

www.elco-burners.com

# elco

#### **INNOVATION**

Since its foundation in 1928, ELCO has always been a specialist in burners conception and manufacturing. By linking a strong innovative ability to a continued developing drive, ELCO has designed high performing and reliable burners as well as corresponding services throughout the years, and is today one of the leaders in the field of combustion technology.



#### **RESEARCH AND DEVELOPMENT**

ELCO always looks for the best technologies and continues to develop new ones to improve the efficiency of its solutions.

Our R&D Laboratories are committed to develop innovative technological solutions allowing to:

- optimise the running of the installations lowering costs;
- offer service friendly products easy to maintain;
- preserve the environment lowering acoustic and pollutant emissions.



#### **OUR PRODUCT RANGE**

Our experience at combustion technology available in a complete range of burners from 11 kW to 80 MW:



11 - 2300 kW Page 4 PROTRON 17 - 550 kW Page 5

**NEXTRON** 250 - 11200 kW Page 6 **EK EVO** 250 - 13000 kW Page 7 **N** 1300 - 22000 kW Page 8

### CUTTING-EDGE BURNERS FOR HEATING AND INDUSTRIAL APPLICATIONS

#### **KNOW-HOW**

Your contacts at ELCO and its partners are recognised experts with years of experience.

Our worldwide support starts from concept creation to planning, design and project management up to commissioning and on-going operation of the plant throughout its life cycle.

As an ELCO customer, you can rely on your installation to perform reliably. Our guarantee is backed up by a service that sets standards in our field.



#### **WORLDWIDE NETWORK**

Capitalising on more than 90 years of work experience, ELCO has been capable to build up loyal partnerships and today can count on reliable Partners all over the World.

Combining an instinctively global perspective with a genuinely multicultural approach ELCO today offers you skilled and experienced experts available in more than 70 Countries.

#### In Europe

3 production plants6 commercial branchesStrong commercial presence through a network of reliable dealers and partners

#### Worldwide

2 Sales Offices in Russia and China Distribution in over 70 Countries





HO/GHO-TRON 68 - 17000 kW Page 9 **RPD** 500 - 80000 kW Page 10 **EK-DUO** 600 - 16000 kW Page 11 **D-TRON** 230 - 34000 kW Page 11

# VECTRON

MONOBLOCK BURNERS FROM 11 TO 2300 kW GAS, LIGHT OIL AND DUAL FUEL



ErP<sub>V</sub>

#### AN OPTIMAL COMBINATION OF EXPERIENCE AND INNOVATION

With its gas, light oil and dual fuel VECTRON burner series, ELCO offers a product range capitalising on more than 90 years of experience in the development of combustion technologies.

All VECTRON series burners are characterised by ease of installation, adjustment and maintenance resulting in an excellent designed product.

### ENVIRONMENT: PREFER A CLEAN TECHNOLOGY

Thanks to innovative combustion technologies and the experience developed on the field, ELCO is able to offer a Low NOx range able to meet -or exceed- the highest requirements and comply with the European Emission Standards, as well as those of many other countries, such us the  $ErP_{\mathcal{N}}$  Directive.

Versions with FGR System able to reach NOx values below 30 mg/kWh are also available starting from the platform VG5.

#### **MAINTENANCE: RAPID AND EASY**

In order to grant cost benefits and high performance on all VECTRON models, ELCO implemented features that simplify commissioning and allow quick and efficient burner maintenance.

For ease of maintenance, the combustion parts can be quickly removed, cleaned and, even when they are disassembled, re-assembly is problem free.

#### COMMUNICATION: AN INTUITIVE AND INTERACTIVE SYSTEM

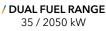
VECTRON has been the first range of ELCO burners to integrate the innovative MDE2 System and ELCOGRAM, a universal language composed of pictograms and numerical data.

This ensures that information is easier to read more than ever before, constantly giving real-time information to engineers, during the commissioning, operation and at each operation cycle.





