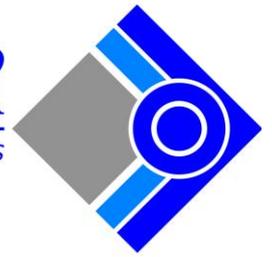


EXPERTISE SKILLS AREA



L.LAIR
ETABLISSEMENTS



➤ **Gas BURNERS installed in air duct for direct fired heating:**

VEINAIRFLAM burners

The VEINAIRFLAM air heating burners are designed to heat fresh or partially recirculated air. It is placed directly in the air stream and does not require a air combustion fan. The modular principle of this burner allows great flexibility in its use and configuration of the defined thermal equipment. The VEINAIRFLAM burner produces a uniform, odorless, smoke-free flame that is ideal for heating cool air in air heating applications of ventilation and air conditioning units. This burner ensures stable operation with a wide range of possible power outputs and fuel types.

VEINAIRFLAM-V burners

The VEINAIRFLAM-V air heating burners are designed to heat fresh and/or partially recirculated air directly with variable or non-variable air flow. They are placed directly in the air stream and require a combustion air fan supply.

The low percentage of O² or the variation in air flow in the duct or combustion chamber generates a depletion of this air or a variation in the air velocity around the burner and therefore a small pressure drops at the burner. These special conditions require the use of a VEINAIRFLAM-V burner, which therefore does not necessarily require a diaphragm. The VEINAIRFLAM-V burners are therefore a VEINAIRFLAM burner equipped with a stainless-steel casing and its own combustion air fan blower unit.

VEINAIRFLAM-V burners produce a uniform, odorless and smokeless flame, ideal for heating air in ventilation or air conditioning unit in heating applications and especially for all industrial processes using hot air. This model ensures stable operation with a wide range of possible power outputs and fuel types.

These burners are composed of a burner base with metal body (cast iron or application-specific) and stainless-steel HT mixing plates. The burner body allows fuel to be transported to the center of the drills to control the mixture of air and fuel inside the burner. It is therefore possible to carry out almost all types of possible configurations requested without power limitation.

➤ **Air FORCED BURNERS for direct or indirect flame heating with the use of an industrial heat exchanger:**

MODUFLAM Burners

The MODUFLAM burners are nozzle mixing burners, designed for all gaseous fuels and for a wide range of direct or indirect flame air heating industrial applications. These burners ensure clean combustion in a very wide range of settings and thus offer simple and universal answers to a wide range of thermal applications in industry. Due to the design of the range, there is no specific area of application for the MODUFLAM burner. This simple and reliable burner is suitable for dryers, ovens, ovens and industrial air heaters of all kinds. Among the most common areas of application, we would mention paint curing ovens in the automotive industry and surface treatment, textile dryers, drying plants in the paper industry, baking ovens, fiber and powder dryers, coffee roasters, food processing lines, hoods and dryers in the printing industry, dryers in the chemical industry, systems with air-to-air exchangers, etc.

...

RATIOFLAM Burners

The RATIOFLAM burners are forced-air, nozzle mixing burners designed for all gaseous fuels and for a wide range of direct or indirect air heating industrial applications. These burners ensure clean combustion in a very wide range of settings for thermal applications in industry. These simple and reliable burners are suitable for furnaces and stoichiometric or reductive oxidizing combustion in industrial environments of all kinds. Among the most common areas of application are furnaces for ceramics, bricks, refractories, rotary kilns, tunnel kilns, melting furnaces, dryers and pre-heaters, the steel industry, metallurgical industries, surface treatments, glassworks, etc.

GAS BURNERS - INDUSTRIAL HEATING SYSTEMS MANUFACTURER

Gas Lines & Regulations – Safety & Flame Monitoring - Safe Guards & Controllers – Solutions

Gas Safety & Detection – On site Services - Spare parts & components for industrial heating systems

L. LAIR - ZA du TUBOEUF - 115 allée des ORMETEAUX - 77170 - Brie Comte Robert – FRANCE

☎: 00 33 (0)1 64 05 88 59 ☒ : 00 33 (0)1 64 05 44 46 - www.lair.com.fr



Specialist on GAS BURNERS of the INDUSTRIAL series:

SERFLAM, GAZFLAM Industrie Burners: TCI, TCCI....

Burners : NP, RG, LV, APX, OVENPAK, VALUPAK, INDITHERM, Tube O Therm, Tube O Flame, KINEMAX, Brûleurs INCINOPAK, WIDE RANGE,

Burners : AH, AHMA, THERM AIR, RATIO MATIC, RATIO AIR, THERMO JET, IMMERSO JET, INCINICONE, FFB, Starveine, Starline, Starbloc, BCR, STI, AI, ASK, RD Ramps, Lab Ramps, PHP Ramps, Ramp Burners for Flame or Flame Walls, HEGWEIN Burners, MIDCO Burners - 7AFA, 7 AFB, Airflex, Boxflex, Cone Flex, Pyroline Burners, PTB, IR, BZR, SRB, SR, MIXERS, HEGWEIN Burners Z, ZA, ZT, ZX, etc.....

Complete Industrial Thermal Equipment:

○ **VEIN'AIRNOX**

Low Temperature:

Direct space heating by Make-up
Cereal dryers
Textile dryers
Air conditioning for surface treatment (paints, plastic applications, etc.).

Medium Temperature:

Dryers in the chemical industry.
Atomizing towers.
Paint booths / ovens.
Auxiliary heating downstream of heating coils.
Fresh air conditioning up to 850°C and beyond.
Cooking ovens.
Ovens for solvent air recycling.

