elco

# ULTRA LOW NOx SOLUTIONS


www.elco-burners.com

# ULTRA LOW NOx SOLUTIONS



www.elco-burners.com

# CUTTING-EDGE BURNERS FOR HEATING AND INDUSTRIAL APPLICATIONS

## OUR COMPANY

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.

## OUR MISSION

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 KNOWLEDGE

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 ongoing operation of the plant throughout its life cycle.
As an ELCO customer, you can count on us for products that guarantee reliability, quality and high performance in any application and working condition.

## OUR SERVICE NETWORK

Taking advantage of a staff composed of technicians and engineers with a long experience, ELCO is able to provide professional support to the customer in order to define together the best solution and to develop and manage the project through its entire life-cycle.
ELCO Service activities define the standards in the market and each customer can rely on high performance and reliabile products.


## OUR INNOVATIVE SOUL

The perfect combination of expertise and inventive spirit provides ELCO the drive to constantly improve its product lines and create new ones to meet market demands, in particular those related to the reduction of polluting emissions.
The growing attention to issues related to the environment has led to the development of advanced combustion technologies that allow NOx emissions to be drastically reduced and which use alternative fuels, as happens for example with hydrogen burners, a product of the future that ELCO is already capable of to offer today.

ErP COMPLIANT

ULTRA LOW NOx

H2

## TECHNICAL ASSISTANCE

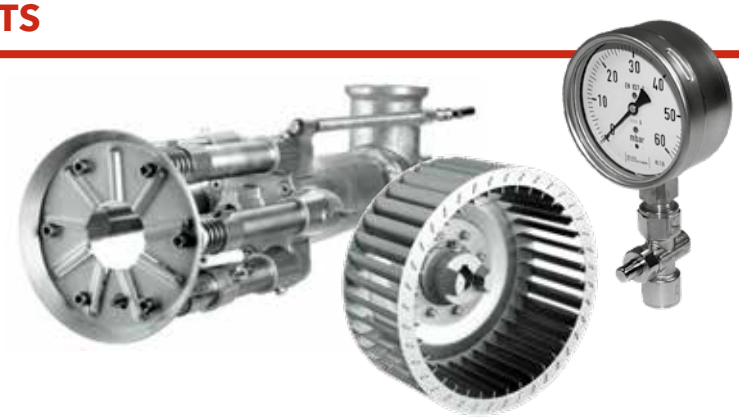
For safe and efficient operation of your burner system it is very important that the burner is commissioned by a competent person. The combustion will be optimally adjusted over the whole power range of the burner, and all the safety devices will be tested.
To keep your installation in good conditions, 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.

## 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

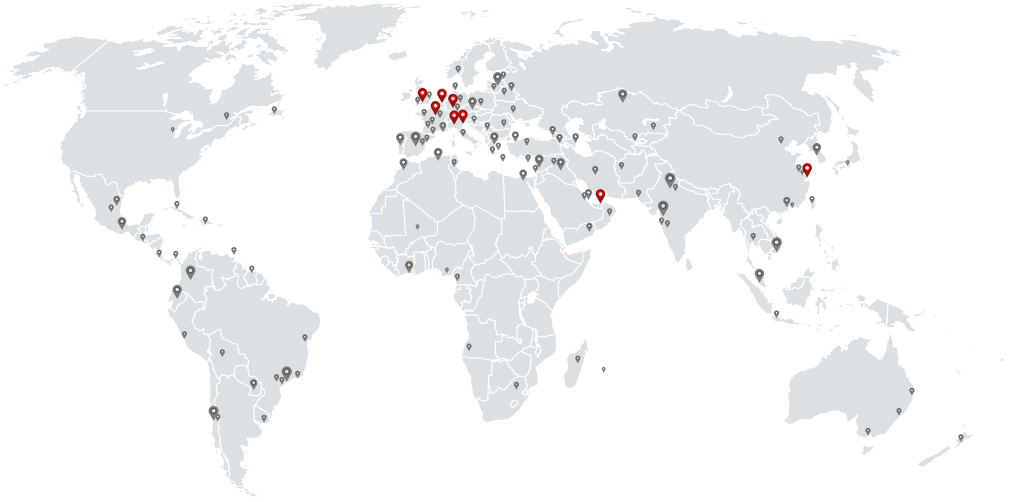
Spare parts have always had a great importance inside the ELCO world. Considering the high amount of parts involved in every single product, some of these parts might naturally need to be replaced. ELCO can count on an International network offering original spare parts in order to guarantee the highest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



# WORLDWIDE NETWORK

Capitalising on almost 100 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.

- 3 production plants
- 6 commercial branches
- Strong commercial presence through a network of reliable dealers and partners



## Service Network

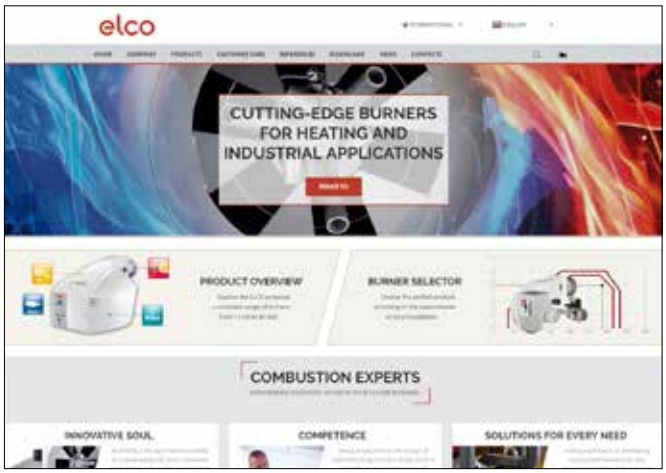
In Western Europe, ELCO has a well organised service network. Outside Western Europe ELCO uses a network of partners, consisting of well-trained local engineers, to carry out its service operations.
These technicians are able to perform both commissioning and local service and they do it in a very professional and efficient way.

# ELCO ON THE WEB

We are constantly looking forward to provide to our customers new technologies, products and services.
Stay always up to date on the latest news from the ELCO World visiting our website:

**www.elco-burners.com**

Navigate to explore the ELCO proposal and choose the perfect product to fit your needs, and follow us to know more about our new activities and projects.



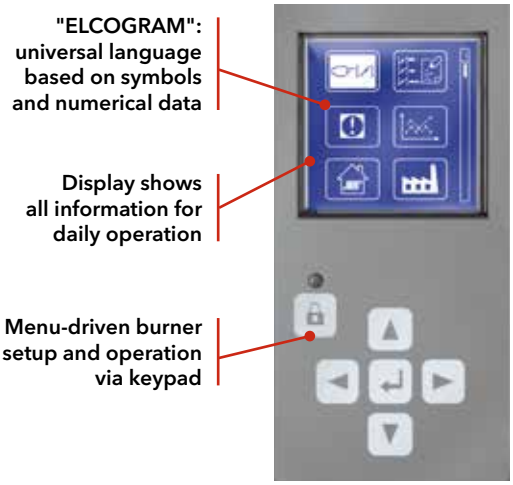

# ELCO SYSTEMS AND TECHNOLOGIES

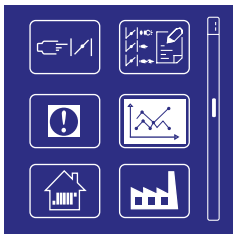
To constantly improve its products, ELCO is committed to develop innovative technological solutions allowing to optimise the running of the installations, to ease technicians work, and naturally to preserve the environment.
In order to provide quick responses to its market's demands, the range of ELCO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

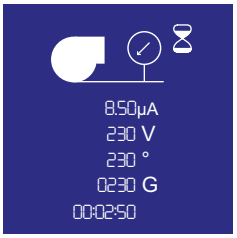
## MDE2 SYSTEM

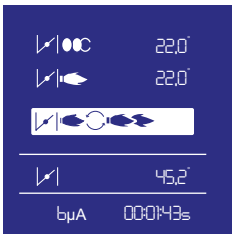
**Permanent communication of information easy to use**

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 state of the art 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.

# ELCO SYSTEMS AND TECHNOLOGIES

## GEM SYSTEM

**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 but also for the 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 pre-requisite for efficient, energy- and cost-saving operation.
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, 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 and 12 dB(A) (at minimum and maximum power).

## RTC SYSTEM

**Rapid and easy maintenance solutions**

The functional housing design of all ELCO burners, combined with the innovative combustion head technologies, creates the RTC System (Retained Head Adjustment) and provides the user with several advantages:

- full access to all components, by simply removing the upper cover;
- complete removal of the combustion head and access to its internal components with a single operation, without removing the burner from the boiler or disconnecting the gas train;
- maintenance of the adjustments made to the combustion head, which are not changed during service operations;
- quick cleaning of mechanical components, thanks to their optimized arrangement;
- reduced servicing times through the use of standard nuts, bolts, screws and pipe fittings, which can be adjusted using only a few tools.

The combination of all these technical solutions makes it possible to simplify and speed up all the operations carried out on the burner, reducing downtime and cost of maintenance.

# EK EVO, NEXTRON, N

**LOW NOx CLASS 4** MONOBLOCK BURNERS
FROM 440 TO 12400 kW
GAS

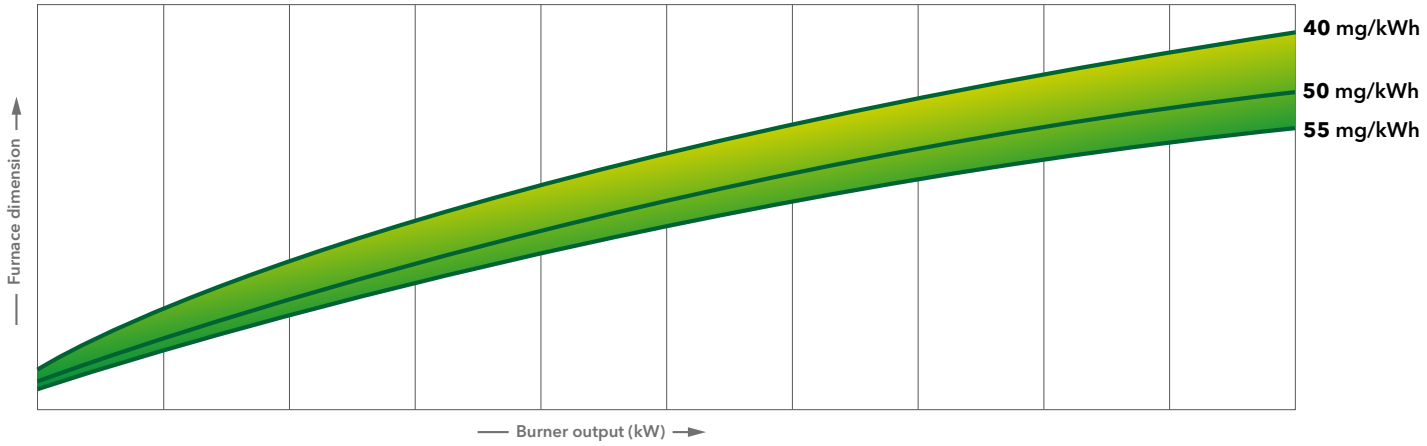
NOx <50 mg/kWh

## BLUE TRIPLE HEAD: Extreme low NOx values and high flame stability

ELCO combustion technologies are able to reach the NOx levels required by the most stringent standards for all types of boiler furnaces. Thanks to the introduction of the new «Blue Triple Head», the ELCO product range is enriched with new potential, offering burners with exceptional performance which at the same time guarantee NOx values well below the limits set by the class 4 of the EN676 Directive, without the application of external fuel gas recirculation technology.

The principle of the "Blue Triple Head" is based on a stage combustion combined with an internal recirculation of the combustion flue gases.
Multi-Stage Combustion allows stable nucleus flame and highest internal flue gas recirculation in next stage.
The result is a very low NOx value, a CO tending to 0 and a high stability that guarantee the limits even in standard combustion chambers.

The exceptional performance of the «Blue Triple Head» guarantees the possibility, depending on the size of the combustion chamber, of reaching NOx values even lower than 40 mg/kWh.



