

Data Sheet 73.1

Direct Heating with Gas



The Cimbia modulating line gas burner is used for direct heating of the drying air for a Cimbia continuous flow dryer.

Design and Function

The modular design of a line gas burner makes it flexible. It fits all Cimbia dryer models A, B and C.

The line gas burner is placed under the hot air chamber. The hot air is directed to the top of the chamber, through the spark screen down alongside the drying sections and into the channels as shown in figure 1.



The Line gas burner is modular built and besides the burner housing, consist of a gas train with a control - to be connected to the dryer control panel.

Burner and Housing

The length of the Line gas burner is adjusted to the width of the dryers. The burner can be enlarged with more lines to suit air- and heat requirements.

Each line of the burner is equipped with a initiating electrode and solenoid valve for pilot gas and ionisation stick to control the flame. All parts are enclosed within protective boxes.

Material

The elements of the burner are manufactured from castings in stainless steel.

The burner housing is manufactured from 2 and 3 mm galvanised plate according to EN 10142 or 2 and 3 mm aluminium according to DIN 1725-part 1.

Table 1: Capacity and Airflow

Type	Capacity Mcal/h	Air flow m ³ /h
VLA600	1290	56000
VLA1200	2580	113000
VLA1800	3870	169000
VLA2400	5160	226000
VLA3000	6450	283000
VLA3600	7740	340000
VLB600	800	35000
VLB1200	1610	70000
VLB1800	2410	106000
VLB2400	3210	141000
VLB3000	4030	177000

Gas Train

The gas train consists of ball-, safety- and control valves and all necessary filters and flanges. The train is manufactured according to DS/EN 746 part 1 and 2.

The train is fastened under the hot air chamber against the dryer column.

Gas Supply

The burner can be used for natural gas and LPG gas. The gas pressure to the gas train can either be low pressure (up to 400 mbar) or high pressure (up to 5 bar).

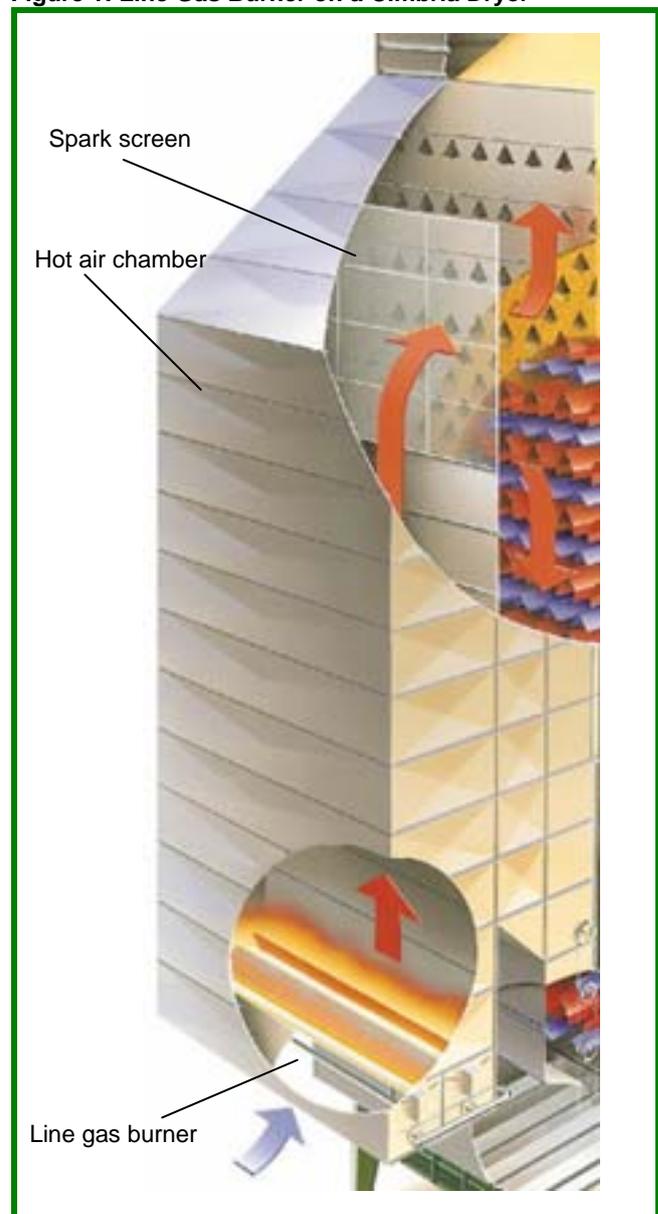
Control of The Burner

The control consists of a base module for the first line burner which is enlarged for each extra line - up to six - in the same box. Supply voltage to the panel is 230 V and the frequency 50 / 60 Hz.

Spark Screen

Cimbia offers an optional spark screen as an accessory to the line gas burner. The spark screen is placed in the upper part of the hot air chamber. It neutralises sparks that could have been sucked into the cereal. We strongly recommend using the spark screen when re circulating the heat.

Figure 1: Line Gas Burner on a Cimbia Dryer



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