High Temperature:

VOC incinerators with temperature downstream of the burner up to 1200 °C.

○ **TORCH'AIRNOX :**

Combustion chamber heating,
Air heating for surface treatment (paints, plastic applications,...),
Furnaces for firing, melting, ceramics, mobile floors,
Paint ovens,
Food ovens,
YANKEEs,
Textile dryers, cereal dryers, paper, inks, printing dryers,
Dryers in the chemical industry,
Coffee roasters,
Heat treatments,
All indirect heating systems.
Self-controlled or non-self-controlled burners.

○ **TUB'AIRNOX :**

All indirect heating systems for baths by heat exchanger.

○ **RAMP'AIRNOX :**

All direct flame boom burner heating systems.

○ **CIRCUL'AIRNOX :**

All high-temperature air heating systems in direct flame recirculation by circular burners.

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TRAINING tailor-made on-site or at the L. LAIR factory:

L. LAIR is registered as a training organization.

Theoretical and practical training courses on industrial thermal equipment from our supply or outside our manufacturing but in our field of technical competence, tailor-made "in situ" (on-site) training courses or training in our premises can be carried out on request.

An internship agreement is available. (Make a request to our after sales service department contact@lair.com.fr).

CONTROLS & SAFETY Equipment's Specialist:

FLAME CONTROLS and SAFETY:

SIEMENS (AGG – AGM - AZL – LDU - LFL – LFE - LGK - LEC - LME – LMV – LOK - PME – RAR – QRA1 – QRA2 – QRA4 - QRA5 – QRA10 - RWF, etc.)

Honeywell (A 4021 - EC7800 – RM 7850 - R4348 - R4343 – BC 1000 - C7035 - C7061 – C7076, C 7015, C7012, C 7024, C 6045, C 6097, DWR, DCM, etc.)

FIREYE (UV1, 45UV5, 48PT2, 72DUV1T, etc. .)

GAS SAFETY & REGULATIONS:

SIEMENS (Valves, Motors, Actuators, Pressure Switches, Safety Valves, Safety Devices, etc.)

Honeywell (Valves, Actuators, Motors, Pressure Switches, Safety Valves, etc.)

Honeywell (HUF, HUPF, HON, MR series gas regulators, etc....)

MAXITROL: Filters and regulators,

MADAS: FM filters, RG/2MB, FRG/2MB, FRG/2MC, FRG/MTX regulators, MVS/1, MVB/1MAX safeties, etc. ...

ROCKWELL, ROMBACH, TARTARINI, ELSTER-INSTROMET, INVENSYS, FISHER, EMMERSON - Regulators - Safety (IPSH - IPSL - R133 - R233 - 043 - 143 - 243 08 - 243 12 - RB - MN-MBN - R72 - V2 - V5 V6 - BM7- B140 - B149 - B210 - B240, B249, R72, etc.).

HEGWEIN goods (AD00H1 – AD00H2 - AD1H1 – AD1H5 - AD2H1 – AD2H5 - BT – BZ – ZG

GAS DETECTIONS:

Honeywell (Sensors, control panels, alarms, solenoid valves, ...)

Combustible Gas Leak Detection

Fire detection

Safety valves



TEMPERATURE REGULATIONS for INDUSTRIAL PROCESSES:

SIEMENS Industrial Series RWF

WEST 6000 / 6700 / 8000 / 8170 / 8200 series.....

ABB serial PYROMAT 611 / 636.....

EUROTHERM series 2604 / 2704 / 3216 / 3504

MCC SESAME Series.

Pt 100 sensors, thermocouples sensors TCK, TCJ, etc. ...

Various items:

VRDN double safety valves Blocks

ARIS motors, specific pressure switches, HP 6b solenoid valves,...

Isolation valves, filters, pressure gauges, gas hoses, sensors, transmitters, etc.

ATEX equipment.

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MATERIALS & COMPONENTS of INDUSTRIAL THERMAL SYSTEMS :

Special BURNERS for very low LHV, BIOGAS,
Ignition pilot burners,
Induced Air Burners, Mixers, Venturi Systems,
Preheating systems for air duct burners,
High voltage ignition and detection, SILICON-FREE wiring cables special Automotive paint factories,
High voltage & high temperature ignition and wiring cables up to 250°C,
Spark plugs
Ionization probes and flame rods,
UV and IR cells,
High voltage ignition transformers,
Specific connections, High Voltage insulators & ionization sensors,
Special connectors, shielded cables,
Brackets and linkages, limit switches, Miscellaneous repair kits,
High temperature insulation systems, concrete casting insulation...
Gas sensors and detections, fixed and portable detectors,
Sound and light alarms, Police or BSVD boxes,
Automatic solenoid valves with manual reset,
Atex components,

& any other equipment set or sub-assemblies for industrial heating systems using gas as fuel and components of the most common brands mentioned above ...

L . LAIR is also a Gas Expert and an active member of the Gas Standardization Bureau N°186 (AFNOR commission for the establishment of EC standards relating to the safety of industrial thermal systems using gas as fuel in Europe). L. LAIR cannot derogate from the rules of the art in terms of safety and the application of EC standards on equipment and installations for which it ensures its customers the application of its duty of advice and prevention as well as all its professional actions and services.

As such, L. LAIR company has been certified by SIEMENS to provide the solutions, products, support and technical assistance necessary for industrial applications in the field of combustion equipment. This certification integrates L. LAIR's technical responsibility for the definition and integration of industrial safety components and gas products with the obligation to carry out high quality installations in order to preserve its Certification and approval as a SIEMENS FRANCE OEM SOLUTION PARTNER.



**L. LAIR is SIEMENS FRANCE OEM
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