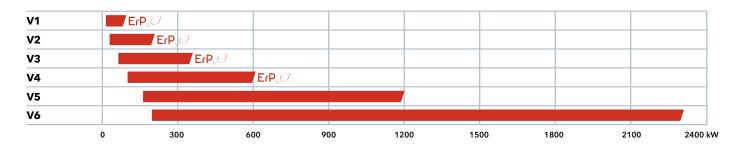
**/ GAS RANGE** 15 / 2300 kW





/ LIGHT OIL RANGE 11 / 2080 kW

/ ErP / LOW NOx / ULTRA LOW NOx up to 1900 kW



# PROTRON

MONOBLOCK BURNERS FROM 17 TO 550 kW GAS AND LIGHT OIL





#### THE PERFECT CHOICE FOR LIGHT INDUSTRY

The PROTRON range has been especially designed for light industry applications: better heat resistance, compact layout, easy to maintain, integral protection cover, graphic display.

PROTRON burners are characterised by high versatility allowing this range to be used in several installations within the process industry: ovens, dryers, spray booths, incinerators, hot air generators.

#### **HIGH VERSATILITY IN ANY SITUATION**

The range has been developed in order to fit to any installation requirement. PROTRON burners are available in two different models:

- cubic structure: fully enclosed burner with optimal accessibility and flexibility;
- gun structure: high performance ventilation and maximum compactness.

The maximum flexibility is defined by a wide choice of configurations: quick start, tightness control, adjustable pre-purge and post-purge, permanent ventilation.

#### SOFTWARE PROGRAMMING FOR MAXIMUM FLEXIBILITY

Each burner is configurated in the factory by our technicians according to the customer's needs through a serie of parameters and options, such as quick start, tightness control, adjustable pre-purge and post-purge, permanent ventilation.

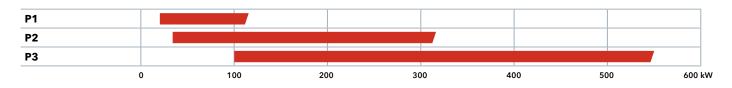
To meet various application requirements 8 combinations of software programming are possible.

#### **RELIABILITY IN ALL CONDITIONS**

A necessary feature for process industry applications is the reliability, and the PROTRON range ensures it in all conditions, even when operating at higher temperatures.

All PROTRON models have been designed with metal parts where higher temperature can be reached, assuring the continuity of the operation even in the most challenging situations.





### **NEXTRON**

MONOBLOCK BURNERS FROM 250 TO 11200 kW GAS, LIGHT OIL AND DUAL FUEL





#### **DESIGN: SMOOTH AND INTEGRAL**

The original design of NEXTRON® range is the result of a successful integration between burner and ELCO technologies.

NEXTRON<sup>®</sup> burners are able to perfectly integrate themselves in any installation and professionals will appreciate the innovative construction making it maintainance friendly.

#### **UNIQUE LOW NOx PERFORMANCE**

Developed and improved by ELCO R&D department, the Free Flame technology is a unique combustion process. This ELCO technology is capable to reach the NOx levels required by the most severe standards for all types of combustion chambers, whether they are 3-pass or reverse pass boilers.

#### **HIGH ACOUSTIC COMFORT**

The NEXTRON<sup>®</sup> burner range offers a high acoustic comfort thanks to the Low Noise System. The unique air intake channel is carefully designed to achieve an acoustic level significantly lower than 80 dB(A) up to 10 MW.

This integrated and patented system on all NEXTRON<sup>®</sup> burners is definitely a good replacement of the traditional bulky and expensive sound proofing box.

#### **MODULAR SWITCH CABINET BUILT-IN**

All the NEXTRON<sup>®</sup> burners feature integrated switch cabinet, the ISC System, with modular concept for control devices and accessories: adjusting and safety control box, EMC protected power circuit of fan motor, display with command keyboard within the front of the panel.

The ISC System houses options and accessories, such as the power regulator and the frequency inverter Variatron. Each burner can be customised according to the installation requirements.