## MAIN TECHNICAL FEATURES

- Two stage progressive/modulating forced draught burner
- Fully electronic modulation system
- High modulation ratio, up to 1:9
- "Blue Triple Head" combustion technology guaranteeing NOx at lowest level
- Configurable industrial switch cabinet to meet the majority of the application requirements
- Easily adjustable combustion head to adapt to different boiler specifications and emission level requirements
- Flame tube available in different lengths
- Secured burner head adjustments during maintenance (RTC System)
- Closing of the air damper on burner shut-down
- Multiple gas train matching according to the inlet gas pressure
- Gas train factory assembled and tested for tightness and electrical security
- Products are in compliance with EN676 European standards and with the following directives:
  - 2014/35/UE Low Voltage Directive
  - 2014/30/UE EMC Directive
  - 2016/426/UE Gas Appliances Regulation
  - 2006/42/EC Machinery Directive
  - 2011/65/EU RoHS2 Directive
  - 2014/68/EU Pressure Equipment Directive (optional)

## RANGE OVERVIEW

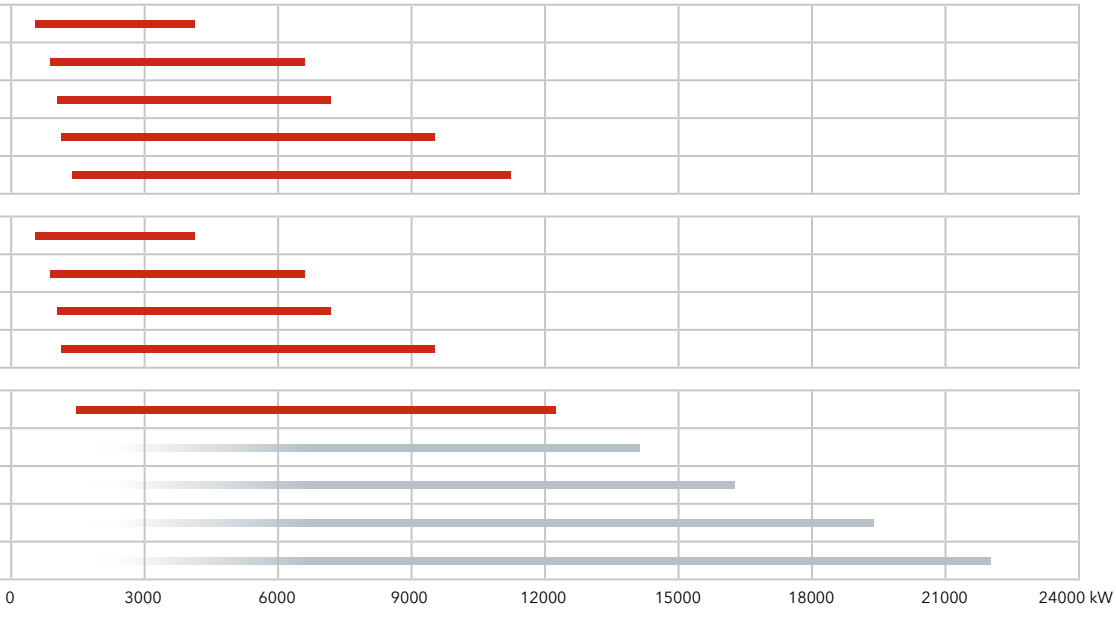
**/ EK EVO**
440 / 11350 kW
Page 12

**/ NEXTRON**
440 / 9440 kW
Page 20

**/ N**
1300 / 12400 kW
Page 28

## PRODUCT LIST

| | |
|---|---|
| **EK EVO 7.4000** | 440 – 4040 kW |
| **EK EVO 8.6600** | 730 – 6610 kW |
| **EK EVO 9.7200** | 890 – 7200 kW |
| **EK EVO 9.9400** | 980 – 9440 kW |
| **EK EVO 9.11300** | 1250 – 11350 kW |
| **N7.4000** | 440 – 4040 kW |
| **N8.6600** | 730 – 6610 kW |
| **N9.7200** | 890 – 7200 kW |
| **N9.9400** | 980 – 9440 kW |
| **N10.12000** | 1300 – 12400 kW |
| **N10.14000** | in progress |
| **N10.16000** | in progress |
| **N11.19500** | in progress |
| **N11.22000** | in progress |



EK EVO

GAS

ULTRA Low NOx

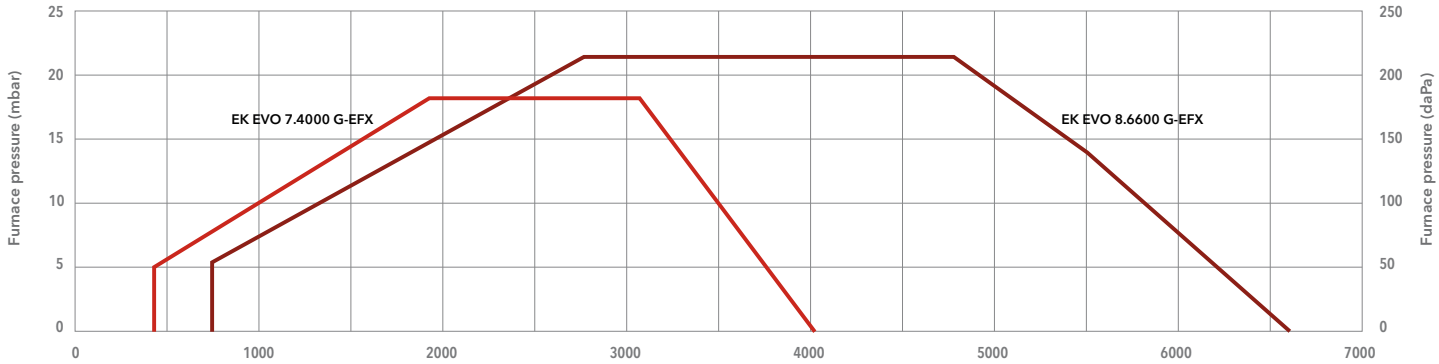
# EK EVO 7 G-EFX / EK EVO 8 G-EFX

440 ... 6610 kW
Two stage progressive/modulating electronic

NOx <50 mg/kWh

- **Fuels:** natural gas, Hi = 6,99 ... 11,39 kWh/Nm³
- **Emission class:** Low NOx class 4 (≤60 mg/kWh) according to EN676
- **Protection level:** IP 41

## TECHNICAL DATA




Test conditions conforming to EN676 - Temperature: 20°C - Pressure: 1013,5 mbar - Altitude: 0 m a.s.l.

| | | EK EVO 7.4000 G-EFX | EK EVO 8.6600 G-EFX |
|---|---|---|---|
| Operating range | | 440 – 4040 kW | 730 – 6610 kW |
| Gas pressure | | 100 – 500 mbar (100 – 360 mbar for d705) | 135 – 500 mbar |
| Gas connection | | DN65 | DN100 |
| Control box / flame detector | | BT300 / KLC | BT300 / KLC |
| Auxiliary voltage | | 1NPE AC 230 V – 50 Hz TN-S | 1NPE AC 230 V – 50 Hz TN-S |
| Power supply | | 3PE AC 400 V – 50 Hz | 3PE AC 400 V – 50 Hz |
| Fan motor | | 50 Hz – 7,5 kW | 50 Hz – 15 kW |
| Acoustic level | | <80,6 dB(A) | <87,6 dB(A) |
| CE certificate | | 0085CL0215 | 0085CL0215 |
| Burner codes (body + head) | KN | **3759493** | **3759813** |
| | KM | **3759494** | **3759814** |
| | KL | **3759495** | **3759815** |

## GAS TRAINS

SIEMENS

| Models for EK EVO 7 | Code |
|---|---|
| GT-s705-2" | 3759284 |
| GT-s701-65 | 3759280 |
| GT-s702-80 | 3759281 |
| GT-s703-100 | 3759282 |
| GT-s704-125 | 3759283 |

| Models for EK EVO 8 | Code |
|---|---|
| GT-s901-65 | 3759286 |
| GT-s902-80 | 3759287 |
| GT-s903-100 | 3759288 |
| GT-s904-125 | 3759289 |

DUNGS

| Models for EK EVO 7 | Code |
|---|---|
| GT-d705-2" (*) | 3759628 |
| GT-d701-65 | 3759625 |
| GT-d702-80 | 3759626 |
| GT-d703-100 | 3759627 |

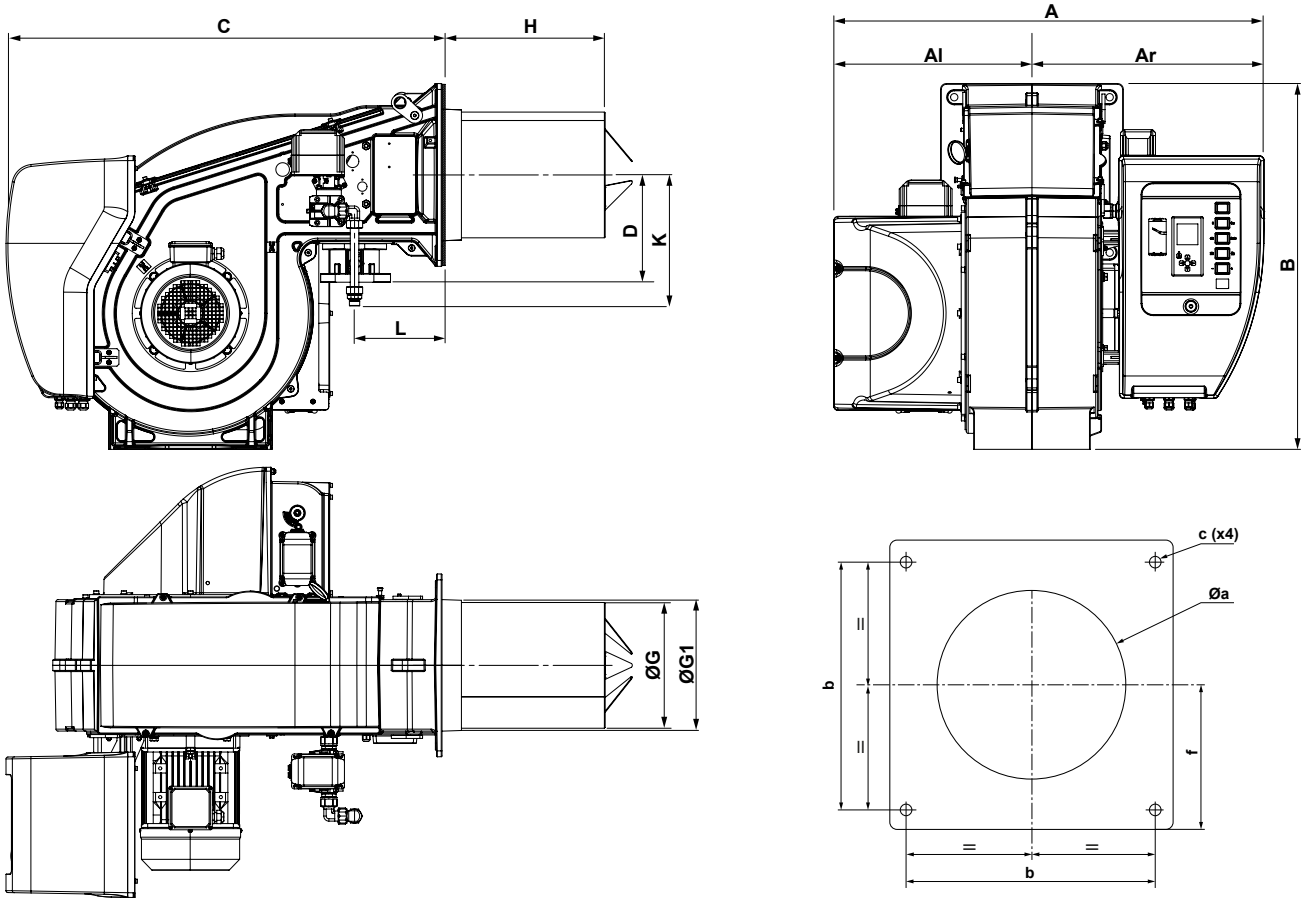
| Models for EK EVO 8 | Code |
|---|---|
| GT-d901-65 | 3759630 |
| GT-d902-80 | 3759631 |
| GT-d903-100 | 3759632 |

*: integrated filter

FILTERS

| Model | Code |
|---|---|
| FG-Rp2" | 3757200 |
| FG-DN65 | 3757198 |
| FG-DN80 | 3757201 |
| FG-DN100 | 3757195 |
| FG-DN125 | 3757209 |

## DIMENSIONS (mm)

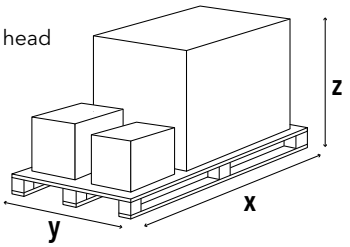



| Model | A | Al | Ar | B | C | D | E | ØG | ØG1 | H | | | K | L | Øa | b | c | f |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | KN | KM | KL | | | | | | |
| EK EVO 7.4000 | 1107 | 510 | 597 | 941 | 1130 | 276 | 235 | 325 | 338 | 420 | 550 | 680 | 320 | 233 | 360-400 | 400 | M16 | 235 |
| EK EVO 8.6600 | 1323 | 670 | 653 | 1231 | 1352 | 307 | 293 | 369 | 376 | 575 | 725 | 875 | 377*/366** | 230 | 380-410 | 505 | M20 | 293 |

*: applies to gas connectors DN100/65 and DN100/85
**: applies to gas connectors DN100/100 and DN100/125

## PACKAGING

The burner is delivered on a pallet with:
- burner body with mounted combustion head
- gas train and filter
- boiler fixing accessories
- technical documentation




| Model | Dimensions (mm) | | | Gross weight (kg) |
|---|---|---|---|---|
| | X | Y | Z | |
| EK EVO 7.4000 | 2046 | 1414 | 1233 | 300 |
| EK EVO 8.6600 | 2046 | 1414 | 1233 | 300 |

