

FDE BURNERS DATA

Lanemark FDE series packaged burners are designed to offer low cost, high turndown (gas only) control for process air heating applications in convection ovens and dryers.

FDE 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 airflow.

FDE series burners produce short flame profiles – an important requirement 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 airflows.

TYPICAL APPLICATIONS

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



Horizontal arrangement

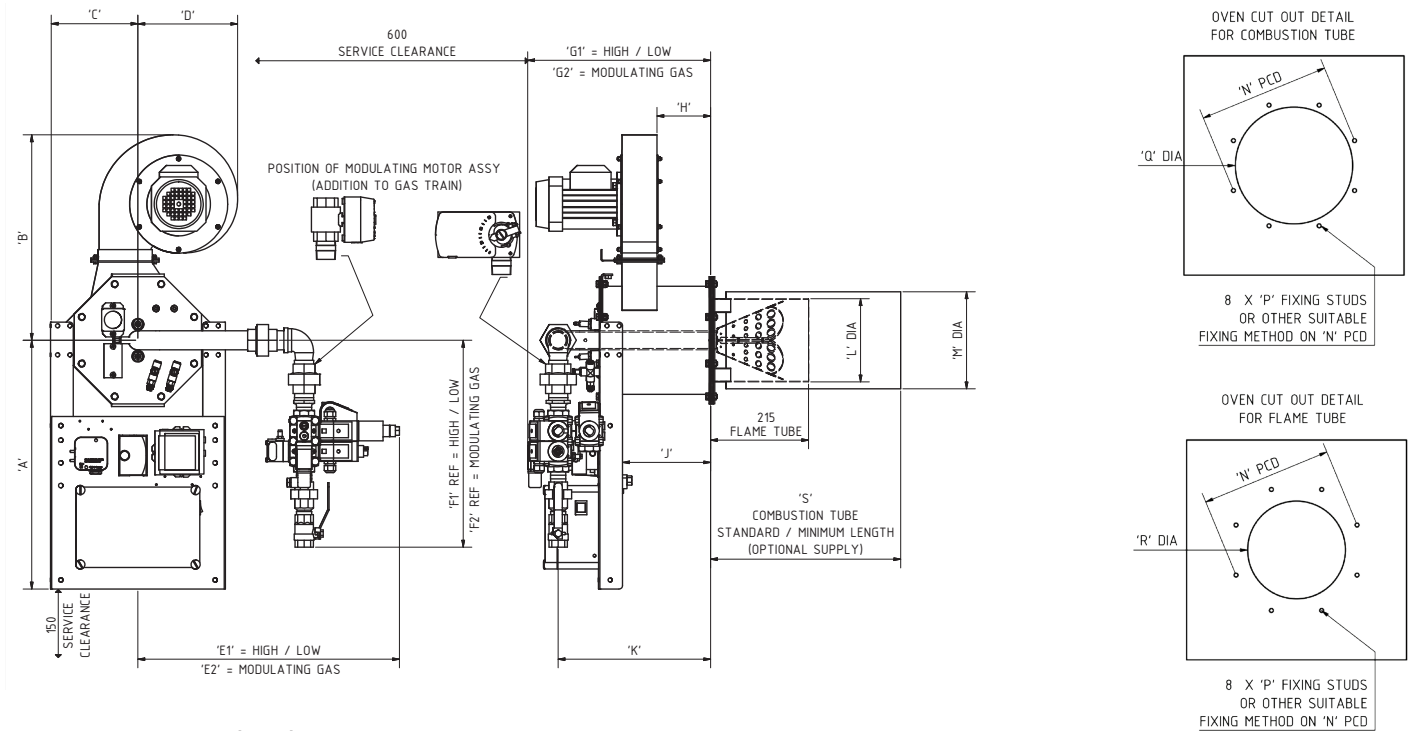
Vertical arrangement

PRODUCT DESCRIPTION

FDE burners comprise a burner windbox, combustion air fan, a manual sliding damper fitted between the combustion air fan and the air entry flange on the burner windbox, a compact monoblock train and gas burner controls mounted on a control plate.

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.

MODEL	HEAT INPUT RANGE	TYPICAL GAS CONNECTION SIZE
FD5E	9 - 117 kW	¾" BSP
FD5E	9 - 220 kW	1" BSP
FD10E	13 - 350 kW	1" BSP
FD10E	13 - 440 kW	1½" BSP
FD15E	18 - 660 kW	1½" BSP



Dimensions (mm, except where shown)

MODEL	GAS TRAIN	A	B	C	D	E1	E2	F1	F2	G1	G2	H	J	K	L DIA	M DIA	N PCD	P	Q DIA	R DIA	S
FD5	G96	528	423	193	207	605	467	485	671	407	439	101	156	294	150	175	225	M8x50	195	160	360
FD5	VCD1	528	423	193	207	571	573	448	532	366	439	101	156	294	150	175	225	M8x50	195	160	360
FD10	VCD1	548	452	193	220	576	576	456	581	401	481	118	185	336	183	214	268	M8x50	240	200	410
FD10	VCD2	548	452	193	220	598	680	548	694	420	481	118	185	336	183	214	268	M8x50	240	200	410
FD15	VCD2	573	507	217	220	610	610	571	685	543	543	150	253	429	232	270	330	M8x50	295	250	460

SPECIFICATIONS	STANDARD EQUIPMENT	OPTIONS
Fuels	Natural gas	Propane
Control voltages	230 V / 1ph / 50 Hz	110 V / 1ph / 50-60 Hz
Combustion air fan electrical supplies	400 V / 3ph / 50 Hz	230 V / 1ph / 50 Hz
Flame sensing	Flame electrode	UV scanner
Heat output control	On / off ; High / low. High / low / ultra low	Modulating (gas only) 4-20 mA / 0-10V DC / 3 Wire Direct Drive

Lanemark FDE burners are pre-wired / tested prior to despatch and conform with relevant sections of European Standard EN 746 Part 2 or NFPA 86 for US applications.

LANEMARK
BurnerCare

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

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