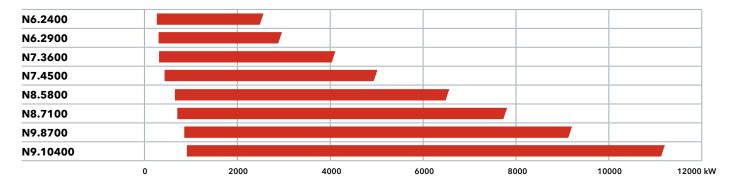


**/ GAS RANGE** 340 / 11200 kW

/ DUAL FUEL RANGE 250 / 10620 kW

/ LIGHT OIL RANGE 360 / 10620 kW

/ LOW NOx up to 10200 kW



# EK EVO

MONOBLOCK BURNERS FROM 250 TO 13000 kW GAS, LIGHT OIL AND DUAL FUEL





### ROBUST AND WELL ENGINEERED DESIGN

The design of the EK EVO is the result of a successful synergy between ELCO key features and essential design.

EKEVO introduces a brand new aluminium body casing, enhancing the visual choice of ELCO.

Professionals will appreciate the flexibility of a 180° orientable air inlet, the compact switch box and the easy to clean glossy paint.

### SMART SOLUTIONS FOR EASY MAINTENANCE

The maintenance of the EKEVO burners can comfortably be carried out thanks to a wide opening above the housing, allowing easy access to the combustion components, and thanks to the choice of the material: aluminium, lightweight to handle and resistant at the same time.

Maintenance operations are possible without disturbing the burner head and setting.

#### A TOTAL ADVANTAGE IN TERMS OF FLEXIBILITY AND EASE OF USE

The EKEVO are characterised by their total flexibility of installation; they have been designed to be installed in different ways: up-firing, down-firing, upside-down or side-to-side (twin chamber boilers).

All EKEVO models are fully electronically controlled and equipped with the exclusive ELCO interface allowing simple and effective comunication between burner and technician.

### ULTRA LOW NOx VERSION WITH FGR SYSTEM

ELCO implements the external FGR technology to reduce pollutant emissions and satisfies even the most stringent regulations on all its EK EVO products in gas and dual fuel operation.

NOx emissions below 30 mg/kWh are reachable with all the models of the EK EVO range in gas and in dual fuel opeartion.



/ GAS RANGE 340 / 13000 kW



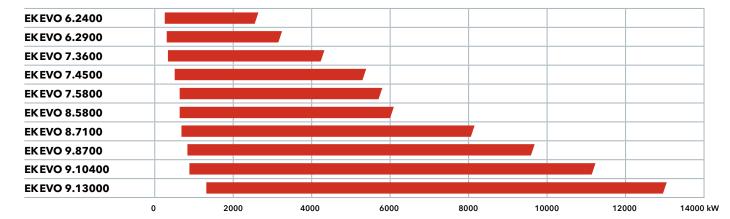
/ DUAL FUEL RANGE 250 / 10620 kW



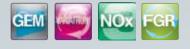
/ LIGHT OIL RANGE 360 / 10620 kW



/ LOW NOx / ULTRA LOW NOx up to 13000 kW



MONOBLOCK BURNERS FROM 1300 TO 22000 kW GAS, LIGHT OIL AND DUAL FUEL





#### **HIGH POWER AND EASE OF USE**

Where a compact solution is needed, a monoblock burner offers advantages over individual components. However, above a power output of 10 MW, the conventional burner becomes too heavy: ease of handling during installation and maintenance work suffers, the strain on the boiler door is too high.

The N burners solve this problem with innovative, weightsaving enclosure technology. The key feature is the physical division of the burner into a support frame and a separate air-routing housing.

### SIMPLIFIED STRUCTURE TO IMPROVE USABILITY

The burner head and the housing have been almost entirely separated in order to allow sufficient space for the combustion components to be easily removed. The air pipe between the housing and the burner head is simply closed by a removable cover. It is no longer necessary to pivot the entire body of the burner to one side or the other.

An added advantage is the ability to fix the frame to the ground, depending on the application, thus relieving the boiler door from any mechanical stress.