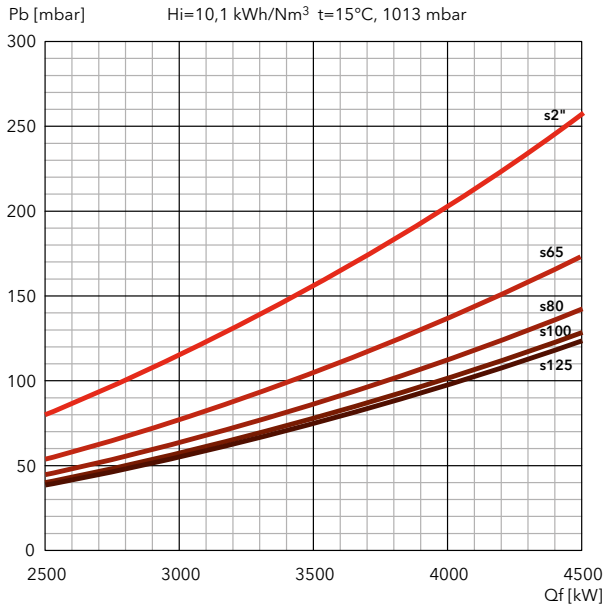
# EK EVO 7 G-EFX / EK EVO 8 G-EFX

440 ... 6610 kW
Two stage progressive/modulating electronic

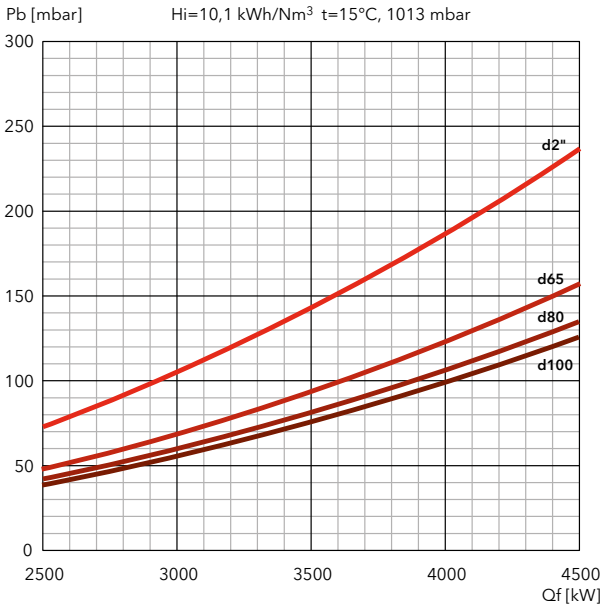
## PRESSURE LOSS [BURNER HEAD + GAS TRAIN] (mbar)

### EK EVO 7.4000 G-EFX

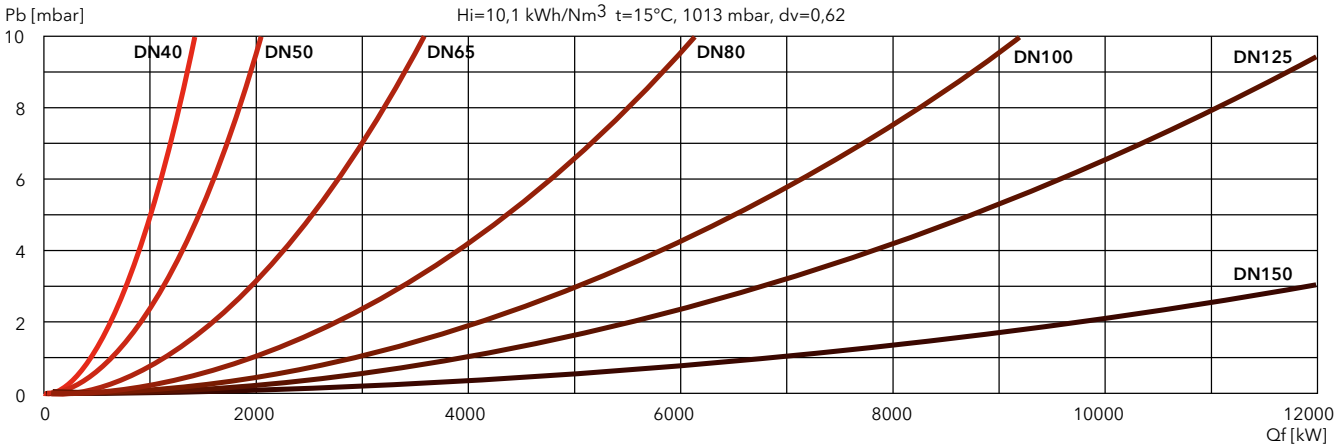
SIEMENS




DUNGS



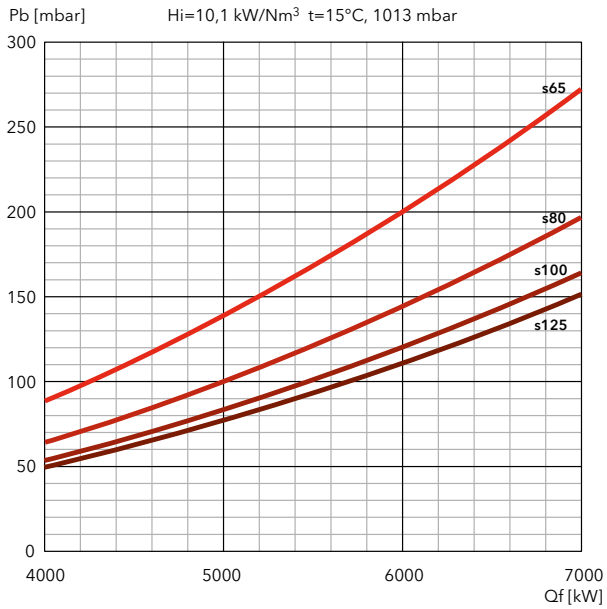

## FILTERS



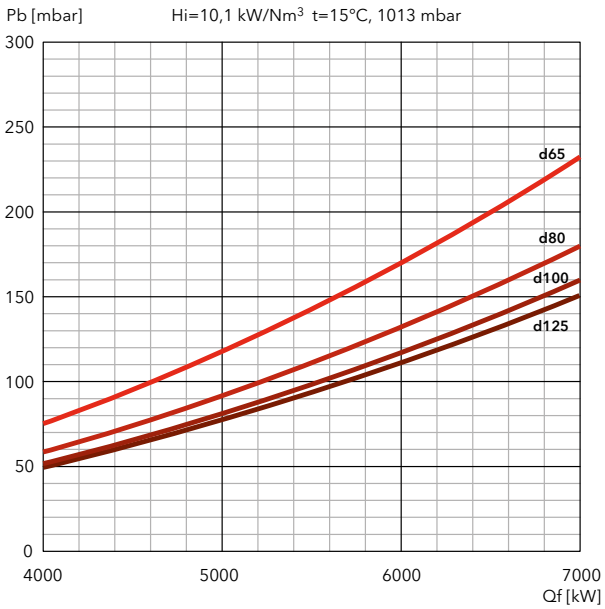
## PRESSURE LOSS [BURNER HEAD + GAS TRAIN] (mbar)

### EK EVO 8.6600 G-EFX

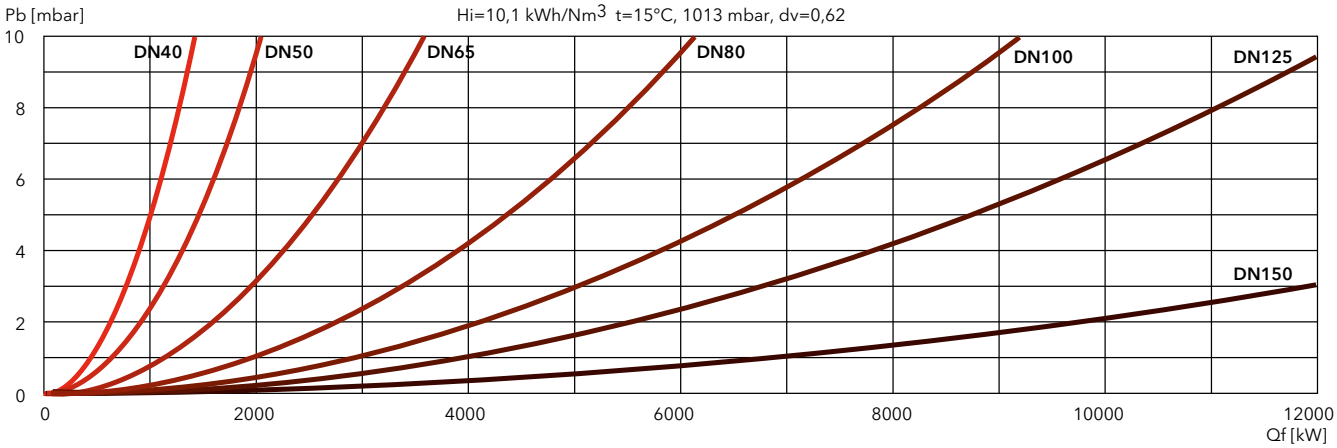
SIEMENS




DUNGS




## FILTERS



EK EVO

GAS

ULTRA Low NOx

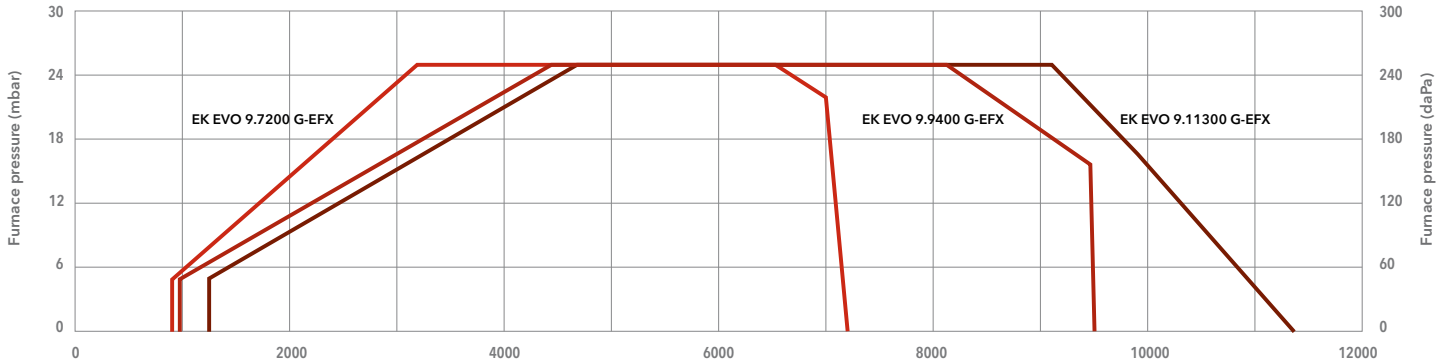
# EK EVO 9 G-EFX

**890 ... 11350 kW**
**Two stage progressive/modulating electronic**

NOx <50 mg/kWh

- **Fuels:** natural gas, Hi = 6,99 ... 11,39 kWh/Nm³
- **Emission class:** Low NOx class 4 (≤60 mg/kWh) according to EN676
- **Protection level:** IP 41

## TECHNICAL DATA




Test conditions conforming to EN676 - Temperature: 20°C - Pressure: 1013,5 mbar - Altitude: 0 m a.s.l.

| | | EK EVO 9.7200 G-EFX | EK EVO 9.9400 G-EFX | EK EVO 9.11300 G-EFX |
|---|---|---|---|---|
| Operating range | | 890 – 7200 kW | 980 – 9440 kW | 1250 – 11350 kW |
| Gas pressure | | 150 – 500 mbar | 175 – 500 mbar | 155 – 500 mbar |
| Gas connection | | DN100 | DN100 | DN100 |
| Control box / flame detector | | BT300 / KLC | BT300 / KLC | BT300 / KLC |
| Auxiliary voltage | | 1NPE AC 230 V – 50 Hz TN-S | 1NPE AC 230 V – 50 Hz TN-S | 1NPE AC 230 V – 50 Hz TN-S |
| Power supply | | 3PE AC 400 V – 50 Hz | 3PE AC 400 V – 50 Hz | 3PE AC 400 V – 50 Hz |
| Fan motor | | 50 Hz – 22 kW | 50 Hz – 22 kW | 50 Hz – 37 kW |
| Acoustic level | | <84,4 dB(A) | <87,2 dB(A) | <88,6 dB(A) |
| CE certificate | | 0085CL0215 | 0085CL0215 | 0085CL0215 |
| Burner codes (body + head) | KN | **3760498** | **3760738** | **3761544** |
| | KM | **3760499** | **3760739** | **3761545** |
| | KL | **3760500** | **3760740** | **3761546** |

## GAS TRAINS

SIEMENS

| Model | Code |
|---|---|
| GT-s901-65 | 3759286 |
| GT-s902-80 | 3759287 |
| GT-s903-100 | 3759288 |
| GT-s904-125 | 3759289 |

