

Lanemark FD-C series packaged burners are specifically designed to offer flexible, high turn-down (gas only) control for process air heating applications in convection ovens and dryers.

FD-C series burners are particularly suited to direct-fired applications and can be mounted directly on to the wall of a dryer, oven or process air heating duct to operate either in line with or at 90° to the process air flow.

FD-C series burners produce short flame profiles – so important for industrial oven design. Combustion air and gas is progressively mixed within the internal burner cone assembly, guaranteeing stable combustion over a wide range of oven/dryer process air flows.



| Model | Heat Input Range |
|---------------|----------------------------------------|
| FD5-C (G96) | 9 - 117 kW (30,000 - 400,000 Btu/h) |
| FD5-C (VCD1) | 9 - 220 kW (30,000 - 750,000 Btu/h) |
| FD10-C (VCD1) | 13 - 352 kW (45,000 - 1,200,000 Btu/h) |
| FD10-C (VCD2) | 13 - 440 kW (45,000 - 1,500,000 Btu/h) |
| FD15-C (VCD2) | 18 - 660 kW (60,000 - 2,250,000 Btu/h) |
| FD20-C (VCD3) | 22 - 880 kW (75,000 - 3,000,000 Btu/h) |

Burner turn-down is determined by the ratio of the high and low gas firing rates. The maximum turn-down ratio is 40:1.

Typical Applications

- **Product finishing**
 - Pre-treatment dryers
 - Final treatment ovens for paint drying
 - Conveyor and batch ovens
- **Textile and fabric dryers**
 - **Rotary moulding machines**
 - **Food processing**
 - **Powder and grain dryers**

FD burners conform with European Standard EN 746 Part 2 as appropriate and are pre-wired and tested prior to despatch.

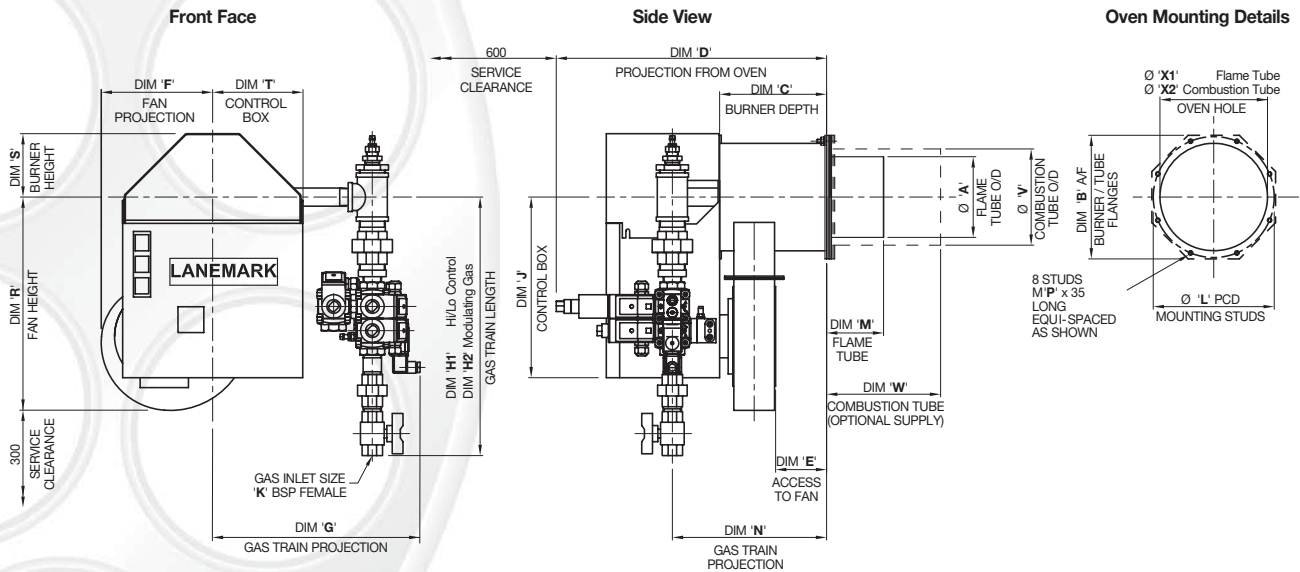
Specifications

The standard FD-C burner comprises a burner windbox including a protective burner cowl, combustion air fan, a manual sliding damper fitted between the combustion air fan and the air entry flange on the burner windbox, a compact monobloc valve gas train and gas burner controls mounted in a control box.