#### ULTRA LOW NOX TECHNOLOGY, UP TO 22 MW

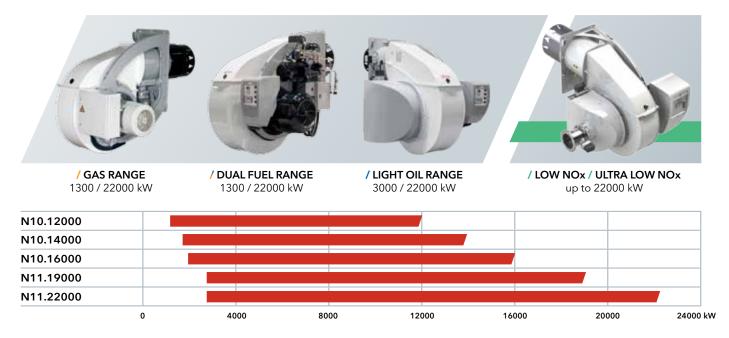
Thanks to the introduction of the new N11 model and the innovative solutions of this range, ELCO is able to provide high performance and ease of use on its monoblock range up to 22 MW.

The implementation of the FGR System enables to guarantee NOx emissions of less than 30 mg/kWh for all the models of the N range.

### ADVANCED DESIGN FOR LOW NOISE LEVELS

Special attention has been paid to the fan design. The burner's acoustic level meets industry standards, providing a more comfortable working environment.

The two main characteristics which limit the noise emitted by a fan are a high and constant static pressure and the use of a wheel with rear facing blades. The result is a stable combustion and reduced noise at the air inlet.



# **HO-TRON**

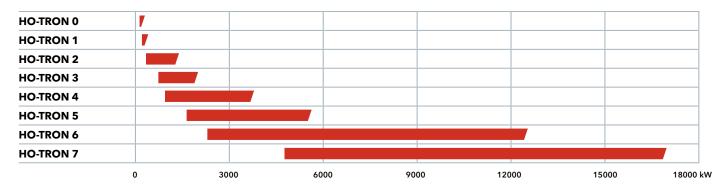
MONOBLOCK BURNERS FROM 68 TO 17000 kW HEAVY OIL



ELCO offers a wide range of heavy oil burners designed for traditional applications and industrial process applications. HO-TRON models for heavy oil up to 50°E at 50°C are available in the following configurations:

- one stage (HO-TRON 0-1);
- two stages (up to the model HO-TRON 5);
- two stage progressive mechanical operation (up to 17 MW).

All burners have easy access to the combustion components in order to simplify the maintenance operations. For a large extent of applications, customised solutions can be offered in order to meet plants requirements. Ring system components for oil preparation can be designed and supply on request.

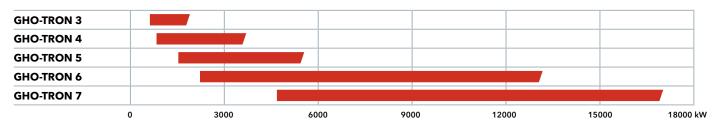


### **GHO-TRON**

MONOBLOCK BURNERS FROM 410 TO 17000 kW DUAL FUEL (GAS/HEAVY OIL)



ELCO dual fuel GHO-TRON burners are suitable to work with natural gas or heavy oil up to 50°E at 50°C. GHO-TRON burners are available in two stages (GHO-TRON 3) and progressive version with electrical servomotor and double adjustable mechanical cam that allows air gas/heavy oil fine tuning (versions up to 17 MW). Configurated and special versions are available on request for selected type of applications and fuel characteristics.



### RPD

#### DUOBLOCK BURNERS FROM 500 TO 80000 kW GAS, LIGHT OIL, HEAVY OIL AND DUAL FUEL

GAS, LIGHT OIL, HEAVT OIL AND DUAL





#### ALL THE BENEFITS OF THE SEPARATE VENTILATION

In contrast to monoblock burners, duoblock burners are made up of two units, or blocks, as the name implies: the burner head with the air inlet, and the separately-installed fan; the two units are connected via an air duct.