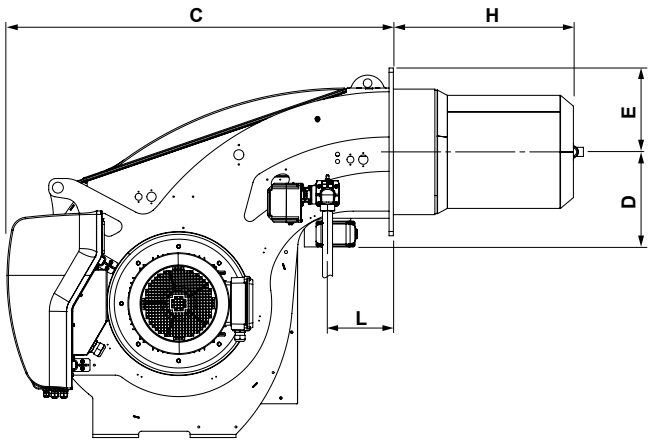
DUNGS

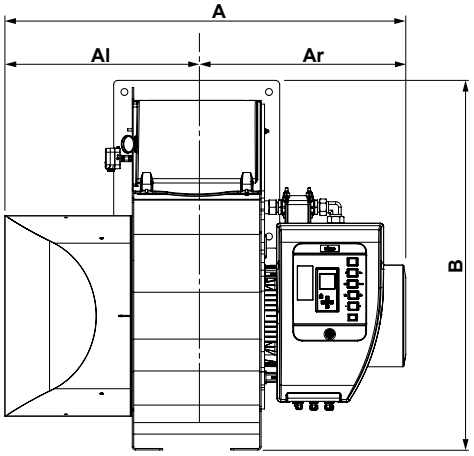
| Model | Code |
|---|---|
| GT-d901-65 | 3759630 |
| GT-d902-80 | 3759631 |
| GT-d903-100 | 3759632 |

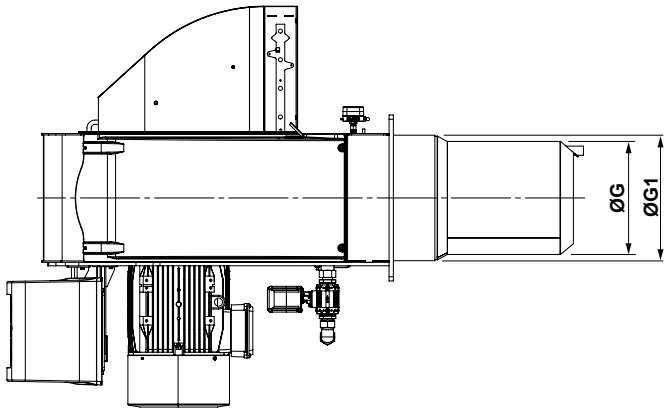
FILTERS

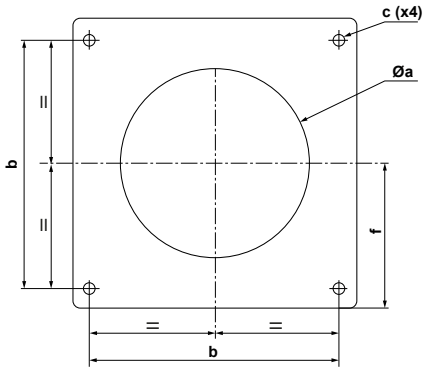
| Model | Code |
|---|---|
| FG-DN65 | 3757198 |
| FG-DN80 | 3757201 |
| FG-DN100 | 3757195 |
| FG-DN125 | 3757209 |

## DIMENSIONS (mm)



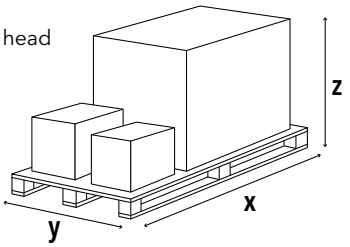




| Model | A | Al | Ar | B | C | D | E | ØG | ØG1 | H | | | L | Øa | b | c | f |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | KN | KM | KL | | | | | |
| **EK EVO 9.7200** | 1400 | 670 | 730 | 1291 | 1350 | 332 | 293 | 385 | 438,5 | 649 | 799 | 949 | 230 | 460-480 | 505 | M20 | 293 |
| **EK EVO 9.9400** | 1400 | 670 | 730 | 1291 | 1350 | 332 | 293 | 395 | 438,5 | 629 | 779 | 929 | 230 | 460-480 | 505 | M20 | 293 |
| **EK EVO 9.11300** | 1462 | 674 | 788 | 1291 | 1350 | 332 | 293 | 395 | 438,5 | 629 | 779 | 929 | 230 | 460-480 | 505 | M20 | 293 |

## PACKAGING

The burner is delivered on a pallet with:
- burner body with mounted combustion head
- gas train and filter
- boiler fixing accessories
- technical documentation




| Model | Dimensions (mm) | | | Gross weight (kg) |
|---|---|---|---|---|
| | X | Y | Z | |
| **EK EVO 9.7200** | 2046 | 1414 | 1233 | 300 |
| **EK EVO 9.9400** | 2046 | 1414 | 1233 | 300 |
| **EK EVO 9.11300** | 2046 | 1414 | 1233 | 300 |

EK EVO

GAS

ULTRA Low NOx

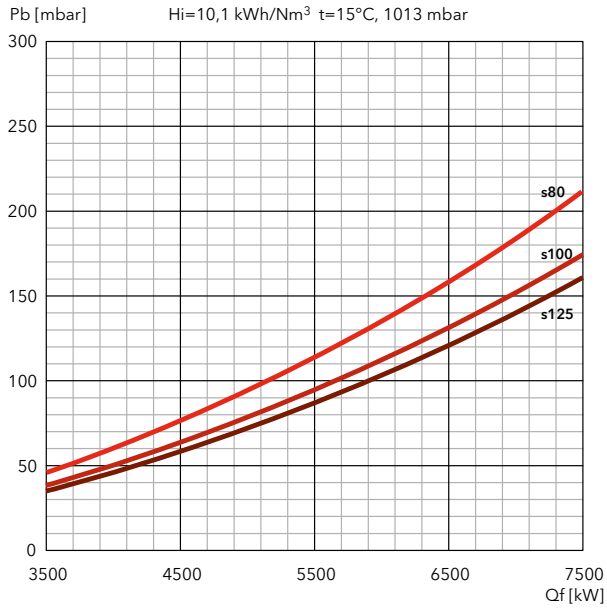
# EK EVO 9 G-EFX

890 ... 11350 kW
Two stage progressive/modulating electronic

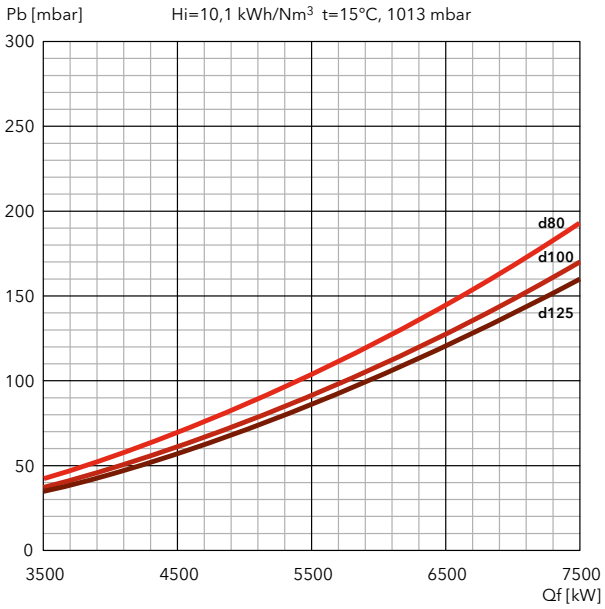
## PRESSURE LOSS [BURNER HEAD + GAS TRAIN] (mbar)

### EK EVO 9.7200 G-EFX

SIEMENS

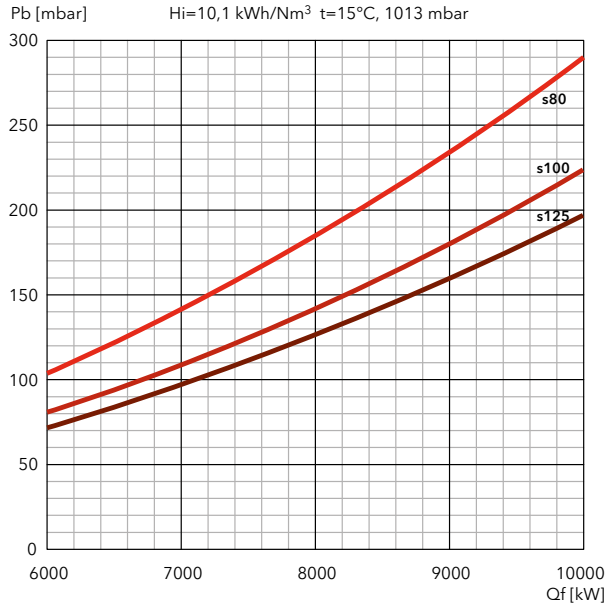



DUNGS

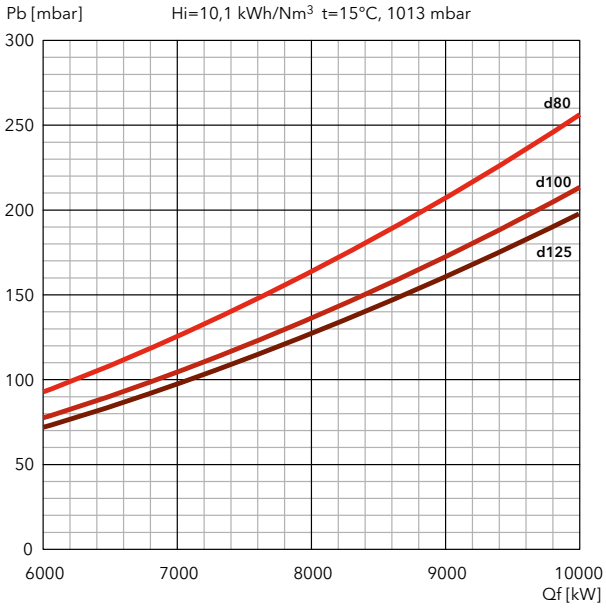



### EK EVO 9.9400 G-EFX

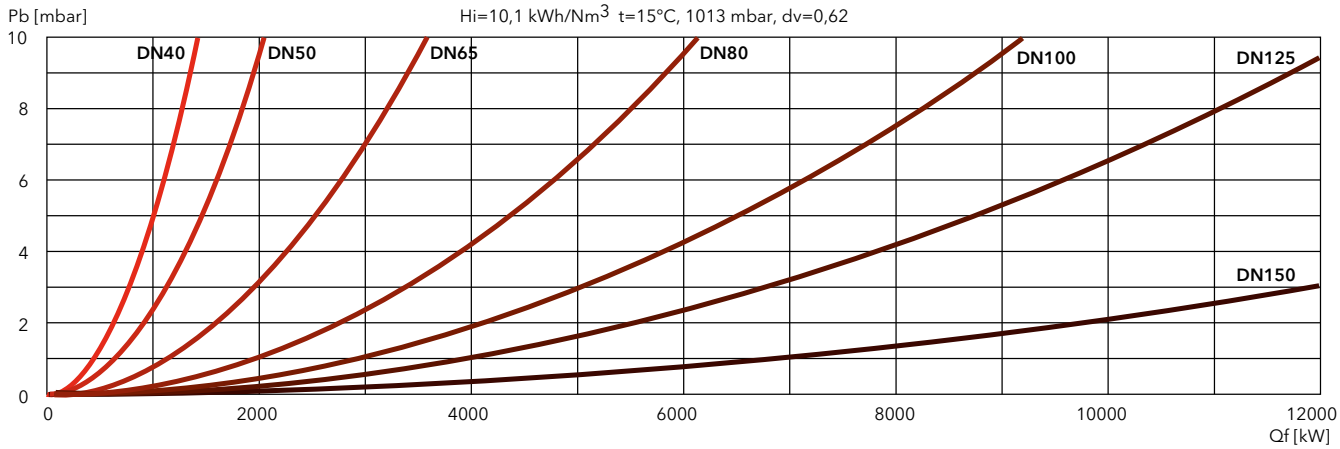
SIEMENS




DUNGS



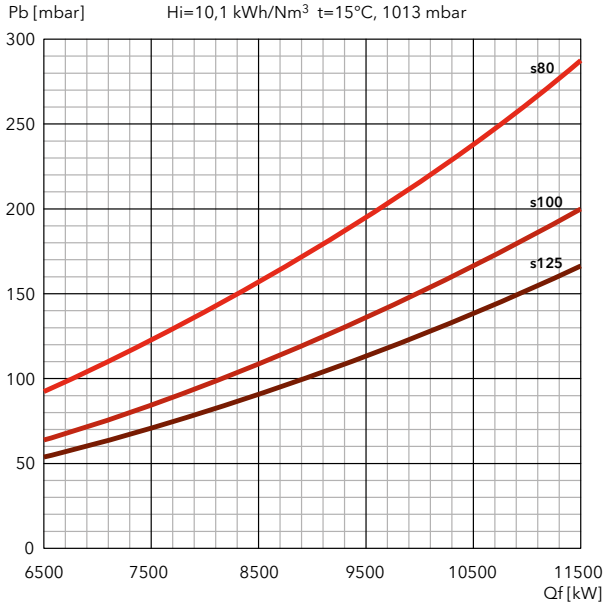

## FILTERS



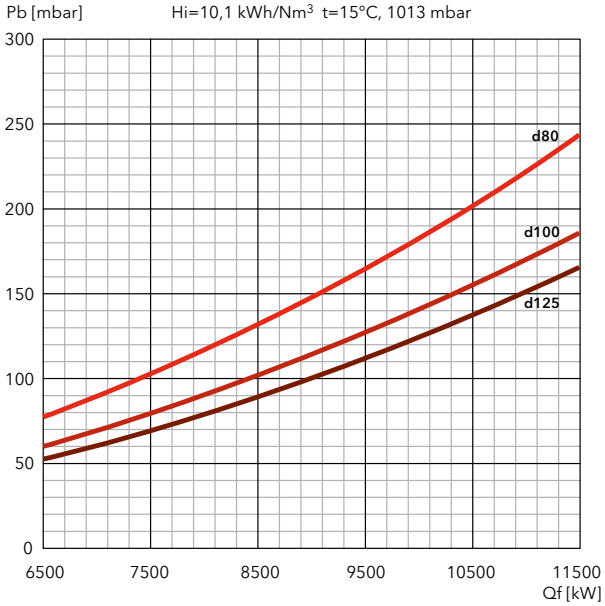
## PRESSURE LOSS [BURNER HEAD + GAS TRAIN] (mbar)

