| Minimum Pilot pressure                      | mbar  | 30           | "WG     | 12.00          |
| Gas Pressure to burner                      | mbar  | TBC on order | "WG     | TBC on order   |
| Gas inlet size                              | mm    | 250          | Inches  | 10.00          |
| Delta P Air                                 | mbar  | 29.9         | "WG     | 12.00          |
| Delta P Air + FGR                           | mbar  | 44.80        | "WG     | 18.00          |
| Required oil pressure (Air/ Steam Atomized) | Bar   | 12           | PSI     | 175            |
| Typical oil nozzle size                     | kg/hr | 3550         | GPH     | 1056.55        |
| Oil safety solenoid size                    | mm    | 19.00        | Inches  | 0.75           |
| Mounting P.C.D                              | mm    | 1400.00      | Inches  | 55.12          |
| Mounting Hole ø                             | mm    | 26.00        | Inches  | 1.02           |
| Quantity of mounting holes:                 |       | 10           |         | 10             |
| Control Voltage                             | V     | 230          | V       | 110            |
| Typical motor size (Fan)                    | kW    | TBC on order | HP      | TBC on order   |

|  |                       |                      |
|--|-----------------------|----------------------|
| <b>Burner mounted control parts</b><br><i>(parts dependant on site requirements)</i> | Air servo motor       | MM10004 or MM10004/D |
|  | Fuel servo motor      | MM10004 or MM10004/D |
|  | Gas valve             | GVF425028/50U        |
| <b>Flame detection</b>   | Oil spillback valve   | OVM33L17             |
|  | Self check UV scanner | MM60003/HS           |

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