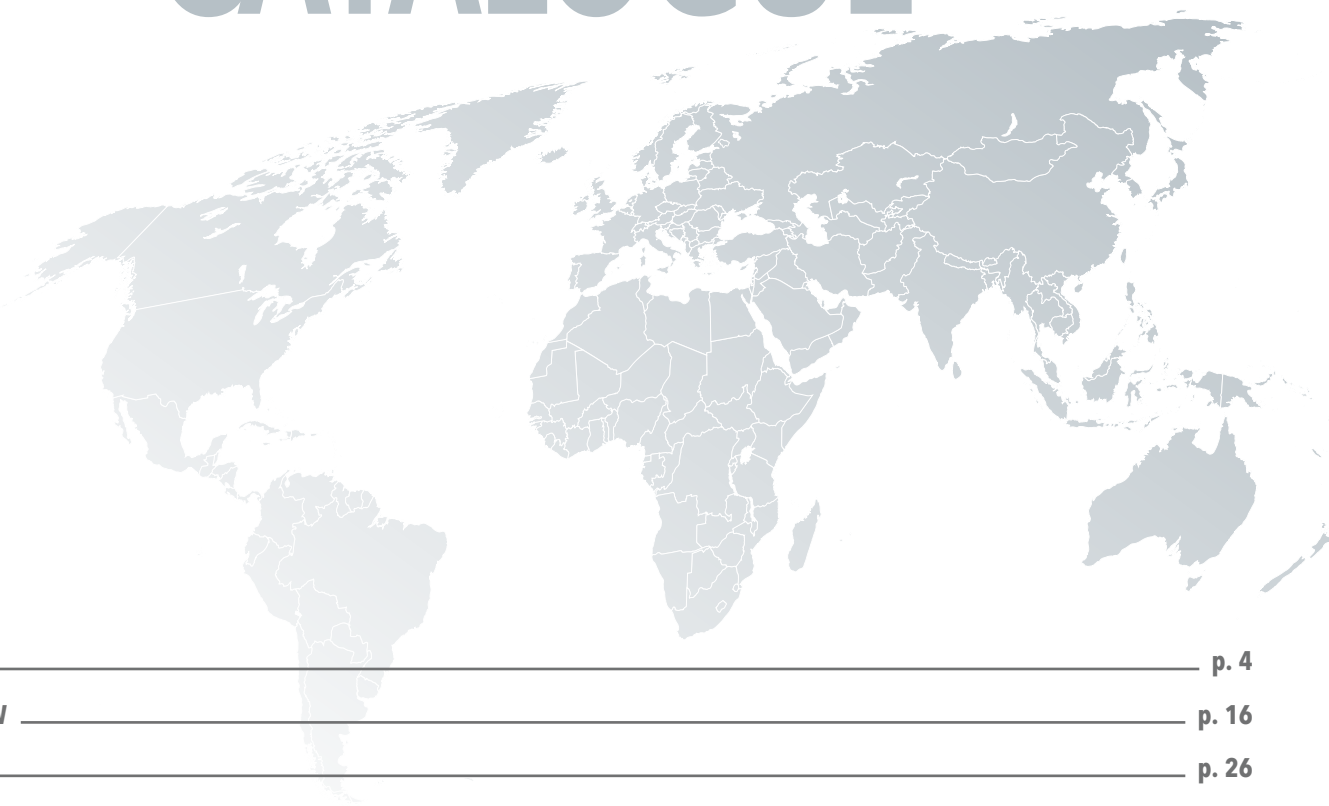
elco

INDUSTRY CATALOGUE

www.elco-burners.com

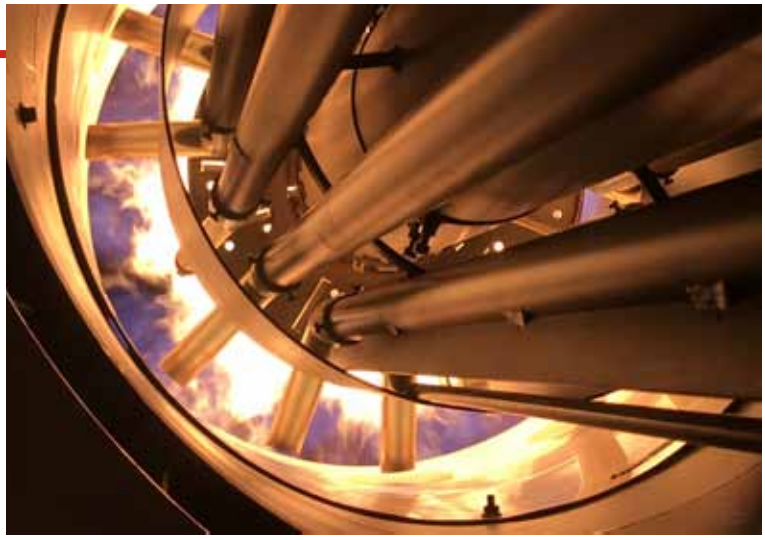
INDUSTRY CATALOGUE



CUTTING-EDGE BURNERS FOR HEATING AND INDUSTRIAL APPLICATIONS

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.



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 rely on your installation to perform reliably. Our guarantee is backed up by a service that sets standards in our field.

PROFESSIONAL STAFF

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.

SOLUTIONS FOR EVERY NEED

A long presence in the international market has allowed ELCO to build a strong experience in burner customization and to develop products that are able to guarantee reliability, quality and high performance even in the most extreme working conditions.

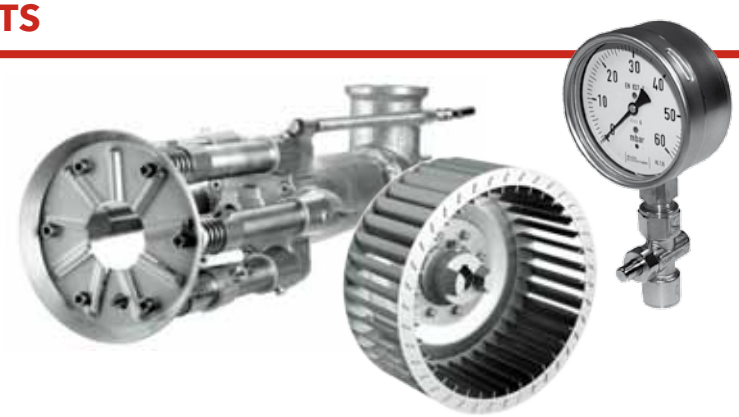
TECHNICAL ASSISTANCE

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



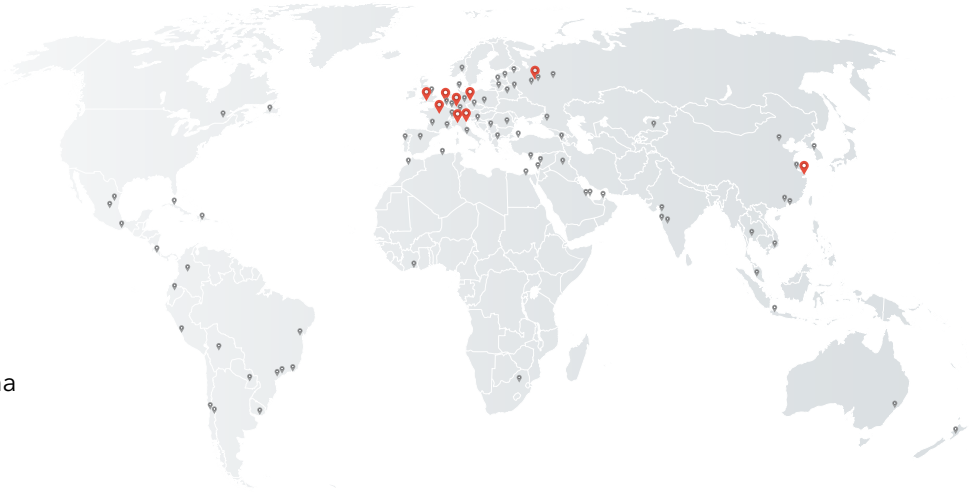
Spare parts have always had a great importance inside the ELCO world. Considering the high amount of parts involved in every single product, some of these parts might naturally need to be replaced. ELCO can count on an International network offering original spare parts in order to guarantee the highest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

WORLDWIDE NETWORK

Capitalising on 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 plants
6 commercial branches
Strong commercial presence through a network of reliable dealers and partners



Worldwide

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

Service Network

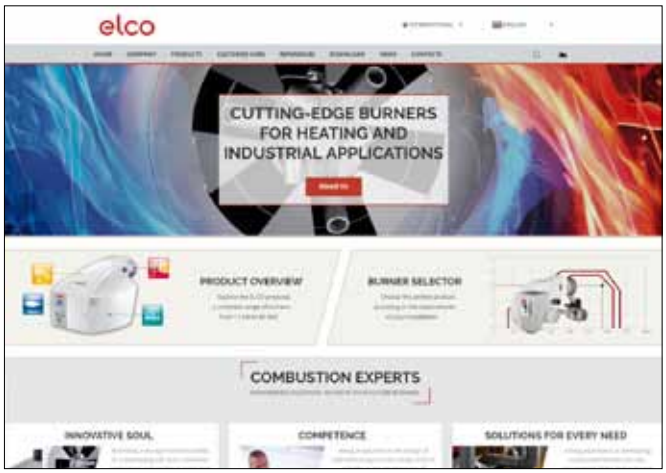
In Western Europe, ELCO has a well organised service network. Outside Western Europe ELCO uses a network of partners, consisting of well-trained local engineers, to carry out its service operations.
These technicians are able to perform both commissioning and local service and they do it in a very professional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



OUR PRODUCT RANGE

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

Monoblock range:

VECTRON
11 - 2300 kW
- Gas
- Light oil
- Dual fuel

PROTRON
15 - 550 kW
- Gas
- Light oil

NEXTRON
250 - 11200 kW
- Gas
- Light oil
- Dual fuel

EK EVO
250 - 13500 kW
- Gas
- Light oil
- Dual fuel

N
1300 - 22000 kW
- Gas
- Light oil
- Dual fuel

HO-TRON
68 - 17000 kW
- Heavy oil

GHO-TRON
414 - 17000 kW
- Heavy oil
- Dual fuel

Duoblock range:

D-TRON
230 - 34000 kW
- Gas
- Light oil
- Gas / light oil
- Heavy oil
- Gas / heavy oil

EK-DUO
600 - 16000 kW
- Gas
- Light oil
- Dual fuel

RPD
500 - 80000 kW
- Gas
- Light oil
- Gas / light oil
- Heavy oil
- Gas / heavy oil

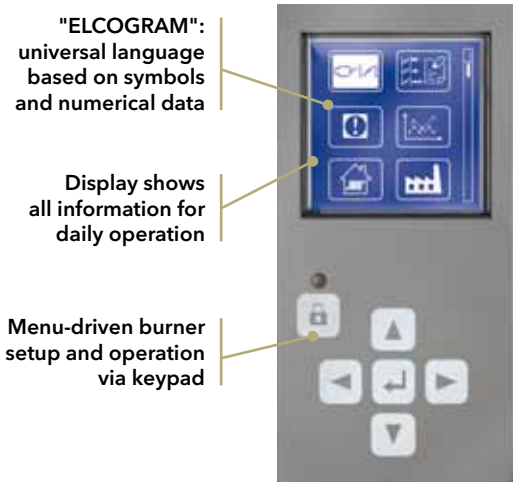
ELCO SYSTEMS AND TECHNOLOGIES

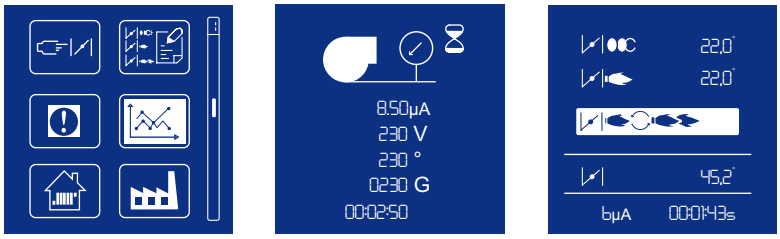
To constantly improve its products, ELCO is committed to develop innovative technological solutions allowing to optimise the running of the installations, to ease technicians work, and naturally to preserve the environment.
In order to provide quick responses to its market's demands, the range of ELCO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

ELCO SYSTEMS AND TECHNOLOGIES

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_2 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.

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 (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

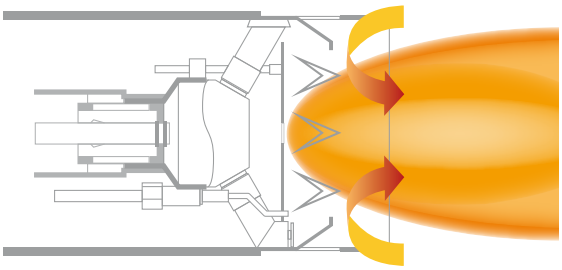
To improve the performance of heating or industrial systems, ELCO applies Variatron (fan speed control). Conventionally, the air in modulating burners is regulated by an air flap. In the partial load range, a large amount of the air pressure generated by the ventilator goes to waste.
With speed regulation, 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).

COMBUSTION TECHNOLOGIES

Diamond Head

Low emissions and reliable operation

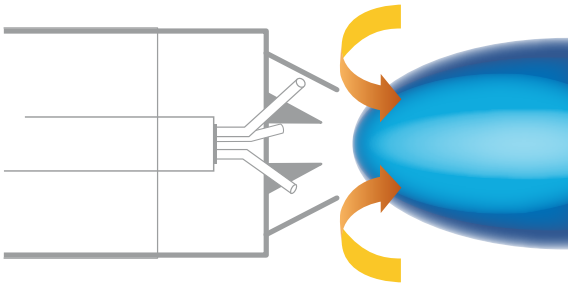
The principle of the Diamond Head combustion technology is based on the internal recirculation of the combustion flue gases. These are partially drawn into the base of the flame via triangular openings positioned at the end of the combustion head. The position and geometry of the gas injectors are such 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

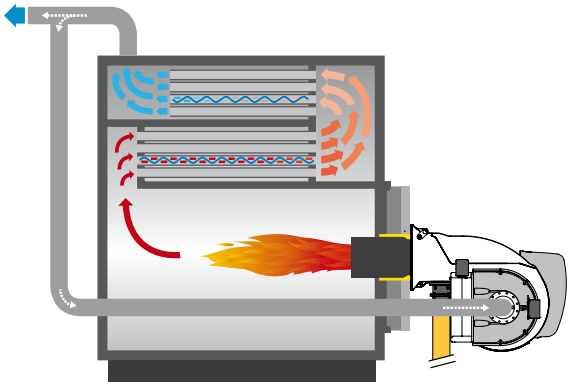
The principle of the Free Flame oil combustion is based on rapid gasification of the fuel by recirculating the combustion gases internally and allows the fuel-air to mix quickly.
Once the fuel has been vaporised, it will burn and stabilise 30 centimetres from the combustion head.
The flame appears to "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

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.



WORLDWIDE REFERENCES

ELCO has been chosen as the ideal partner from worldwide companies to design installations where technical specifications and environmental conditions require a specific design.
In the next pages you will find a selection of our international references.

Beijing, China
4x **RPD 100 G-EU**

Sergiev Posad, Russia
2x **N6.2900 G-R**
2x **N7.3600 G-R**

Stuttgart, Germany
1x **EK-DUO 2.550 GL-EUF**
2x **EK-DUO 2.700 GL-EUF**

Beijing, China
2x **N10.16000 G-EU2 FGR**

Stavanger, Norway
2x **EK-DUO 3.1600 G-E**

Altchemnitz, Germany
6x **N11.22000 G-EU1**

Saint Petersburg, Russia
1x **EK-DUO 4.1600 G-EU2**

Seoul, South Korea
7x **N8.7100 G-EU3**

Beijing, China
1x **EK EVO 8.5800 G-EU3 FGR**
2x **EK EVO 8.7100 G-EU3 FGR**

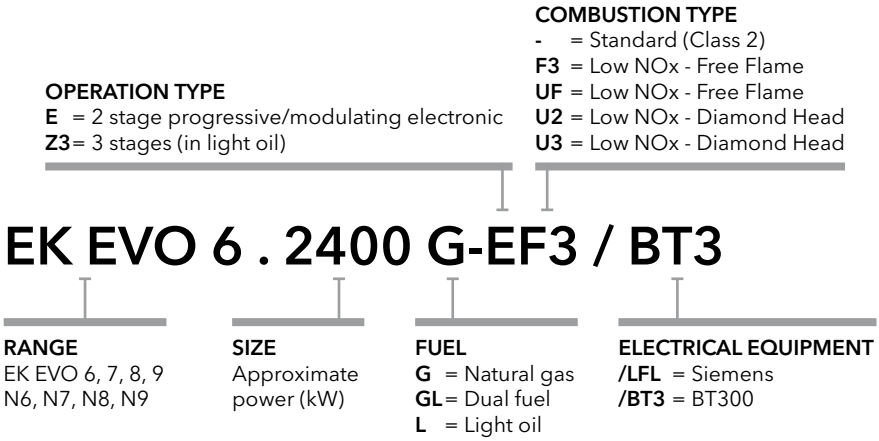
Tianjin, China
1x **RPD130 G-EU1 FGR**

Epe, Netherlands
1x **EK EVO 7.4500 G-EF3**

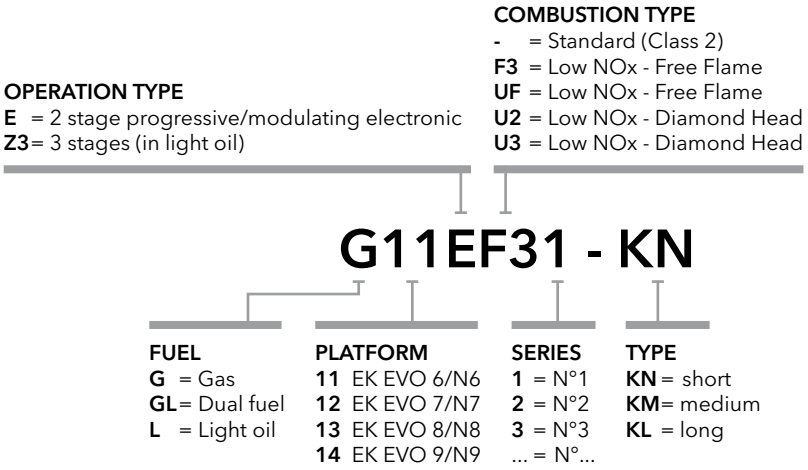
DESIGNATION

EK EVO and NEXTRON range

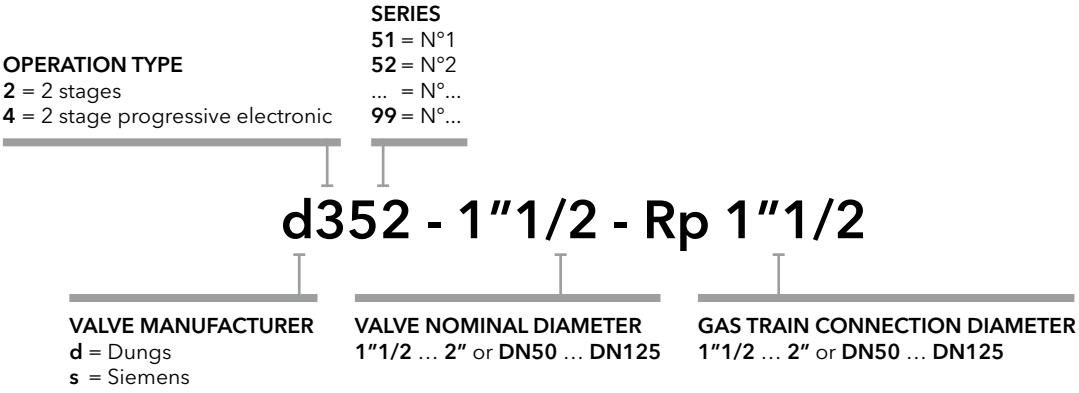
Burner body



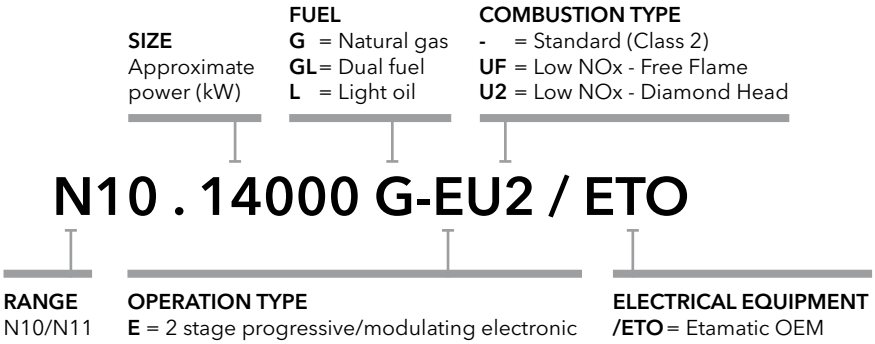
Combustion head



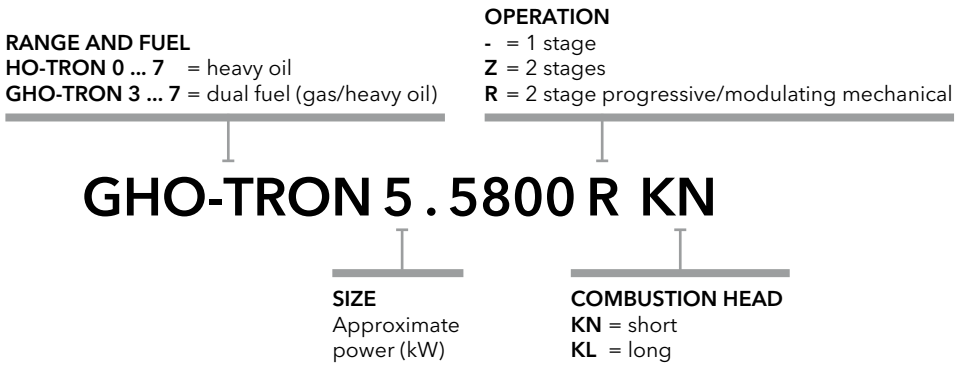
Gas train



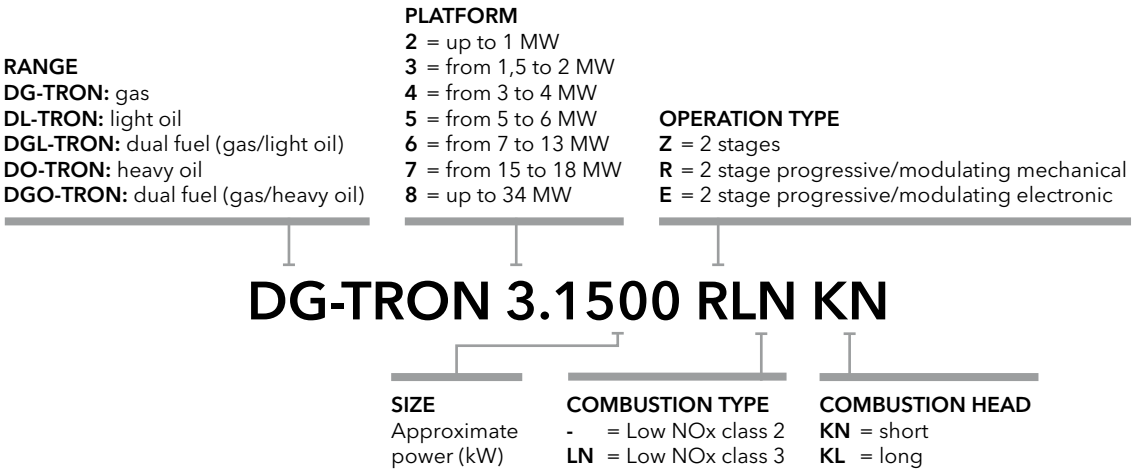
N range



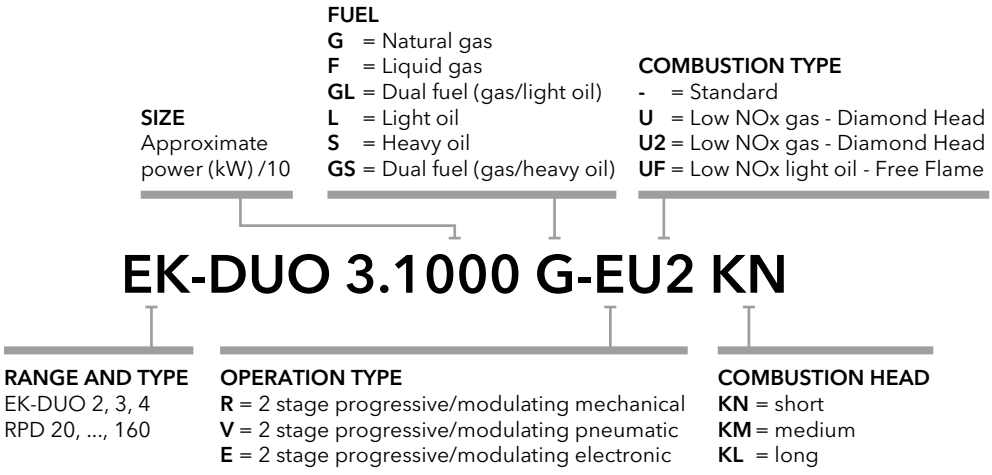
HO-TRON and GHO-TRON range



D...-TRON range



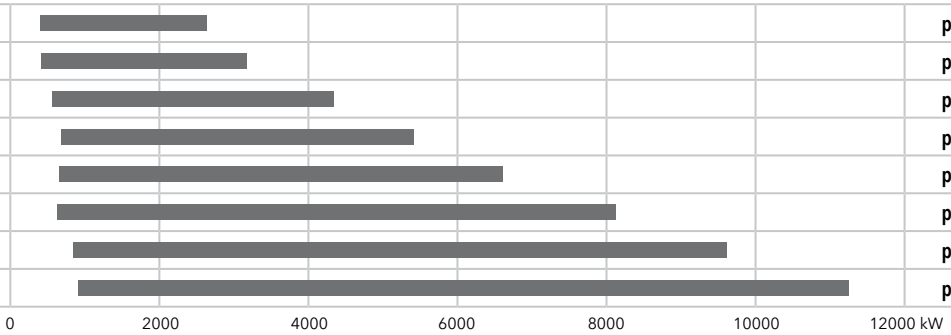
EK-DUO and RPD range



EK EVO GAS RANGE

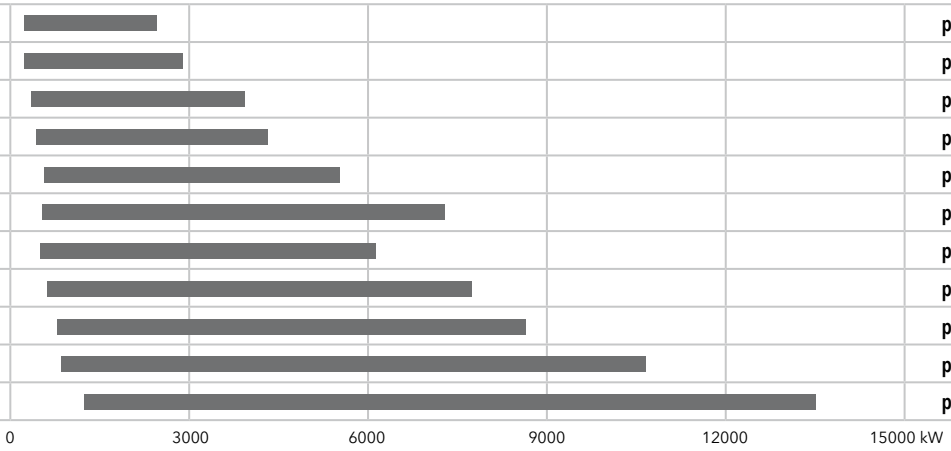
TWO STAGE PROGRESSIVE/MODULATING ELECTRONIC

EK EVO 6.2400 G-E	390 ... 2650 kW	**p. 28**
EK EVO 6.2900 G-E	400 ... 3200 kW	**p. 28**
EK EVO 7.3600 G-E	580 ... 4300 kW	**p. 28**
EK EVO 7.4500 G-E	680 ... 5400 kW	**p. 28**
EK EVO 8.5800 G-E	620 ... 6570 kW	**p. 32**
EK EVO 8.7100 G-E	610 ... 8150 kW	**p. 32**
EK EVO 9.8700 G-E	780 ... 9700 kW	**p. 32**
EK EVO 9.10400 G-E	850 ... 11230 kW	**p. 32**



TWO STAGE PROGRESSIVE/MODULATING ELECTRONIC Low NOx

EK EVO 6.2400 G-EF3	340 ... 2500 kW	**p. 36**
EK EVO 6.2900 G-EF3	340 ... 2900 kW	**p. 36**
EK EVO 7.3600 G-EF3	470 ... 3980 kW	**p. 40**
EK EVO 7.4500 G-EF3	510 ... 4290 kW	**p. 40**
EK EVO 7.5800 G-EF3	620 ... 5500 kW	**p. 40**
EK EVO 7.7000 G-EU3	610 ... 7450 kW	**p. 44**
EK EVO 8.5800 G-EU3	600 ... 6070 kW	**p. 48**
EK EVO 8.7100 G-EU3	700 ... 7700 kW	**p. 48**
EK EVO 9.8700 G-EU3	850 ... 8530 kW	**p. 48**
EK EVO 9.10400 G-EU3	910 ... 10500 kW	**p. 48**
EK EVO 9.13000 G-EU3	1350 ... 13500 kW	**p. 52**



EK EVO DUAL FUEL RANGE (GAS/LIGHT OIL)

TWO STAGE PROGRESSIVE/MODULATING ELECTRONIC IN GAS / THREE STAGES IN LIGHT OIL

EK EVO 6.2400 GL-EZ3	290 ... 2550 kW	**p. 56**
EK EVO 6.2900 GL-EZ3	290 ... 3050 kW	**p. 56**
EK EVO 7.3600 GL-EZ3	300 ... 3600 kW	**p. 56**
EK EVO 7.4500 GL-EZ3	510 ... 4740 kW	**p. 56**

TWO STAGE PROGRESSIVE/MODULATING ELECTRONIC IN GAS AND IN LIGHT OIL

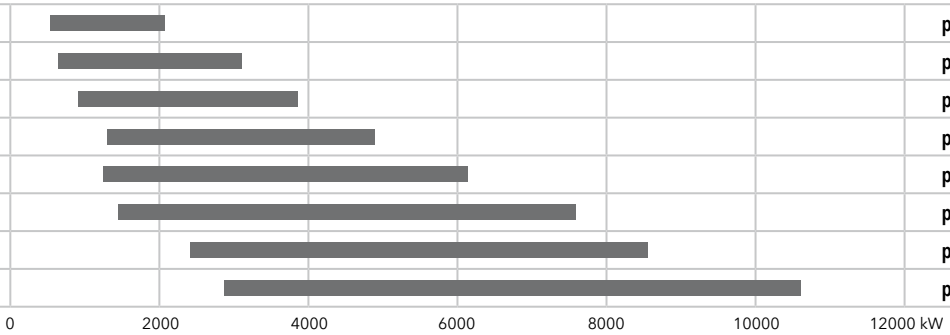
EK EVO 6.2400 GL-E	250 ... 2230 kW	**p. 60**
EK EVO 6.2900 GL-E	320 ... 2970 kW	**p. 60**
EK EVO 7.3600 GL-E	490 ... 3650 kW	**p. 60**
EK EVO 7.4500 GL-E	510 ... 4740 kW	**p. 60**
EK EVO 8.5800 GL-E	790 ... 6000 kW	**p. 64**
EK EVO 8.7100 GL-E	790 ... 7700 kW	**p. 64**
EK EVO 9.8700 GL-E	880 ... 8530 kW	**p. 64**
EK EVO 9.10400 GL-E	910 ... 10620 kW	**p. 64**

TWO STAGE PROGRESSIVE/MODULATING ELECTRONIC IN GAS AND IN LIGHT OIL Low NOx

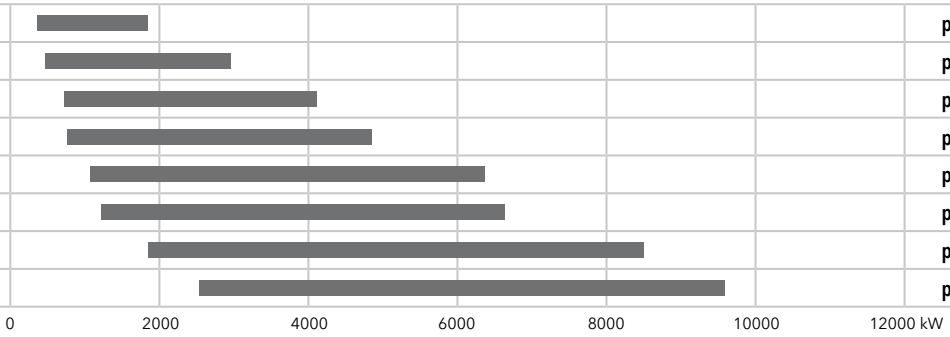
EK EVO 6.2400 GL-EF3	280 ... 1920 kW	**p. 68**
EK EVO 6.2900 GL-EF3	340 ... 2890 kW	**p. 68**
EK EVO 7.3600 GL-EF3	470 ... 3980 kW	**p. 68**
EK EVO 7.4500 GL-EF3	510 ... 4500 kW	**p. 68**
EK EVO 8.5700 GL-EF3	830 ... 6450 kW	**p. 72**
EK EVO 9.6500 GL-EF3	860 ... 6950 kW	**p. 72**
EK EVO 9.8700 GL-EUF	1040 ... 8500 kW	**p. 76**
EK EVO 9.10400 GL-EUF	1160 ... 9570 kW	**p. 76**