### EK EVO 9.11300 G-EFX

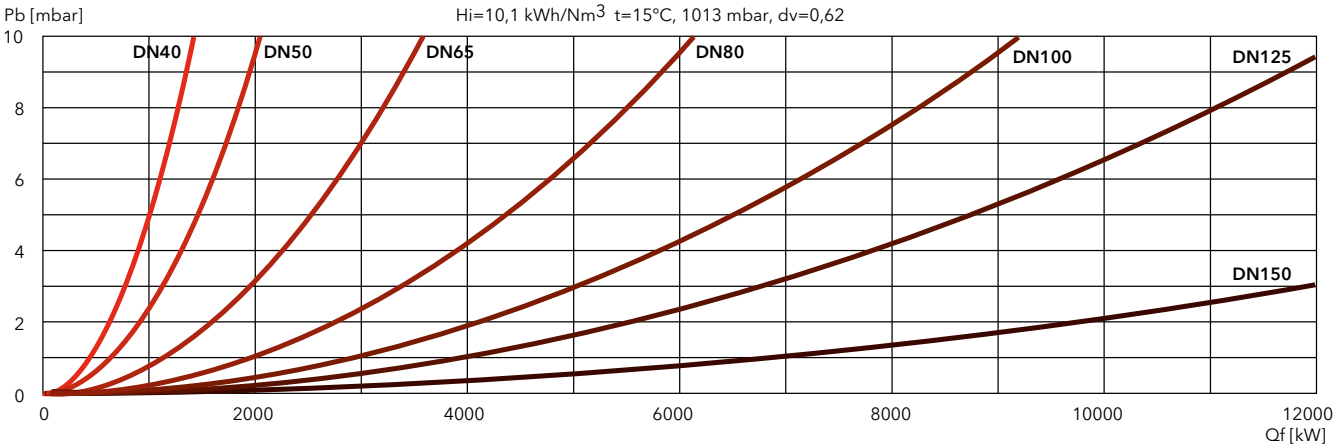
SIEMENS




DUNGS




## FILTERS



NEXTRON

GAS

ULTRA Low NOx

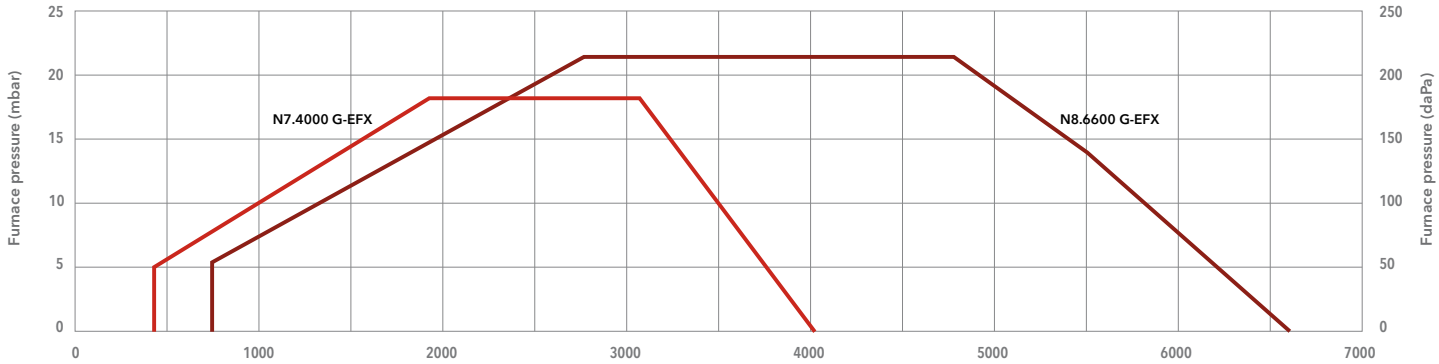
# N7 G-EFX / N8 G-EFX

440 ... 6610 kW
Two stage progressive/modulating electronic

NOx <50 mg/kWh

- **Fuels:** natural gas, Hi = 6,99 ... 11,39 kWh/Nm³
- **Emission class:** Low NOx class 4 (≤60 mg/kWh) according to EN676
- **Protection level:** IP 41

## TECHNICAL DATA




Test conditions conforming to EN676 - Temperature: 20°C - Pressure: 1013,5 mbar - Altitude: 0 m a.s.l.

| | | N7.4000 G-EFX | N8.6600 G-EFX |
|---|---|---|---|
| Operating range | | 440 – 4040 kW | 730 – 6610 kW |
| Gas pressure | | 100 – 500 mbar (100 – 360 mbar for d705) | 135 – 500 mbar |
| Gas connection | | DN65 | DN100 |
| Control box / flame detector | | BT300 / KLC | BT300 / KLC |
| Auxiliary voltage | | 1NPE AC 230 V – 50 Hz TN-S | 1NPE AC 230 V – 50 Hz TN-S |
| Power supply | | 3PE AC 400 V – 50 Hz | 3PE AC 400 V – 50 Hz |
| Fan motor | | 50 Hz – 7,5 kW | 50 Hz – 15 kW |
| Acoustic level | | <78 dB(A) | <83,7 dB(A) |
| CE certificate | | 0085CL0215 | 0085CL0215 |
| Burner codes (body + head) | KN | **on request** | **on request** |
| | KM | **on request** | **on request** |
| | KL | **on request** | **on request** |

## GAS TRAINS

SIEMENS

| Model | Code |
|---|---|
| GT-s705-2" | 3759284 |
| GT-s701-65 | 3759280 |
| GT-s702-80 | 3759281 |
| GT-s703-100 | 3759282 |
| GT-s704-125 | 3759283 |

DUNGS

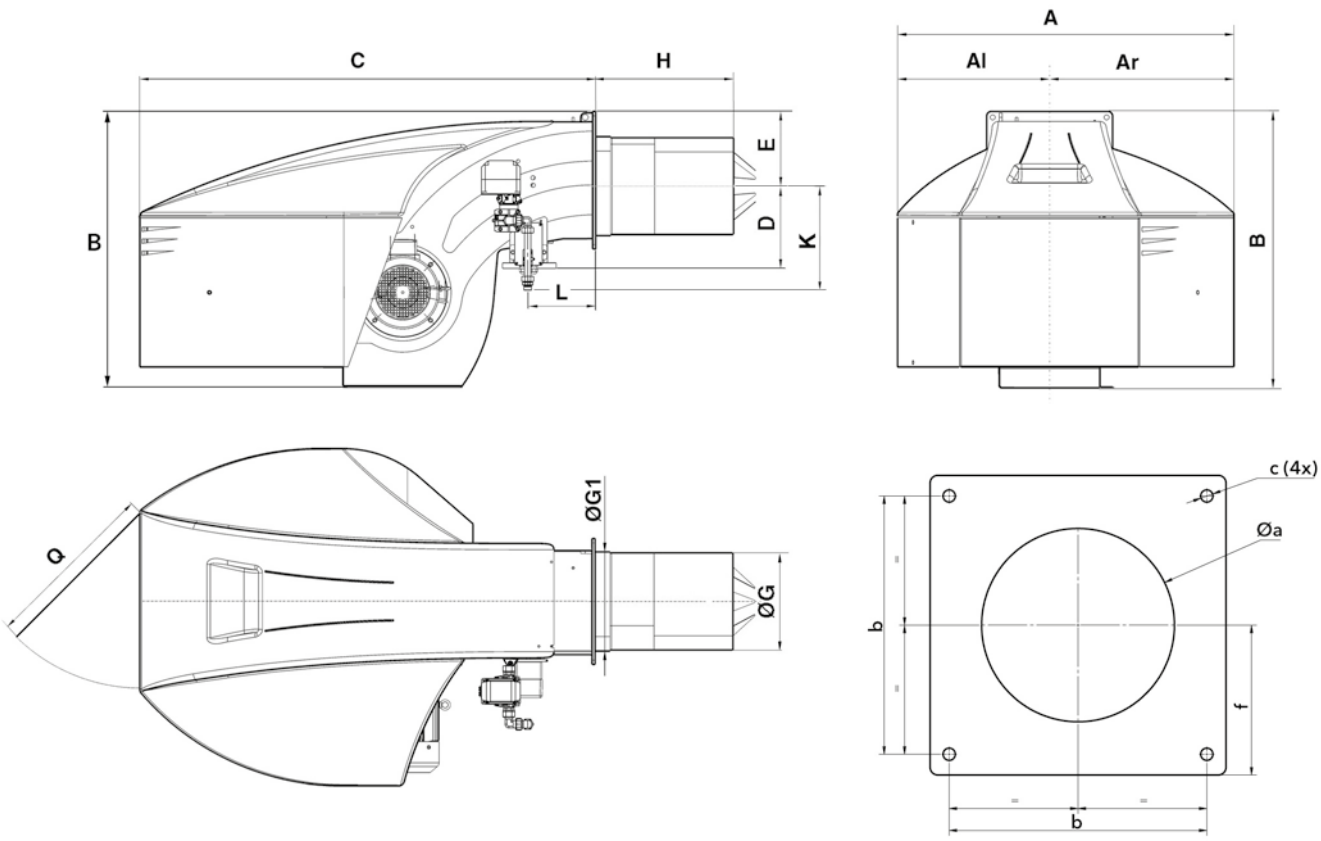
| Model | Code |
|---|---|
| GT-d705-2" (*) | 3759628 |
| GT-d701-65 | 3759625 |
| GT-d702-80 | 3759626 |
| GT-d703-100 | 3759627 |

*: integrated filter

FILTERS

| Model | Code |
|---|---|
| FG-Rp2" | 3757200 |
| FG-DN65 | 3757198 |
| FG-DN80 | 3757201 |
| FG-DN100 | 3757195 |
| FG-DN125 | 3757209 |

## DIMENSIONS (mm)

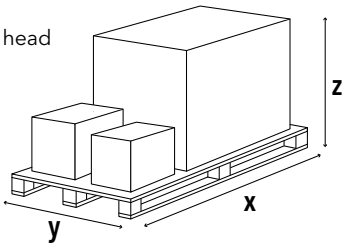



| Model | A | Al | Ar | B | C | D | E | ØG | ØG1 | H | | | K | L | Q | Øa | b | c | f |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | KN | KM | KL | | | | | | | |
| **N7.4000 G-EFX** | 1128 | 510 | 618 | 961 | 1529 | 276 | 255 | 325 | 338 | 420 | 550 | 680 | 320 | 233 | 600 | 360-400 | 400 | M16 | 235 |
| **N8.6600 G-EFX** | 1414 | 669 | 745 | 1231 | 1930 | 391 | 293 | 369 | 376 | 575 | 725 | 875 | 377*/366** | 230 | 800 | 380-410 | 505 | M20 | 293 |

*: applies to gas connectors DN100/65 and DN100/85
**: applies to gas connectors DN100/100 and DN100/125

## PACKAGING

The burner is delivered on a pallet with:
- burner body with mounted combustion head
- gas train and filter
- boiler fixing accessories
- technical documentation




| Model | Dimensions (mm) | | | Gross weight (kg) |
|---|---|---|---|---|
| | X | Y | Z | |
| **N7.4000 G-EFX** | 2300 | 1500 | 1573 | 360 |
| **N8.6600 G-EFX** | 2300 | 1500 | 1573 | 360 |