The separate installation of the fan offers several benefits:

- the fan can be installed in a separate room, for instance in the cellar; this results in considerably lower noise levels in the boiler room; when the fan is installed in the same room, a fan enclosure can be used to achieve optimum sound absorption, without inhibiting access to the burner;
- less space required in front of the boiler and in the combustion chamber;
- individual fan layout with optimum adaptation of the fan characteristic curve to suit the pressure ratio of the heat generator; this guarantees pulsation-free and stable burner behaviour, even on heat generators with high resistance on the exhaust side;
- combustion air can be pre-heated to increase installation efficiency;
- lower weight loading on the boiler front.

#### MAXIMUM FLEXIBILITY FOR HIGHLY CUSTOMIZED SOLUTIONS

Thanks to their extreme flexibility, RPD burners are suitable for almost any firing-related task.

All RPD models are fitted with adjustable air deflector plates, which can be used to swirl the combustion air. The flame configuration can hereby be directly influenced according to the geometry of the combustion chamber. The combustion head features optimised internal geometry to reduce head loss and the power demand of the fan motor.

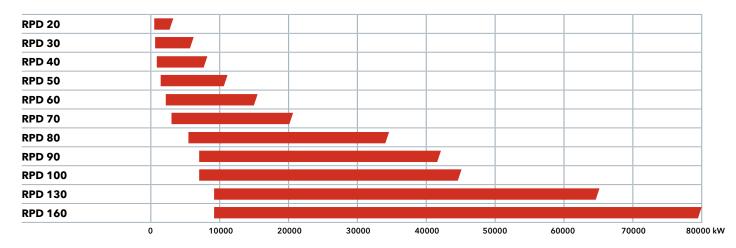
Pre-heated combustion air up to 350°C can also be used in order to achieve greater energy-saving potential.

### HIGH-TECH SOLUTIONS TO MEET ANY CUSTOMER REQUIREMENT

The flexible and modular design of the RPD range, combined to the fact that it is based on a wide range of solutions that have proved effective in practice, makes this burners suitable to be used in all those cases where complex tasks and high technical requirements demand customised heating installation solutions.

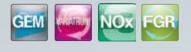
Typical exemples of use include:

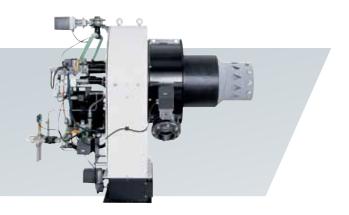
- use with multiple gases and/or multiple liquid fuels, simultaneously;
- water tube boilers used in big heating installations and industrial processes with a remarkable thermal demand;
- refinery processes and chemical industry applications;
- waste incineration plants.



# **EK-DUO**

DUOBLOCK BURNERS FROM 600 TO 16000 kW GAS, LIGHT OIL AND DUAL FUEL





The EK-DUO models are high-performance burners offering well-engineered duoblock technology at an affordable price. These burners are predominantly used to burn standard fuels, i.e. domestic light oil and natural gas, and are used in shell boilers, water tube boilers and thermal oil boilers.

The separate fan installation of the burner allows to overcome high combustion chamber resistance.

The tried-and-tested Diamond burner head for gas burners or the Free Flame burner head for oil or dual fuel burners grant high performance and low emissions, meeting the most stringent Low NOx requirements. The fuel-air mixture is adjusted solely using a modern electronic compound controller.

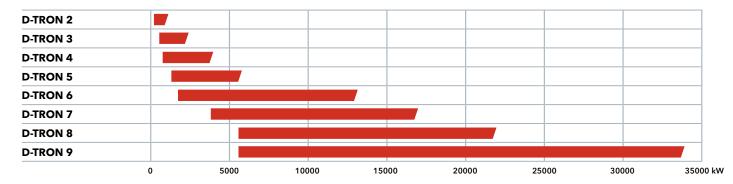


# **D-TRON**



Thanks to their extreme flexibility and ease of use D-TRON burners are suitable for all types of installation up to 34 MW. Burners can be assembled with an air duct connection in different layouts in order to meet a wide range of specifications in terms of performance and overall dimensions. Versions suitable to work with pre-heated combustion air up to 200°C can be used in order to achieve greater values of efficiency.