EK EVO LIGHT OIL RANGE

TWO STAGE PROGRESSIVE/MODULATING ELECTRONIC



TWO STAGE PROGRESSIVE/MODULATING ELECTRONIC Low NOx

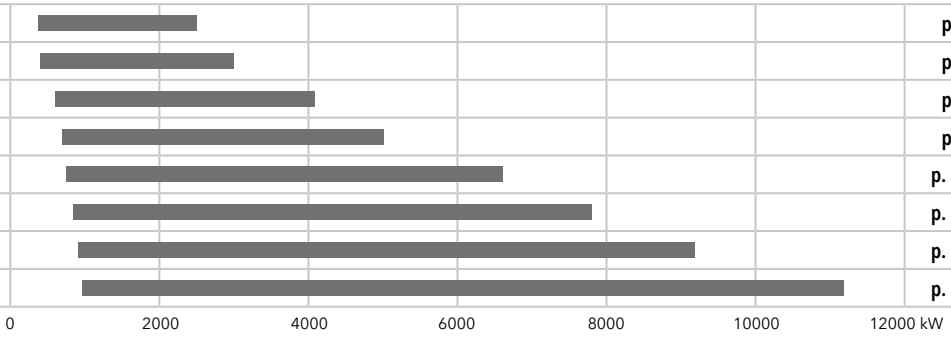


EK EVO OPTIONS

NEXTRON GAS RANGE

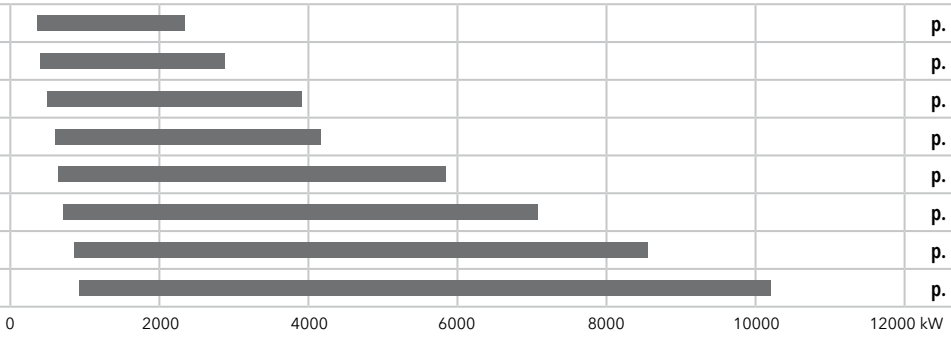
TWO STAGE PROGRESSIVE/MODULATING ELECTRONIC

N6.2400 G-E	390 ... 2500 kW	**p. 96**
N6.2900 G-E	400 ... 3000 kW	**p. 96**
N7.3600 G-E	580 ... 4100 kW	**p. 96**
N7.4500 G-E	680 ... 5000 kW	**p. 96**
N8.5800 G-E	740 ... 6570 kW	**p. 100**
N8.7100 G-E	800 ... 7800 kW	**p. 100**
N9.8700 G-E	880 ... 9200 kW	**p. 100**
N9.10400 G-E	960 ... 11200 kW	**p. 100**



TWO STAGE PROGRESSIVE/MODULATING ELECTRONIC Low NOx

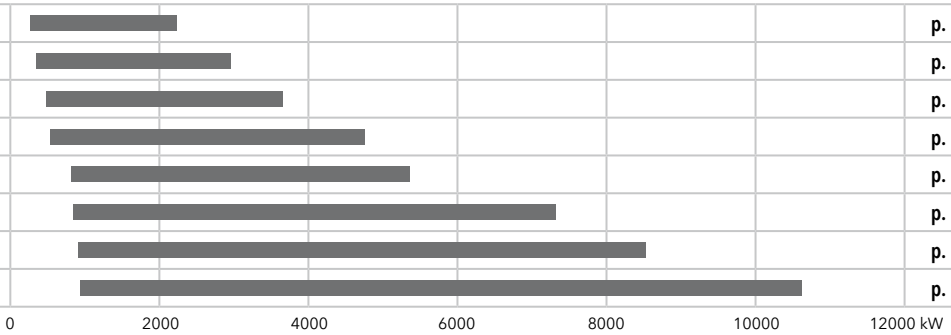
N6.2400 G-EF3	340 ... 2300 kW	**p. 104**
N6.2900 G-EF3	360 ... 2850 kW	**p. 104**
N7.3600 G-EF3	500 ... 3900 kW	**p. 104**
N7.4500 G-EF3	600 ... 4200 kW	**p. 104**
N8.5800 G-EU3	640 ... 5800 kW	**p. 108**
N8.7100 G-EU3	700 ... 7100 kW	**p. 108**
N9.8700 G-EU3	850 ... 8530 kW	**p. 108**
N9.10400 G-EU3	900 ... 10200 kW	**p. 108**



NEXTRON DUAL FUEL RANGE (GAS/LIGHT OIL)

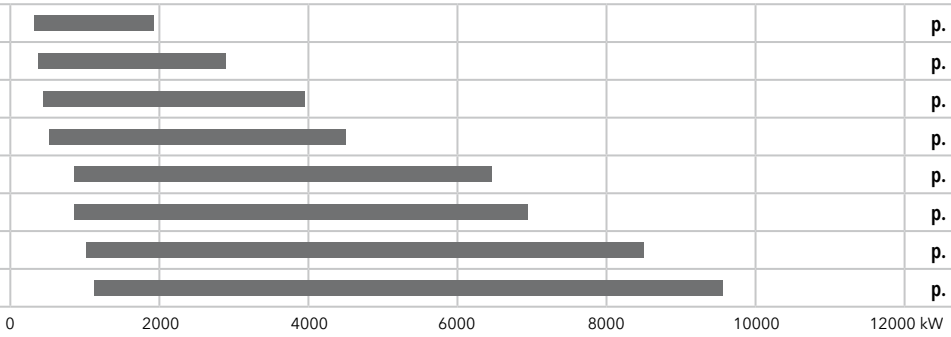
TWO STAGE PROGRESSIVE/MODULATING ELECTRONIC IN GAS AND IN LIGHT OIL

N6.2400 GL-E	250 ... 2230 kW	**p. 112**
N6.2900 GL-E	320 ... 2970 kW	**p. 112**
N7.3600 GL-E	490 ... 3650 kW	**p. 112**
N7.4500 GL-E	510 ... 4750 kW	**p. 112**
N8.5800 GL-E	800 ... 5350 kW	**p. 116**
N8.7100 GL-E	820 ... 7340 kW	**p. 116**
N9.8700 GL-E	880 ... 8530 kW	**p. 116**
N9.10400 GL-E	910 ... 10620 kW	**p. 116**



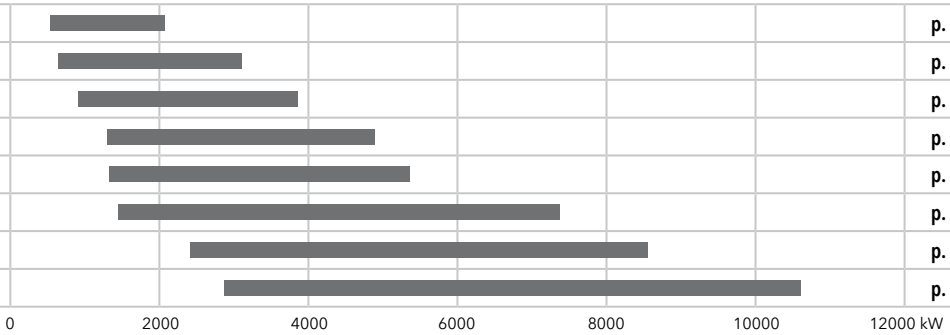
TWO STAGE PROGRESSIVE/MODULATING ELECTRONIC IN GAS AND IN LIGHT OIL Low NOx

N6.2400 GL-EF3	280 ... 1920 kW	**p. 120**
N6.2900 GL-EF3	340 ... 2890 kW	**p. 120**
N7.3600 GL-EF3	470 ... 3980 kW	**p. 120**
N7.4500 GL-EF3	510 ... 4500 kW	**p. 120**
N8.5700 GL-EF3	830 ... 6450 kW	**p. 124**
N9.6500 GL-EF3	830 ... 6950 kW	**p. 124**
N9.8700 GL-EUF	1040 ... 8500 kW	**p. 124**
N9.10400 GL-EUF	1160 ... 9570 kW	**p. 124**

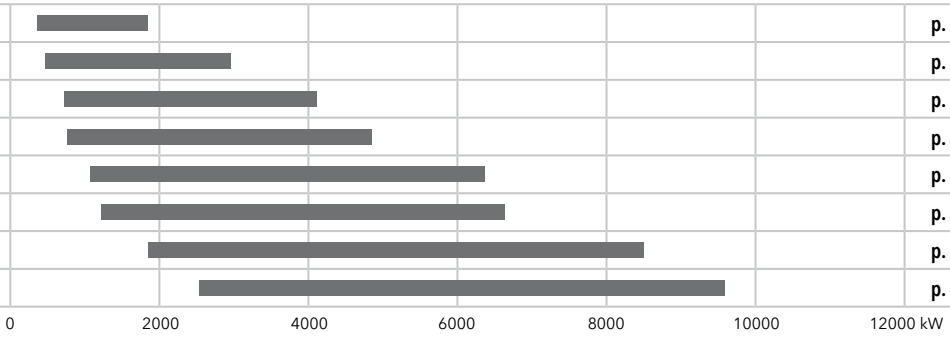


NEXTRON LIGHT OIL RANGE

TWO STAGE PROGRESSIVE/MODULATING ELECTRONIC



TWO STAGE PROGRESSIVE/MODULATING ELECTRONIC Low NOx

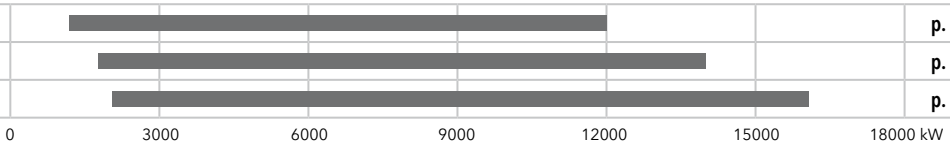


NEXTRON OPTIONS

N GAS RANGE

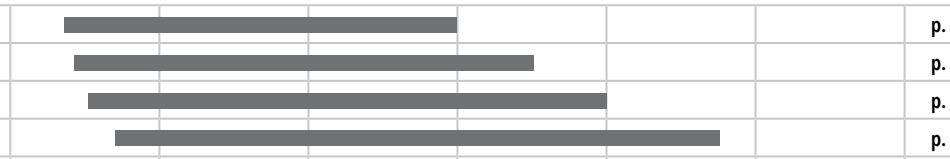
TWO STAGE PROGRESSIVE/MODULATING ELECTRONIC

N10.12000 G-E	1300 ... 12000 kW	**p. 144**
N10.14000 G-E	1750 ... 14000 kW	**p. 144**
N10.16000 G-E	2000 ... 16000 kW	**p. 144**



TWO STAGE PROGRESSIVE/MODULATING ELECTRONIC Low NOx

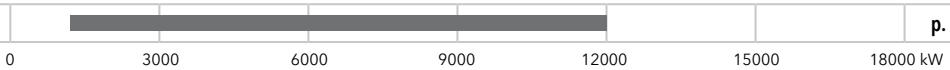
N10.12000 G-EU2	1500 ... 12000 kW	**p. 148**
N10.14000 G-EU2	1750 ... 14000 kW	**p. 148**
N10.16000 G-EU2	2000 ... 16000 kW	**p. 148**
N11.19000 G-EU2	2750 ... 19000 kW	**p. 152**
N11.22000 G-EU2	2750 ... 22000 kW	**p. 152**



N DUAL FUEL RANGE (GAS/LIGHT OIL)

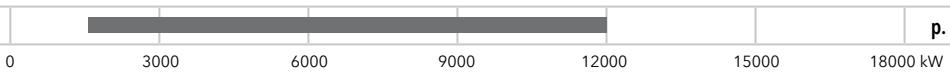
TWO STAGE PROGRESSIVE/MODULATING ELECTRONIC IN GAS AND IN LIGHT OIL

N10.12000 GL-E	1300 ... 12000 kW	**p. 156**



TWO STAGE PROGRESSIVE/MODULATING ELECTRONIC IN GAS AND IN LIGHT OIL Low NOx

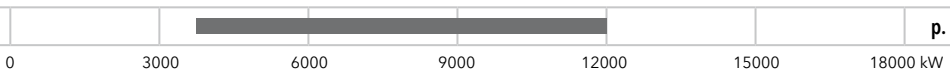
N10.12000 GL-EUF	1500 ... 12000 kW	**p. 158**



N LIGHT OIL RANGE

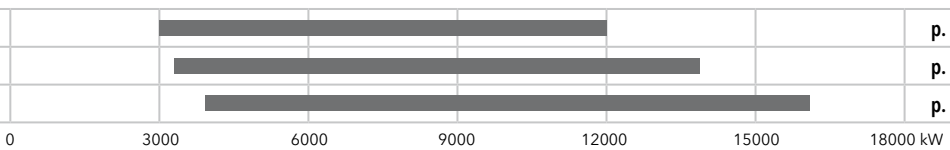
TWO STAGE PROGRESSIVE/MODULATING ELECTRONIC

N10.12000 L-E	3600 ... 12000 kW	**p. 162**



TWO STAGE PROGRESSIVE/MODULATING ELECTRONIC Low NOx

N10.12000 L-EUF	3000 ... 12000 kW	**p. 164**
N10.14000 L-EUF	3300 ... 14000 kW	**p. 164**
N10.16000 L-EUF	3800 ... 16000 kW	**p. 164**



HO-TRON HEAVY OIL RANGE

ONE STAGE

HO-TRON 0.135	68 ... 136 kW	**p. 168**
HO-TRON 0.225	108 ... 227 kW	**p. 168**
HO-TRON 1.350	170 ... 340 kW	**p. 170**

TWO STAGES

HO-TRON 1.350 Z	205 ... 410 kW	**p. 170**
HO-TRON 2.580 Z	205 ... 570 kW	**p. 170**
HO-TRON 2.930 Z	464 ... 930 kW	**p. 172**
HO-TRON 2.1400 Z	682 ... 1395 kW	**p. 172**
HO-TRON 3.1700 Z	682 ... 1700 kW	**p. 174**
HO-TRON 3.2100 Z	682 ... 2093 kW	**p. 174**
HO-TRON 4.3000 Z	1000 ... 3000 kW	**p. 176**
HO-TRON 4.3900 Z3	1300 ... 3900 kW	**p. 176**

TWO STAGE PROGRESSIVE/MODULATING MECHANICAL

HO-TRON 4.3000 R	1000 ... 3000 kW	**p. 178**
HO-TRON 4.3900 R	1300 ... 3900 kW	**p. 178**
HO-TRON 5.5000 R	1578 ... 5000 kW	**p. 180**
HO-TRON 5.5800 R	1795 ... 5800 kW	**p. 180**
HO-TRON 6.7200 R	2417 ... 7250 kW	**p. 182**
HO-TRON 6.8500 R	2750 ... 8500 kW	**p. 182**
HO-TRON 6.10500 R	3300 ... 10500 kW	**p. 182**
HO-TRON 6.13000 R	4367 ... 12500 kW	**p. 182**
HO-TRON 7.15000 R	5000 ... 15000 kW	**p. 184**
HO-TRON 7.17000 R	5700 ... 17000 kW	**p. 184**

GHO-TRON DUAL FUEL RANGE (GAS/HEAVY OIL)

TWO STAGES

GHO-TRON 3.2100 Z	414 ... 2150 kW	**p. 188**

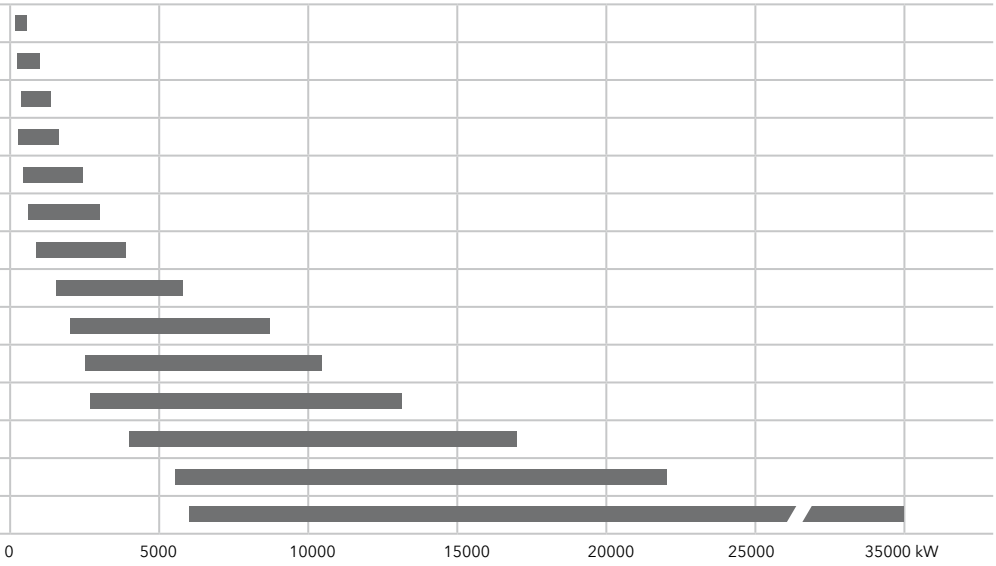
TWO STAGE PROGRESSIVE/MODULATING MECHANICAL

GHO-TRON 4.3000 R	630 ... 3000 kW	**p. 190**
GHO-TRON 4.3900 R	875 ... 3900 kW	**p. 190**
GHO-TRON 5.5000 R	1200 ... 5000 kW	**p. 192**
GHO-TRON 5.5800 R	1500 ... 5800 kW	**p. 192**
GHO-TRON 6.7200 R	1500 ... 7500 kW	**p. 194**
GHO-TRON 6.8500 R	2000 ... 8500 kW	**p. 194**
GHO-TRON 6.10500 R	2500 ... 10500 kW	**p. 194**
GHO-TRON 6.13000 R	2700 ... 13000 kW	**p. 194**
GHO-TRON 7.15000 R	3690 ... 15000 kW	**p. 196**
GHO-TRON 7.17000 R	4000 ... 17000 kW	**p. 196**

D-TRON DUOBLOCK RANGE (GAS, LIGHT OIL, HEAVY OIL AND DUAL FUEL)

TWO STAGES and TWO STAGE PROGRESSIVE/MODULATING MECHANICAL or ELECTRONIC p. 198

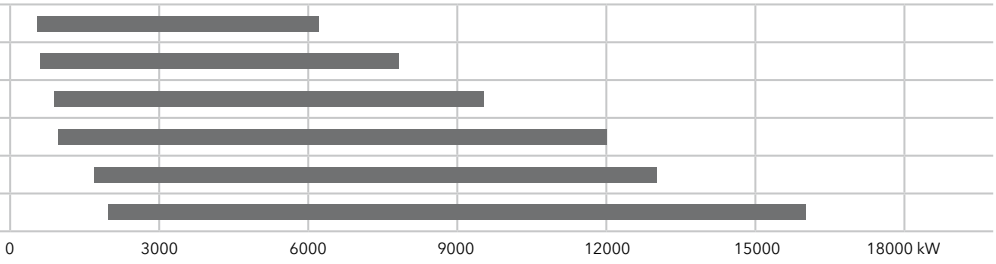
D...-TRON 2.500	230 ... 500 kW
D...-TRON 2.1000	280 ... 1000 kW
D...-TRON 2.1400	400 ... 1300 kW
D...-TRON 3.1500	300 ... 1550 kW
D...-TRON 3.2100	414 ... 2370 kW
D...-TRON 4.3000	630 ... 3000 kW
D...-TRON 4.3900	875 ... 3900 kW
D...-TRON 5.5800	1500 ... 5800 kW
D...-TRON 6.8500	2000 ... 8500 kW
D...-TRON 6.10500	2500 ... 10500 kW
D...-TRON 6.13000	2700 ... 13000 kW
D...-TRON 7.17000	4000 ... 17000 kW
D...-TRON 8.22000	5500 ... 22000 kW
D...-TRON 8.34000	6000 ... 34000 kW



EK-DUO DUOBLOCK RANGE (GAS, LIGHT OIL AND DUAL FUEL)

TWO STAGE PROGRESSIVE/MODULATING ELECTRONIC p. 198

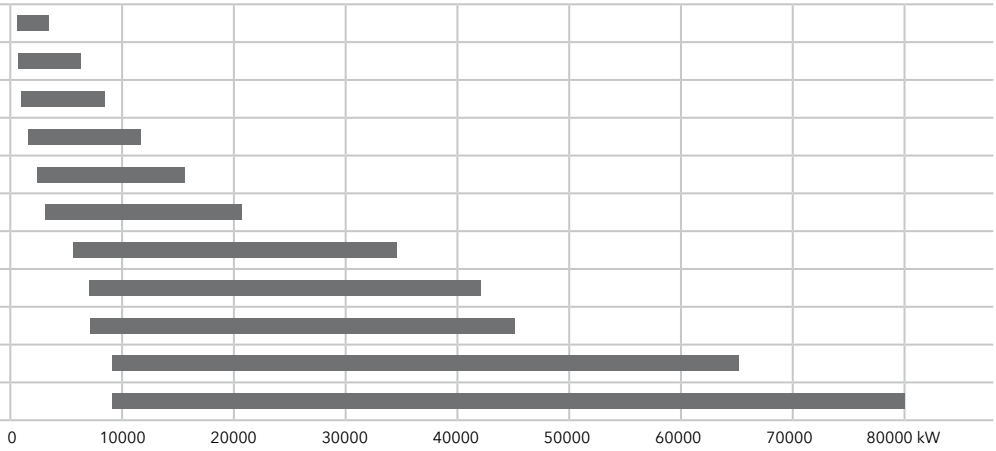
EK-DUO 2.550	600 ... 6200 kW
EK-DUO 2.700	650 ... 7800 kW
EK-DUO 3.850	900 ... 9500 kW
EK-DUO 3.1000	1000 ... 12000 kW
EK-DUO 4.1300	1750 ... 13000 kW
EK-DUO 4.1600	2000 ... 16000 kW



RPD DUOBLOCK RANGE (GAS, LIGHT OIL, HEAVY OIL AND DUAL FUEL)

TWO STAGE PROGRESSIVE/MODULATING MECHANICAL or ELECTRONIC p. 198

RPD 20	500 ... 3300 kW
RPD 30	670 ... 6215 kW
RPD 40	900 ... 8230 kW
RPD 50	1400 ... 11160 kW
RPD 60	2230 ... 15420 kW
RPD 70	3000 ... 20640 kW
RPD 80	5500 ... 34500 kW
RPD 90	7000 ... 42000 kW
RPD 100	7000 ... 45000 kW
RPD 130	9000 ... 65000 kW
RPD 160	9000 ... 80000 kW



GAS TRAINS

CONTROL UNITS

O_2/CO TRIM

OPTIONS

EK EVO

Monoblock burners from 250 to 13500 kW
Gas, light oil and dual fuel

Robust and professional structure

The design of the EK EVO® is the result of a successful synergy between ELCO key features and essential design.
EK EVO® introduces a brand new aluminium casting body and confirms the choice of ELCO about light colors and harmony of each shape.
Professionals will appreciate the flexibility of a 180° orientable air inlet, the compact switch box and the easy to clean glossy paint.

Electronics: easy and comprehensive

All EK EVO® models are fully electronically controlled and they are equipped with the exclusive ELCO man-machine interface allowing simple and effective programming operations.

A total advantage in terms of flexibility

The EK EVO® are characterized 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). Options and configurations have been foreseen in order to fulfill any application need.

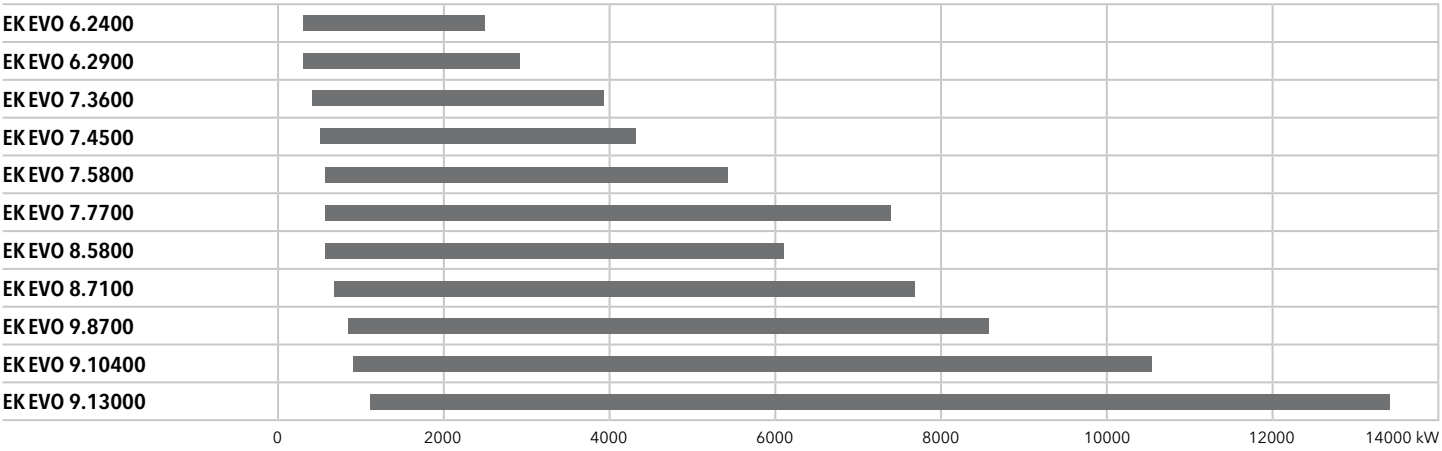
Smart solutions for easy maintenance

The maintenance of the EK EVO® burners can comfortably be carried out thanks to a wide opening above the housing, allowing easy access to the combustion components up to the fan, and thanks to the choice of the material: aluminium, lightweight to handle and resistant at the same time.
Maintenance operations are possible keeping the original combustion components setup.

MAIN TECHNICAL FEATURES

- Two stage progressive/modulating forced draught burner
- Fuels:
  - natural gas, Hi = 6,99 … 11,39 kWh/Nm^3
  - LPG, Hi = 25,89 kWh/Nm^3
  - light oil, viscosity 6 mm^2/s at 20°C, Hi = 11,86 kWh/kg
- Combustion technology:
  - Low NOx class 2 (≤120 mg/kWh) and class 3 (≤80 mg/kWh) in gas operation acccording to EN676
  - Low NOx class 2 (≤185 mg/kWh) and class 3 (≤120 mg/kWh) in light oil operation according to EN267
- Integrated switch cabinet (ISC System) with modular concept complete for an easy installation with:
  - BT300 control box
  - fan motor direct start-up
  - enumerated connection terminals
  - three-phase electrical power supply
  - available as options: power regulator, speed controller, O_2/CO regulator and BUS interface
- Innovative design allowing easy access to burner components for fast start-up and reduced maintenance time and space
- Three flame tube lengths available
- Orientable air intake box
- 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 and EN267 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

RANGE OVERVIEW

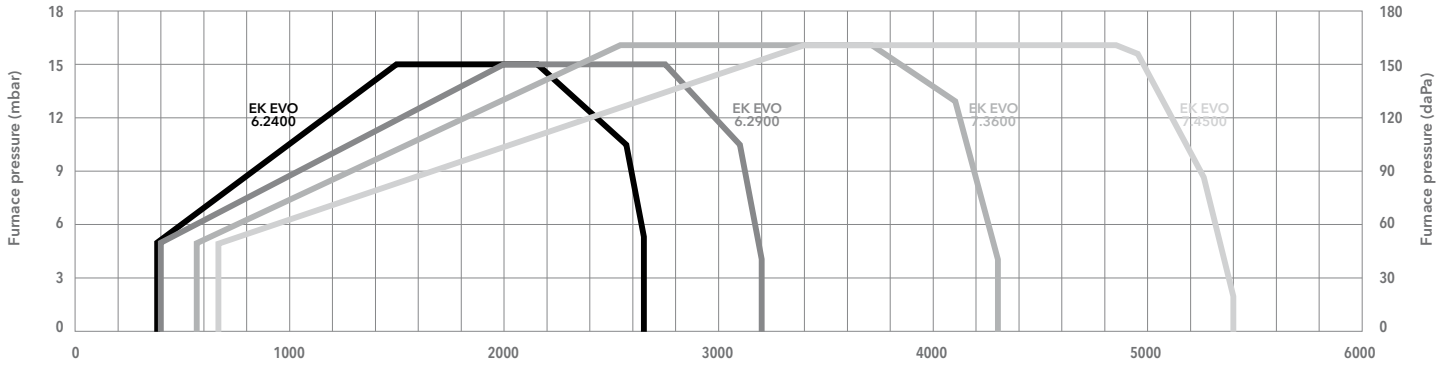


EK EVO 6 G-E, EK EVO 7 G-E

390 ... 5400 kW
2 stage progressive/modulating electronic

- **Fuels:** natural gas, Hi = 6,99 … 11,39 kWh/Nm³;
  LPG, Hi = 25,89 kWh/Nm³
- **Emission class:** Low NOx class 2 (≤120 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 6.2400 G-E	EK EVO 6.2900 G-E	EK EVO 7.3600 G-E	EK EVO 7.4500 G-E
Operating range		390 – 2650 kW	400 – 3200 kW	580 – 4300 kW	680 – 5400 kW
Gas pressure		50 – 500 mbar (max 360 mbar for d452 and d453 gas train)	55 – 500 mbar (max 360 mbar for d452 and d453 gas train)	60 – 500 mbar (max 360 mbar for d452 and d453 gas train)	65 – 500 mbar (max 360 mbar for d452 and d453 gas train)
Gas connection		DN65	DN65	DN65	DN65
Control box / flame detector		BT300 / Ionisation	BT300 / Ionisation	BT300 / Ionisation	BT300 / Ionisation
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	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	3PE AC 400 V - 50 Hz
Fan motor		50 Hz - 3 kW	50 Hz - 4 kW	50 Hz - 5,5 kW	50 Hz - 7,5 kW
Acoustic level		<75 dB(A)	<77 dB(A)	<81 dB(A)	<82,5 dB(A)
CE certificate		0085CL0215	0085CL0215	0085CL0215	0085CL0215
Burner codes (body + head)	**KN**	**3752745**	**3752746**	**3752747**	**3752748**
	KM	**3752749**	**3752750**	**3752751**	**3752752**
	KL	**3752753**	**3752754**	**3752755**	**3752756**

GAS TRAINS

DUNGS

Model	Code
GT-d452-1"1/2 (*)	3750510
GT-d453-2" (*)	3750511
GT-d454-65	3750512
GT-d455-80	3750513
GT-d456-100	3750514

*: integrated filter

SIEMENS

Model	Code
GT-s451-1"1/2	3750525
GT-s452-2"	3750526
GT-s453-65	3750527
GT-s454-80	3750528
GT-s455-100	3750529
GT-s456-125	3750530

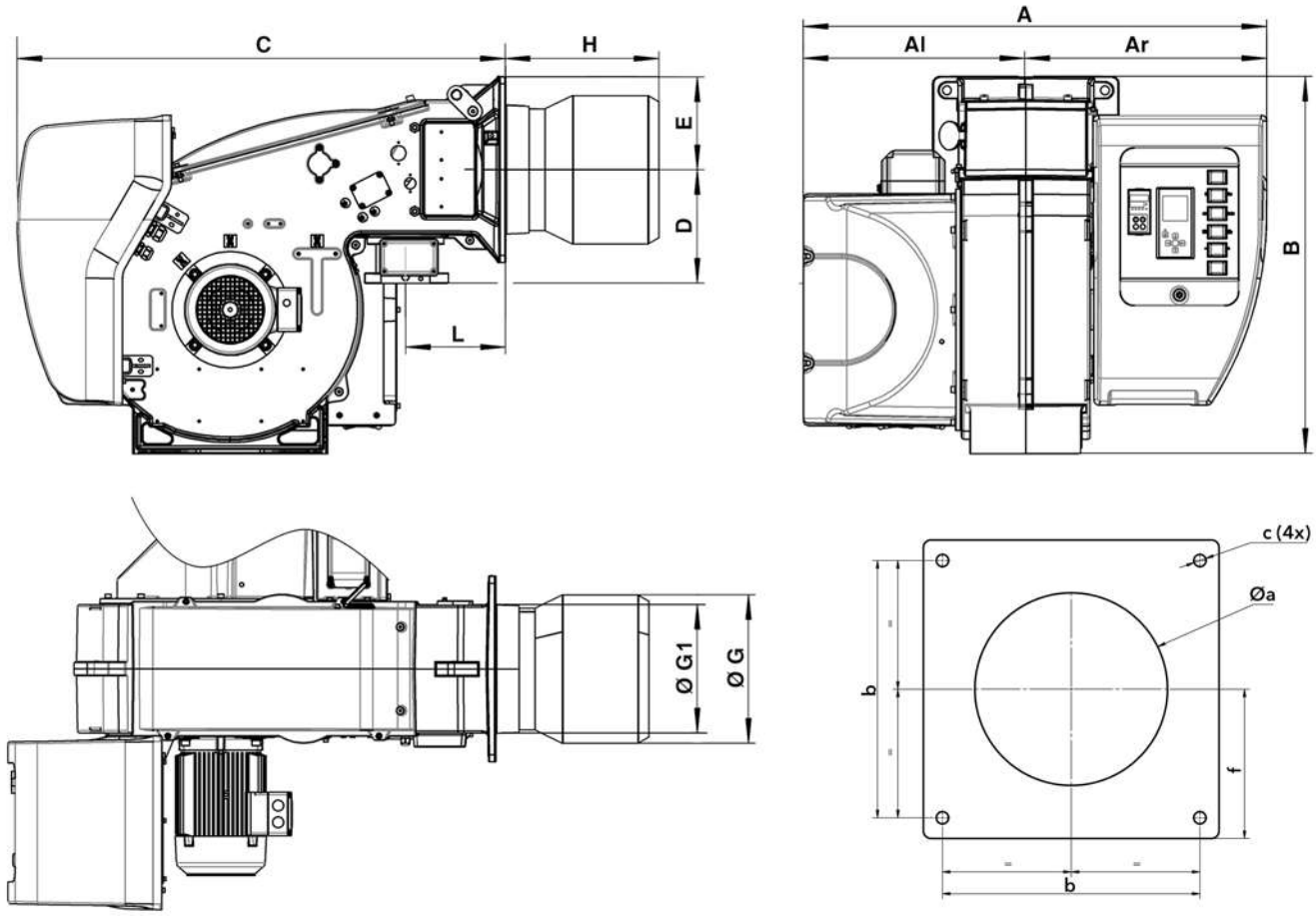
FILTERS

Model	Code
FG-Rp1"1/2	3757199
FG-Rp2"	3757200
FG-DN65	3757198
FG-DN80	3757201
FG-DN100	3757195
FG-DN125	3757209

Pressure drops graphs: see following pages
Dimensions of gas trains and gas filters: see pag. 206

MDE2 GEM Variatron

DIMENSIONS (mm)

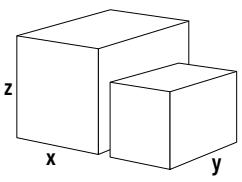


Model	A	Al	Ar	B	C	D	E	ØG	ØG1	H			L
										KN	KM	KL	
EK EVO 6	1035	479	556	812	1054	245	200	320	277	330	450	570	223
EK EVO 7	1107	510	597	941	1130	276	235	370	338	375	505	635	233

Øa	b	c	f
330-340	340	M16	200
380-400	400	M16	235

PACKAGING

The burner is delivered on a pallet in 2 packages containing:
- burner body with mounted combustion head, boiler fixing accessories and technical documentation;
- gas train and filter.