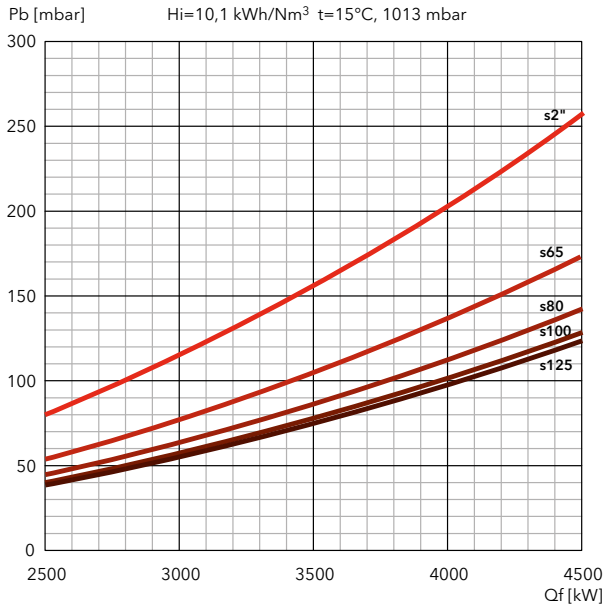
# N6 G-EFX / N7 G-EFX

440 ... 6610 kW
Two stage progressive/modulating electronic

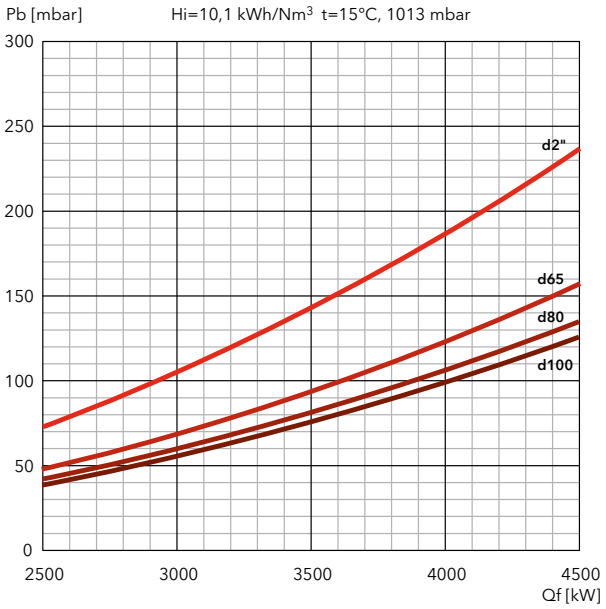
## PRESSURE LOSS [BURNER HEAD + GAS TRAIN] (mbar)

### N7.4000 G-EFX

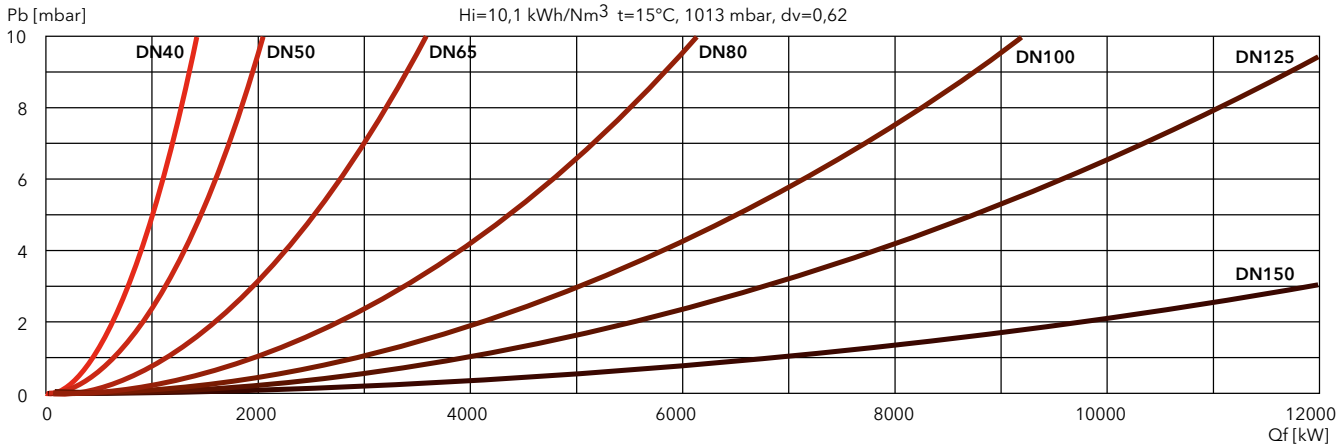
SIEMENS




DUNGS



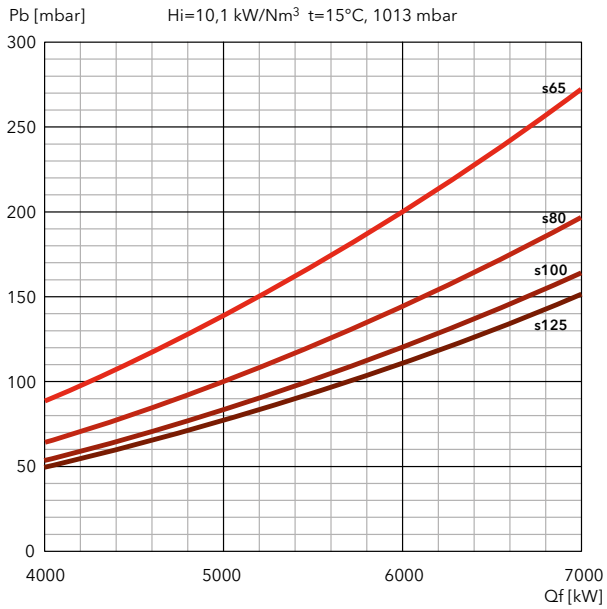

## FILTERS



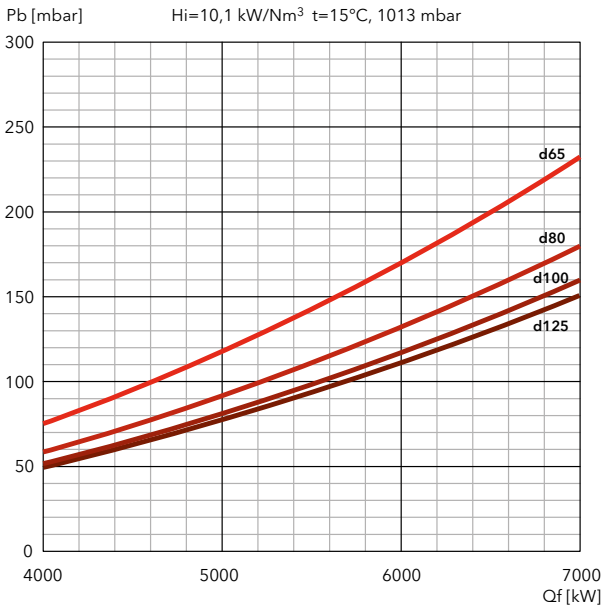
## PRESSURE LOSS [BURNER HEAD + GAS TRAIN] (mbar)

### N8.6600 G-EFX

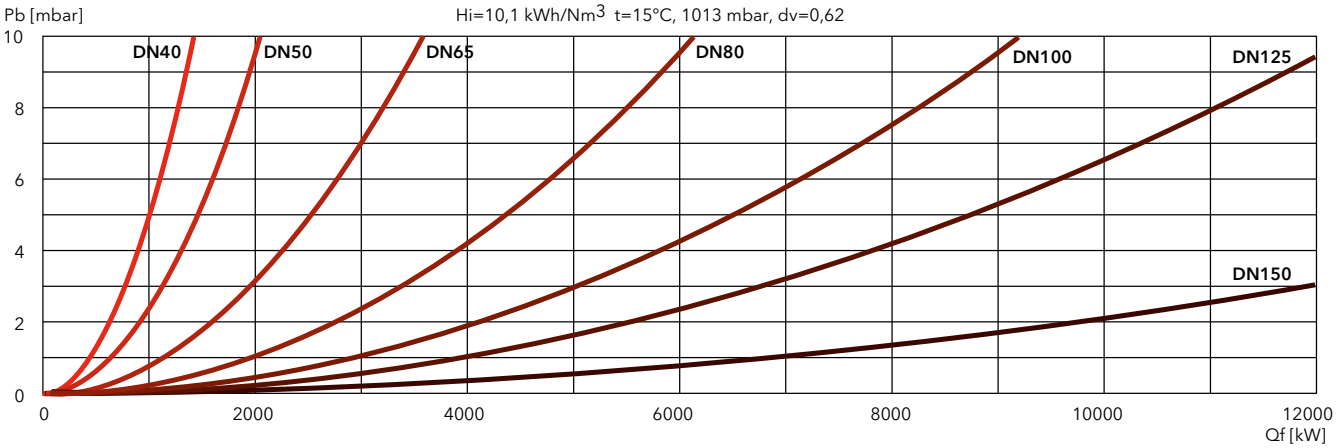
SIEMENS




DUNGS




## FILTERS



NEXTRON

GAS

ULTRA Low NOx

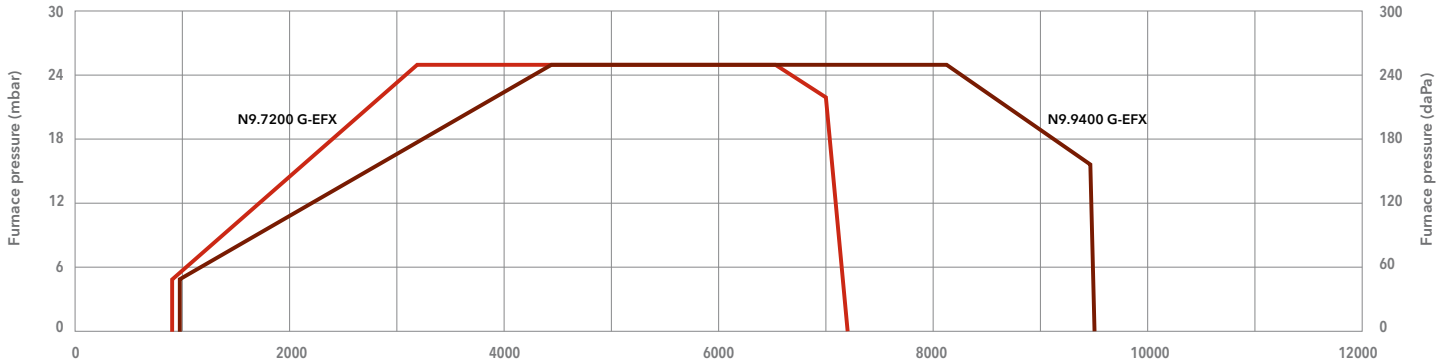
# N9 G-EFX

890 ... 9940 kW
Two stage progressive/modulating electronic

NOx <50 mg/kWh

- **Fuels:** natural gas, Hi = 6,99 ... 11,39 kWh/Nm³
- **Emission class:** Low NOx class 4 (≤60 mg/kWh) according to EN676
- **Protection level:** IP 41

## TECHNICAL DATA




Test conditions conforming to EN676 - Temperature: 20°C - Pressure: 1013,5 mbar - Altitude: 0 m a.s.l.

Power (kW)

| | | N9.7200 G-EFX | N9.9400 G-EFX |
|---|---|---|---|
| Operating range | | 890 – 7200 kW | 980 – 9440 kW |
| Gas pressure | | 150 – 500 mbar | 175 – 500 mbar |
| Gas connection | | DN100 | DN100 |
| Control box / flame detector | | BT300 / KLC | BT300 / KLC |
| Auxiliary voltage | | 1NPE AC 230 V – 50 Hz TN-S | 1NPE AC 230 V – 50 Hz TN-S |
| Power supply | | 3PE AC 400 V – 50 Hz | 3PE AC 400 V – 50 Hz |
| Fan motor | | 50 Hz – 22 kW | 50 Hz – 22 kW |
| Acoustic level | | <79,5 dB(A) | <82,3 dB(A) |
| CE certificate | | 0085CL0215 | 0085CL0215 |
| Burner codes (body + head) | KN | on request | on request |
| | KM | on request | on request |
| | KL | on request | on request |

## GAS TRAINS

SIEMENS

| Model | Code |
|---|---|
| GT-s901-65 | 3759286 |
| GT-s902-80 | 3759287 |
| GT-s903-100 | 3759288 |
| GT-s904-125 | 3759289 |