All D-TRON models feature easy maintenance: access to the combustion head and to the internal components is allowed from the housing top cover with a single operation, without removing the burner from the boiler. The clear layout allows rapid cleaning of the mechanical components, keeping the installation in good conditions.



# **TECHNOLOGIES AND SYSTEMS**

To constantly improve its products, ELCO is committed to develop innovative technological solutions allowing to optimise the running of the installations, to ease technicians work, and naturally to preserve the environment. In order to provide quick responses to its market's demands, the range of ELCO burners is entirely conceived around a consistent combination of Systems.

#### **MDE2 SYSTEM**

Permanent communication of information easy to use

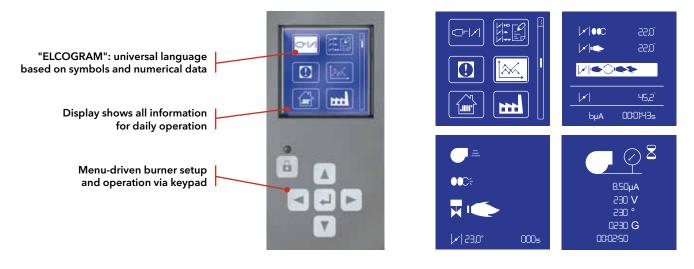


Equipped with the MDE2 System, the universal language Elcogram and the 5-button keyboard, ELCO burners adjust themselves and constantly communicate to the technicians and operators:

- real time information about each ignition and during the running;
- statistical information about the burner operations recorded during the whole year before the maintenance operations.

#### Elcogram, a universal language

As ELCO products are distributed worldwide, the company has developed a universal language composed of pictograms and numerical data. The pictograms use the majority of the symbols used on the wiring diagrams which are recognised and understood by all Nations. This ensures that information is easier to read than ever before.



#### **CMS SYSTEM**

The evolution of combustion management systems



CMS is a brand new system for burner management that sets new standards in control automation. The system provides a full combustion management solution that meets all relevant safety standards, and is certified for all main markets and Standards.

CMS system is simple and easily configurable to meet a wide range of application requirements, from low cost to high end solutions, for industrial or residential applications.

The CMS grants efficient communication via BUS and is extremely flexible due to the fact that is fully configurable, fully compatible with external devices/systems and fully scalable, allowing additional functions, such as VSD fan control, oxygen trim and CO control. A wide number of interfaces are available, from low-cost keypad to high-resolution touchscreens, allowing intuitive and easy interaction between user and machine.



# **TECHNOLOGIES AND SYSTEMS**

#### **AGP SYSTEM**

An outstanding technology for gas burners



Developed and produced by ELCO, the AGP System (proportional air-gas) provides:

- perfect stability of the air-gas mixture;
- a constantly high CO<sub>2</sub> content over the whole burner power range;
- precise control of air excess, which is important for high-efficiency operation, in particular for condensing generators.

The AGP measures: the gas pressure downstream of the gas train, the air pressure behind the flame holder and the furnace backpressure.

Any variations in the three pressures are immediately and simultaneously recorded by the system which automatically restores the correct gas/combustion air ratio.

AGP maintains a constant gas/combustion air ratio even in the presence of:

- positive or negative variations in the gas pressure;
- variations in air flow due to changes in the electrical supply voltage or fouling of the ventilation system;
- variations in the furnace and flue draft pressure on start-up and during load changes.



Electronic burner control: high safety and low costs



The use of electronic technologies in burner control systems helps to reduce running costs, improve reliability of operation and lower pollutant emissions. The electronic combustion manager used on ELCO burners are responsible not only for the burner control (formerly the task of the traditional automatic combustion control unit) but also for fuel/air regulation. Data stored electronically has replaced the mechanical characteristic curve and help to achieve an unprecedented level of precision in air/fuel ratio regulation across the burner's entire control range, a prerequisite for efficient, energy- and cost-saving operation.

The GEM System controls the position of one or more activators simultaneously.