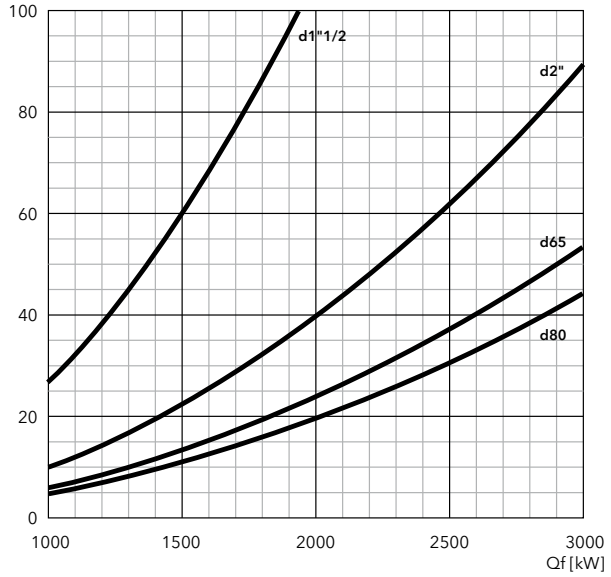


Models		Dimensions (mm)			Gross weight (kg)
		X	Y	Z	
EK EVO 6.2400 G-E	KN	2070	1420	990	168
	KM	2070	1420	990	170
	KL	2070	1420	990	172
EK EVO 6.2900 G-E	KN	2070	1420	990	174
	KM	2070	1420	990	176
	KL	2070	1420	990	178
EK EVO 7.3600 G-E	KN	2070	1420	1130	212
	KM	2070	1420	1130	214
	KL	2070	1420	1130	216
EK EVO 7.4500 G-E	KN	2070	1420	1130	218
	KM	2070	1420	1130	220
	KL	2070	1420	1130	222

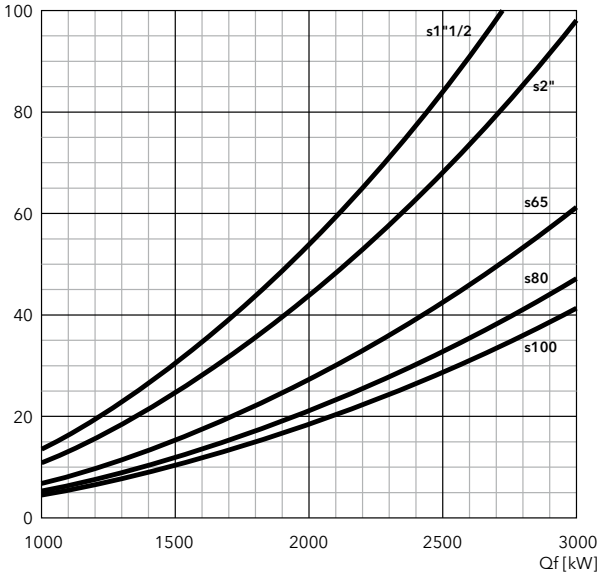
PRESSURE LOSSES (BURNER HEAD + GAS TRAIN)

EK EVO 6.2400 G-E

DUNGS

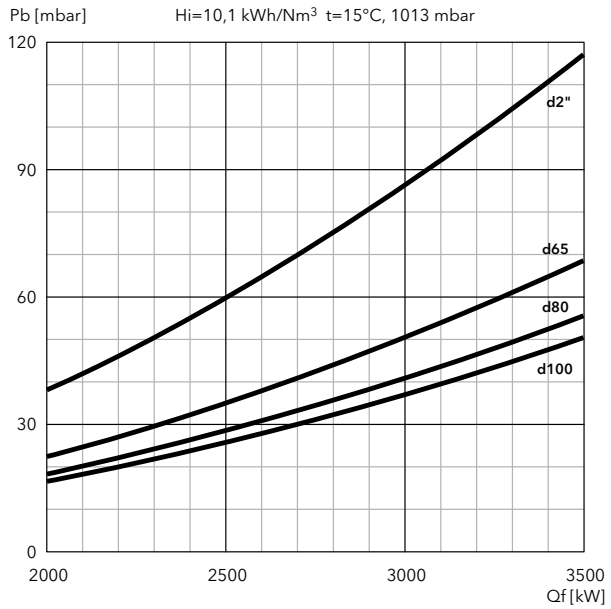


SIEMENS

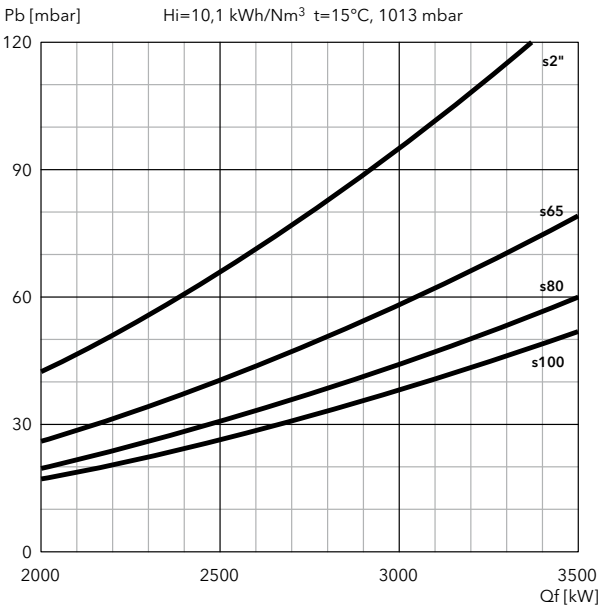


EK EVO 6.2900 G-E

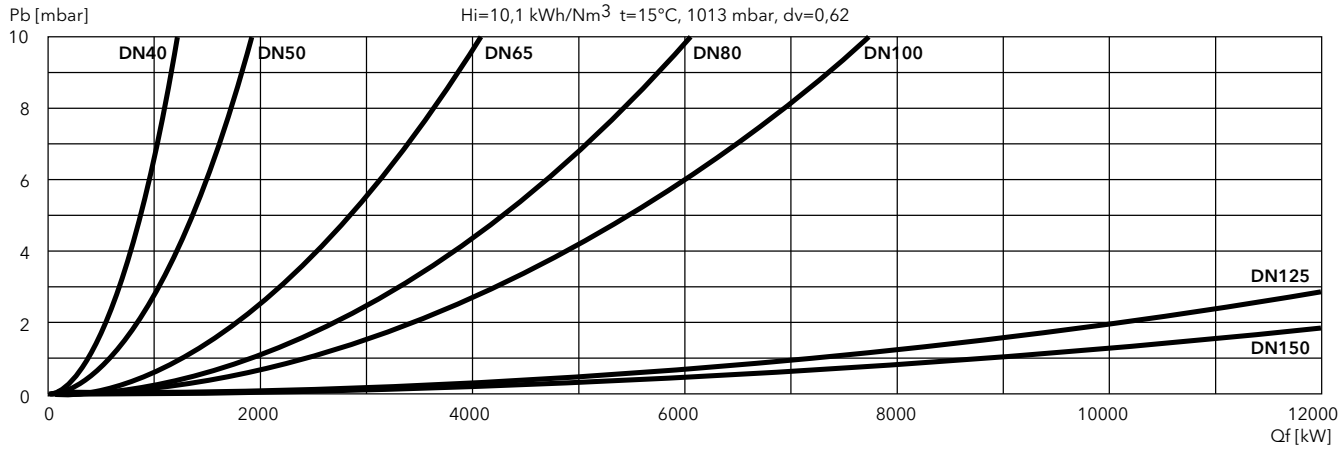
DUNGS



SIEMENS



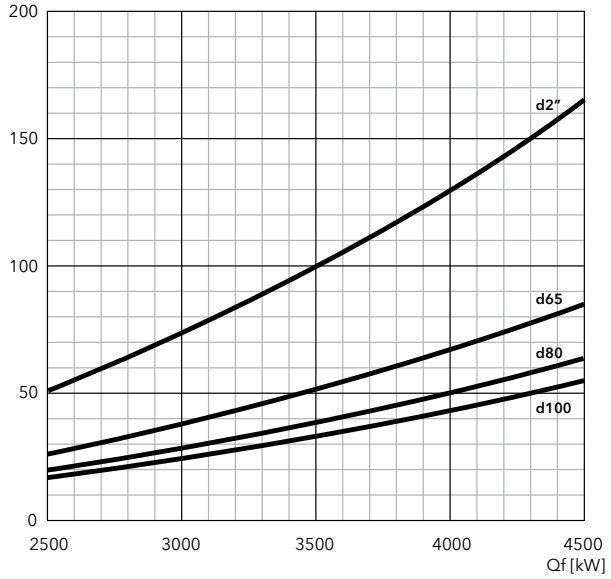
FILTERS



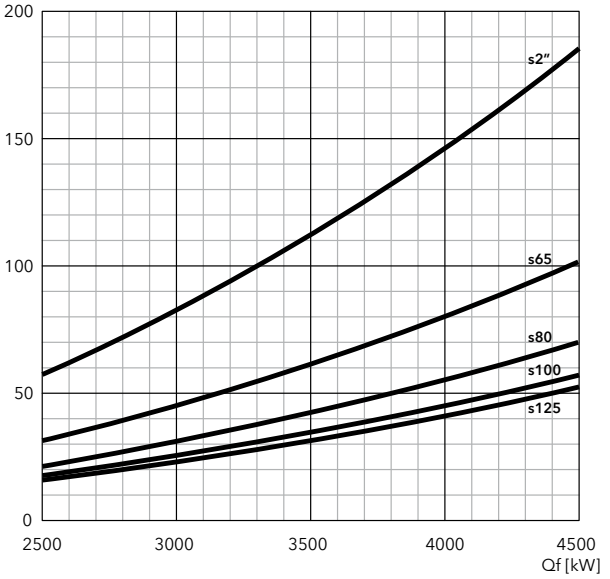
PRESSURE LOSSES (BURNER HEAD + GAS TRAIN)

EK EVO 7.3600 G-E

DUNGS

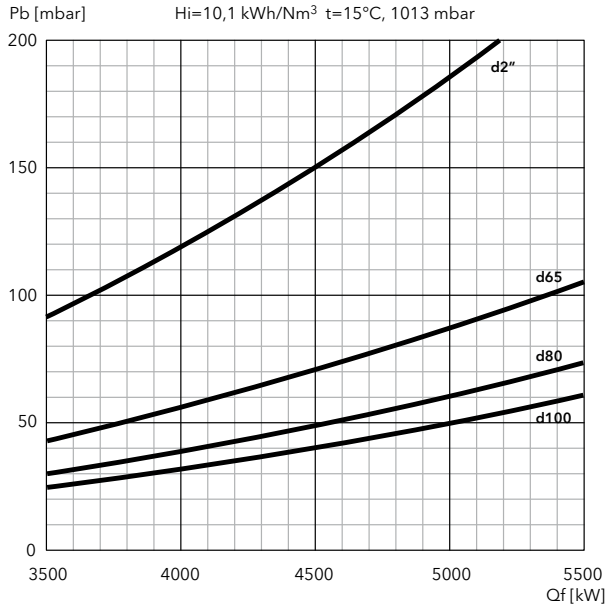


SIEMENS

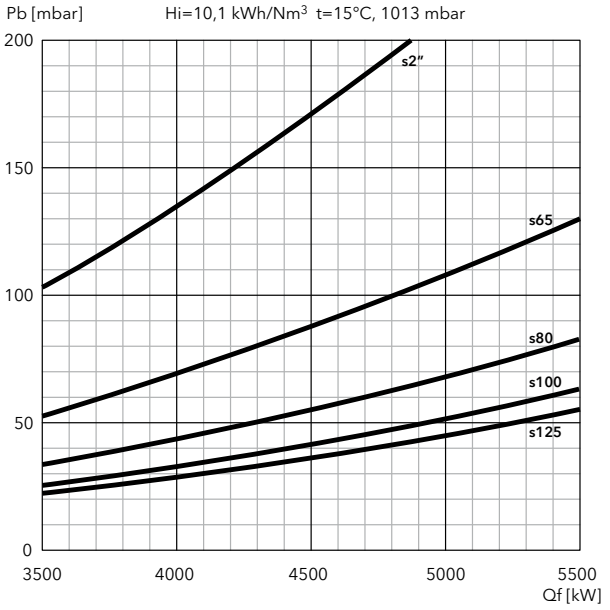


EK EVO 7.4500 G-E

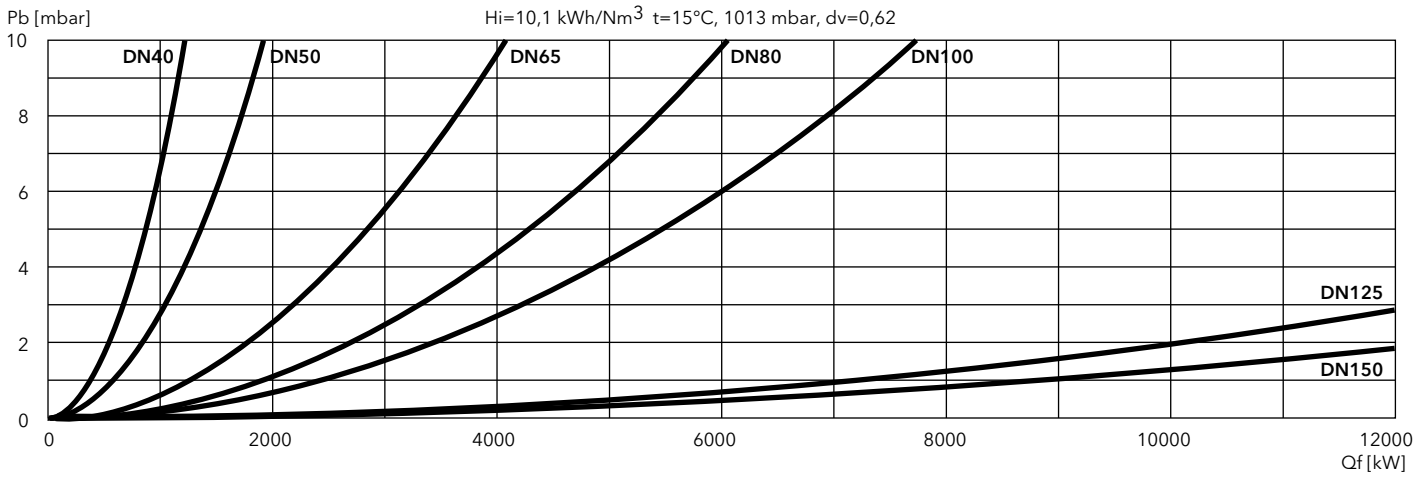
DUNGS



SIEMENS



FILTERS

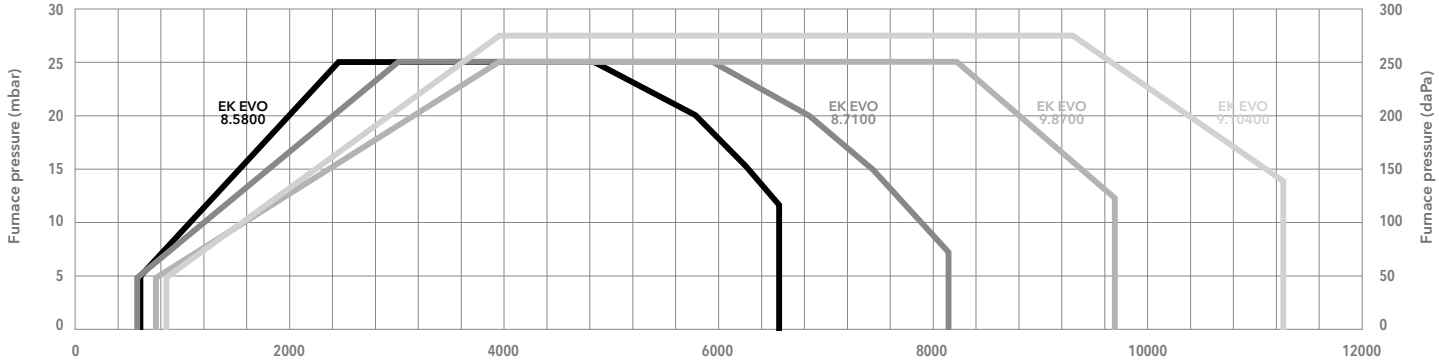


EK EVO 8 G-E, EK EVO 9 G-E

610 ... 11230 kW
2 stage progressive/modulating electronic

- **Fuels:** natural gas, Hi = 6,99 … 11,39 kWh/Nm³;
  LPG, Hi = 25,89 kWh/Nm³
- **Emission class:** Low NOx class 2 (≤120 mg/kWh) according to EN676
- **Modulating ratio:** 1:10
- **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 8.5800 G-E	EK EVO 8.7100 G-E	EK EVO 9.8700 G-E	EK EVO 9.10400 G-E
Operating range		620 – 6570 kW	610 – 8150 kW	780 – 9700 kW	850 – 11230 kW
Gas pressure		60 – 500 mbar (60 – 360 mbar for d457)		70 – 500 mbar (70 – 360 mbar for d457)	
Gas connection		DN100	DN100	DN100	DN100
Control box / flame detector		BT300 / Ionisation	BT300 / Ionisation	BT300 / Ionisation	BT300 / Ionisation
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	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	3PE AC 400 V - 50 Hz
Fan motor		50 Hz - 11 kW	50 Hz - 15 kW	50 Hz - 18,5 kW	50 Hz - 22 kW
Acoustic level		<80,3 dB(A)	<81 dB(A)	<84,8 dB(A)	<86,3 dB(A)
CE certificate		0085CL0215	0085CL0215	0085CL0215	0085CL0215
Burner codes (body + head)	**KN**	**3753965**	**3753966**	**3753967**	**3753968**
	KM	**3753974**	**3753975**	**3753976**	**3753977**
	KL	**3753982**	**3753983**	**3753984**	**3753985**

GAS TRAINS

DUNGS

Model	Code
GT-d457-2" (*)	3750515
GT-d458-65	3750516
GT-d459-80	3750517
GT-d460-100	3750518

*: integrated filter

SIEMENS

Model	Code
GT-s457-2"	3750537
GT-s458-65	3750538
GT-s459-80	3750539
GT-s460-100	3750540
GT-s461-125	3750541

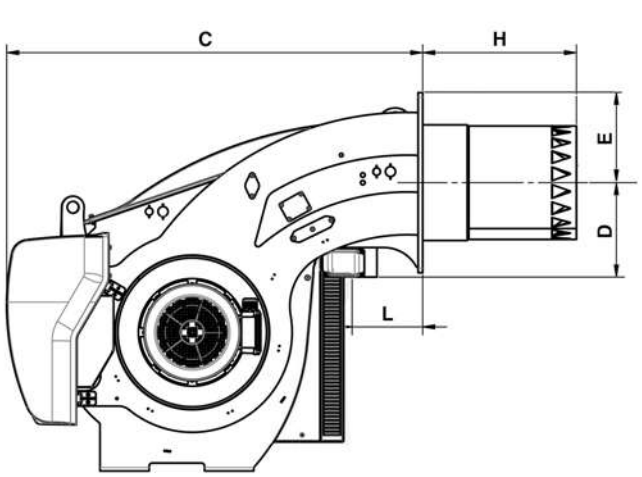
FILTERS

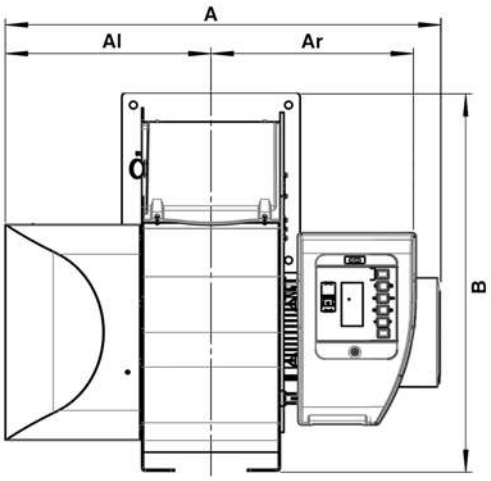
Model	Code
FG-Rp2"	3757200
FG-DN65	3757198
FG-DN80	3757201
FG-DN100	3757195
FG-DN125	3757209

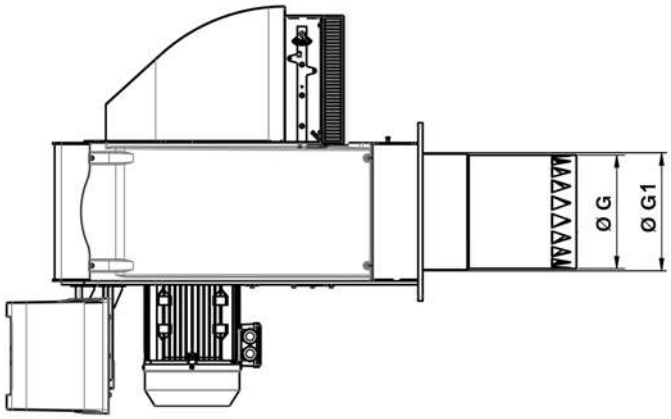
Pressure drops graphs: see following pages
Dimensions of gas trains and gas filters: see pag. 207

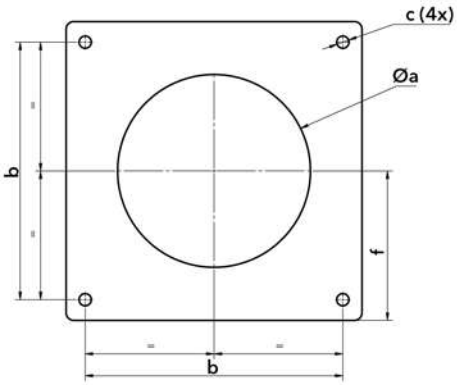
MDE2 GEM Variatron

DIMENSIONS (mm)







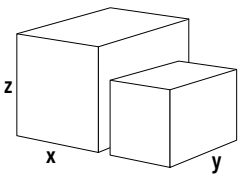


Model	A	Al	Ar	B	C	D	E	ØG	ØG1	H			L
										KN	KM	KL	
EK EVO 8...	1323	670	653	1231	1353	307	288	369	376	500	640	780	230
EK EVO 9.8700	1335	670	653	1291	1350	332	293	432	439	550	700	850	230
EK EVO 9.10400	1401	670	653	1291	1350	332	293	432	439	550	700	850	230

Øa	b	c	f
390-410	505	M20	293
460-480	505	M20	293
460-480	505	M20	293

PACKAGING

The burner is delivered on a pallet in 2 packages containing:
- burner body with mounted combustion head, boiler fixing accessories and technical documentation;
- gas train and filter.

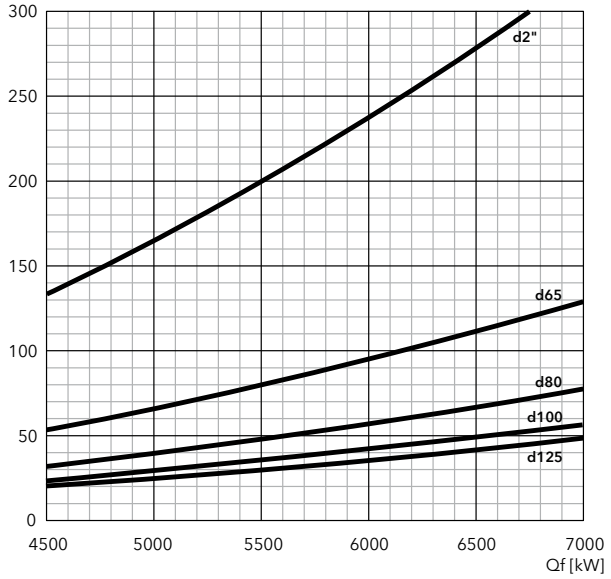


Models		Dimensions (mm)			Gross weight (kg)
		X	Y	Z	
EK EVO 8.5800 G-E	KN	2300	1500	1396	481
	KM	2300	1500	1396	487
	KL	2300	1500	1396	498
EK EVO 8.7100 G-E	KN	2300	1500	1396	497
	KM	2300	1500	1396	503
	KL	2300	1500	1396	514
EK EVO 9.8700 G-E	KN	2300	1500	1461	524
	KM	2300	1500	1461	532
	KL	2300	1500	1461	539
EK EVO 9.10400 G-E	KN	2300	1500	1461	546
	KM	2300	1500	1461	553
	KL	2300	1500	1461	565

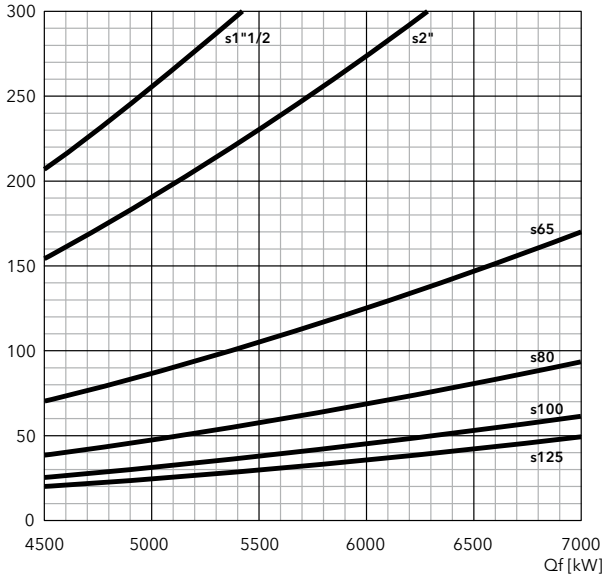
PRESSURE LOSSES (BURNER HEAD + GAS TRAIN)

EK EVO 8.5800 G-E

DUNGS

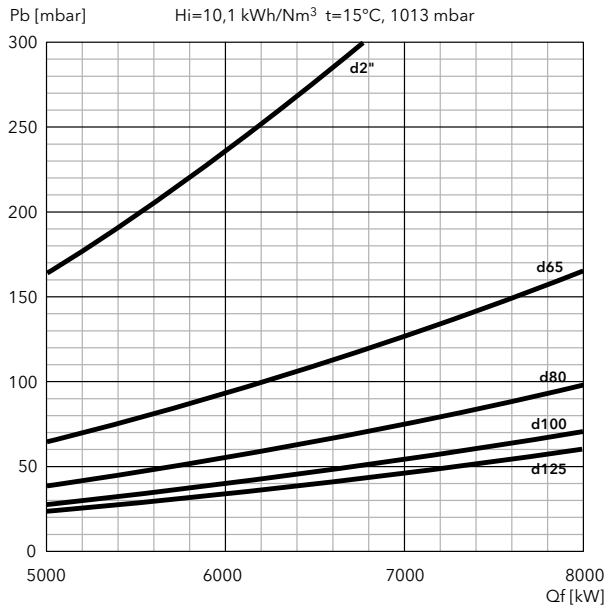


SIEMENS

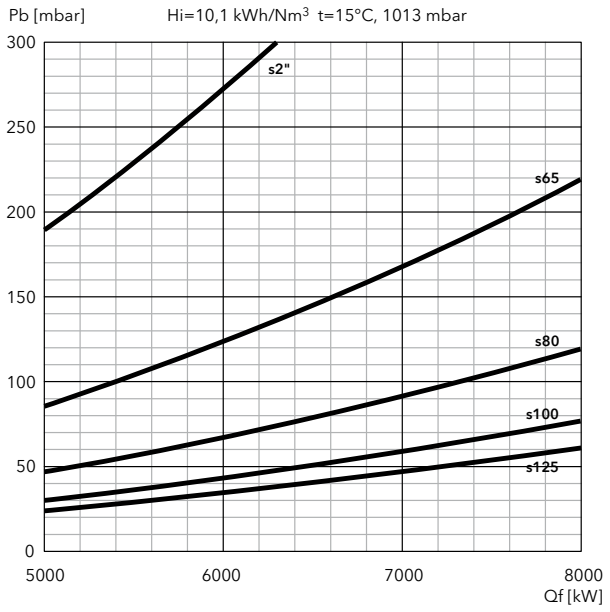


EK EVO 8.7100 G-E

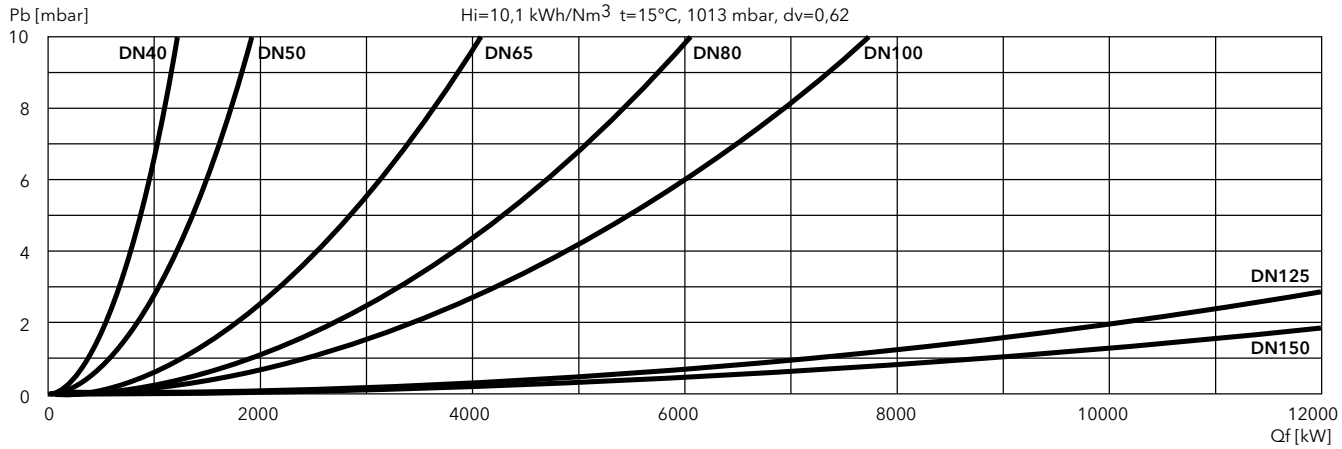
DUNGS



SIEMENS



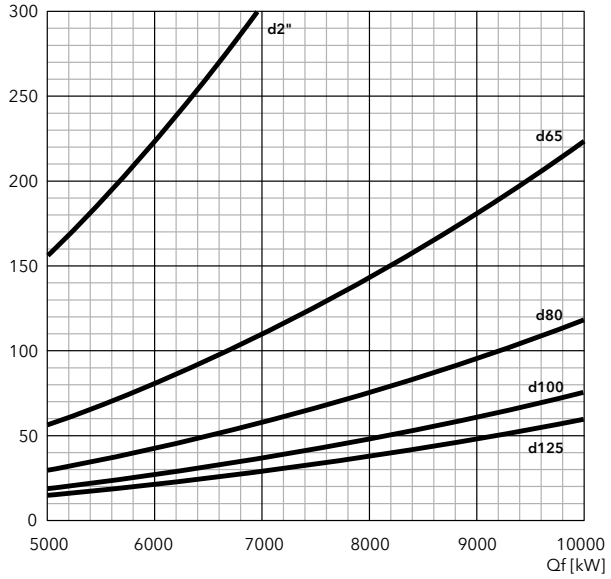
FILTERS



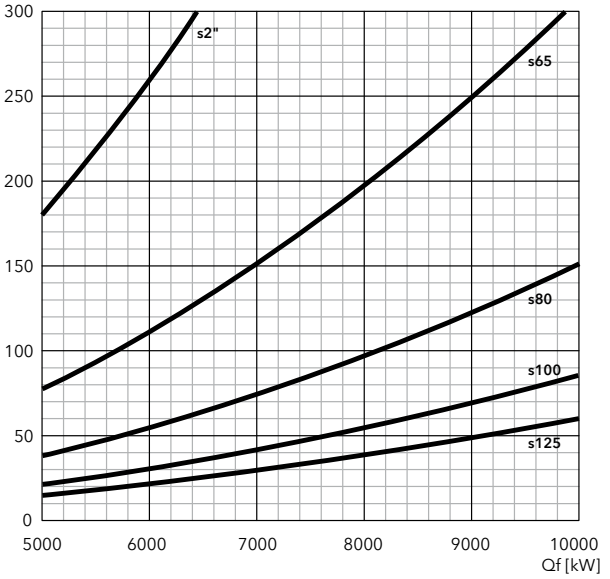
PRESSURE LOSSES (BURNER HEAD + GAS TRAIN)