DUNGS

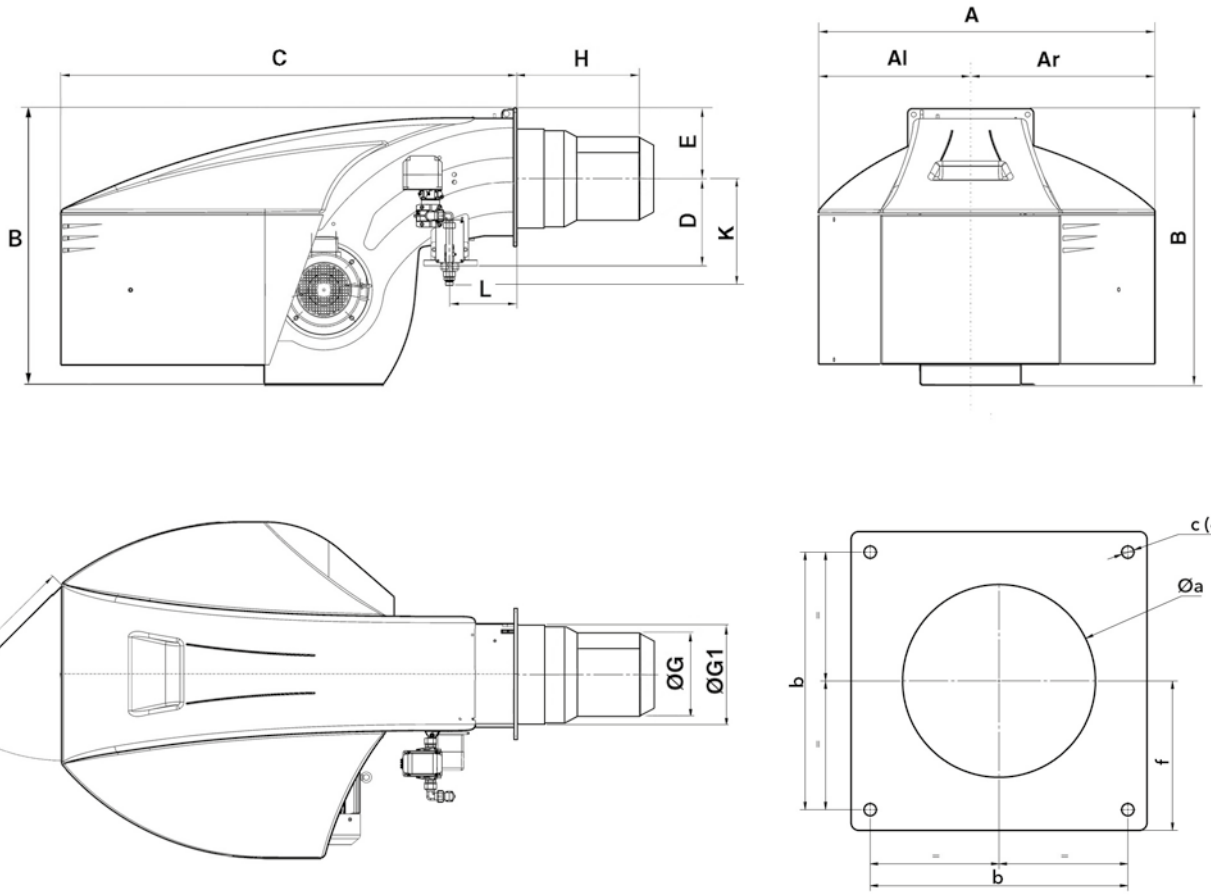
| Model | Code |
|---|---|
| GT-d902-80 | 3759631 |
| GT-d903-100 | 3759632 |
| GT-d904-125 | on request |

*: integrated filter

FILTERS

| Model | Code |
|---|---|
| FG-DN65 | 3757198 |
| FG-DN80 | 3757201 |
| FG-DN100 | 3757195 |
| FG-DN125 | 3757209 |

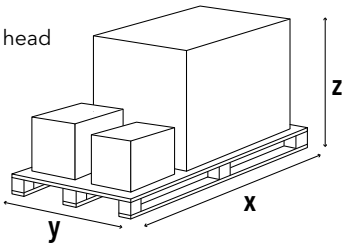
## DIMENSIONS (mm)




| Model | A | Al | Ar | B | C | D | E | ØG | ØG1 | H | | | L | Q | Øa | b | c | f |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | KN | KM | KL | | | | | | |
| **N9.7200 G-EFX** | 1414 | 669 | 745 | 1291 | 1928 | 416 | 293 | 385 | 438,5 | 649 | 799 | 949 | 230 | 800 | 460-480 | 505 | M20 | 293 |
| **N9.9400 G-EFX** | 1414 | 669 | 745 | 1291 | 1928 | 416 | 293 | 395 | 438,5 | 629 | 779 | 929 | 230 | 800 | 460-480 | 505 | M20 | 293 |

## PACKAGING

The burner is delivered on a pallet with:
- burner body with mounted combustion head
- gas train and filter
- boiler fixing accessories
- technical documentation




| Model | Dimensions (mm) | | | Gross weight (kg) |
|---|---|---|---|---|
| | X | Y | Z | |
| **N9.7200 G-EFX** | 2046 | 1414 | 1233 | 300 |
| **N9.9400 G-EFX** | 2046 | 1414 | 1233 | 300 |

NEXTRON

GAS

ULTRA Low NOx

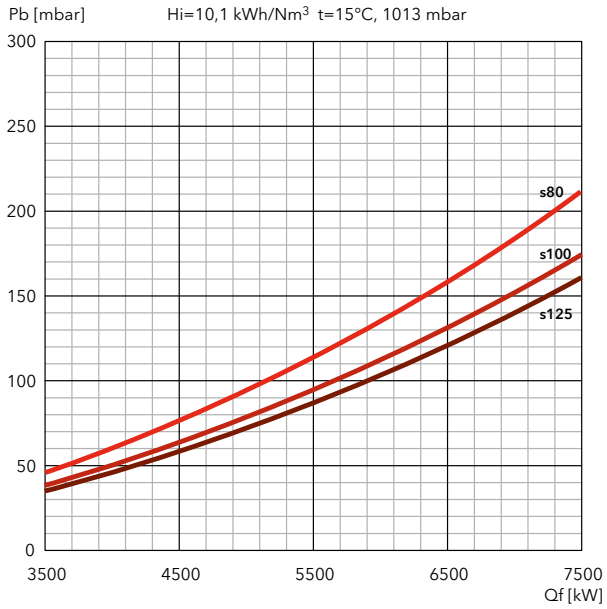
# N9 G-EFX

890 ... 9940 kW
Two stage progressive/modulating electronic

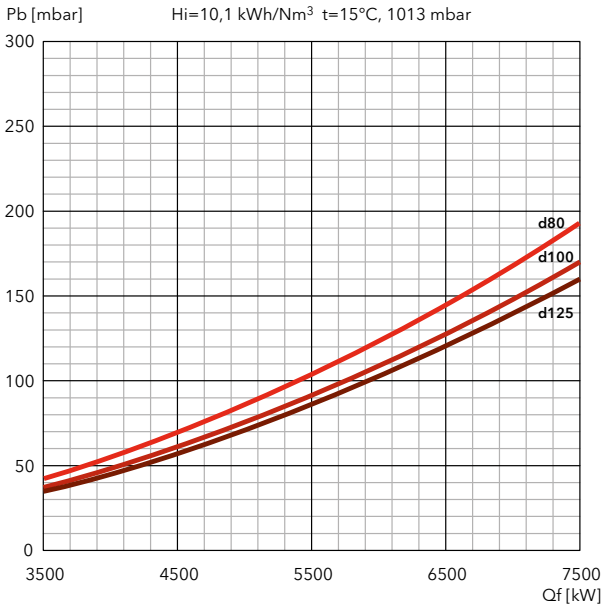
## PRESSURE LOSS [BURNER HEAD + GAS TRAIN] (mbar)

### N9.7200 G-EFX

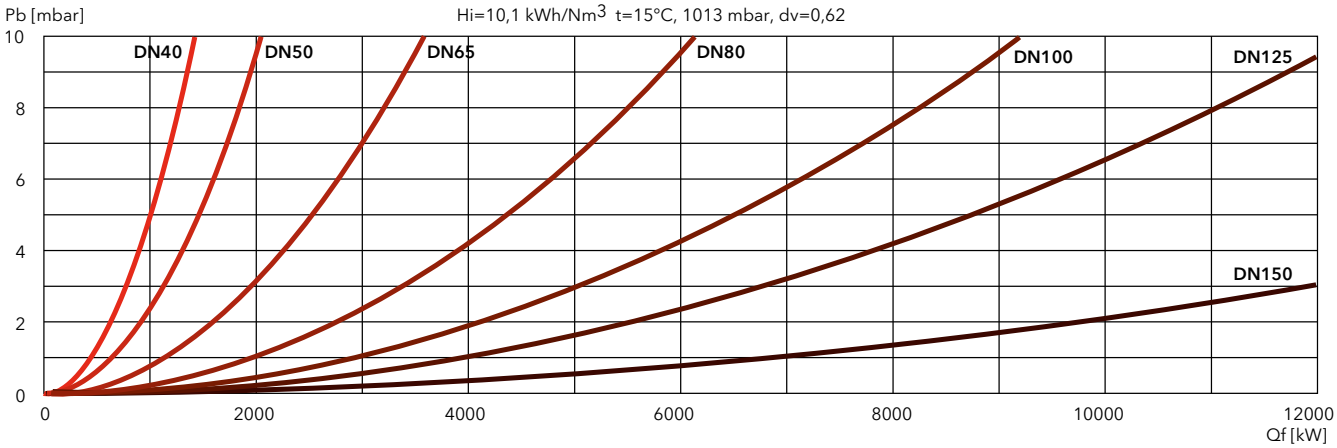
SIEMENS




DUNGS



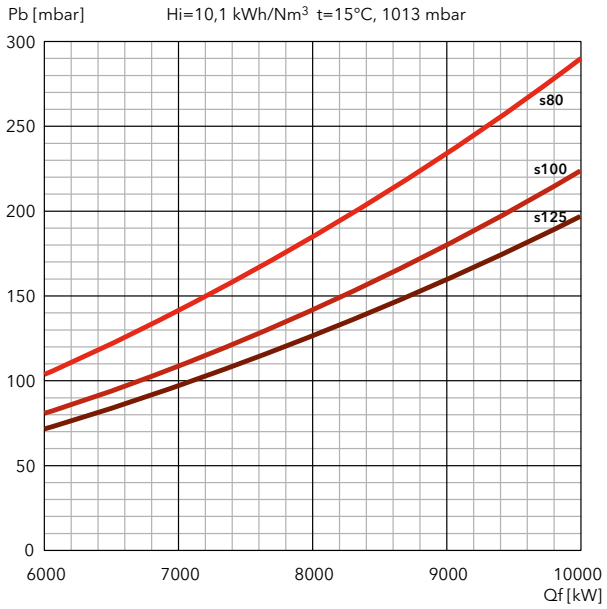

## FILTERS



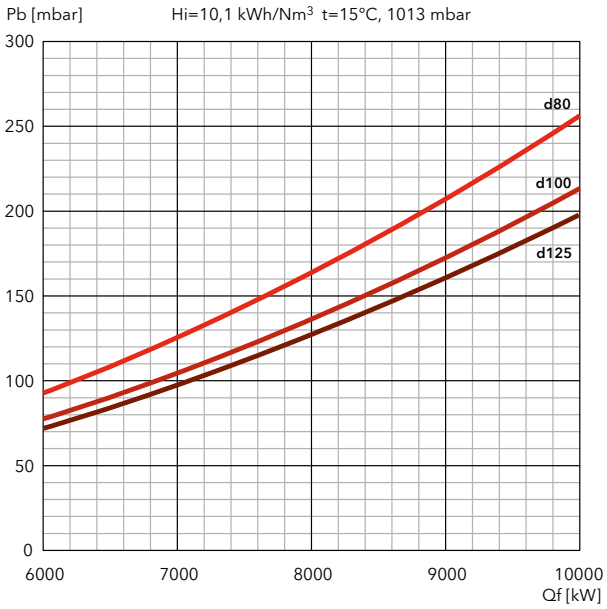
## PRESSURE LOSS [BURNER HEAD + GAS TRAIN] (mbar)

### N9.9400 G-EFX

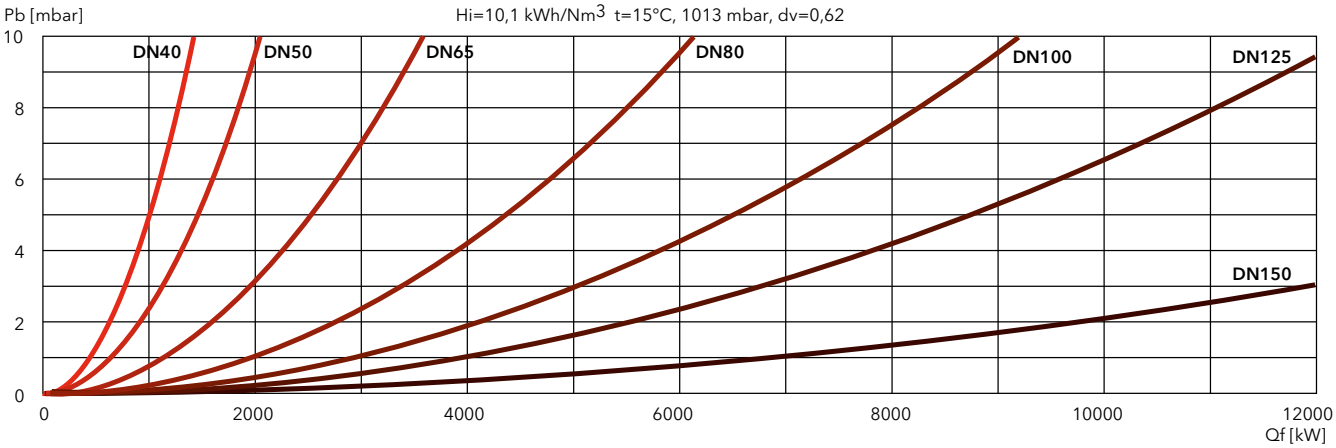
SIEMENS




DUNGS




## FILTERS



N10

GAS

ULTRA Low NOx

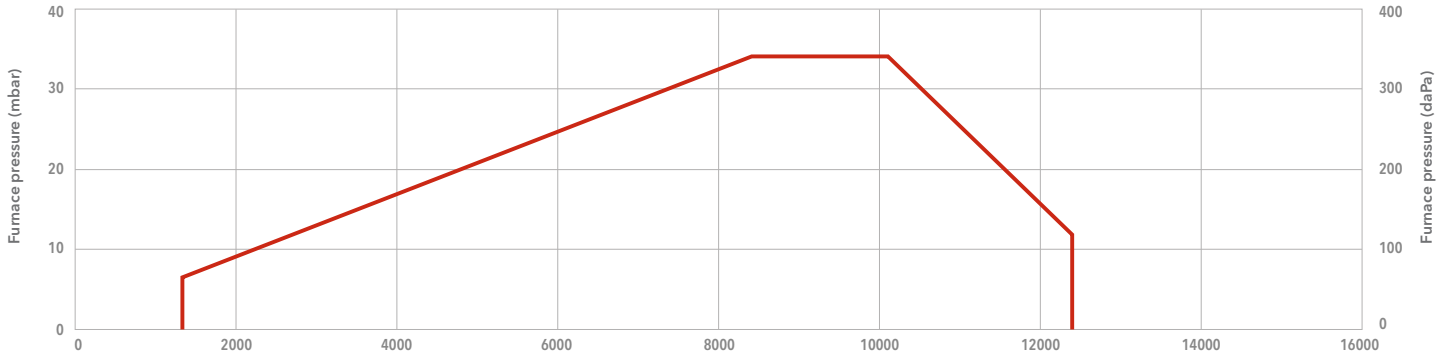
# N10 G-EFX

1300 ... 12400 kW
Two stage progressive/modulating electronic

NOx <50 mg/kWh

- **Fuels:** natural gas, Hi = 6,99 ... 11,39 kWh/Nm³
- **Emission class:** Low NOx class 4 (≤60 mg/kWh) according to EN676
- **Protection level:** IP 41 (IP 54 as option)

## TECHNICAL DATA




Test conditions conforming to EN676 - Temperature: 20°C - Pressure: 1013,5 mbar - Altitude: 0 m a.s.l.