The servomotors of the air flow and oil components are controlled by a microprocessor which contains set points defined for each load curve. An additional advantage of the GEM is that it provides specific information on all the commands and current situation of the overall system: these can be accessed directly or by remote control.

The digital programming is user-friendly, it is carried out through the display of the MDE2 System or through a PC by using a simple procedure facilitated by easy instructions in a clear language.

#### VARIATRON

Speed regulation: noise reduction and energy saving



To improve the performance of heating or industrial systems, ELCO applies Variatron (fan speed control).

Conventionally, the air in modulating burners is regulated by an air flap. In the partial load range, a large amount of the air pressure generated by the ventilator goes to waste.

With speed regulation, the speed of the combustion-air fan is varied continuously depending on the burner output required. Full speed is reached only at maximum burner output. In the predominant partial load range, lower speed translates into significant reductions in power consumption and noise emissions.

The Variatron operates in step with the air damper both with the GEM System and with the AGP System, which guarantees a combustion with minimum air excess by continuously monitoring all operating conditions.

- Application of the Variatron to ELCO burners results in:
- electrical consumption savings in the order of 50%;
- turndown ratio of up to 1:10, resulting in perfect adaptation to system requirements and improvement in average seasonal efficiency, in particular with condensing or low-temperature boilers or specific processes;
- silent start-up and average overall noise reduction between 2 dB(A) (at maximum power) and 12 dB(A) (at minimum power).

# **TECHNOLOGIES AND SYSTEMS**

#### **DIAMOND HEAD**

Low emissions and reliable operation

The principle of the Diamond Head's gas combustion is based on the internal recirculation of the combustion flue gases. These are partially drawn into the base of the flame via triangular openings positioned at the end of the combustion head.

The position and geometry of the gas injectors are such that a significant quantity of combustion flue gas is drawn in and rapidly mixed with air and gas at the root of the flame. This mixture crosses the main reaction area, slowing the combustion, which in turn results in lowering the main flame temperature. The result of this staging combustion is a significant reduction in the formation of thermal nitrogen oxides. The advantage of this internal recirculation technique is an automatic adjustment to the quantity of recycled combustion flue gases: the volume of the flame is always as low as possible, which has a very minor effect on the nominal power of the generator, unlike external recirculation systems.

#### **FREE FLAME**

The pinnacle of low-polluting burner engineering

The principle of the Free Flame oil combustion is based on rapid gasification of the fuel by recirculating the combustion gases internally and allows the fuel-air to mix quickly.

Once the fuel has been vaporised, it will burn and stabilise 30 centimetres from the combustion head.

The flame appears to "float freely" hence the name "Free Flame". The heat absorbed by the gasification oil will cause a significant drop in the flame's temperature and a decrease in the formation of the thermal nitrogen oxide.

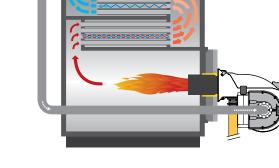
#### **FGR SYSTEM**

Ultra low NOx solutions to reach emissions of less than 30 mg/kWh

Thanks to its experience and the technologies it has developed over the years, ELCO offers a wide range of products which use the external FGR technology to reduce NOx emissions and satisfy even the most stringent regulations.

The principle of external flue gas recirculation consists in sending a mixture of comburent air and flue gas to the combustion head, thus reducing the NOx emissions. The gases are mixed upline of the combustion process by the burner fan (for monoblock units) or by the external fan (in case of duoblock burners).

This technology enables ELCO to guarantee emissions of less than 30 mg/kWh, a value which is hard to obtain with conventional combustion systems, and offer cutting-edge products which satisfy the requirements of any current regulations.









# **CUSTOMER CARE**

#### COMMISSIONING, MAINTENANCE AND INSPECTION

For safe and efficient operation of your burner system it is very important that the burner is commissioned by a competent person.

The combustion will be optimally adjusted over the whole power range of the burner, and all the safety devices will be tested.

To keep your installation in good conditions, it is important to maintain the burner periodically.