EK EVO 9.8700 G-E

DUNGS

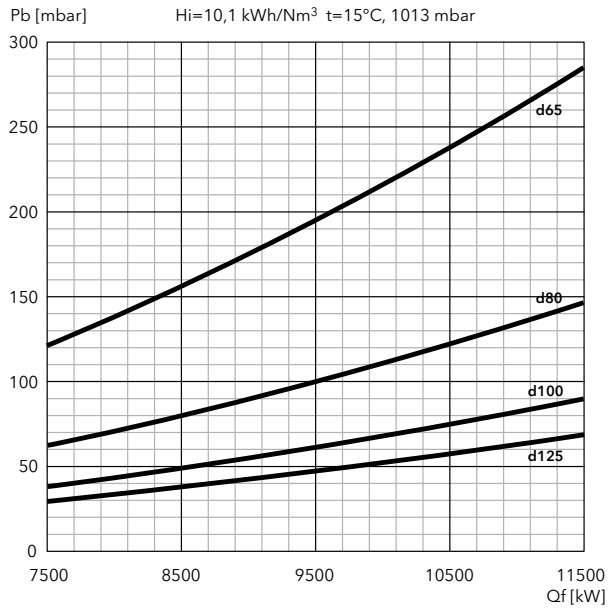


SIEMENS

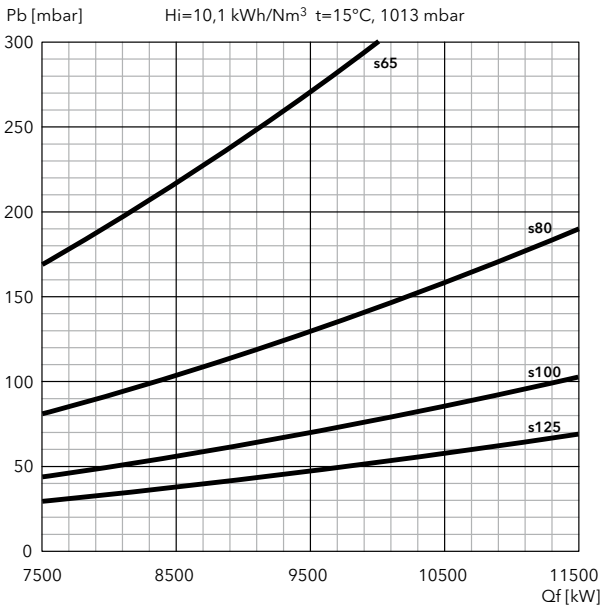


EK EVO 9.10400 G-E

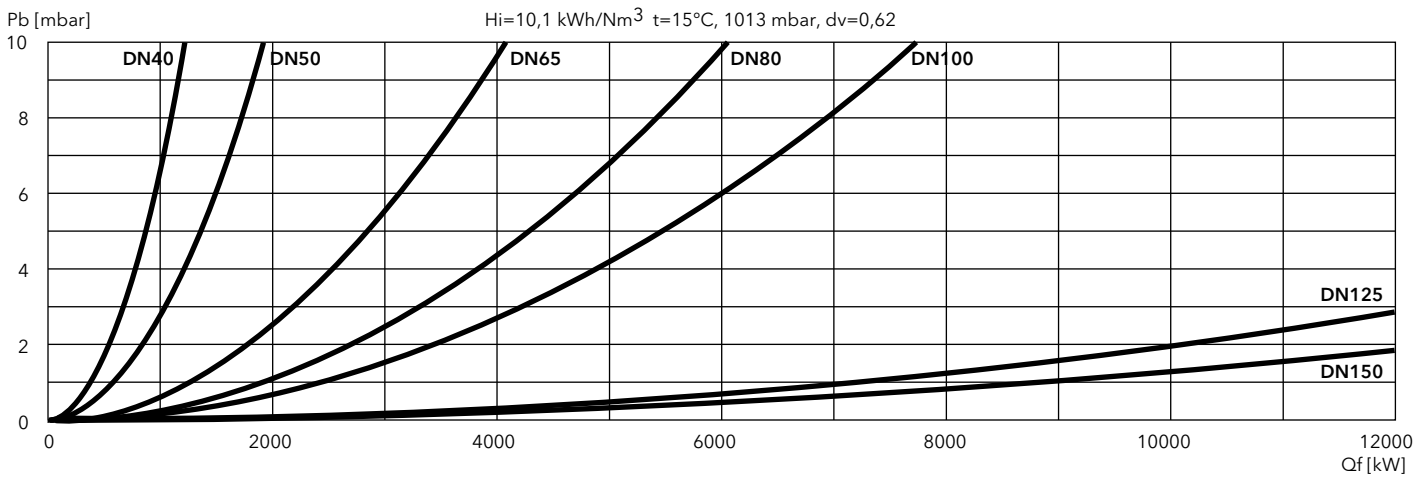
DUNGS



SIEMENS



FILTERS

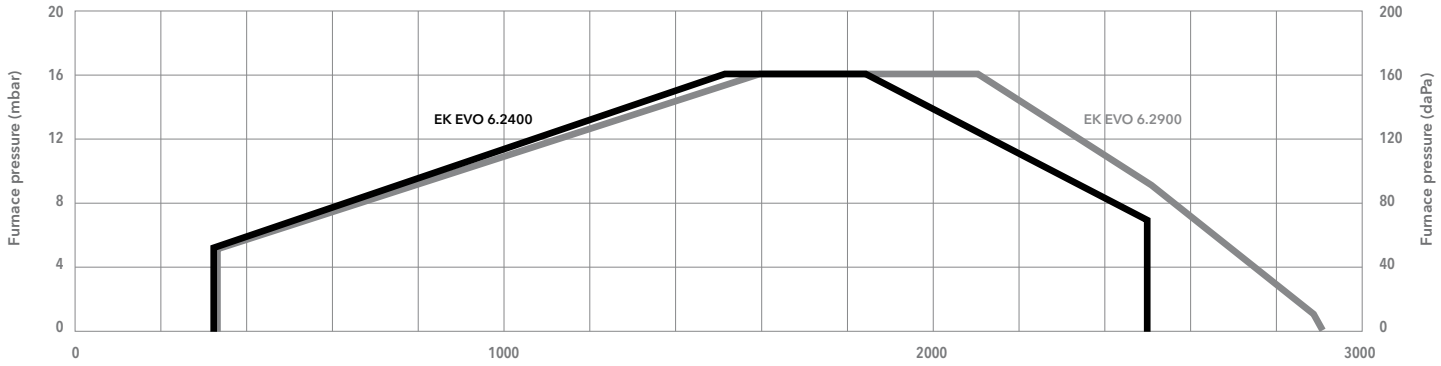


EK EVO 6 G-EF3

340 ... 2900 kW
2 stage progressive/modulating electronic (Low NOx class 3)

- **Fuels:** natural gas, Hi = 6,99 … 11,39 kWh/Nm³;
  LPG, Hi = 25,89 kWh/Nm³
- **Emission class:** Low NOx class 3 (≤80 mg/kWh) according to EN676
  Version with FGR System (≤30 mg/kWh) available on request
- **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 6.2400 G-EF3	EK EVO 6.2900 G-EF3
Operating range		340 – 2500 kW	340 – 2900 kW
Gas pressure		50 – 500 mbar (50 - 360 mbar for d452 and d453)	50 – 500 mbar (50 - 360 mbar for d452 and d453)
Gas connection		DN65	DN65
Control box / flame detector		BT300 / QRA2	BT300 / QRA2
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 - 3 kW	50 Hz - 4 kW
Acoustic level		<74 dB(A)	<77 dB(A)
CE certificate		0085CL0215	0085CL0215
Burner codes (body + head)	**KN**	**3754046**	**3754047**
	KM	**3754050**	**3754051**
	KL	**3754054**	**3754055**

GAS TRAINS

DUNGS

Model	Code
GT-d452-1"1/2 (*)	3750510
GT-d453-2" (*)	3750511
GT-d454-65	3750512
GT-d455-80	3750513

*: integrated filter

SIEMENS

Model	Code
GT-s451-1"1/2	3750525
GT-s452-2"	3750526
GT-s453-65	3750527
GT-s454-80	3750528
GT-s455-100	3750529

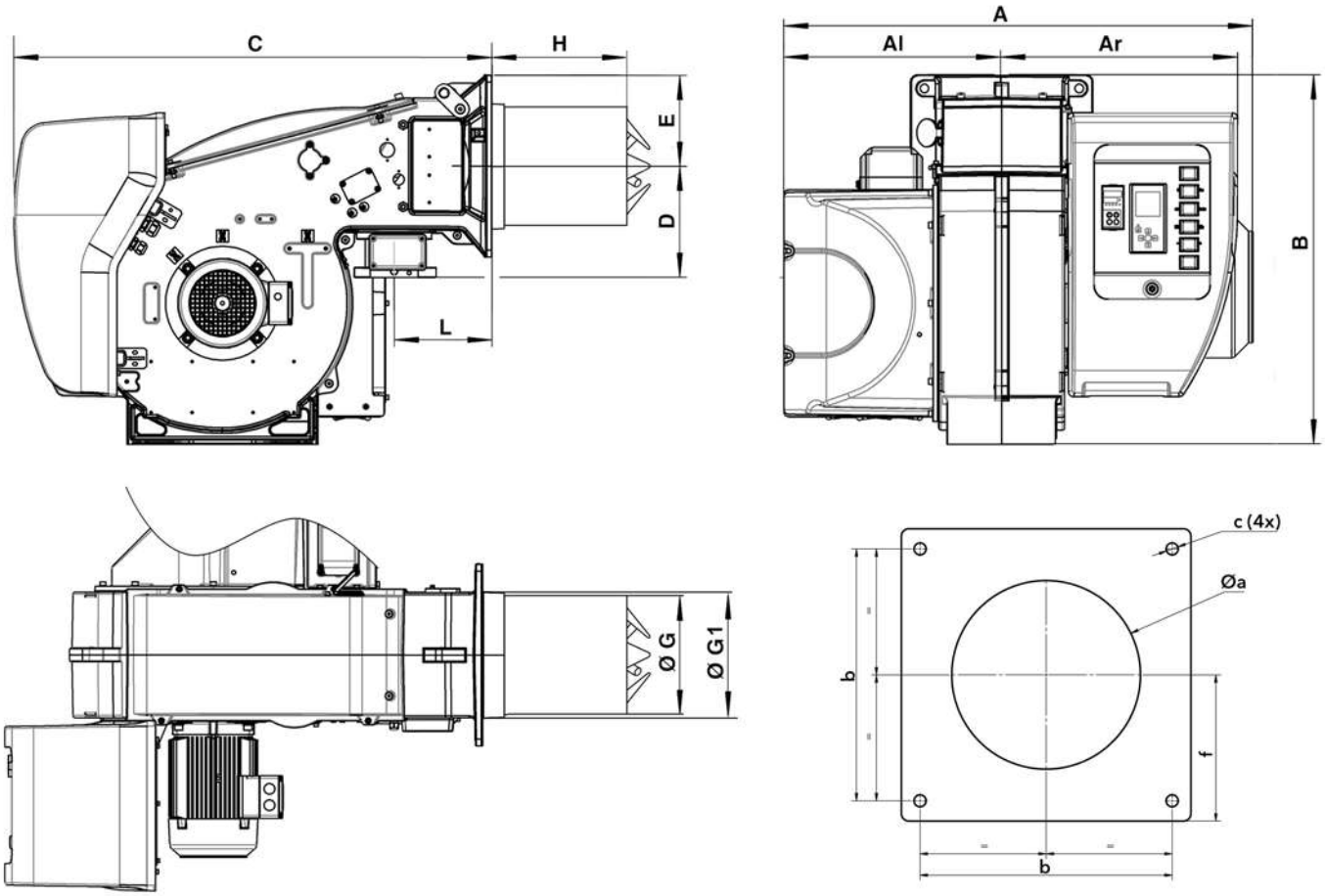
FILTERS

Model	Code
FG-Rp1"1/2	3757199
FG-Rp2"	3757200
FG-DN65	3757198
FG-DN80	3757201
FG-DN100	3757195

Pressure drops graphs: see following pages
Dimensions of gas trains and gas filters: see pag. 206

MDE2 | GEM | Variatron | LOW NOx CLASS 3 | FGR

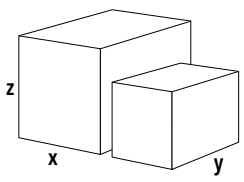
DIMENSIONS (mm)



A	Al	Ar	B	C	D	E	ØG	ØG1	H			L	Øa	b	c	f
									KN	KM	KL					
1035	479	556	812	1046	245	200	263	277	400	520	640	215	300-340	340	M16	200

PACKAGING

The burner is delivered on a pallet in 2 packages containing:
- burner body with mounted combustion head, boiler fixing accessories and technical documentation;
- gas train and filter.

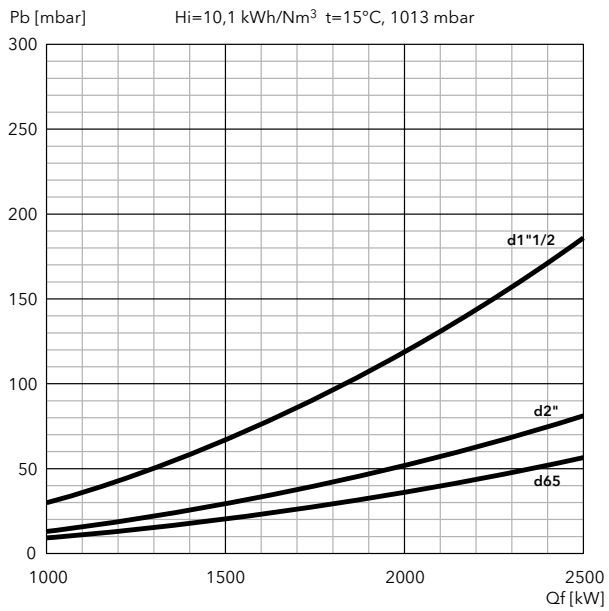


Models		Dimensions (mm)			Gross weight (kg)
		X	Y	Z	
EK EVO 6.2400 G-EF3	KN	2070	1420	990	168
	KM	2070	1420	990	170
	KL	2070	1420	990	172
EK EVO 6.2900 G-EF3	KN	2070	1420	990	174
	KM	2070	1420	990	176
	KL	2070	1420	990	178

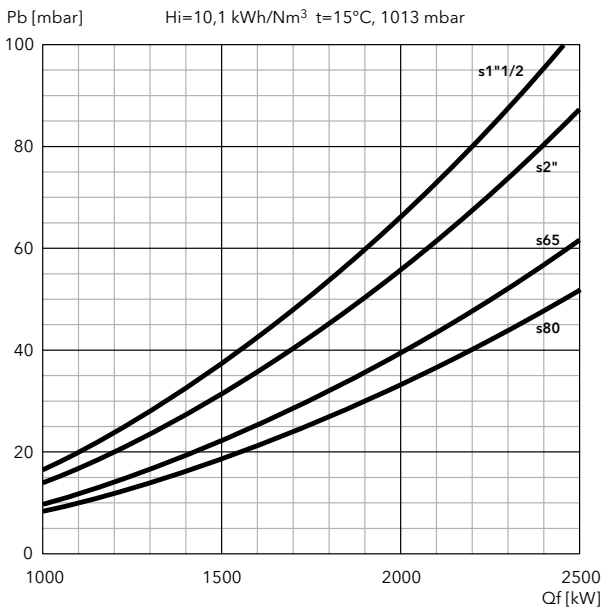
PRESSURE LOSSES (BURNER HEAD + GAS TRAIN)

EK EVO 6.2400 G-EF3

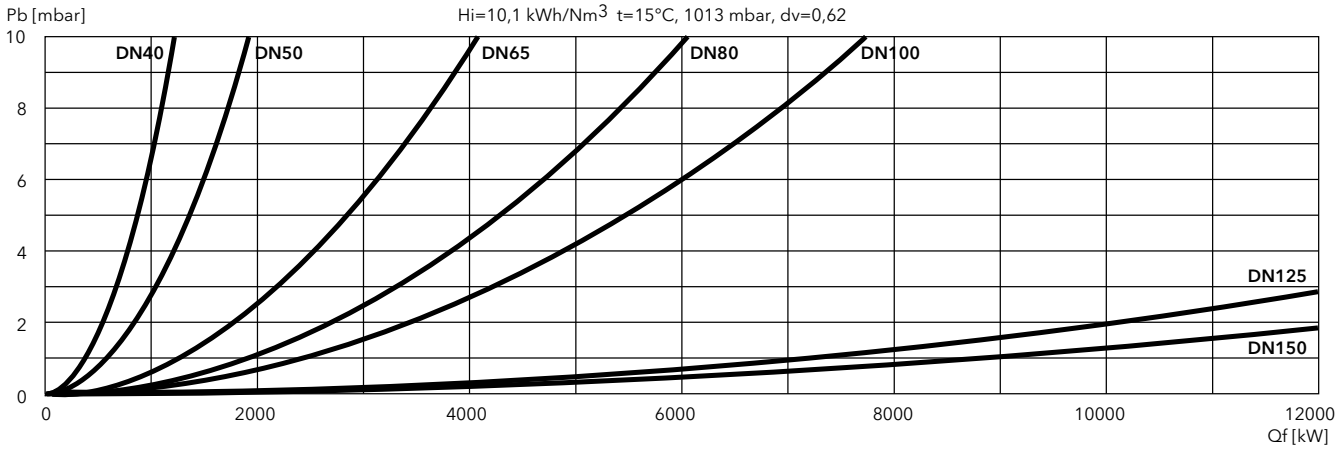
DUNGS



SIEMENS



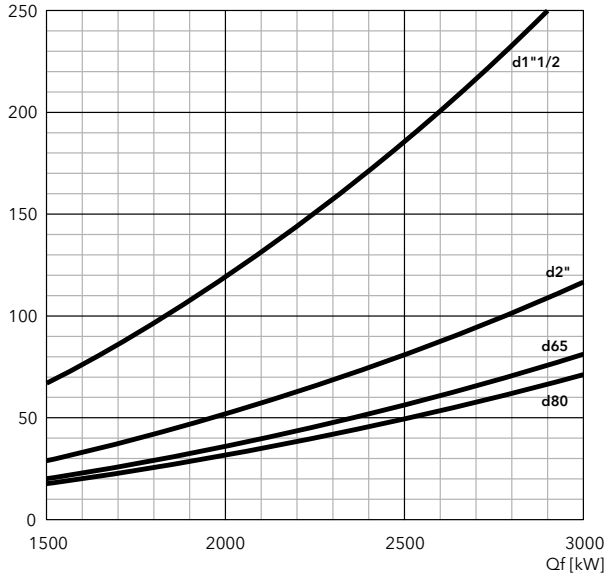
FILTERS



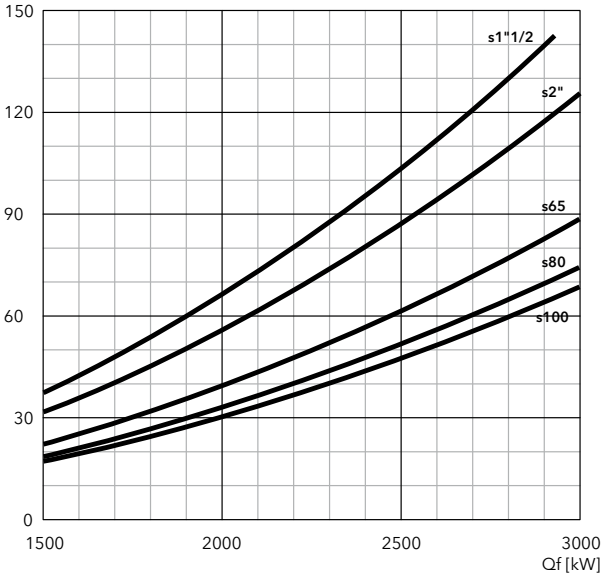
PRESSURE LOSSES (BURNER HEAD + GAS TRAIN)

EK EVO 6.2900 G-EF3

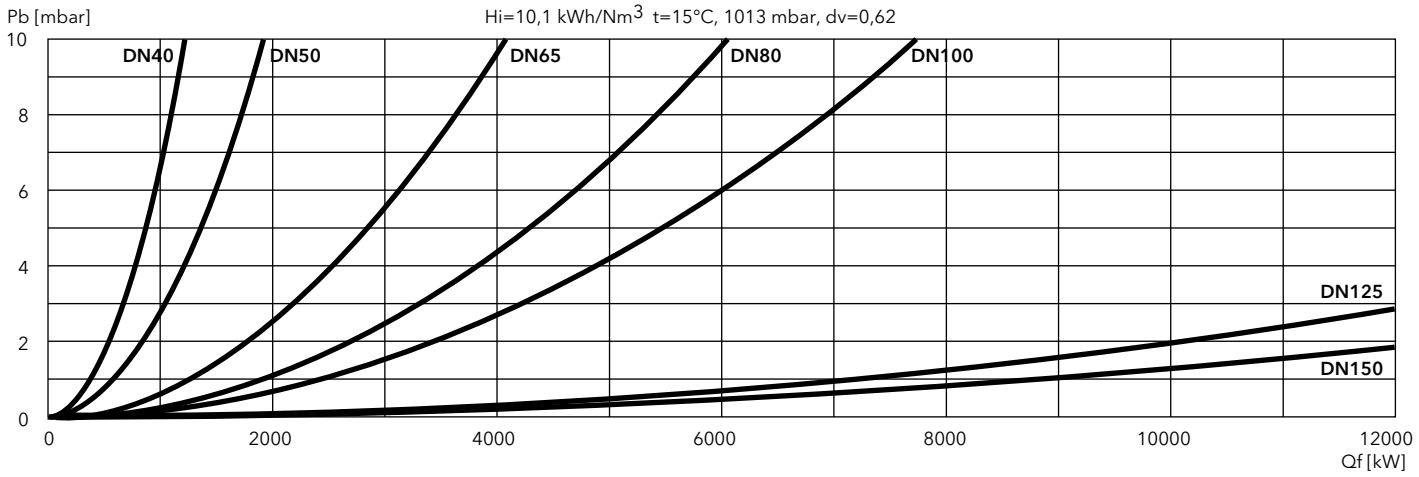
DUNGS



SIEMENS



FILTERS

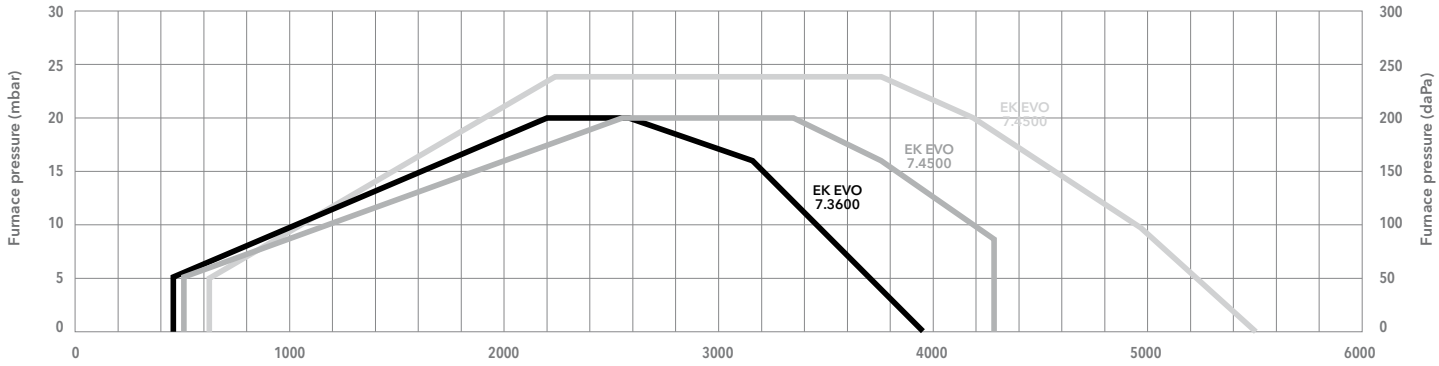


EK EVO 7 G-EF3

470 ... 5500 kW
2 stage progressive/modulating electronic (Low NOx class 3)

- **Fuels:** natural gas, Hi = 6,99 … 11,39 kWh/Nm³;
  LPG, Hi = 25,89 kWh/Nm³
- **Emission class:** Low NOx class 3 (≤80 mg/kWh) according to EN676
  Version with FGR System (≤30 mg/kWh) available on request
- **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 7.3600 G-EF3	EK EVO 7.4500 G-EF3	EK EVO 7.5800 G-EF3
Operating range		470 – 3980 kW	510 – 4290 kW	620 – 5500 kW
Gas pressure		50 – 500 mbar (50 - 360 mbar for d452 and d453)		
Gas connection		DN65	DN65	DN65
Control box / flame detector		BT300 / QRA2	BT300 / QRA2	BT300 / QRA2
Auxiliary voltage		1NPE AC 230 V - 50 Hz TN-S	1NPE AC 230 V - 50 Hz TN-S	1NPE AC 230 V - 50 Hz
Power supply		3PE AC 400 V - 50 Hz	3PE AC 400 V - 50 Hz	3PE AC 400 V - 50 Hz
Fan motor		50 Hz - 7,5 kW	50 Hz - 7,5 kW	50 Hz - 11 kW
Acoustic level		<83 dB(A)	<81 dB(A)	<85 dB(A)
CE certificate		0085CL0215	0085CL0215	0085CL0215
Burner codes (body + head)	**KN**	**3754048**	**3754049**	**3756103**
	KM	**3754052**	**3754053**	**3756104**
	KL	**3754056**	**3754057**	**3756105**

GAS TRAINS

DUNGS

Model	Code
GT-d452-1"1/2 (*)	3750510
GT-d453-2" (*)	3750511
GT-d454-65	3750512
GT-d455-80	3750513
GT-d456-100	3750514

SIEMENS

Model	Code
GT-s451-1"1/2	3750525
GT-s452-2"	3750526
GT-s453-65	3750527
GT-s454-80	3750528
GT-s455-100	3750529
GT-s456-125	3750530

FILTERS

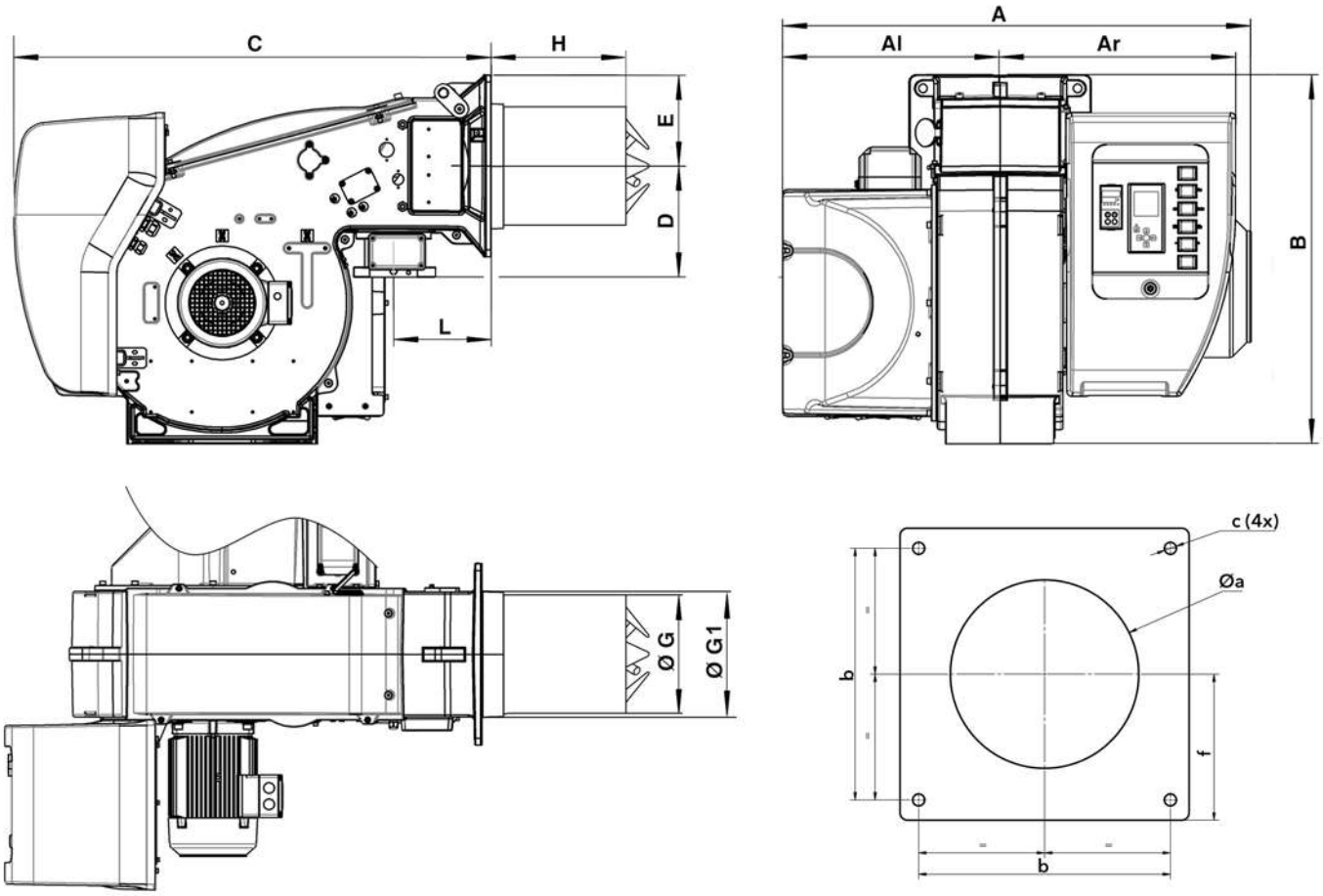
Model	Code
FG-Rp1"1/2	3757199
FG-Rp2"	3757200
FG-DN65	3757198
FG-DN80	3757201
FG-DN100	3757195
FG-DN125	3757209

*: integrated filter

Pressure drops graphs: see following pages
Dimensions of gas trains and gas filters: see pag. 206

MDE2 | GEM | Variatron | LOW NOx CLASS 3 | FGR

DIMENSIONS (mm)

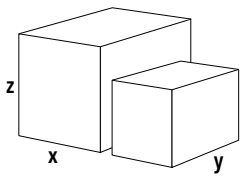


Model	A	Al	Ar	B	C	D	E	ØG	ØG1	H			L
										KN	KM	KL	
EK EVO 7.3600/4500	1096	509	587	941	1120	276	235	324	338	420	550	680	225
EK EVO 7.5800	1205	510	695	941	1171	276	235	324	338	420	550	680	225

Øa	b	c	f
360-400	400	M16	235
360-400	400	M16	235

PACKAGING

The burner is delivered on a pallet in 2 packages containing:
- burner body with mounted combustion head, boiler fixing accessories and technical documentation;
- gas train and filter.

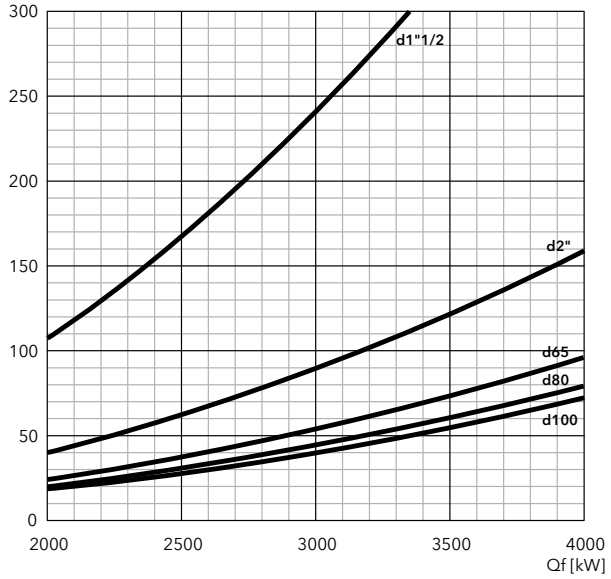


Models		Dimensions (mm)			Gross weight (kg)
		X	Y	Z	
EK EVO 7.3600 G-EF3	KN	2070	1420	1130	218
	KM	2070	1420	1130	220
	KL	2070	1420	1130	222
EK EVO 7.4500 G-EF3	KN	2070	1420	1130	218
	KM	2070	1420	1130	220
	KL	2070	1420	1130	222
EK EVO 7.5800 G-EF3	KN	2070	1420	1130	360
	KM	2070	1420	1130	365
	KL	2070	1420	1130	370

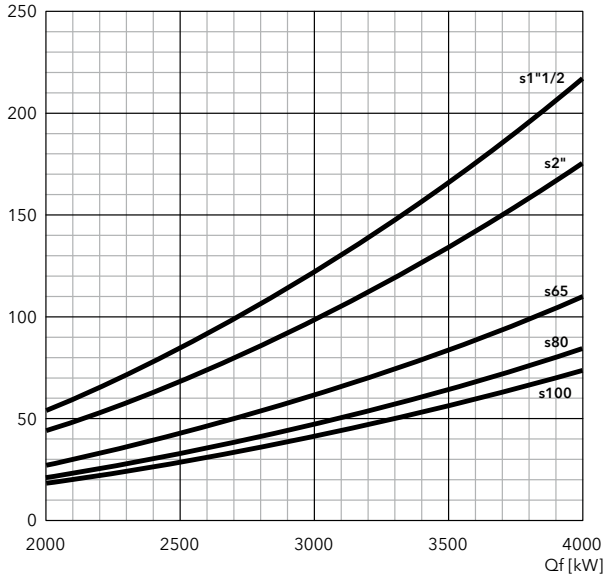
PRESSURE LOSSES (BURNER HEAD + GAS TRAIN)

EK EVO 7.3600 G-EF3

DUNGS

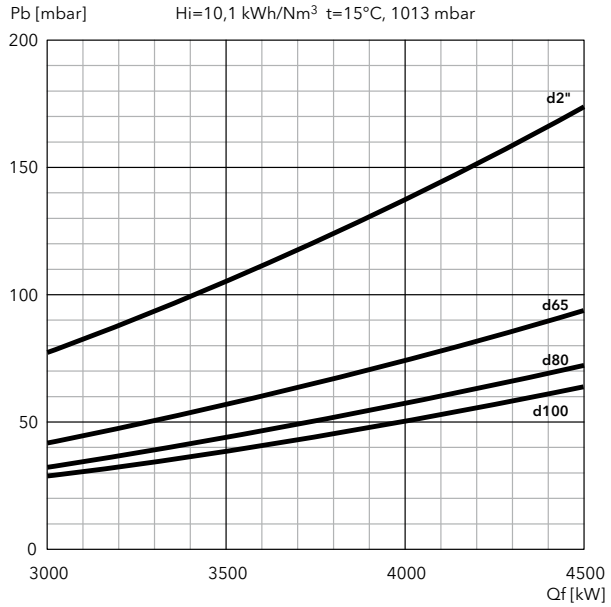


SIEMENS

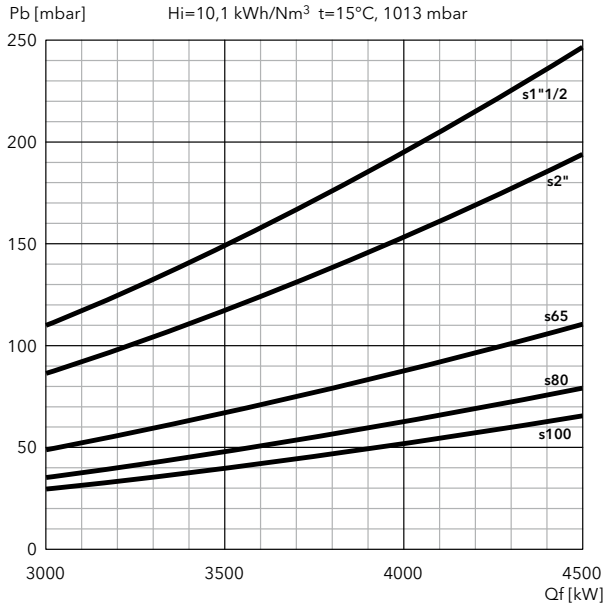


EK EVO 7.4500 G-EF3

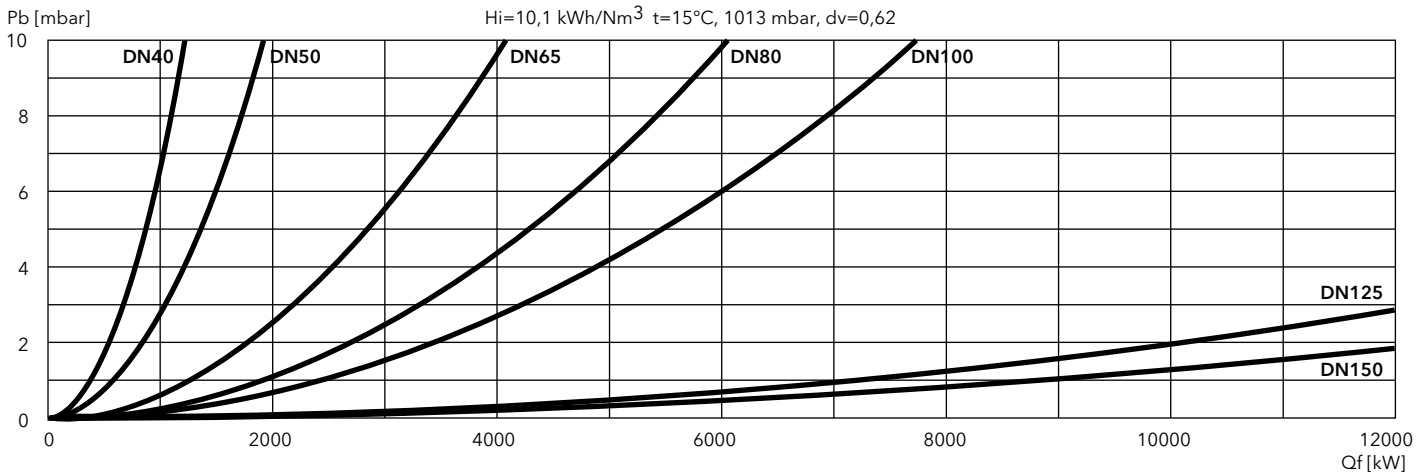
DUNGS



SIEMENS



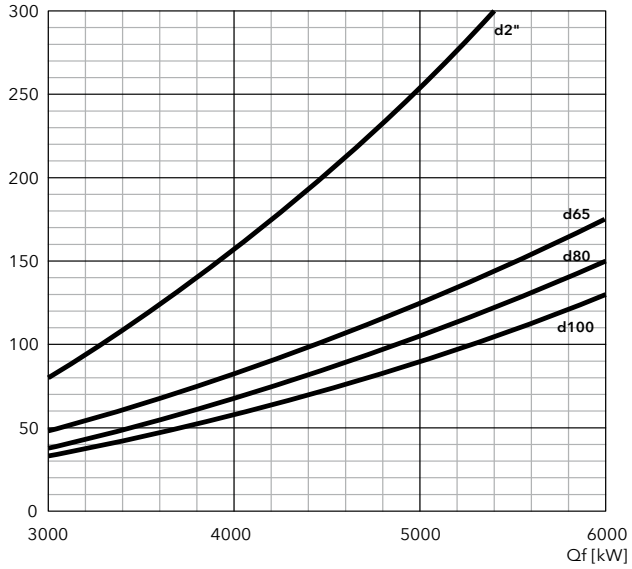
FILTERS



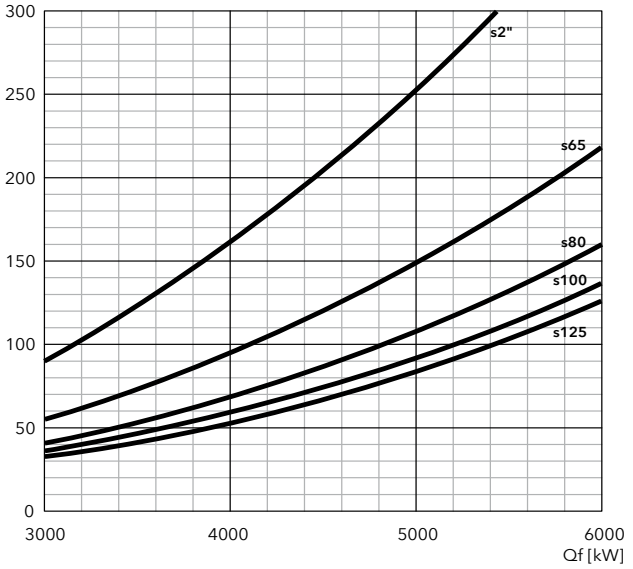
PRESSURE LOSSES (BURNER HEAD + GAS TRAIN)