Standard control items include a burner controller, ignition transformer and differential air pressure switch. Two 3-way air valves perform safety checks on the air pressure switch in both open and closed modes each time the burner fires, allowing the independent operation of the combustion air fan in conjunction with oven/dryer main recirculation fans.

| | ✓ Standard equipment | ● Options |
|-----------------------------------------------|--------------------------------|----------------------------------------------------------------------------------------------------------|
| Fuels | ✓ Natural gas | ● Propane |
| Control voltages | ✓ 230V | ● 110V |
| Combustion air fan electrical supplies | ✓ 400V/3ph/50Hz | ● 230V/1ph/50Hz |
| Flame sensing | ✓ Flame electrode | ● UV scanner |
| Protection | ✓ Burner cowl ✓ Control box | |
| Heat output control options | ✓ On/off or ✓ High/low | ● Modulating (gas only) Either 3 wire valve positioning (24/110/230V) or 4 - 20mA or 0 - 10V DC |

FD-C BURNERS



| | A | B | C | D | E | F | G | H1 | H2 | J | K | L | M | N | P | R | S | T | V | W | X1 | X2 | Net Weight kg | Gross Weight kg | |
|---------------------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|-----|-----|-----|------|-----|-----|-----|------|-----|------|------|---------------|-----------------|----|
| | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | "BSP" | mm | mm | mm | Stud | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm |
| FD5-C 9-117 kW | Ø150 | 230 | 200 | 385 | 100 | 220 | 360 | 360 | 460 | 340 | 3/4" | 225 | 100 | 295 | M8 | 425 | 120 | 170 | Ø179 | 200 | Ø160 | Ø200 | 29 | 41 | |
| FD5-C 9-220 kW | Ø150 | 230 | 200 | 510 | 100 | 220 | 380 | 465 | 585 | 340 | 1" | 225 | 100 | 295 | M8 | 425 | 120 | 170 | Ø179 | 200 | Ø160 | Ø200 | 32 | 42 | |
| FD10-C 13-352 kW | Ø190 | 280 | 250 | 565 | 110 | 240 | 400 | 480 | 600 | 340 | 1" | 268 | 100 | 340 | M8 | 470 | 140 | 170 | Ø218 | 250 | Ø200 | Ø240 | 43 | 53 | |
| FD10-C 13-440 kW | Ø190 | 280 | 250 | 580 | 110 | 240 | 420 | 520 | 810 | 340 | 1 1/2" | 268 | 100 | 340 | M8 | 470 | 140 | 170 | Ø218 | 250 | Ø200 | Ø240 | 45 | 55 | |
| FD15-C 18-660 kW | Ø240 | 340 | 300 | 650 | 150 | 240 | 420 | 520 | 810 | 370 | 1 1/2" | 330 | 100 | 430 | M10 | 525 | 185 | 170 | Ø274 | 300 | Ø250 | Ø295 | 52 | 62 | |
| FD20-C 22-880 kW | Ø280 | 390 | 350 | 735 | 170 | 250 | 435 | 715 | 885 | 420 | 2" | 380 | 100 | 470 | M10 | 575 | 215 | 170 | Ø319 | 350 | Ø290 | Ø330 | 101 | 112 | |

All dimensions in mm, except where stated.

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BurnerCare

All FD burners benefit from Lanemark's BurnerCare customer support. BurnerCare services include burner system commissioning/start-up, supply of spare parts and system training. BurnerCare will provide a contract service plan and a rapid response facility, designed to ensure the continued and reliable operation of Lanemark equipment worldwide.

Additional Burner Products (See individual Data Sheets for full details)

The FD-C burner range is just one of the series of forced draught burners available from Lanemark International Ltd.

Also available are the TX small diameter immersion tube tank heating burner systems. The TX range is designed for the heating of process liquids – each system comprising burner, associated controls, submerged tube heat exchanger and exhaust fan. Based on the gross calorific value of the fuel, efficiencies averaging 80%+ are readily achieved with every installation. The TRX burner system provides a packaged alternative to the TX series and is ideal for smaller scale operations.

All illustrations are for guidance only. For reasons of continuous development, Lanemark International Limited reserves the right to alter specifications without prior notice.

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