It is also very important to inspect all the safety devices to ensure that your system operates safely.

Fortunately, you can rely on the professional services of ELCO which can perform this service for you.

#### THE BURNER ACADEMY

In order to respond to the needs of our customers we created a Burner Academy, a real training school where the knowledge of our technicians is passed on to our trainees.

We provide the opportunity for boiler room personnel, operators and engineers to attend a series of training sessions carried out on our test bench by highly qualified instructors, who hold the courses in English, German, French, Italian and Dutch language.

The Burner Academy uses various training locations where boilers are installed and where people can be trained in theory and in practice. We offer courses at different levels and also the possibility to handle all your needs in a customer-specific training.

#### **RELIABLE SUPPLY OF SPARE PARTS**

Spare parts have always had a great importance inside the ELCO world. Considering the high amount of parts involved in every single product, some of these parts might naturally need to be replaced. ELCO can count on an International network offering original spare parts in order to guarantee the highest quality, reliability and safe continued operation of the appliance.

#### **WORLDWIDE SERVICE NETWORK**

In Western Europe, ELCO has a well organised service network. Outside Western Europe ELCO uses a network of partners, consisting of well-trained local engineers, to carry out its service operations.

These technicians are able to perform both commissioning and local service and they do it in a very professional and efficient way.









#### Altchemnitz, Germany

Fuel: Natural gas

**Total nominal output:** 132 MW

Burners: 6x N11.22000 G-EU1



#### Beijing, China

**Fuel:** Natural gas

NOx emissions: Installation with FGR system to reach NOx levels below 30 mg/kWh

**Burners:** 1x EK EVO 8.5800 G-EU3 FGR 2x EK EVO 8.7100 G-EU3 FGR



#### Stavanger, Norway

**Location:** District heating plant

**Fuel:** Natural gas

**Burners:** 2x EK-DUO 4.1600 G-E



#### Beijing, China

Fuel: Natural gas

**Total nominal output:** 180 MW

Burners: 4x RPD 100 G-EU



#### Seoul, South Korea

**Fuel:** Natural gas

**Total nominal output:** 50 MW

**Burners:** 7x N8.7100 G-EU3

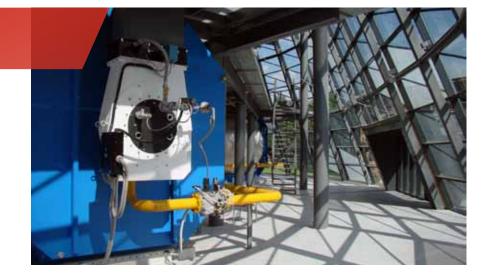


#### Saint Petersburg, Russia

Fuel: Natural gas

**Total nominal output:** 64 MW

**Burners:** 4x EK-DUO 4.1600 G-EU2



#### Beijing, China

Fuel: Natural gas

NOx emissions: Installation with FGR system to reach NOx levels below 30 mg/kWh

**Burners:** 2x N10.16000 G-EU2 FGR



Epe, Netherlands

**Fuel:** Natural gas

NOx Emissions: < 70 mg/nm<sup>3</sup>

Burners: EK EVO 7.4500 G-EF3



#### Tianjin, China

**Fuel:** Natural gas

Nominal output: 58 MW

NOx emissions: Installation with FGR system to reach NOx levels below 30 mg/kWh

Burners: RPD130 G-EU1 FGR



#### Stuttgart, Germany

**Fuel:** Natural gas / light oil

**Burners:** 2x EK-DUO 2.700 GL-EUF 1x EK-DUO 2.550 GL-EUF Low NOx operation for both fuels



#### Beijing, China

**Fuel:** Natural gas

NOx emissions: Installation with FGR system to reach NOx levels below 30 mg/kWh

**Burners:** 1x EK EVO 8.5800 G-EU3 FGR 2x EK EVO 7.3600 G-EF3 FGR



#### Sergiyev Posad, Russia

Fuel: Natural gas

**Burners:** 2x N6.2900 G-R 2x N7.3600 G-R



#### **Subsidiaries ELCO**

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