EK EVO 7.5800 G-EF3

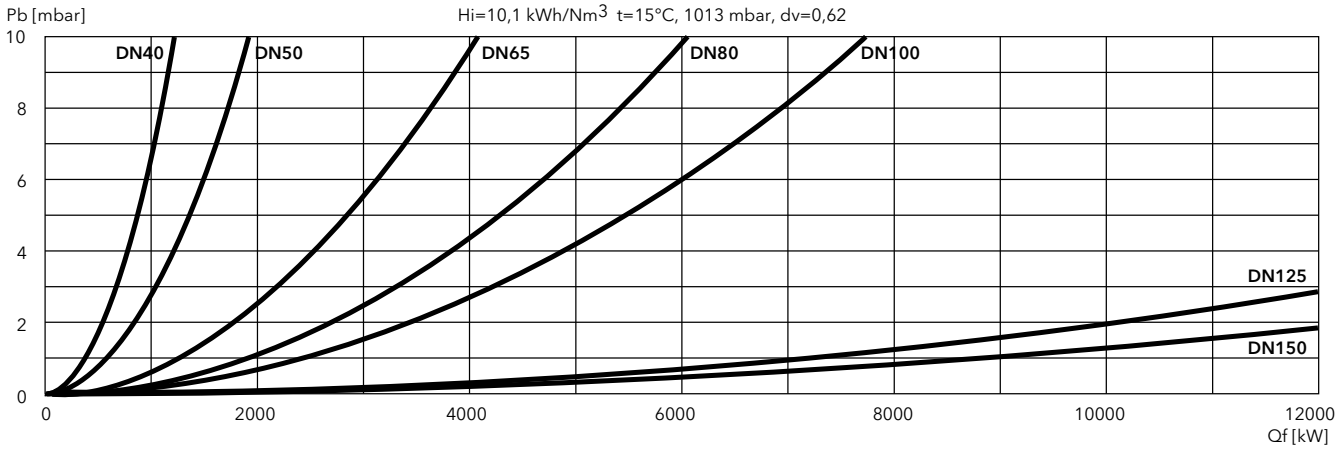
DUNGS



SIEMENS



FILTERS

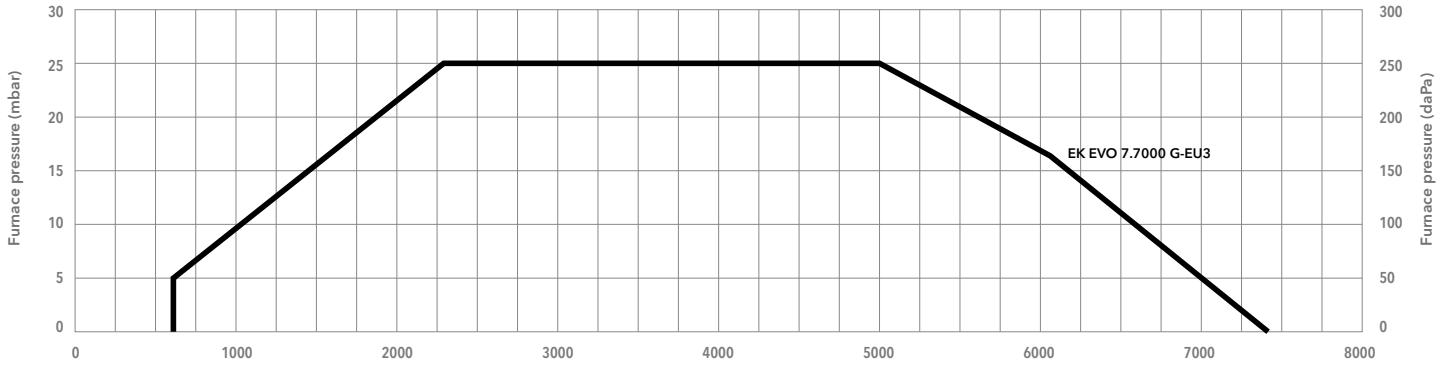


EK EVO 7 G-EU3

610 ... 7450 kW
2 stage progressive/modulating electronic (Low NOx class 3)

- **Fuels:** natural gas, Hi = 6,99 … 11,39 kWh/Nm³;
  LPG, Hi = 25,89 kWh/Nm³
- **Emission class:** Low NOx class 3 (≤80 mg/kWh) according to EN676
  Version with FGR System (≤30 mg/kWh) available on request
- **Protection level:** IP 41

TECHNICAL DATA



		EK EVO 7.7000 G-EU3
Operating range		610 – 7450 kW
Gas pressure		105 – 500 mbar (105 - 360 mbar for d452 and d453)
Gas connection		DN65
Control box / flame detector		BT300 / KLC
Auxiliary voltage		1NPE AC 230 V - 50 Hz
Power supply		3PE AC 400 V - 50 Hz
Fan motor		50 Hz - 15 kW
Acoustic level		<89 dB(A)
CE certificate		0085CL0215
Burner codes (body + head)	KN	**3758210**
	KM	**3758211**
	KL	**3758212**

GAS TRAINS

DUNGS

Model	Code
GT-d453-2" (*)	3750511
GT-d454-65	3750512
GT-d455-80	3750513
GT-d456-100	3750514

*: integrated filter

SIEMENS

Model	Code
GT-s452-2"	3750526
GT-s453-65	3750527
GT-s454-80	3750528
GT-s455-100	3750529
GT-s456-125	3750530

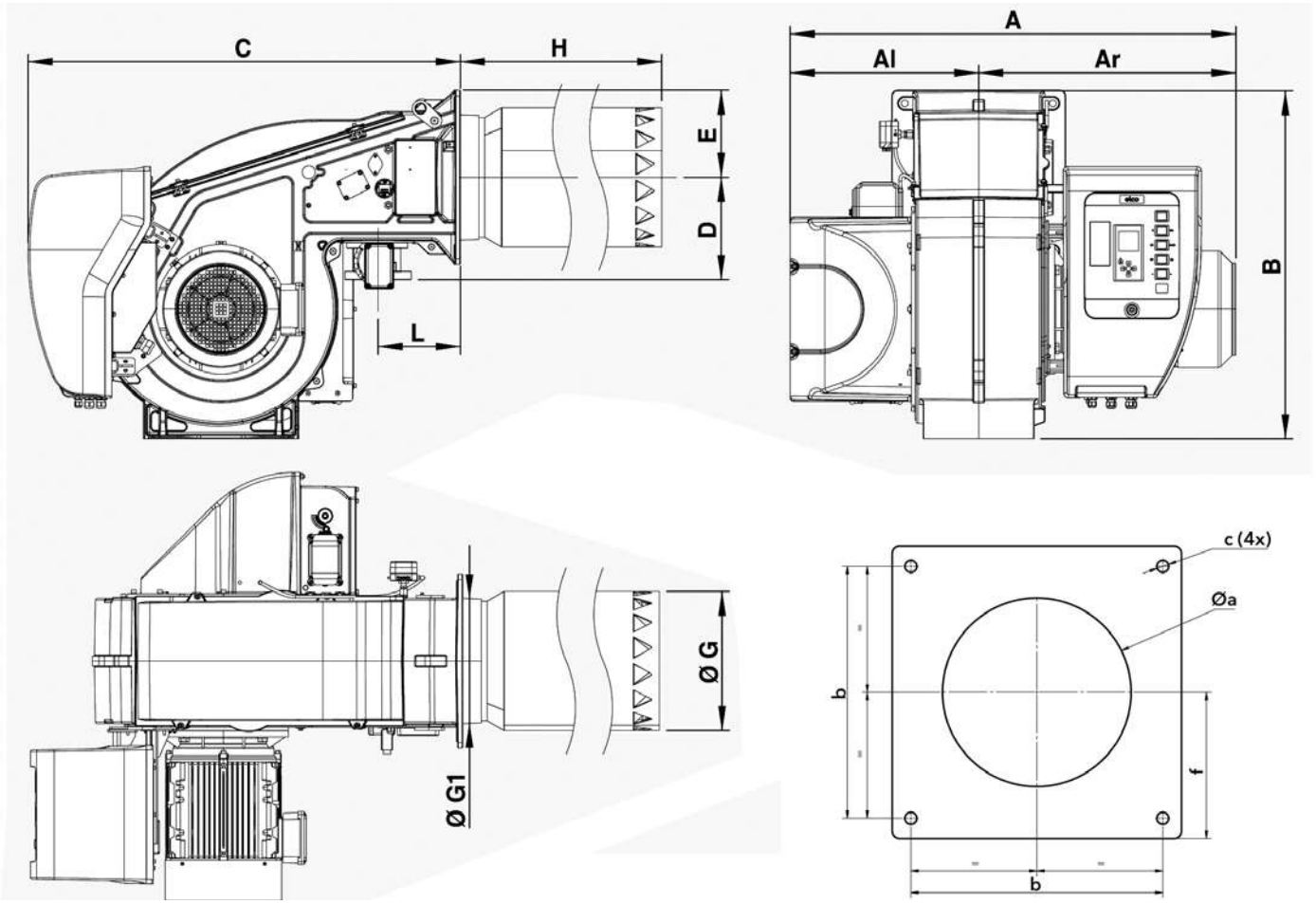
FILTERS

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

Pressure drops graphs: see following pages
Dimensions of gas trains and gas filters: see pag. 206

MDE2 | GEM | Variatron | LOW NOx CLASS 3 | FGR

DIMENSIONS (mm)

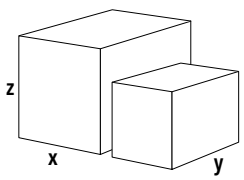


Model	A	Al	Ar	B	C	D	E	ØG	ØG1	H			L
										KN	KM	KL	
EK EVO 7.7000	1205	510	695	941	1168	276	235	376	340	501	641	781	225

Øa	b	c	f
390-400	400	M16	235

PACKAGING

The burner is delivered on a pallet in 2 packages containing:
- burner body with mounted combustion head, boiler fixing accessories and technical documentation;
- gas train and filter.

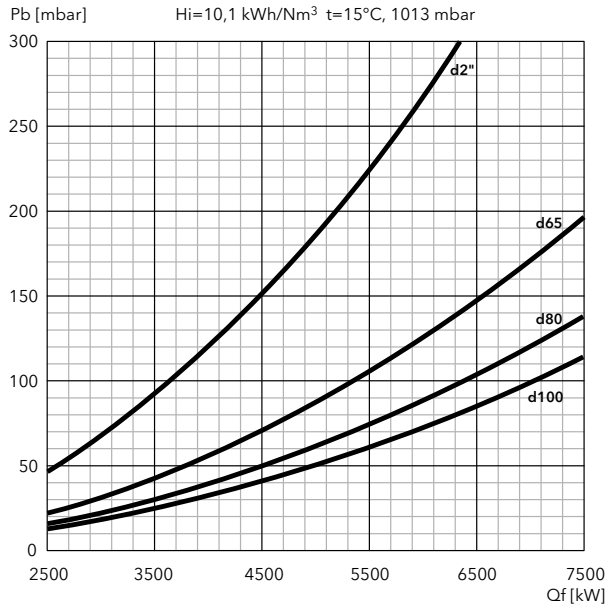


Models		Dimensions (mm)			Gross weight (kg)
		X	Y	Z	
EK EVO 7.7000 G-EU3	KN	2070	1420	1130	218
	KM	2070	1420	1130	220
	KL	2070	1420	1130	222

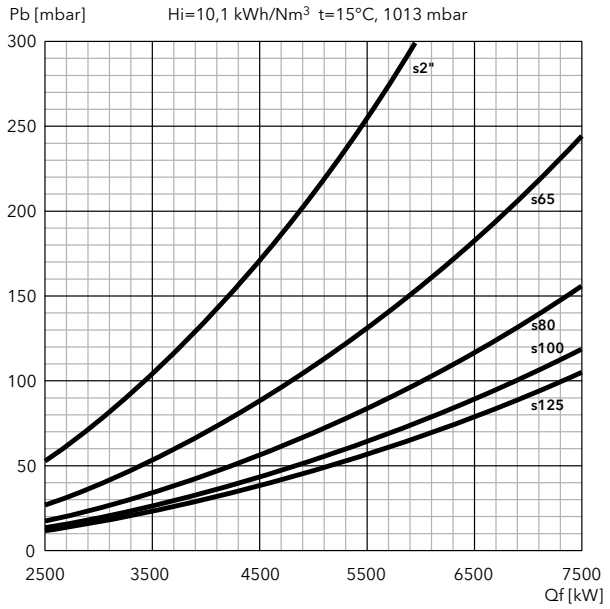
PRESSURE LOSSES (BURNER HEAD + GAS TRAIN)

EK EVO 7.7000 G-EU3

DUNGS

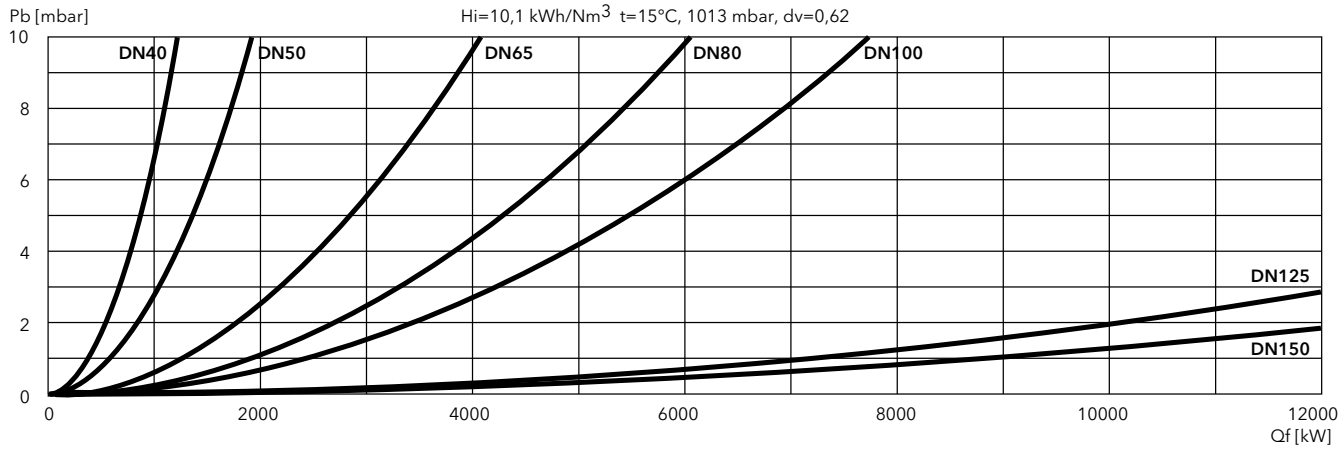


SIEMENS



PRESSURE LOSSES (BURNER HEAD + GAS TRAIN)

FILTERS

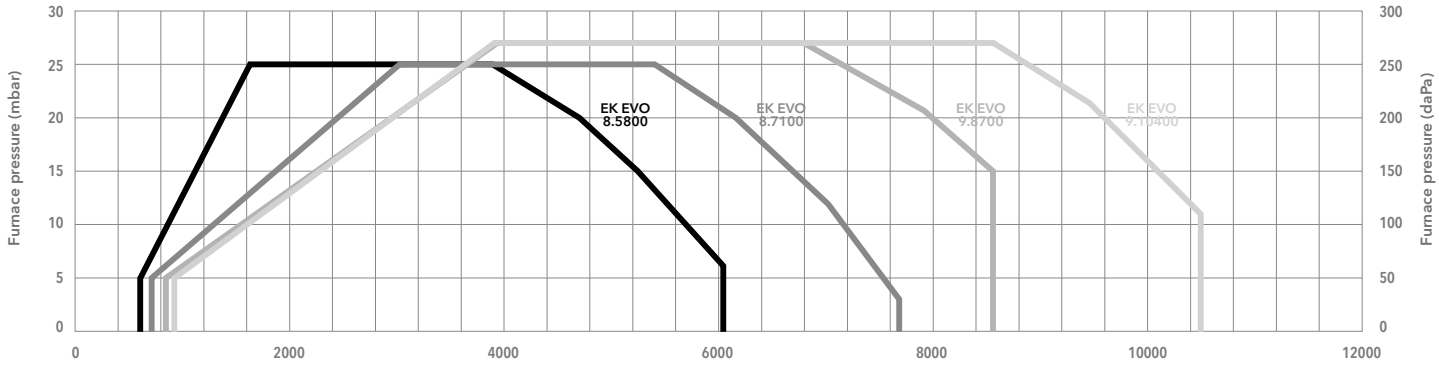


EK EVO 8 G-EU3, EK EVO 9 G-EU3

600 ... 10500 kW
2 stage progressive/modulating electronic (Low NOx class 3)

- **Fuels:** natural gas, Hi = 6,99 … 11,39 kWh/Nm³;
  LPG, Hi = 25,89 kWh/Nm³
- **Emission class:** Low NOx class 3 (≤80 mg/kWh) according to EN676
  Version with FGR System (≤30 mg/kWh) available on request
- **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 8.5800 G-EU3	EK EVO 8.7100 G-EU3	EK EVO 9.8700 G-EU3	EK EVO 9.10400 G-EU3
Operating range		600 – 6070 kW	700 – 7700 kW	850 – 8530 kW	910 – 10500 kW
Gas pressure		70 – 500 mbar (70 – 360 mbar for d457)		80 – 500 mbar (80 – 360 mbar for d457)	
Gas connection		DN100	DN100	DN100	DN100
Control box / flame detector		BT300 / Ionisation	BT300 / Ionisation	BT300 / Ionisation	BT300 / Ionisation
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	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	3PE AC 400 V - 50 Hz
Fan motor		50 Hz - 11 kW	50 Hz - 15 kW	50 Hz - 18,5 kW	50 Hz - 22 kW
Acoustic level		<80,2 dB(A)	<82,3 dB(A)	<85,4 dB(A)	<86,1 dB(A)
CE certificate		0085CL0215	0085CL0215	0085CL0215	0085CL0215
Burner codes (body + head)	**KN**	**3753969**	**3753970**	**3753971**	**3753972**
	KM	**3753978**	**3753979**	**3753980**	**3753981**
	KL	**3753986**	**3753987**	**3753988**	**3753989**

GAS TRAINS

DUNGS

Model	Code
GT-d457-2" (*)	3750515
GT-d458-65	3750516
GT-d459-80	3750517
GT-d460-100	3750518

*: integrated filter

SIEMENS

Model	Code
GT-s457-2"	3750537
GT-s458-65	3750538
GT-s459-80	3750539
GT-s460-100	3750540
GT-s461-125	3750541

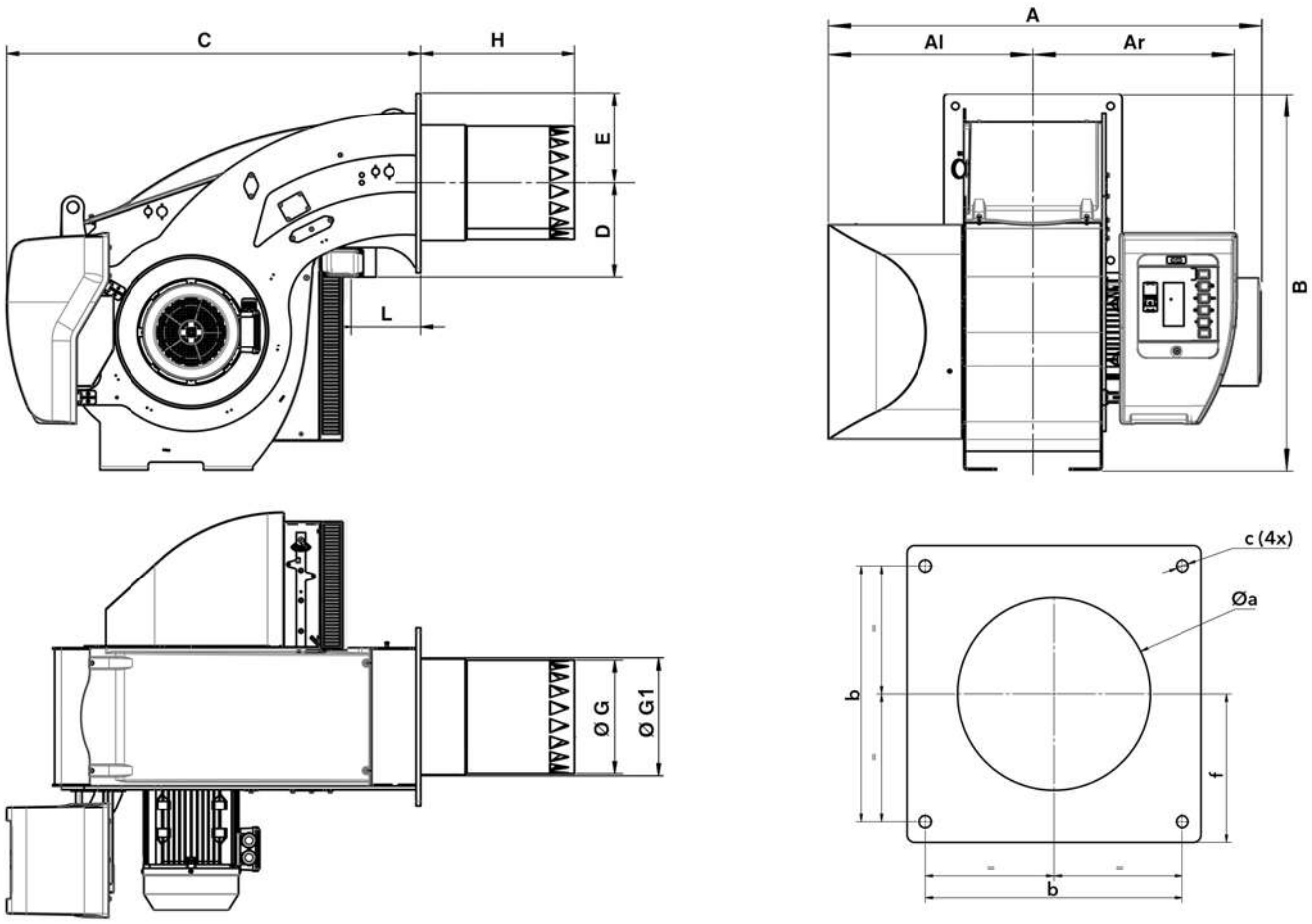
FILTERS

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

Pressure drops graphs: see following pages
Dimensions of gas trains and gas filters: see pag. 207

MDE2 | GEM | Variatron | LOW NOx CLASS 3 | FGR

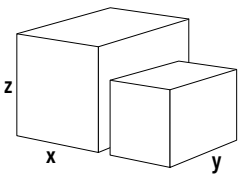
DIMENSIONS (mm)



Model	A	Al	Ar	B	C	D	E	ØG	ØG1	H			L	Øa	b	c	f
										KN	KM	KL					
EK EVO 8.5800	1323	670	653	1231	1353	307	288	369	376	500	640	780	230	390-410	505	M20	293
EK EVO 8.7100	1323	670	653	1231	1353	307	288	369	376	500	640	780	230	390-410	505	M20	293
EK EVO 9.8700	1334	670	653	1291	1350	332	293	432	439	550	700	850	230	460-480	505	M20	293
EK EVO 9.10400	1401	670	653	1291	1350	332	293	432	439	550	700	850	230	460-480	505	M20	293

PACKAGING

The burner is delivered on a pallet in 2 packages containing:
- burner body with mounted combustion head, boiler fixing accessories and technical documentation;
- gas train and filter.

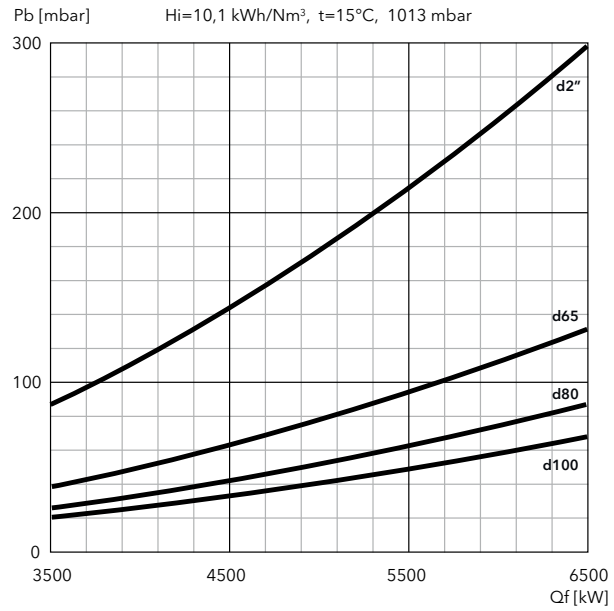


Models		Dimensions (mm)			Gross weight (kg)
		X	Y	Z	
EK EVO 8.5800 G-EU3	**KN**	2300	1500	1396	481
	KM	2300	1500	1396	487
	KL	2300	1500	1396	498
EK EVO 8.7100 G-EU3	**KN**	2300	1500	1396	497
	KM	2300	1500	1396	503
	KL	2300	1500	1396	514
EK EVO 9.8700 G-EU3	**KN**	2300	1500	1461	524
	KM	2300	1500	1461	532
	KL	2300	1500	1461	539
EK EVO 9.10400 G-EU3	**KN**	2300	1500	1461	546
	KM	2300	1500	1461	553
	KL	2300	1500	1461	565

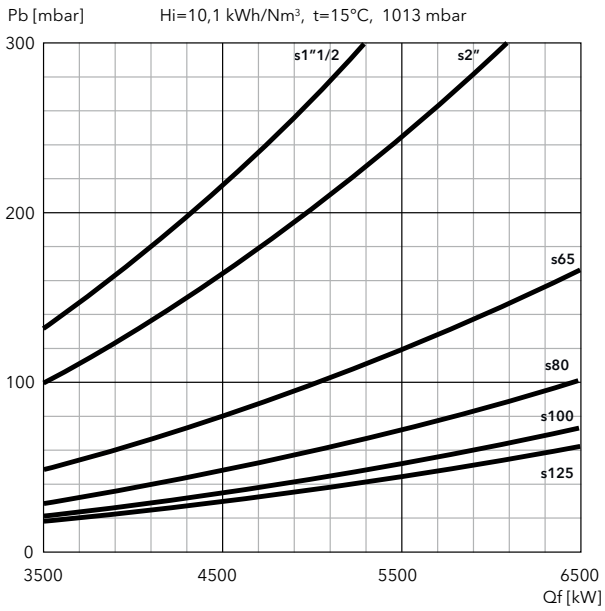
PRESSURE LOSSES (BURNER HEAD + GAS TRAIN)

EK EVO 8.5800 G-EU3

DUNGS

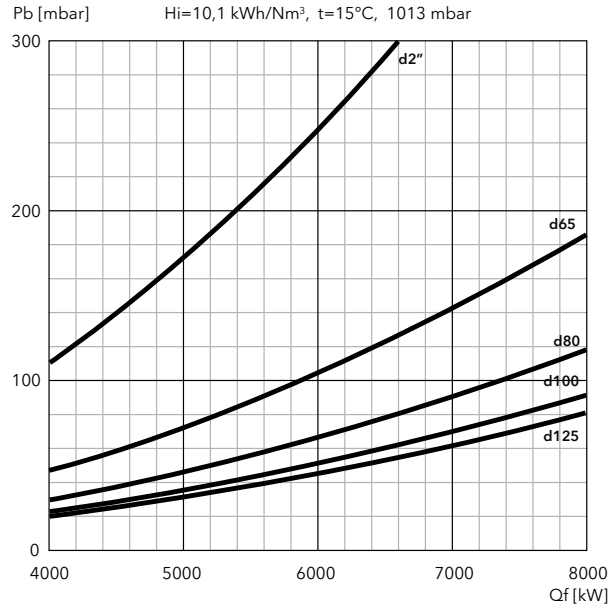


SIEMENS

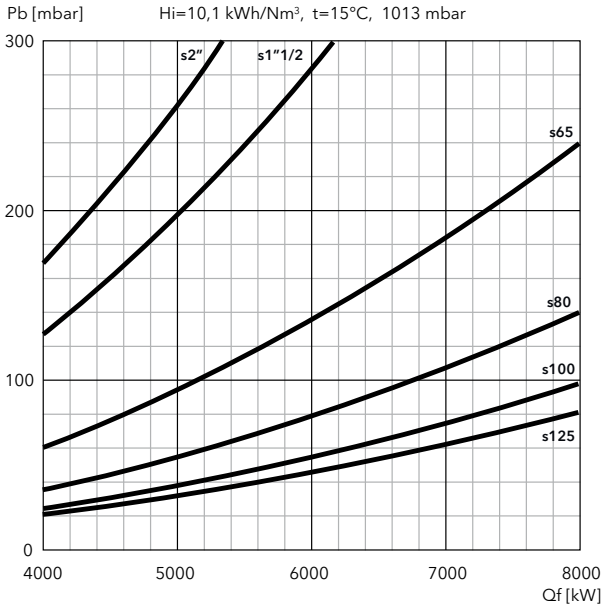


EK EVO 8.7100 G-EU3

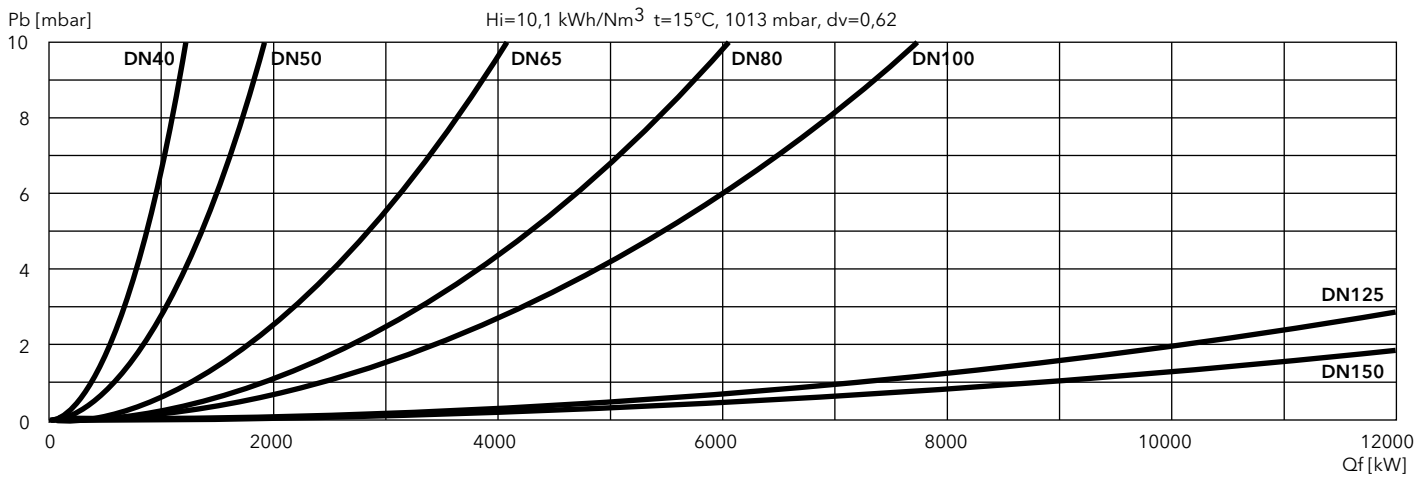
DUNGS



SIEMENS



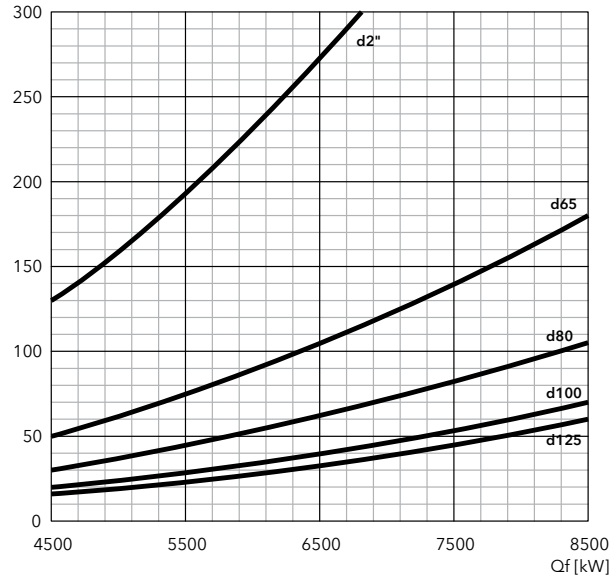
FILTERS



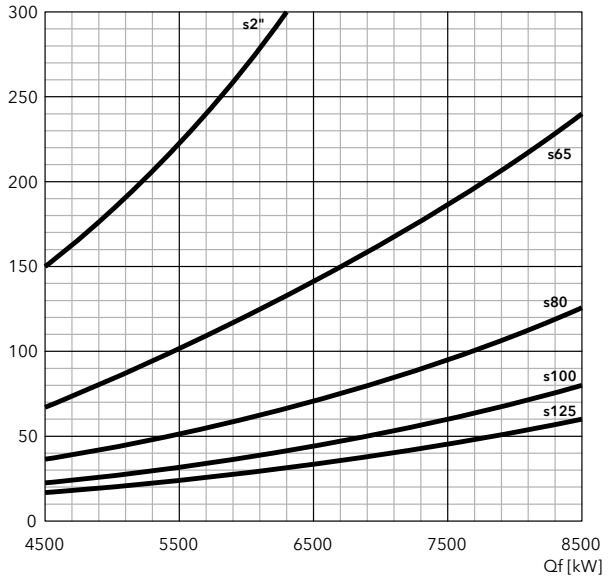
PRESSURE LOSSES (BURNER HEAD + GAS TRAIN)