Power (kW)

| | N10.12000.37 G-EFX |
|---|---|
| Operating range | 1300 – 12400 kW |
| Gas connection | DN100 |
| Control box / flame detector | Etamatic OEM / FFS 08 |
| Fan motor | 50/60 Hz – 37 kW |
| Acoustic level | < 95 dB(A) |
| Complete burner code | on request |

## GAS TRAINS

SIEMENS

| Model | Code |
|---|---|
| s DN80-DN100 | on request |
| s DN100-DN100 | on request |
| s DN125-DN100 | on request |
| s DN150-DN100 | on request |

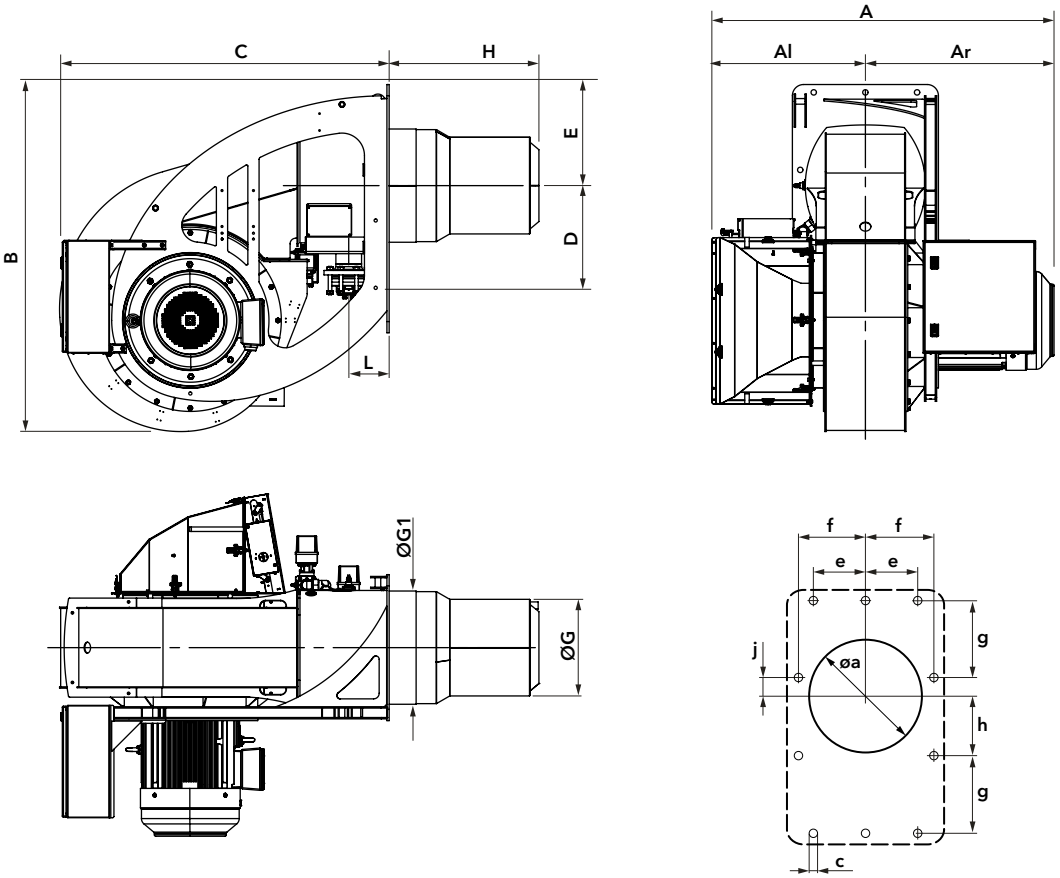
SIEMENS

| Model | Code |
|---|---|
| d DN80-DN100 | on request |
| d DN100-DN100 | on request |
| d DN125-DN100 | on request |

FILTERS

| Model | Code |
|---|---|
| FG-DN80 | 3757201 |
| FG-DN100 | 3757195 |
| FG-DN125 | 3757209 |
| FG-DN150 | 3757210 |

## DIMENSIONS (mm)

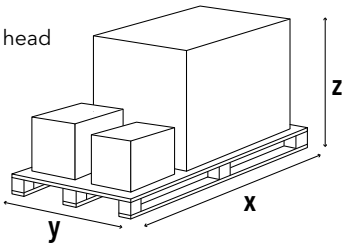



| Model | A | Al | Ar | B | C | D | E | ØG | ØG1 | H | L | Øa | c | e | f | g | h | j |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **N10.12000.37 G-EFX** | 1441 | 683 | 758 | 1545 | 1467 | 446 | 450 | 430 | 504 | 667* | 180 | 525 | M20 | 230 | 290 | 345 | 275 | 70 |

*: different length on request

## PACKAGING

The burner is delivered on a pallet with:
- burner body with mounted combustion head
- gas train and filter
- boiler fixing accessories
- technical documentation




| Model | Dimensions (mm) | | | Gross weight (kg) |
|---|---|---|---|---|
| | X | Y | Z | |
| **N10.12000.37 G-EFX** | 2200 | 1800 | 1900 | 1000 |

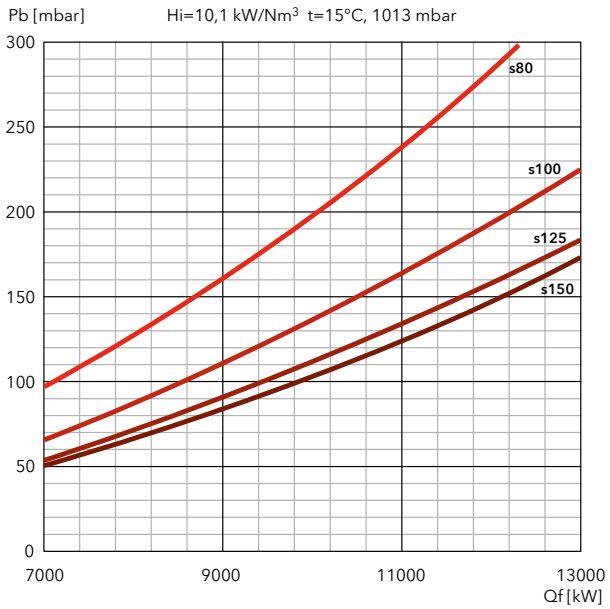
# N10 G-EFX

1300 ... 12400 kW
Two stage progressive/modulating electronic

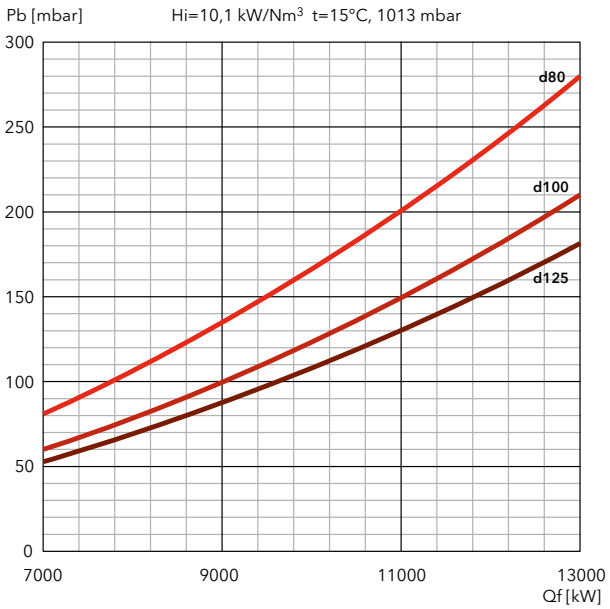
## PRESSURE LOSS [BURNER HEAD + GAS TRAIN] (mbar)

### N10.12000.37 G-EFX

SIEMENS

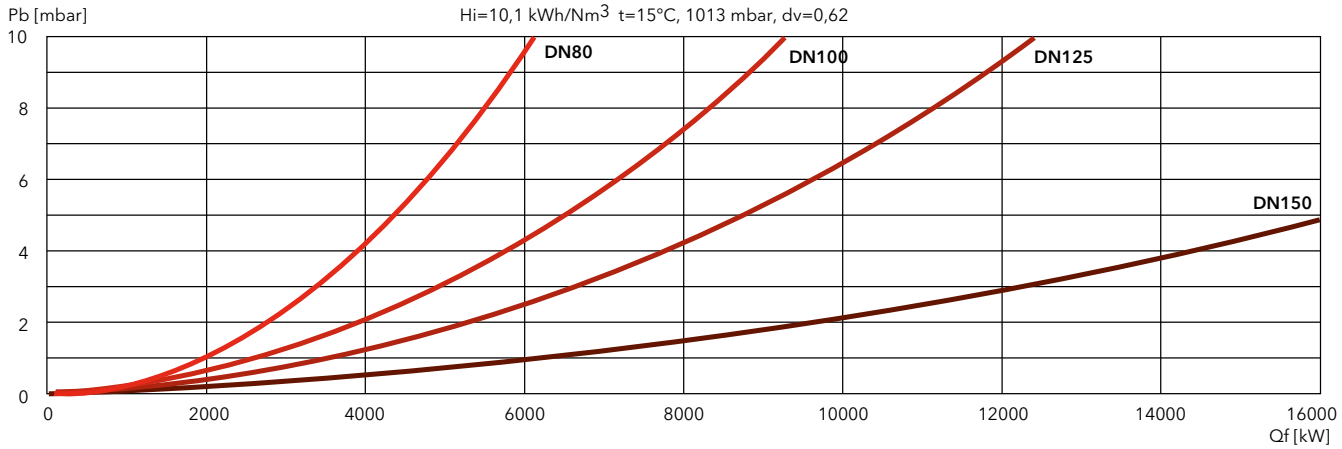



DUNGS



## PRESSURE LOSS [BURNER HEAD + GAS TRAIN] (mbar)

### FILTERS



## Subsidiaries ELCO


**GERMANY**

ELCO GmbH
Dreieichstraße 10
Mörfelden-Walldorf
Tel. +49 (0)6105 287-287
Fax +49 (0)6105 287-199

**NETHERLANDS**

Elco Burners B.V.
Meerpaalweg, 1
1332 BB Almere
P.O. box 30048
1303 AA Almere
Tel. +31 088 69 573 11
Fax +31 088 69 573 90

**FRANCE**

14, rue du Saule Trapu
Parc d'activité du Moulin
91882 Massy
Tel. +33 01 60 13 64 64
Fax +33 01 60 13 64 65

**SWITZERLAND**

Elcotherm AG
Sarganserstrasse 100
7324 Vilters
Tel. +41 (0)81 725 25 25
Fax +41 (0)81 723 13 59

**AUSTRIA**

ELCO Austria GmbH
Aredstraße 16 - 18
2544 Leobersdorf
Tel. +43 (0)2256 639 99 32
Fax +43 (0)2256 644 11

**ITALY**

Via Roma, 64
31023 Resana (TV)
Tel. +39 0423 719 500
Fax +39 0423 719 580

**UK & IRELAND**

Ariston Thermo UK Ltd
Suite 3, The Crown House
Blackpole East, Blackpole Road,
Worcester WR3 8SG
Tel. +44 01905 788010

**CHINA**

Ariston Heating Solutions (China) Co., Ltd.
25th floor, T1, Shanghai T-Center
No. 1428 Daduhe Road, Putuo District, Shanghai
Tel. +86 21 6039 8691
Fax +86 21 6039 8620


## Contact us to know more about our products and solutions

# www.elco-burners.com

contact@elco-burners.com


**Version 1.0 | 06/05/2024**