EK EVO 9.8700 G-EU3

DUNGS

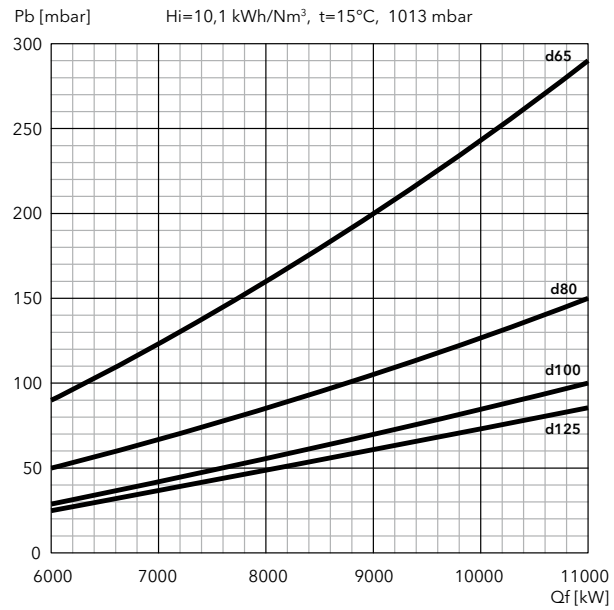


SIEMENS

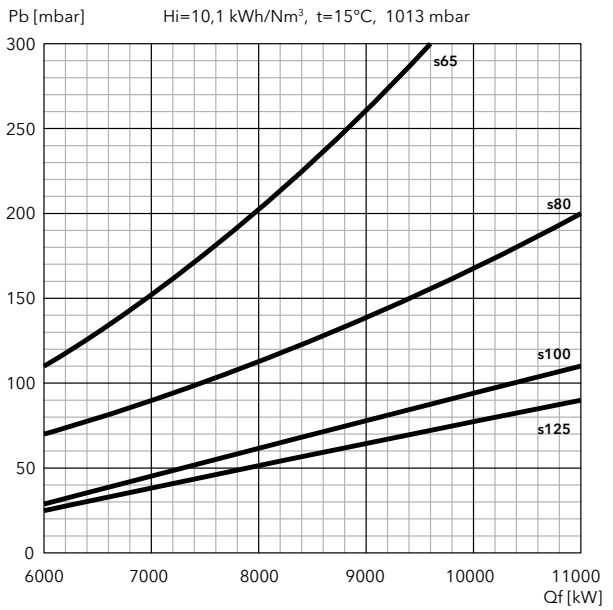


EK EVO 9.10400 G-EU3

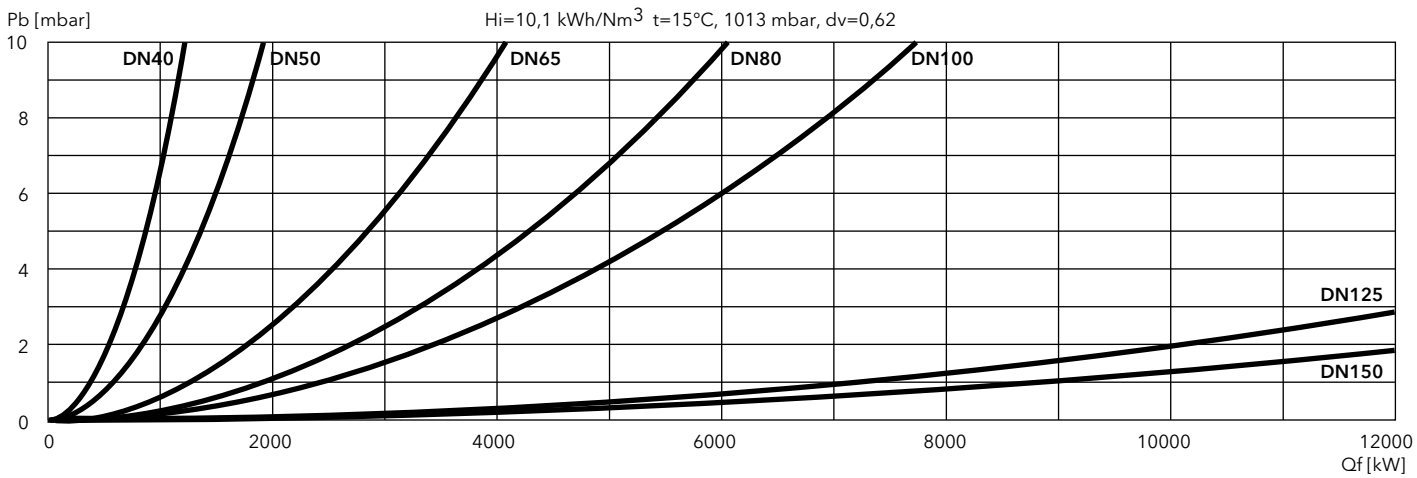
DUNGS



SIEMENS



FILTERS

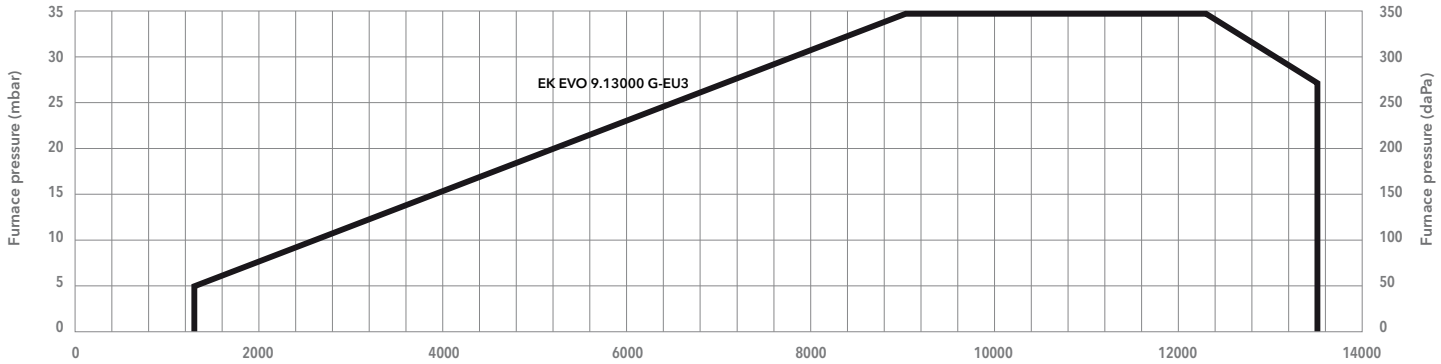


EK EVO 9 G-EU3

1350 ... 13500 kW
2 stage progressive/modulating electronic (Low NOx class 3)

- **Fuels:** natural gas, Hi = 6,99 … 11,39 kWh/Nm³;
  LPG, Hi = 25,89 kWh/Nm³
- **Emission class:** Low NOx class 3 (≤80 mg/kWh) according to EN676
  Version with FGR System (≤30 mg/kWh) available on request
- **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 9.13000 G-EU3
Operating range		1350 – 13500 kW
Gas pressure		130 – 500 mbar (130 – 360 mbar for d457)
Gas connection		DN100
Control box / flame detector		BT300 / KLC
Auxiliary voltage		1NPE AC 230 V - 50/60 Hz
Power supply		3PE AC 400 V - 50 Hz
Fan motor		50 Hz - 37 kW
Acoustic level		<93,5 dB(A)
CE certificate		0085CL0215
Burner codes (body + head)	KN	**3758162**
	KM	**3758163**
	KL	**3758164**

GAS TRAINS

DUNGS

Model	Code
GT-d459-80	3750517
GT-d460-100	3750518
GT-d4...-125	on request

SIEMENS

Model	Code
GT-s459-80	3750539
GT-s460-100	3750540
GT-s461-125	3750541
GT-s4...-150	on request

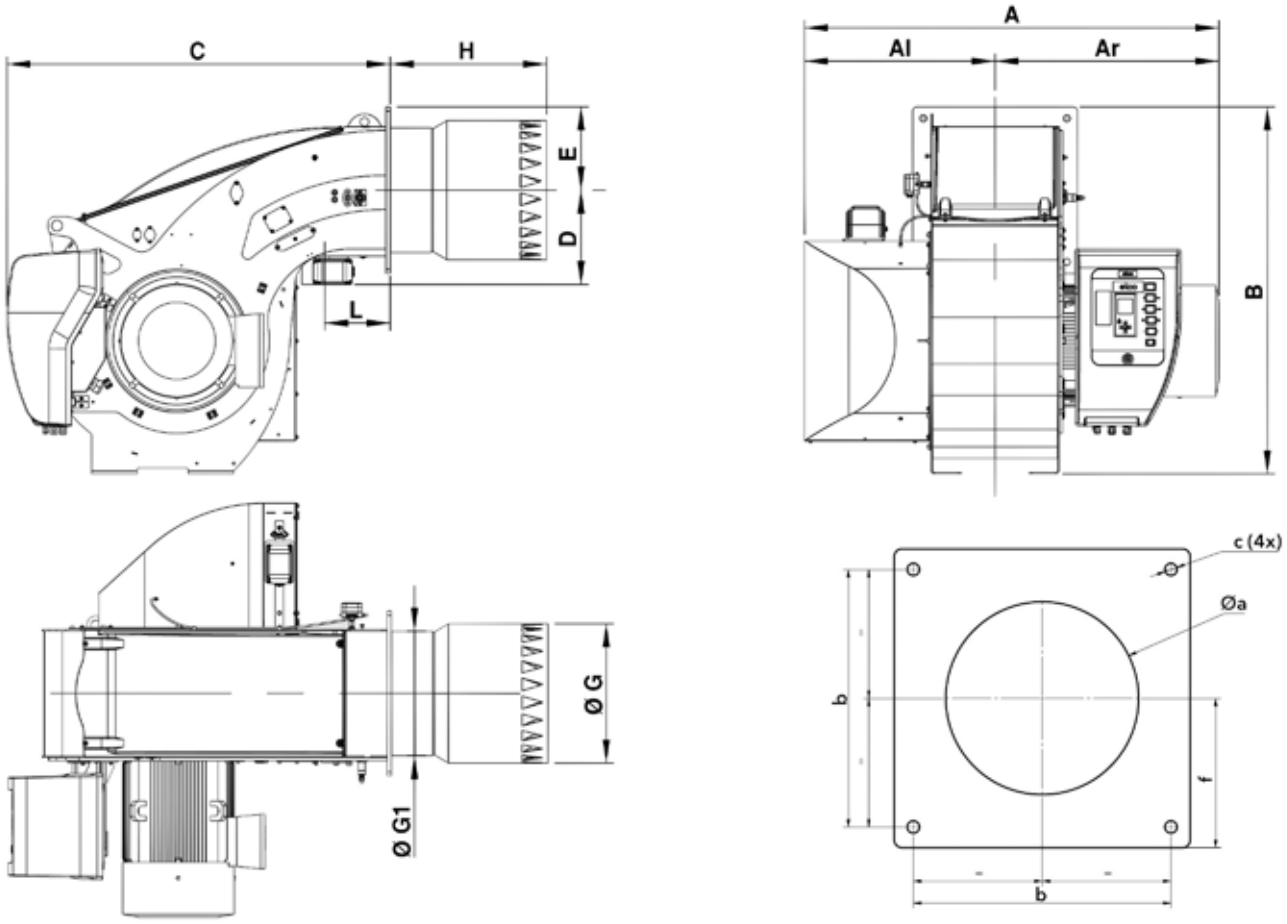
FILTERS

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

Pressure drops graphs: see following pages
Dimensions of gas trains and gas filters: see pag. 207

MDE2 | GEM | Variatron | LOW NOx CLASS 3 | FGR

DIMENSIONS (mm)

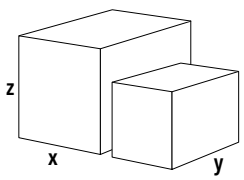


Model	A	Al	Ar	B	C	D	E	ØG	ØG1	H			L
										KN	KM	KL	
EK EVO 9.13000	1457	670	788	1291	1350	332	293	490	439	550	700	850	230

Øa	b	c	f
510-520	505	M20	293

PACKAGING

The burner is delivered on a pallet in 2 packages containing:
- burner body with mounted combustion head, boiler fixing accessories and technical documentation;
- gas train and filter.

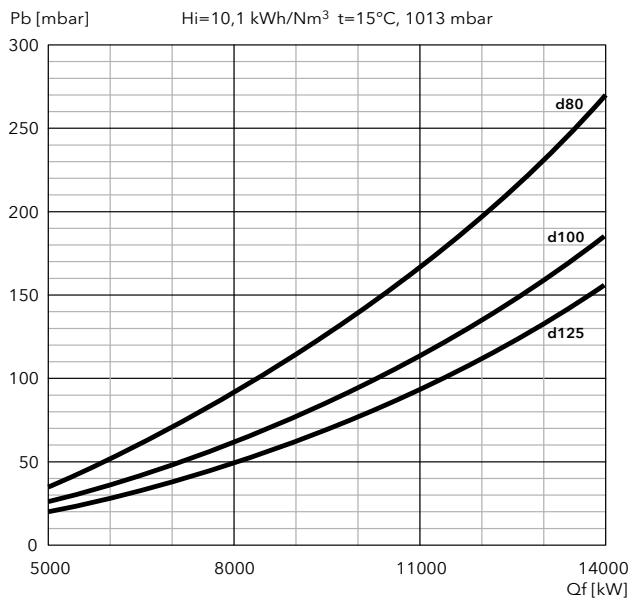


Models		Dimensions (mm)			Gross weight (kg)
		X	Y	Z	
EK EVO 9.13000 G-EU3	KN	2300	1500	1461	546
	KM	2300	1500	1461	553
	KL	2300	1500	1461	565

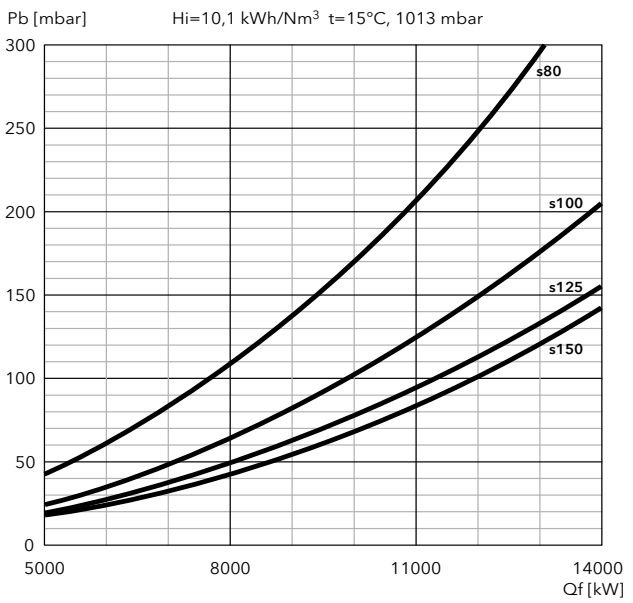
PRESSURE LOSSES (BURNER HEAD + GAS TRAIN)

EK EVO 9.13000 G-EU3

DUNGS

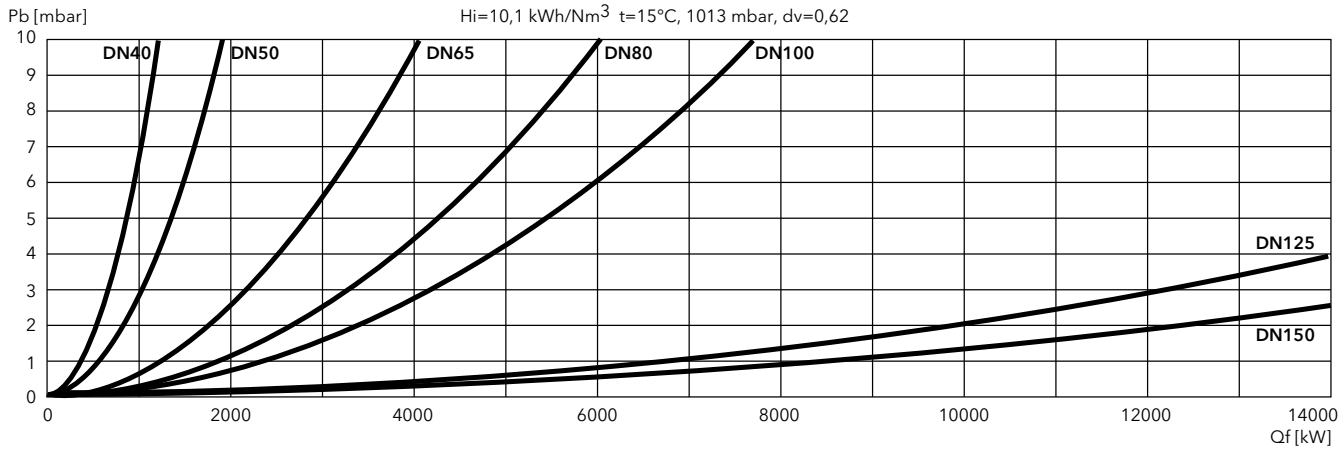


SIEMENS



PRESSURE LOSSES (BURNER HEAD + GAS TRAIN)

FILTERS

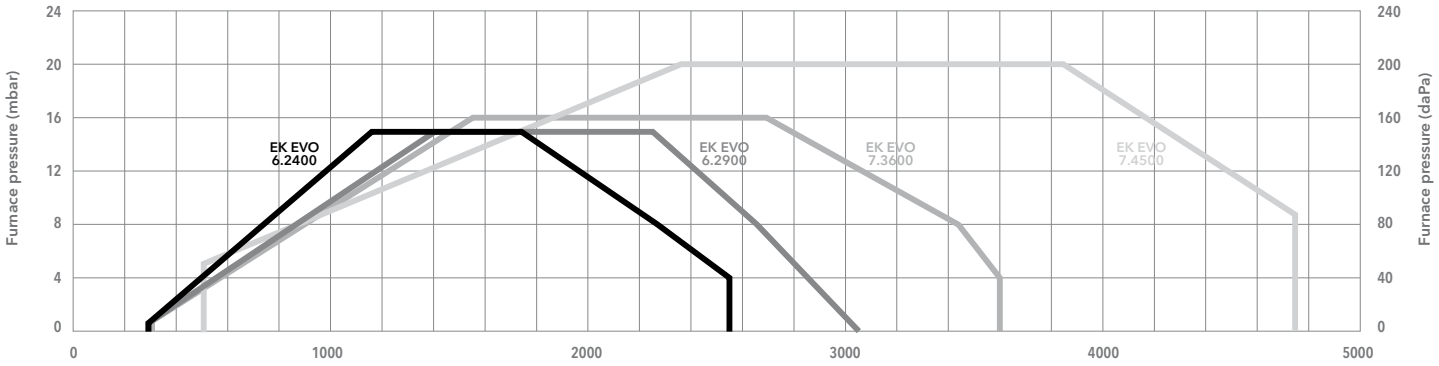


EK EVO 6 GL-EZ3, EK EVO 7 GL-EZ3

290 ... 4740 kW
2 stage progressive/modulating electronic in gas / 3 stages in light oil

- **Fuels:** natural gas, Hi = 6,99 … 11,39 kWh/Nm³;
  light oil, viscosity 6 mm²/s at 20°C, Hi = 11,86 kWh/kg
- **Emission class:** Low NOx class 2 (≤120 mg/kWh) according to EN676 in gas
  Low NOx class 2 (≤185 mg/kWh) according to EN267 in light oil
- **Protection level:** IP 41

TECHNICAL DATA



Test conditions conforming to EN676 and EN267 - Temperature: 20°C - Pressure: 1013,5 mbar - Altitude: 0 m a.s.l.

		EK EVO 6.2400 GL-EZ3	EK EVO 6.2900 GL-EZ3	EK EVO 7.3600 GL-EZ3	EK EVO 7.4500 GL-EZ3
Operating range gas		290 - 2550 kW	290 - 3050 kW	300 - 3600 kW	510 - 4740 kW
Operating range oil		730 - 2470 kW	730 - 2790 kW	1090 - 3600 kW	1300 - 4740 kW
Gas pressure		50 – 500 mbar (50 – 360 mbar for d452 and d453)		50 – 500 mbar (50 – 360 mbar for d452 and d453)	
Gas connection		DN65	DN65	DN65	DN65
Control box / flame detector		BT300 / QRA2	BT300 / QRA2	BT300 / QRA2	BT300 / QRA2
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	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	3PE AC 400 V - 50 Hz
Fan motor		50 Hz - 3 kW	50 Hz - 4 kW	50 Hz - 5,5 kW	50 Hz - 7,5 kW
Acoustic level		<75 dB(A)	<77 dB(A)	<81 dB(A)	<82,5 dB(A)
CE certificate		0085CL0215	0085CL0215	0085CL0215	0085CL0215
Burner codes (body + head)	KN	**3754106**	**3754107**	**3754108**	**3754109**
	KM	**3754110**	**3754111**	**3754112**	**3754113**
	KL	**3754114**	**3754115**	**3754116**	**3754117**

GAS TRAINS

DUNGS

Model	Code
GT-d452-1"1/2 (*)	3750510
GT-d453-2" (*)	3750511
GT-d454-65	3750512
GT-d455-80	3750513
GT-d456-100	3750514

*: integrated filter

SIEMENS

Model	Code
GT-s451-1"1/2	3750525
GT-s452-2"	3750526
GT-s453-65	3750527
GT-s454-80	3750528
GT-s455-100	3750529
GT-s456-125	3750530

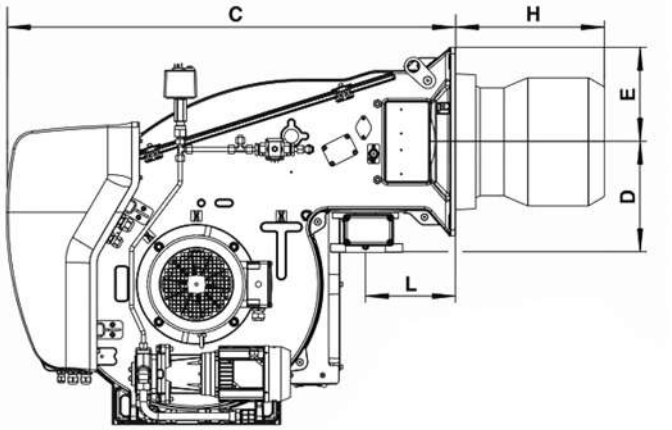
FILTERS

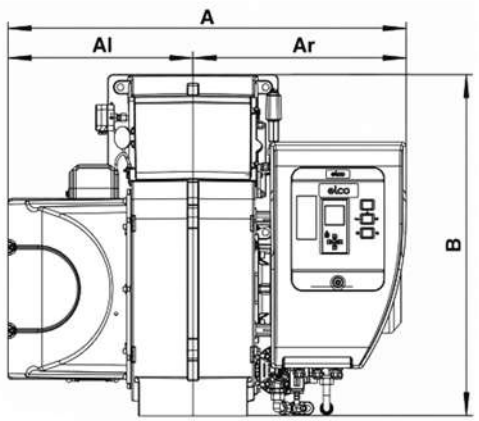
Model	Code
FG-Rp1"1/2	3757199
FG-Rp2"	3757200
FG-DN65	3757198
FG-DN80	3757201
FG-DN100	3757195
FG-DN125	3757209

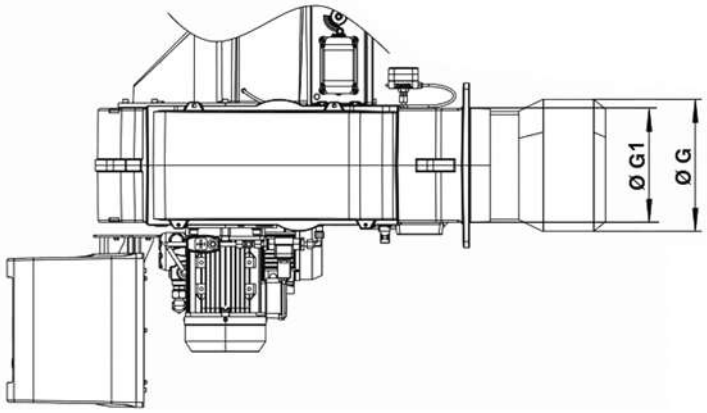
Pressure drops graphs: see following pages
Dimensions of gas trains and gas filters: see pag. 206

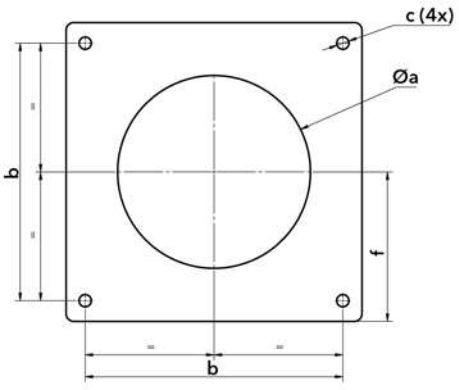
MDE2 GEM Variatron

DIMENSIONS (mm)







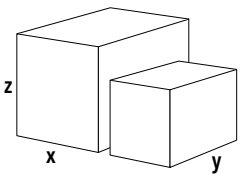


Model	A	Al	Ar	B	C	D	E	ØG	ØG1	H			L
										KN	KM	KL	
EK EVO 6.2400	1066	479	587	812	1050	245	200	320	262,5	330	450	570	215
EK EVO 6.2900	1066	479	587	812	1050	245	200	320	262,5	330	450	570	215
EK EVO 7.3600	1097	510	587	942	1130	276	235	320	270	375	505	635	225
EK EVO 7.4500	1097	510	587	942	1130	276	235	370	308	375	505	635	225

Øa	b	c	f
330-340	340	M16	200
330-340	340	M16	200
390-400	400	M16	235
390-400	400	M16	235

PACKAGING

The burner is delivered on a pallet in 2 packages containing:
- burner body with mounted combustion head, boiler fixing accessories and technical documentation;
- gas train and filter.

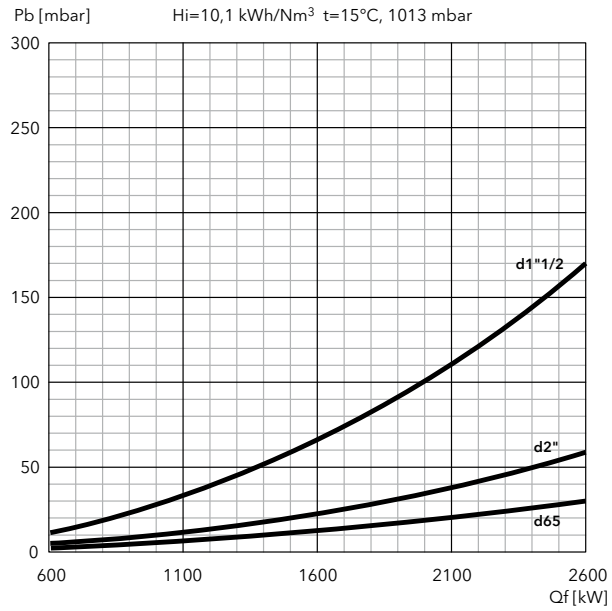


Models		Dimensions (mm)			Gross weight (kg)
		X	Y	Z	
EK EVO 6.2400 GL-EZ3	**KN**	2070	1420	990	188
	KM	2070	1420	990	190
	KL	2070	1420	990	192
EK EVO 6.2900 GL-EZ3	**KN**	2070	1420	990	194
	KM	2070	1420	990	196
	KL	2070	1420	990	198
EK EVO 7.3600 GL-EZ3	**KN**	2070	1420	1130	237
	KM	2070	1420	1130	239
	KL	2070	1420	1130	241
EK EVO 7.4500 GL-EZ3	**KN**	2070	1420	1130	243
	KM	2070	1420	1130	245
	KL	2070	1420	1130	247

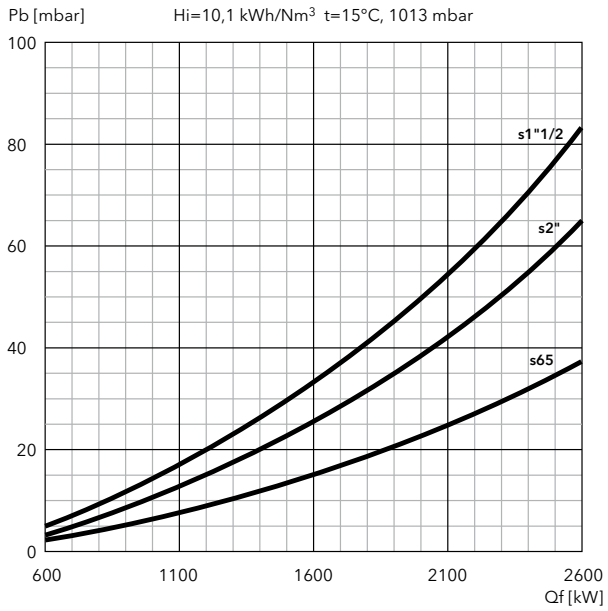
PRESSURE LOSSES (BURNER HEAD + GAS TRAIN)

EK EVO 6.2400 GL-EZ3

DUNGS

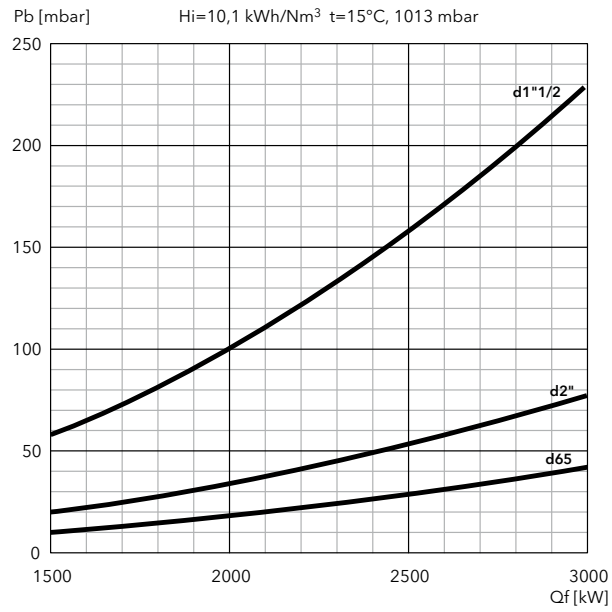


SIEMENS

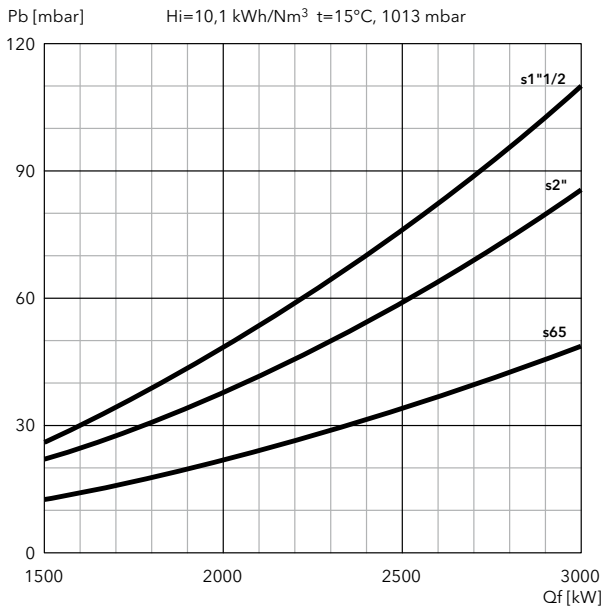


EK EVO 6.2900 GL-EZ3

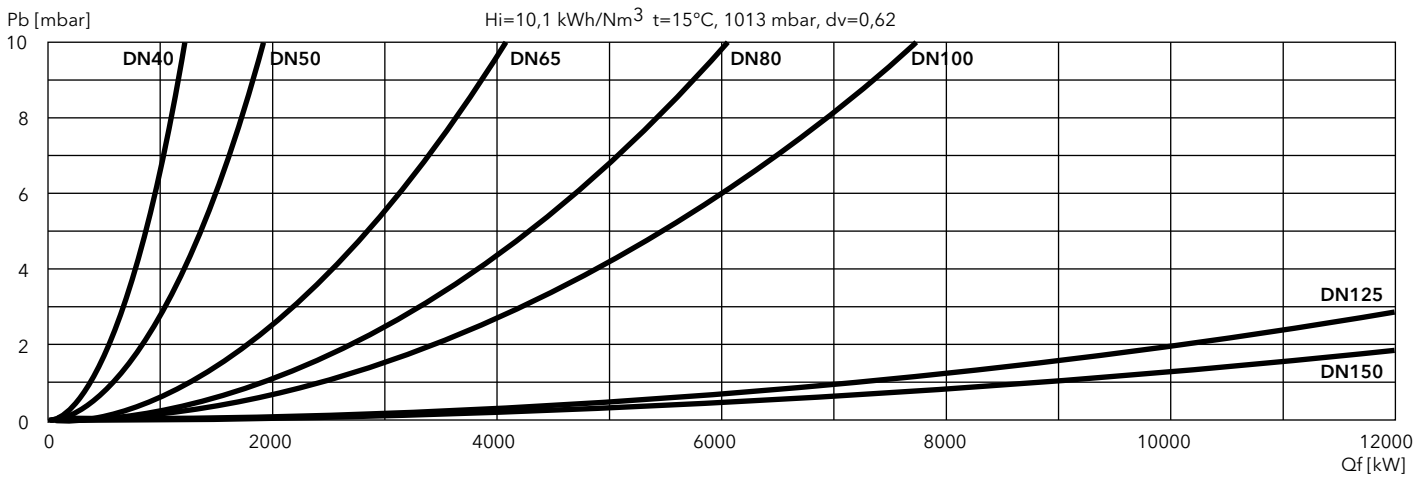
DUNGS



SIEMENS



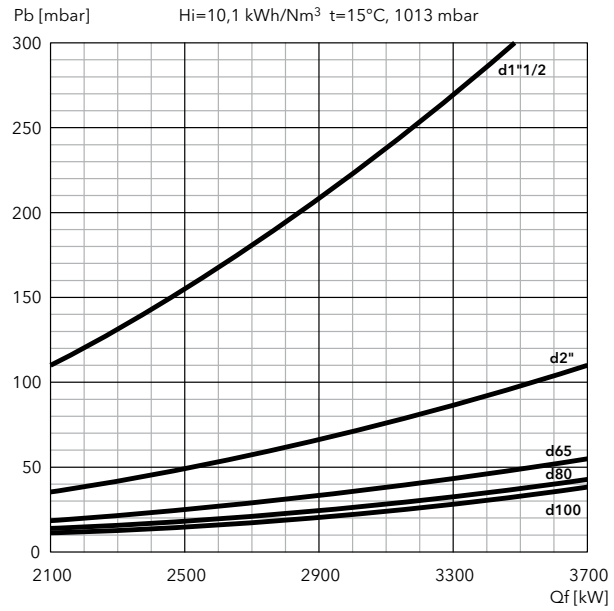
FILTERS



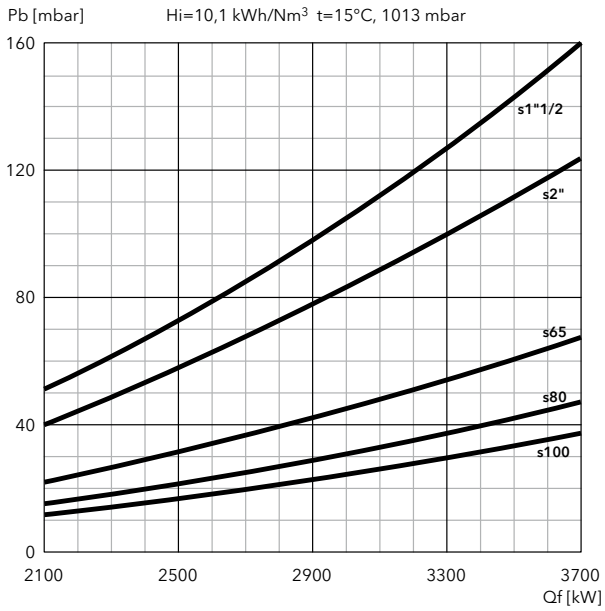
PRESSURE LOSSES (BURNER HEAD + GAS TRAIN)

EK EVO 7.3600 GL-EZ3

DUNGS

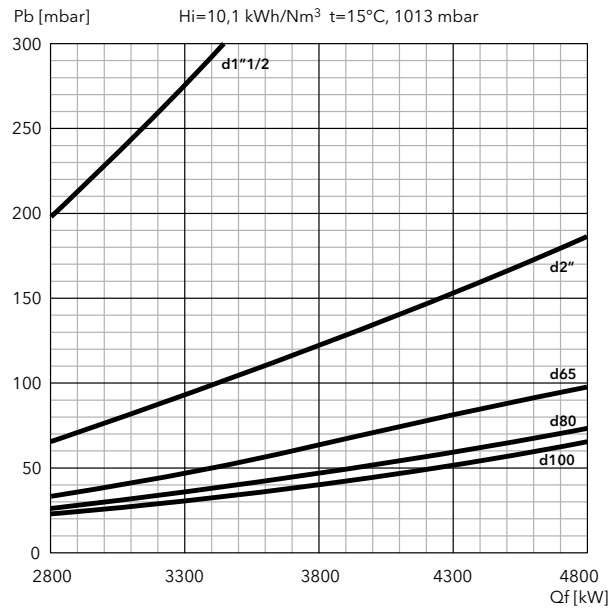


SIEMENS

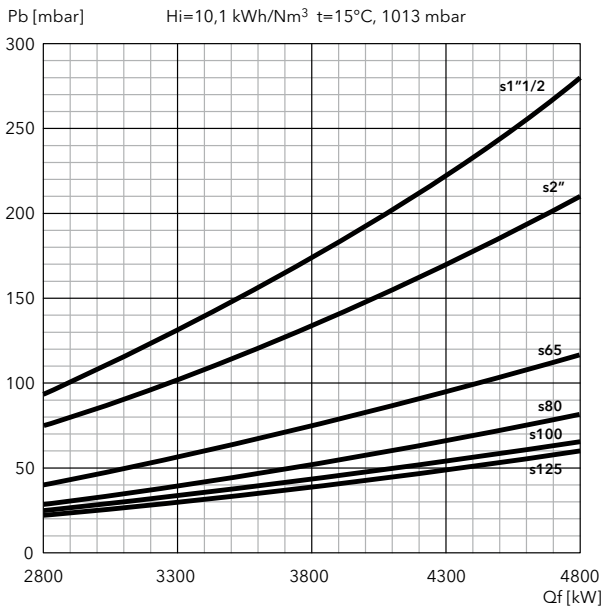


EK EVO 7.4500 GL-EZ3

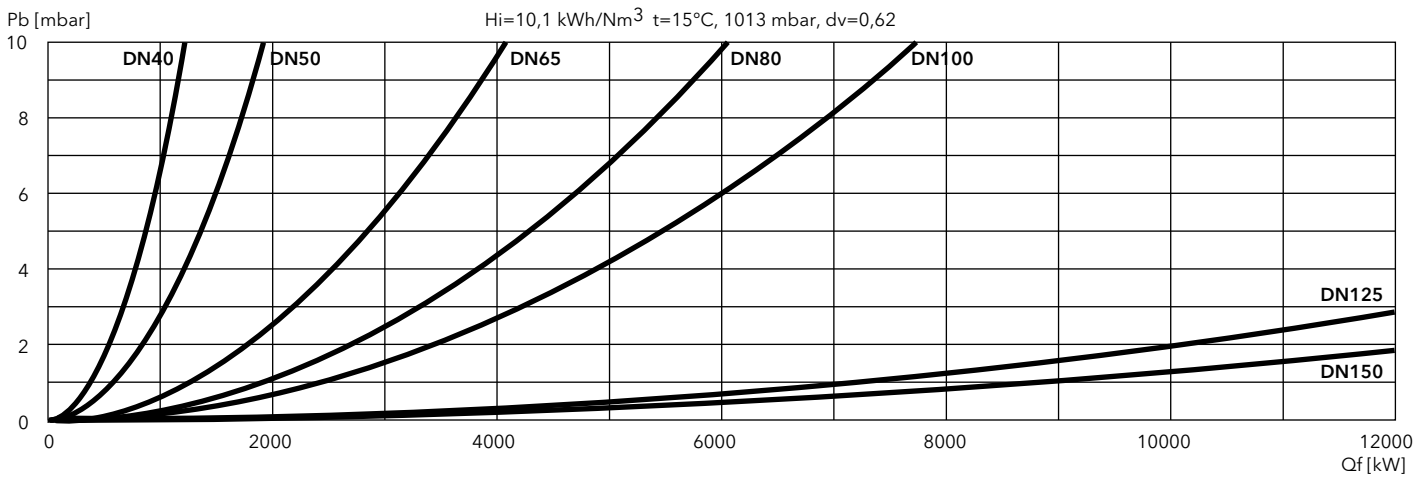
DUNGS



SIEMENS



FILTERS

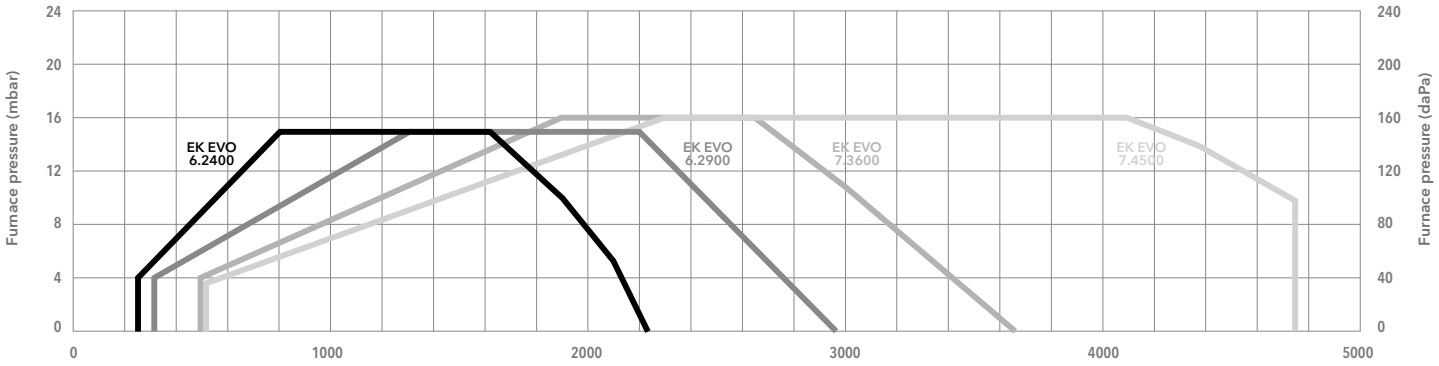


EK EVO 6 GL-E, EK EVO 7 GL-E

250 ... 4740 kW
2 stage progressive/modulating electronic in gas and in light oil

- **Fuels:** natural gas, Hi = 6,99 … 11,39 kWh/Nm³;
  light oil, viscosity 6 mm²/s at 20°C, Hi = 11,86 kWh/kg
- **Emission class:** Low NOx class 2 (≤120 mg/kWh) according to EN676 in gas
  Low NOx class 2 (≤185 mg/kWh) according to EN267 in light oil
- **Protection level:** IP 41

TECHNICAL DATA



Test conditions conforming to EN676 and EN267 - Temperature: 20°C - Pressure: 1013,5 mbar - Altitude: 0 m a.s.l.

		EK EVO 6.2400 GL-E	EK EVO 6.2900 GL-E	EK EVO 7.3600 GL-E	EK EVO 7.4500 GL-E
Operating range gas		250 - 2230 kW	320 - 2970 kW	490 - 3650 kW	510 - 4740 kW
Operating range oil		510 - 2030 kW	650 - 2970 kW	900 - 3650 kW	1300 - 4740 kW
Gas pressure		50 – 500 mbar (50 – 360 mbar for d452 and d453)		50 – 500 mbar (50 – 360 mbar for d452 and d453)	
Gas connection		DN65	DN65	DN65	DN65
Control box / flame detector		BT300 / QRA2	BT300 / QRA2	BT300 / QRA2	BT300 / QRA2
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	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	3PE AC 400 V - 50 Hz
Fan motor		50 Hz - 3 kW	50 Hz - 4 kW	50 Hz - 5,5 kW	50 Hz - 7,5 kW
Acoustic level		<77 dB(A)	<77 dB(A)	<81 dB(A)	<82,5 dB(A)
CE certificate		0085CL0215	0085CL0215	0085CL0215	0085CL0215
Burner codes (body + head)	KN	**3754276**	**3754277**	**3754278**	**3754279**
	KM	**3754280**	**3754281**	**3754282**	**3754283**
	KL	**3754284**	**3754285**	**3754286**	**3754287**

GAS TRAINS

DUNGS

Model	Code
GT-d452-1"1/2 (*)	3750510
GT-d453-2" (*)	3750511
GT-d454-65	3750512
GT-d455-80	3750513
GT-d456-100	3750514

*: integrated filter

SIEMENS

Model	Code
GT-s451-1"1/2	3750525
GT-s452-2"	3750526
GT-s453-65	3750527
GT-s454-80	3750528
GT-s455-100	3750529
GT-s456-125	3750530

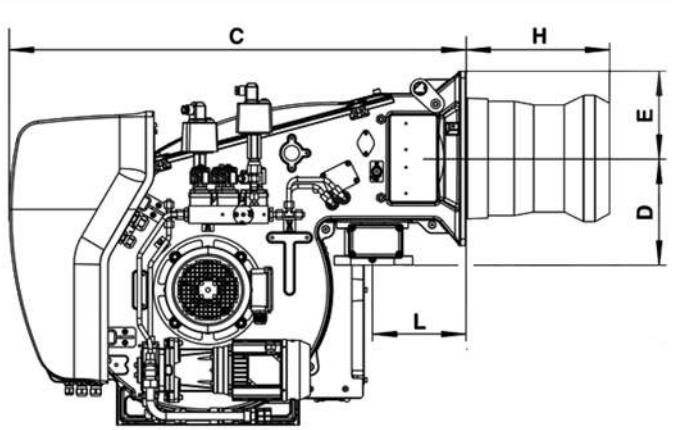
FILTERS

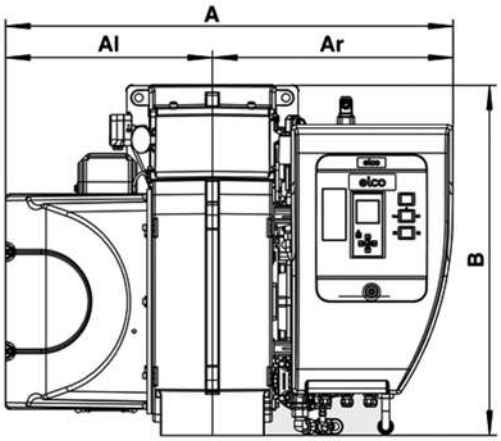
Model	Code
FG-Rp1"1/2	3757199
FG-Rp2"	3757200
FG-DN65	3757198
FG-DN80	3757201
FG-DN100	3757195
FG-DN125	3757209

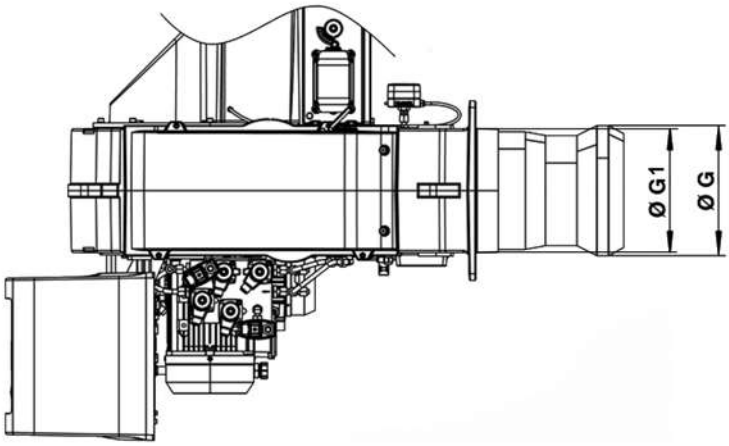
Pressure drops graphs: see following pages
Dimensions of gas trains and gas filters: see pag. 206

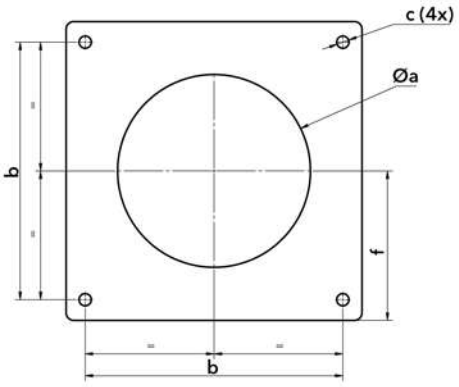
MDE2 GEM Variatron

DIMENSIONS (mm)







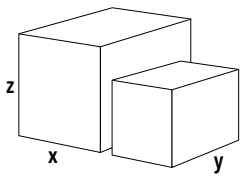


Model	A	Al	Ar	B	C	D	E	ØG	ØG1	H			L
										KN	KM	KL	
EK EVO 6.2400	1035	479	556	812	1048	245	200	290	262,5	330	450	570	215
EK EVO 6.2900	1035	479	556	812	1048	245	200	310	262,5	330	450	570	215
EK EVO 7.3600	1097	510	587	949	1122	275	235	340	281	375	505	635	225
EK EVO 7.4500	1097	510	587	949	1122	275	235	370	308	375	505	635	225

Øa	b	c	f
300-340	340	M16	200
320-340	340	M16	200
350-400	400	M16	235
380-400	400	M16	235

PACKAGING

The burner is delivered on a pallet in 2 packages containing:
- burner body with mounted combustion head, boiler fixing accessories and technical documentation;
- gas train and filter.

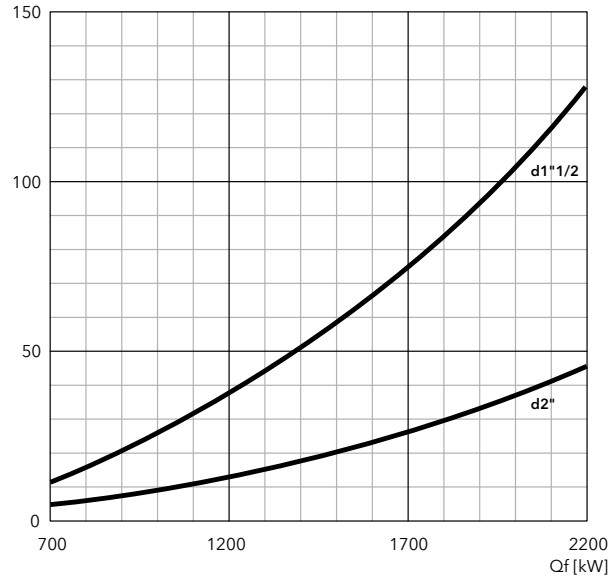


Models		Dimensions (mm)			Gross weight (kg)
		X	Y	Z	
EK EVO 6.2400 GL-E	**KN**	2070	1420	990	188
	KM	2070	1420	990	190
	KL	2070	1420	990	192
EK EVO 6.2900 GL-E	**KN**	2070	1420	990	194
	KM	2070	1420	990	196
	KL	2070	1420	990	198
EK EVO 7.3600 GL-E	**KN**	2070	1420	1130	237
	KM	2070	1420	1130	239
	KL	2070	1420	1130	241
EK EVO 7.4500 GL-E	**KN**	2070	1420	1130	243
	KM	2070	1420	1130	245
	KL	2070	1420	1130	247

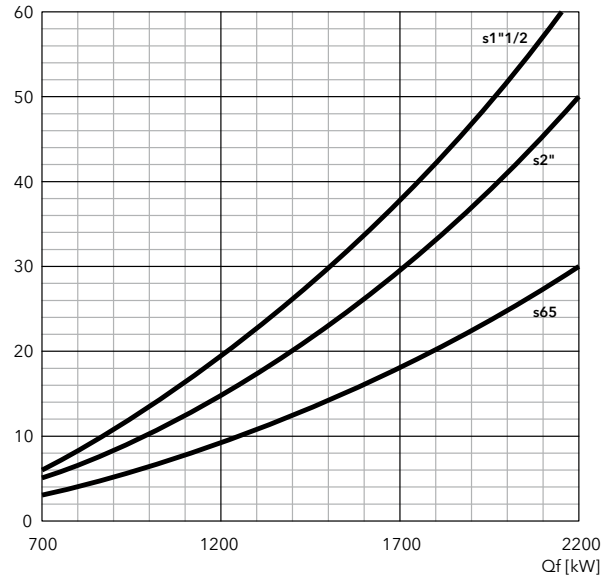
PRESSURE LOSSES (BURNER HEAD + GAS TRAIN)

EK EVO 6.2400 GL-E

DUNGS

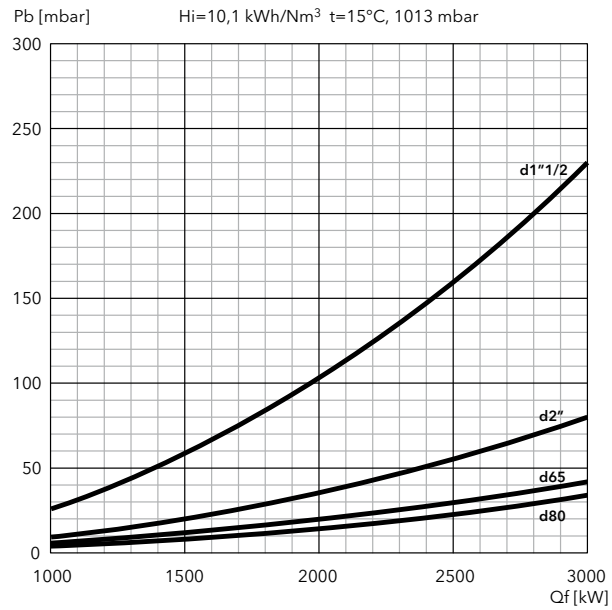


SIEMENS

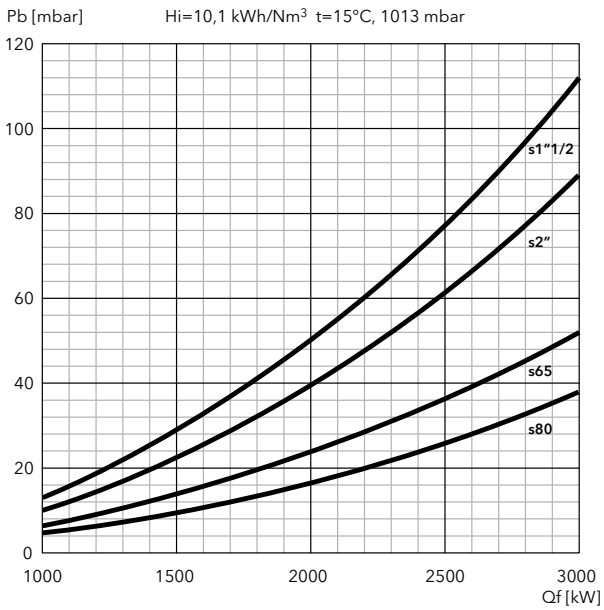


EK EVO 6.2900 GL-E

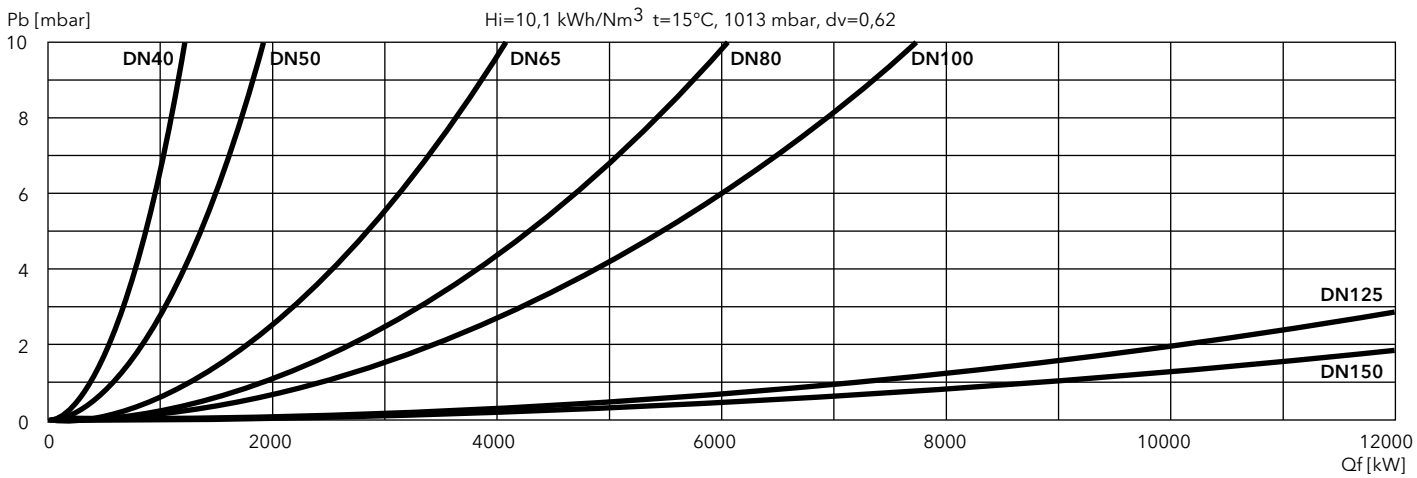
DUNGS



SIEMENS



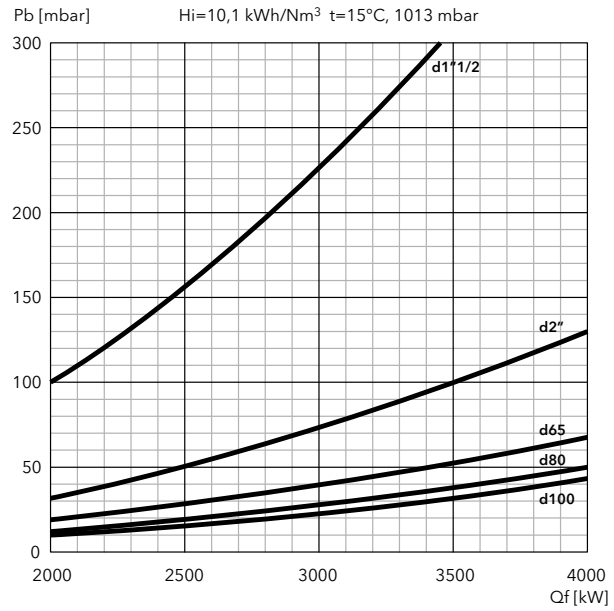
FILTERS



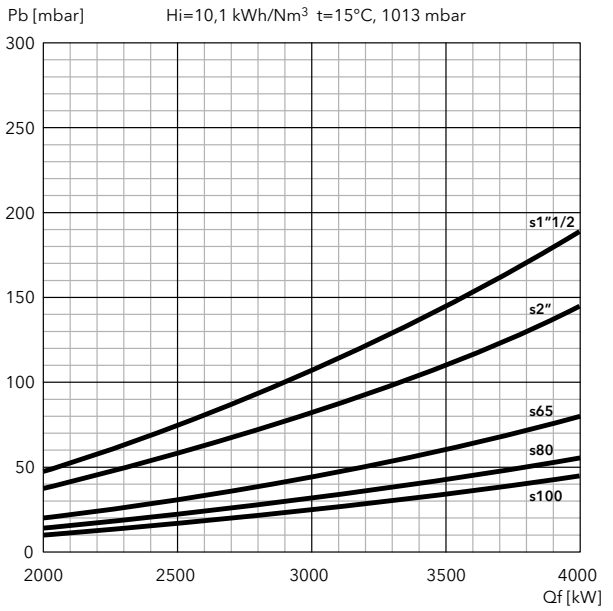
PRESSURE LOSSES (BURNER HEAD + GAS TRAIN)

EK EVO 7.3600 GL-E

DUNGS

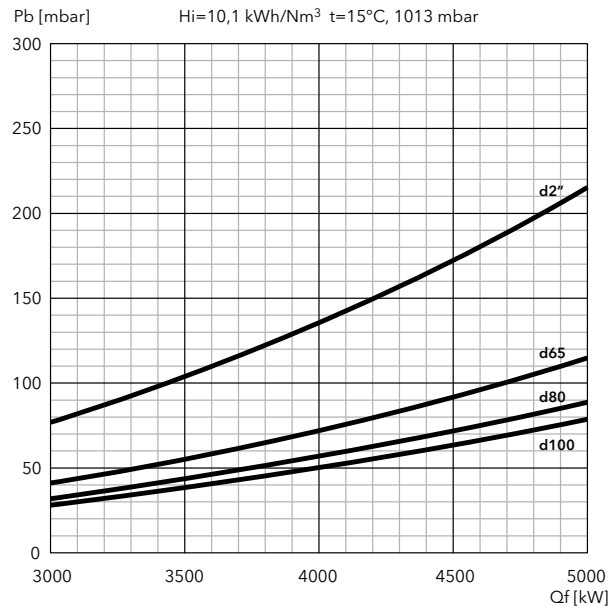


SIEMENS

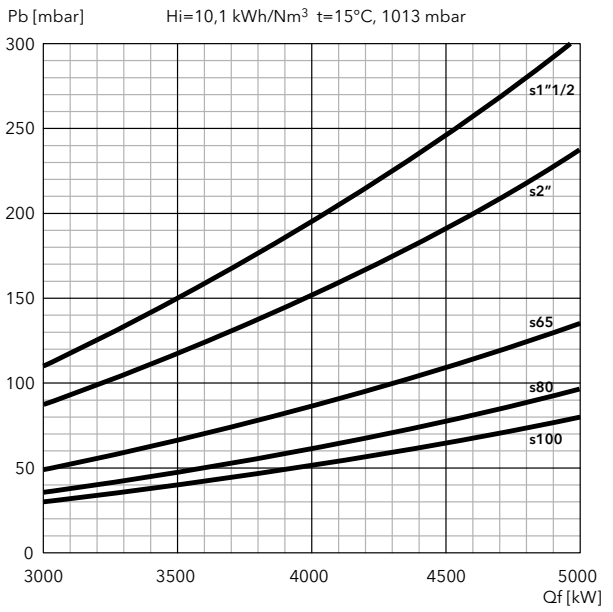


EK EVO 7.4500 GL-E

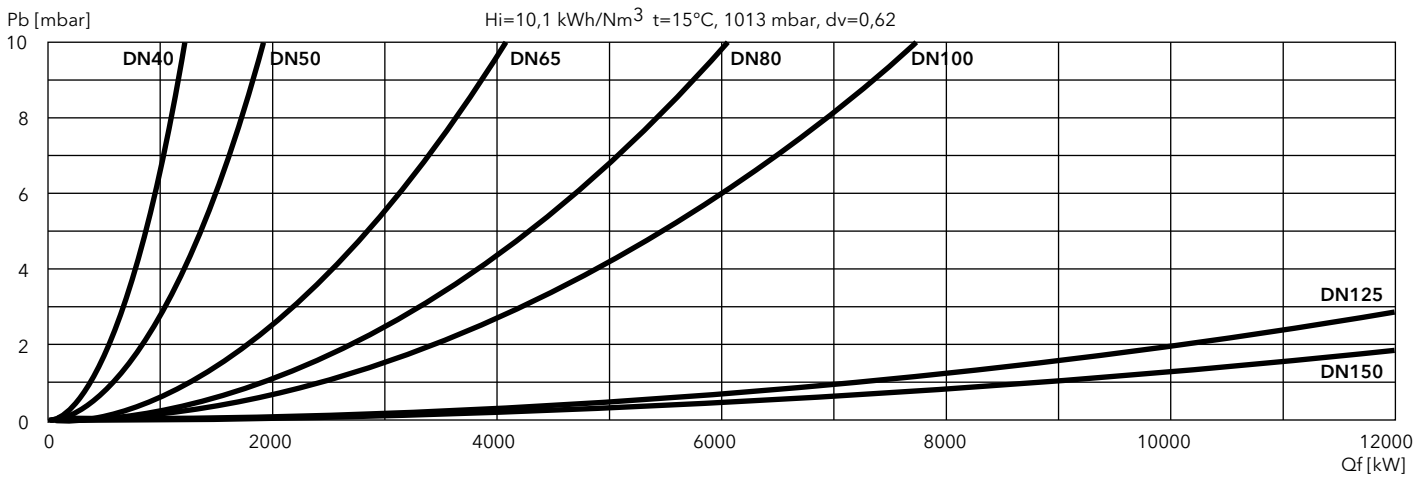
DUNGS



SIEMENS



FILTERS

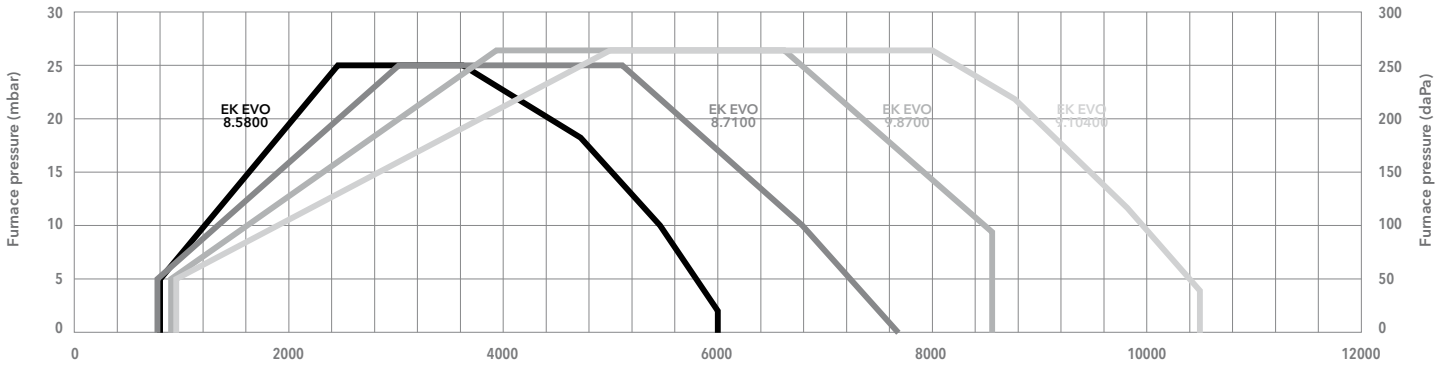


EK EVO 8 GL-E, EK EVO 9 GL-E

790 ... 10620 kW
2 stage progressive/modulating electronic in gas and in light oil

- **Fuels:** natural gas, Hi = 6,99 … 11,39 kWh/Nm³;
  light oil, viscosity 6 mm²/s at 20°C, Hi = 11,86 kWh/kg
- **Emission class:** Low NOx class 2 (≤120 mg/kWh) according to EN676 in gas
  Low NOx class 2 (≤185 mg/kWh) according to EN267 in light oil
- **Protection level:** IP 41

TECHNICAL DATA



Test conditions conforming to EN676 and EN267 - Temperature: 20°C - Pressure: 1013,5 mbar - Altitude: 0 m a.s.l.

		EK EVO 8.5800 GL-E	EK EVO 8.7100 GL-E	EK EVO 9.8700 GL-E	EK EVO 9.10400 GL-E
Operating range gas		800 - 6000 kW	790 - 7700 kW	880 - 8530 kW	910 - 10620 kW
Operating range oil		1210 - 6000 kW	1450 - 7700 kW	2400 - 8530 kW	2820 - 10620 kW
Gas pressure		100 – 500 mbar (100 – 360 mbar for d457)		100 – 500 mbar (100 – 360 mbar for d457)	
Gas connection		DN100	DN100	DN100	DN100
Control box / flame detector		BT300 / QRA2	BT300 / QRA2	BT300 / QRA2	BT300 / QRA2
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	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	3PE AC 400 V - 50 Hz
Fan motor		50 Hz - 11 kW	50 Hz - 15 kW	50 Hz - 18,5 kW	50 Hz - 22 kW
Acoustic level		<80,5 dB(A)	<82,6 dB(A)	<85,5 dB(A)	<86,2 dB(A)
CE certificate		0085CL0215	0085CL0215	0085CL0215	0085CL0215
Burner codes (body + head)	KN	**3754601**	**3754602**	**3754603**	**3754604**
	KM	**3754605**	**3754606**	**3754607**	**3754608**
	KL	**3754609**	**3754610**	**3754611**	**3754612**

GAS TRAINS

DUNGS

Model	Code
GT-d457-2" (*)	3750515
GT-d458-65	3750516
GT-d459-80	3750517
GT-d460-100	3750518

*: integrated filter

SIEMENS

Model	Code
GT-s457-2"	3750537
GT-s458-65	3750538
GT-s459-80	3750539
GT-s460-100	3750540
GT-s461-125	3750541

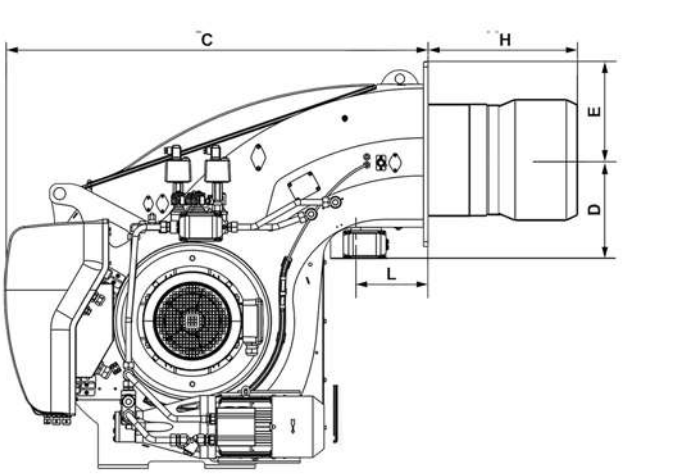
FILTERS

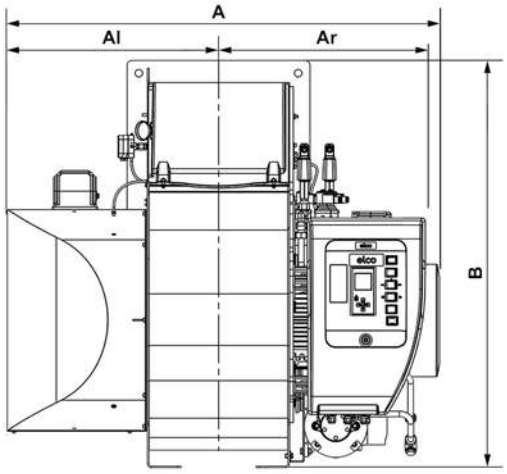
Model	Code
FG-Rp2"	3757200
FG-DN65	3757198
FG-DN80	3757201
FG-DN100	3757195
FG-DN125	3757209

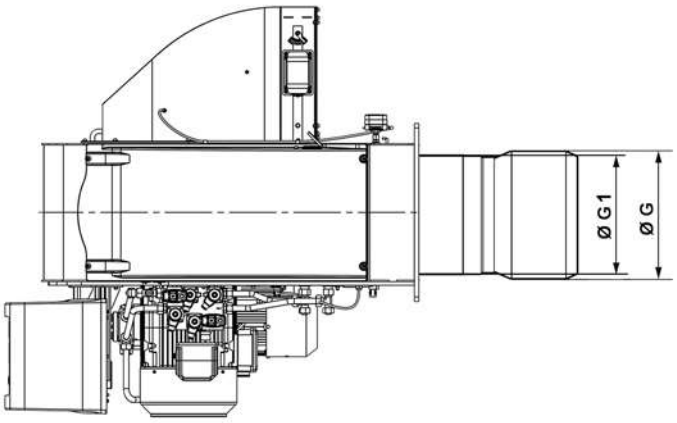
Pressure drops graphs: see following pages
Dimensions of gas trains and gas filters: see pag. 207

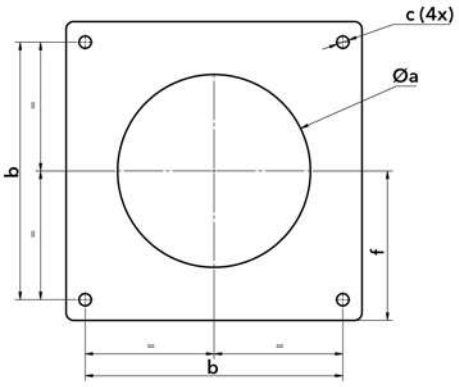
MDE2 GEM Variatron

DIMENSIONS (mm)







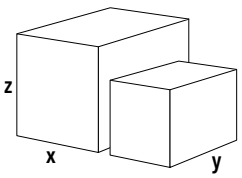


Model	A	Al	Ar	B	C	D	E	ØG	ØG1	H			L
										KN	KM	KL	
EK EVO 8.5800	1325	670	655	1231	1351	391	307	400	369	562	702	842	230
EK EVO 8.7100	1325	670	655	1231	1351	391	307	415	369	583	723	863	230
EK EVO 9.8700	1336	670	666	1291	1348	332	288	431,5	438,5	355	505	655	230
EK EVO 9.10400	1400	670	731	1291	1348	332	293	431,5	438,5	355	505	655	230

Øa	b	c	f
430-480	505	M20	293
445-480	505	M20	293
445-480	505	M20	293
445-480	505	M20	293

PACKAGING

The burner is delivered on a pallet in 2 packages containing:
- burner body with mounted combustion head, boiler fixing accessories and technical documentation;
- gas train and filter.

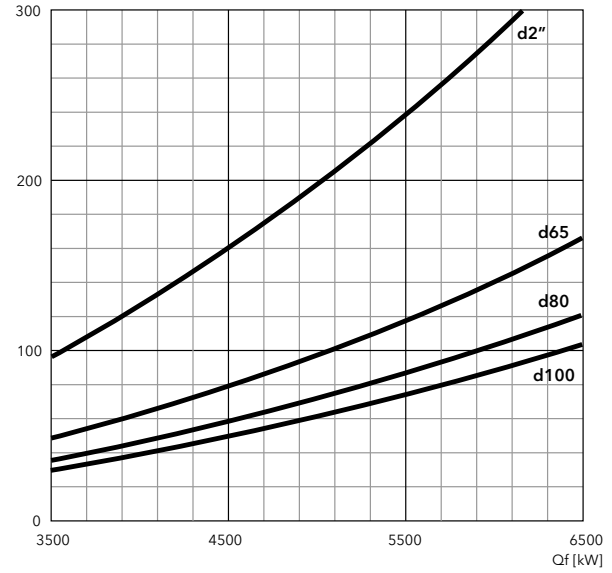


Models		Dimensions (mm)			Gross weight (kg)
		X	Y	Z	
EKEVO 8.5800 GL-E	**KN**	2300	1500	1396	615
	KM	2300	1500	1396	621
	KL	2300	1500	1396	632
EKEVO 8.7100 GL-E	**KN**	2300	1500	1396	631
	KM	2300	1500	1396	637
	KL	2300	1500	1396	648
EKEVO 9.8700 GL-E	**KN**	2300	1500	1396	658
	KM	2300	1500	1396	666
	KL	2300	1500	1396	673
EKEVO 9.10400 GL-E	**KN**	2300	1500	1461	680
	KM	2300	1500	1461	687
	KL	2300	1500	1461	699

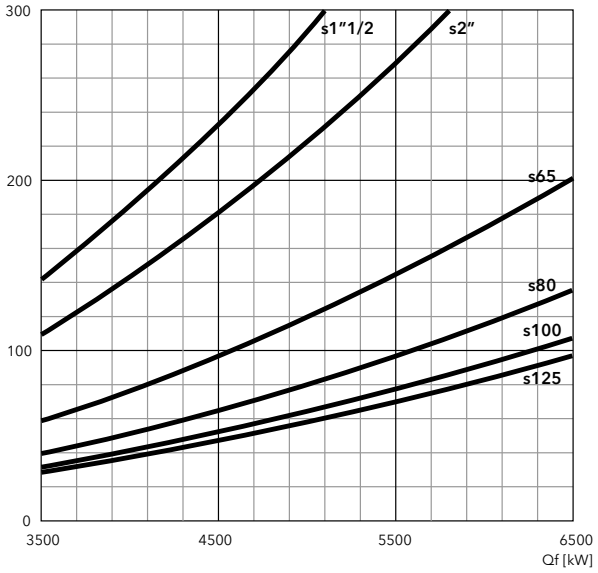
PRESSURE LOSSES (BURNER HEAD + GAS TRAIN)

EK EVO 8.5800 GL-E

DUNGS

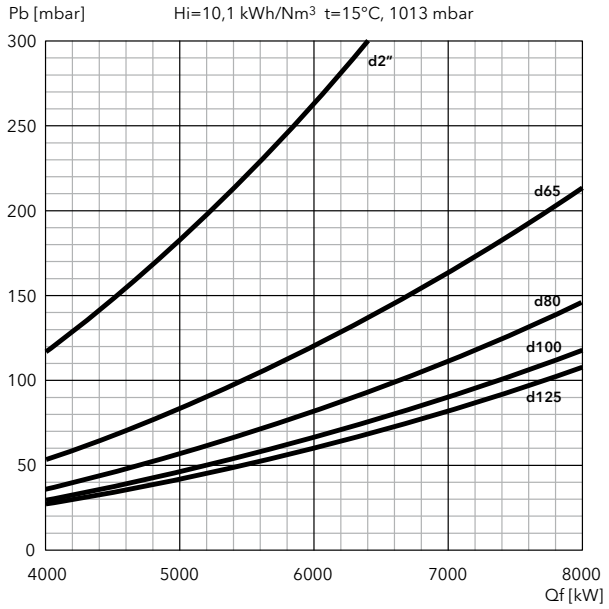


SIEMENS

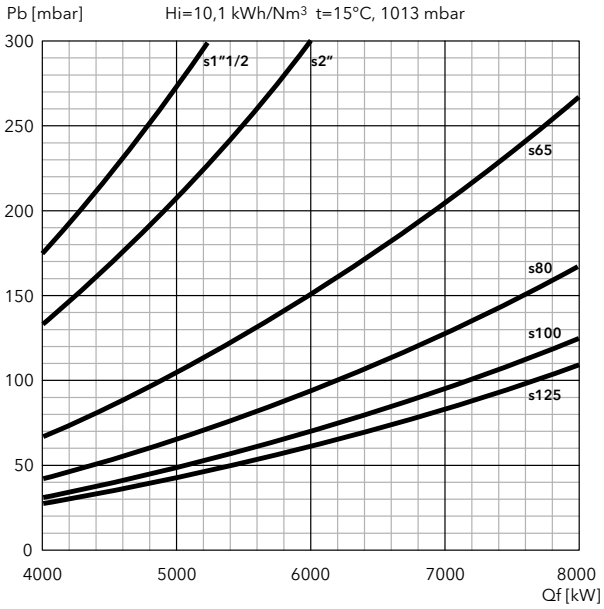


EK EVO 8.7100 GL-E

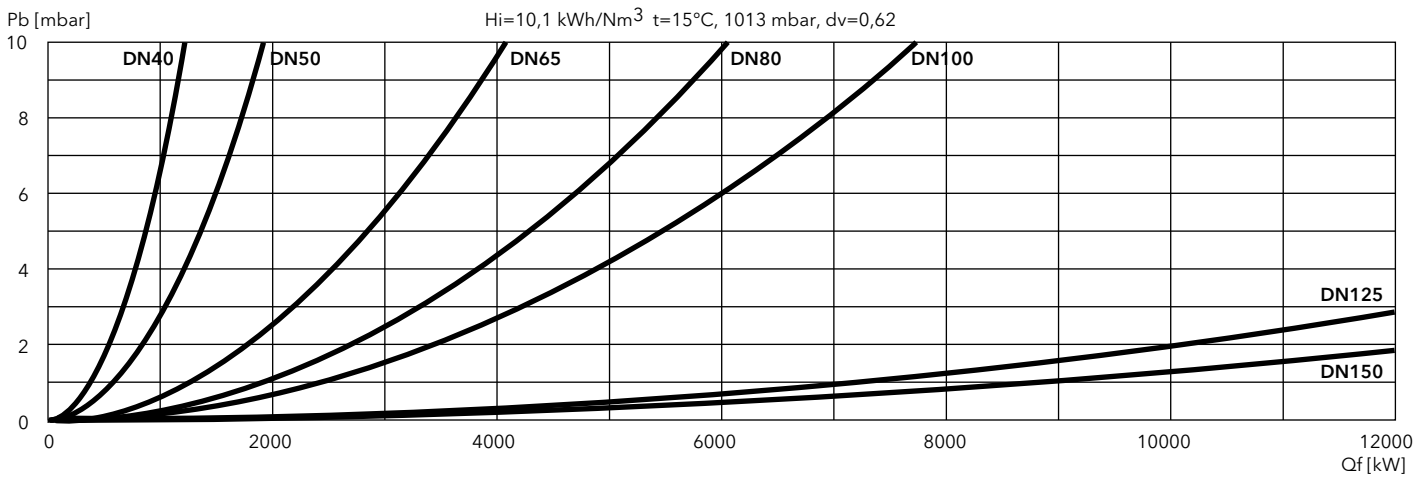
DUNGS



SIEMENS



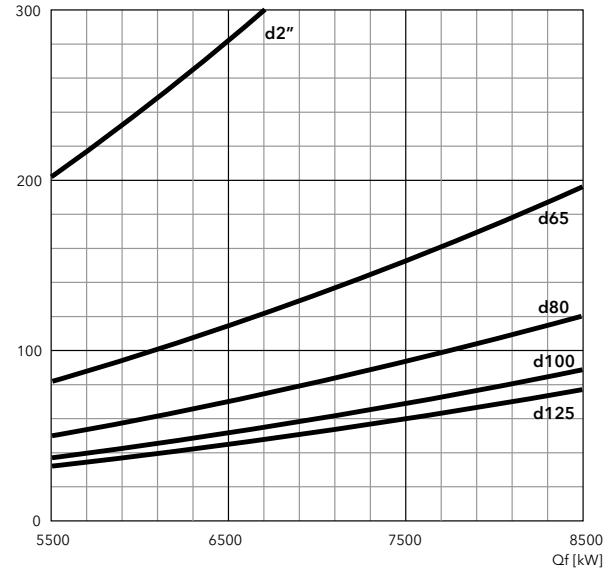
FILTERS



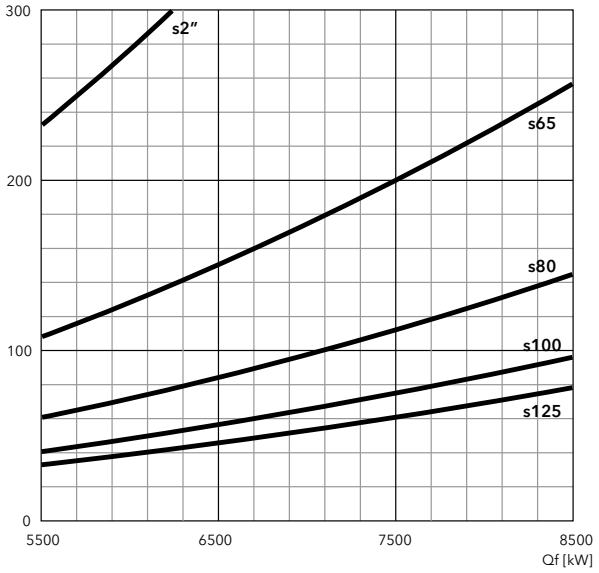
PRESSURE LOSSES (BURNER HEAD + GAS TRAIN)

EK EVO 9.8700 GL-E

DUNGS

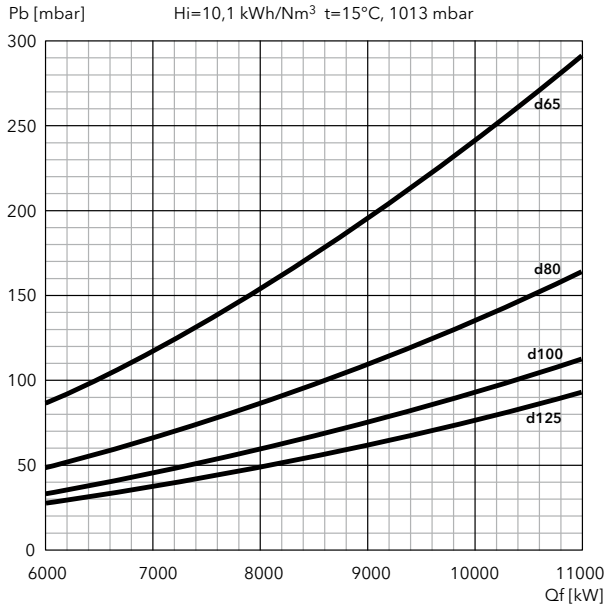


SIEMENS

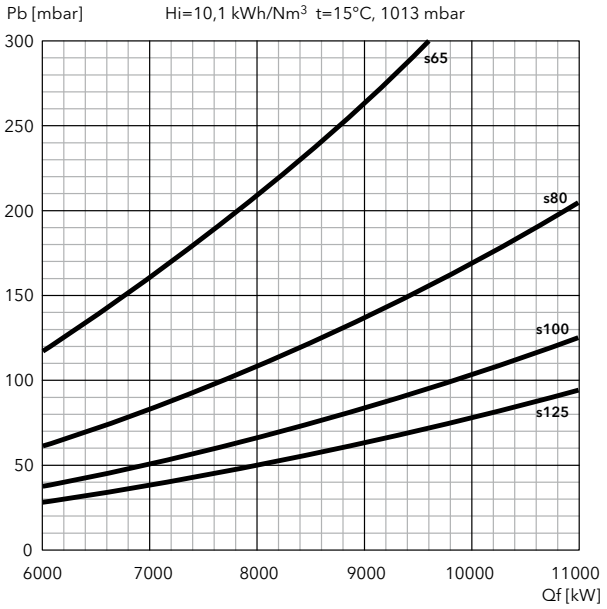


EK EVO 9.10400 GL-E

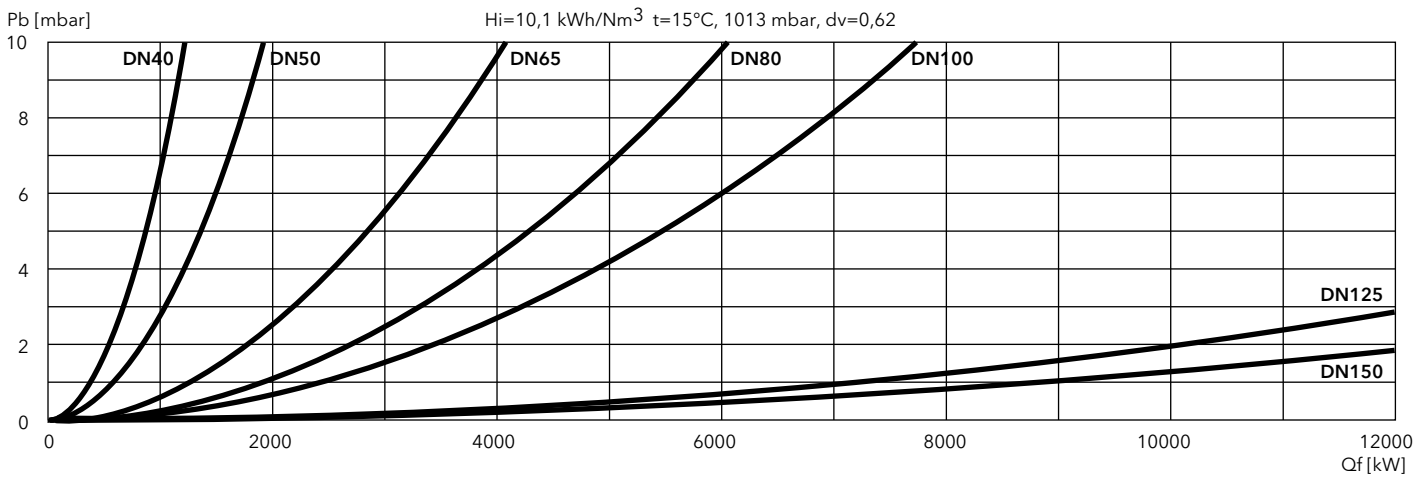
DUNGS



SIEMENS



FILTERS

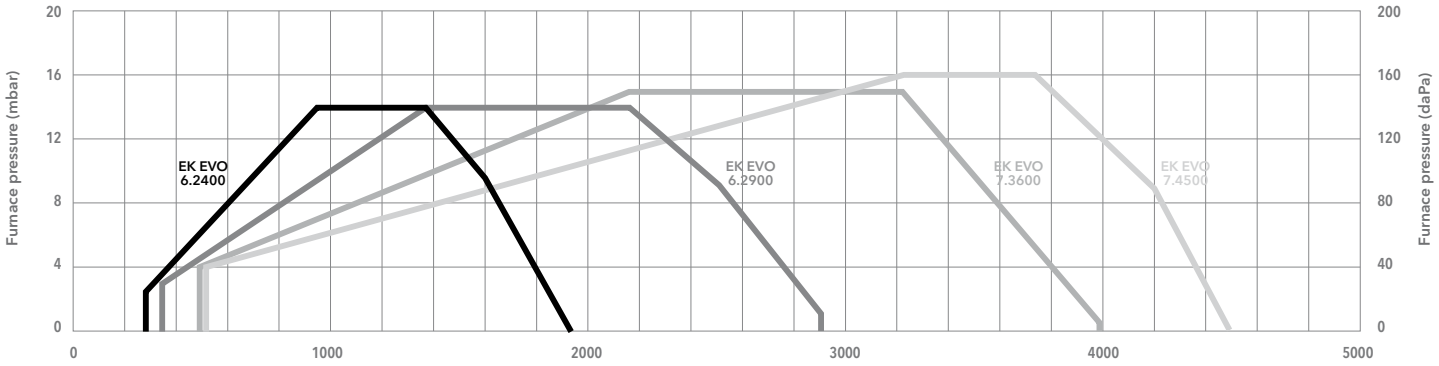


EK EVO 6 GL-EF3, EK EVO 7 GL-EF3

280 ... 4500 kW
2 stage progressive/modulating electronic in gas and in light oil (Low NOx class 3)

- **Fuels:** natural gas, Hi = 6,99 … 11,39 kWh/Nm³;
  light oil, viscosity 6 mm²/s at 20°C, Hi = 11,86 kWh/kg
- **Emission class:** Low NOx class 3 (≤80 mg/kWh) according to EN676 in gas
  Low NOx class 3 (≤120 mg/kWh) according to EN267 in light oil
- **Protection level:** IP 41

TECHNICAL DATA



Test conditions conforming to EN676 and EN267 - Temperature: 20°C - Pressure: 1013,5 mbar - Altitude: 0 m a.s.l.

		EK EVO 6.2400 GL-EF3	EK EVO 6.2900 GL-EF3	EK EVO 7.3600 GL-EF3	EK EVO 7.4500 GL-EF3
Operating range gas		280 - 1920 kW	340 - 2890 kW	470 - 3980 kW	510 - 4500 kW
Operating range oil		360 - 1920 kW	480 - 2890 kW	680 - 3980 kW	740 - 4500 kW
Gas pressure		50 – 500 mbar (50 – 360 mbar for d452 and d453)			
Gas connection		DN65	DN65	DN65	DN65
Control box / flame detector		BT300 / FFS08	BT300 / FFS08	BT300 / FFS08	BT300 / FFS08
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	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	3PE AC 400 V - 50 Hz
Fan motor		50 Hz - 3 kW	50 Hz - 4 kW	50 Hz - 7,5 kW	50 Hz - 7,5 kW
Acoustic level		<76 dB(A)	<77 dB(A)	<83 dB(A)	<81 dB(A)
CE certificate		0085CL0215	0085CL0215	0085CL0215	0085CL0215
Burner codes (body + head)	KN	**3754521**	**3754522**	**3754523**	**3754524**
	KM	**3754525**	**3754526**	**3754527**	**3754528**
	KL	**3754529**	**3754530**	**3754531**	**3754532**

GAS TRAINS

DUNGS

Model	Code
GT-d452-1"1/2 (*)	3750510
GT-d453-2" (*)	3750511
GT-d454-65	3750512
GT-d455-80	3750513
GT-d456-100	3750514

*: integrated filter

SIEMENS

Model	Code
GT-s451-1"1/2	3750525
GT-s452-2"	3750526
GT-s453-65	3750527
GT-s454-80	3750528
GT-s455-100	3750529
GT-s456-125	3750530

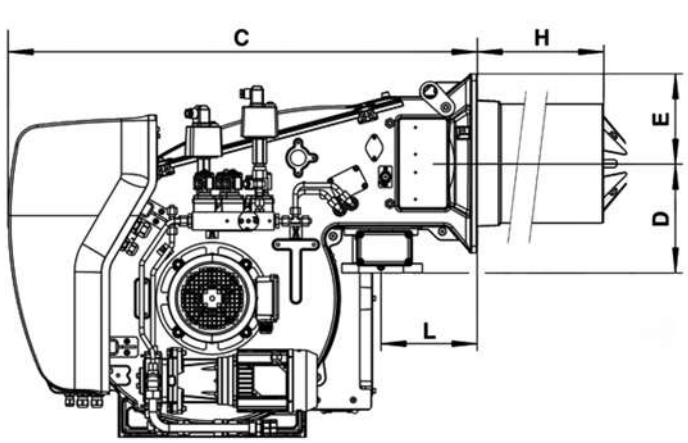
FILTERS

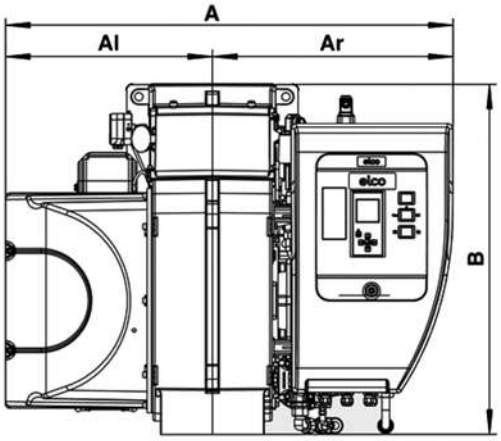
Model	Code
FG-Rp1"1/2	3757199
FG-Rp2"	3757200
FG-DN65	3757198
FG-DN80	3757201
FG-DN100	3757195
FG-DN125	3757209

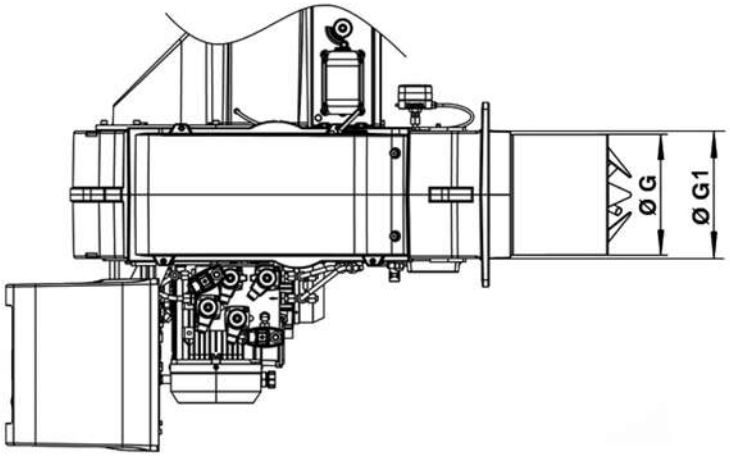
Pressure drops graphs: see following pages
Dimensions of gas trains and gas filters: see pag. 206

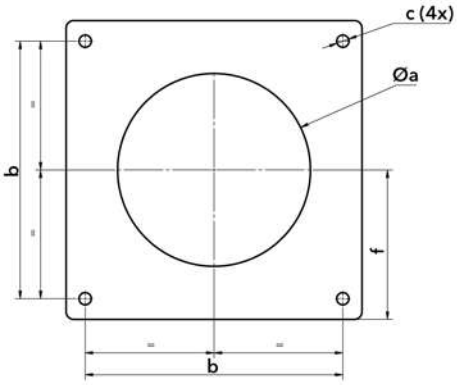
MDE2 GEM Variatron LOW NOx CLASS 3

DIMENSIONS (mm)





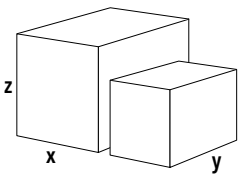




Model	A	Al	Ar	B	C	D	E	ØG	ØG1	H			L	Øa	b	c	f
										KN	KM	KL					
EK EVO 6.2400	1035	479	556	812	1046	245	200	227	263,5	400	520	640	212	300-340	340	M16	200
EK EVO 6.2900	1035	479	556	812	1048	245	200	262,5	263,5	400	520	640	215	300-340	340	M16	200
EK EVO 7.3600	1097	510	587	941	1122	276	235	323,5	325	420	550	680	225	360-400	400	M16	235
EK EVO 7.4500	1097	510	587	941	1122	276	235	323,5	325	420	550	680	225	360-400	400	M16	235

PACKAGING

The burner is delivered on a pallet in 2 packages containing:
- burner body with mounted combustion head, boiler fixing accessories and technical documentation;
- gas train and filter.

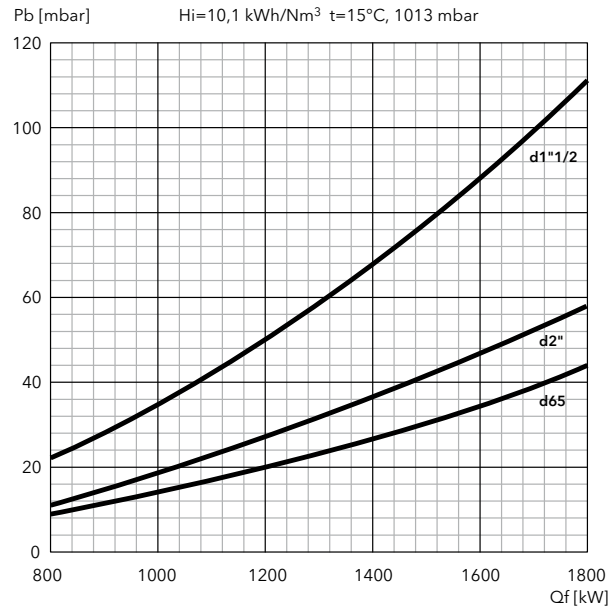


Models		Dimensions (mm)			Gross weight (kg)
		X	Y	Z	
EKEVO 6.2400 GL-EF3	**KN**	2070	1420	990	188
	KM	2070	1420	990	190
	KL	2070	1420	990	192
EKEVO 6.2900 GL-EF3	**KN**	2070	1420	990	194
	KM	2070	1420	990	196
	KL	2070	1420	990	198
EKEVO 7.3600 GL-EF3	**KN**	2070	1420	1130	243
	KM	2070	1420	1130	245
	KL	2070	1420	1130	247
EKEVO 7.4500 GL-EF3	**KN**	2070	1420	1130	243
	KM	2070	1420	1130	245
	KL	2070	1420	1130	247

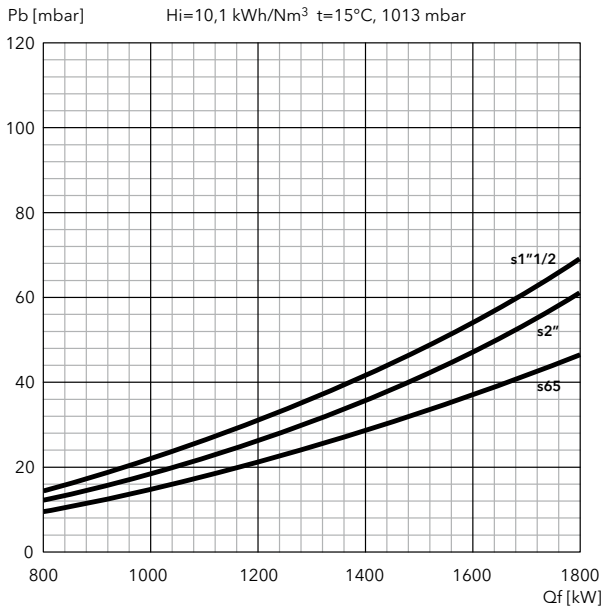
PRESSURE LOSSES (BURNER HEAD + GAS TRAIN)

EK EVO 6.2400 GL-EF3

DUNGS

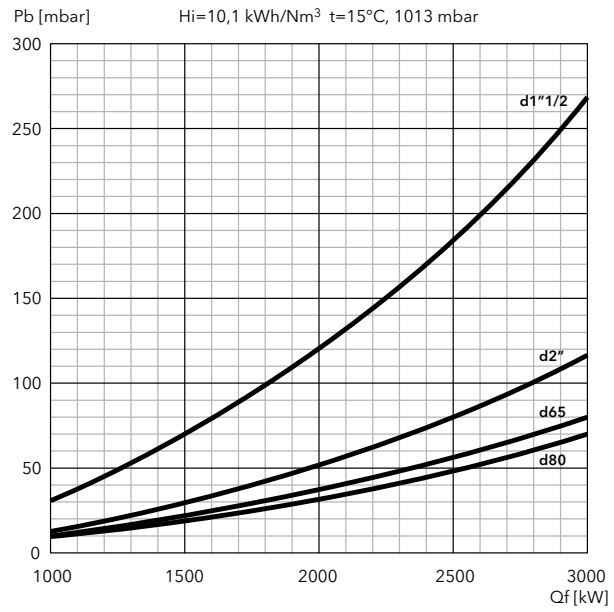


SIEMENS

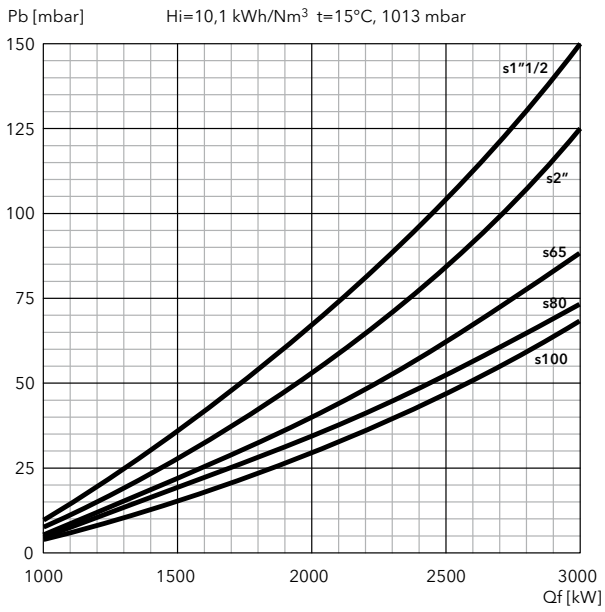


EK EVO 6.2900 GL-EF3

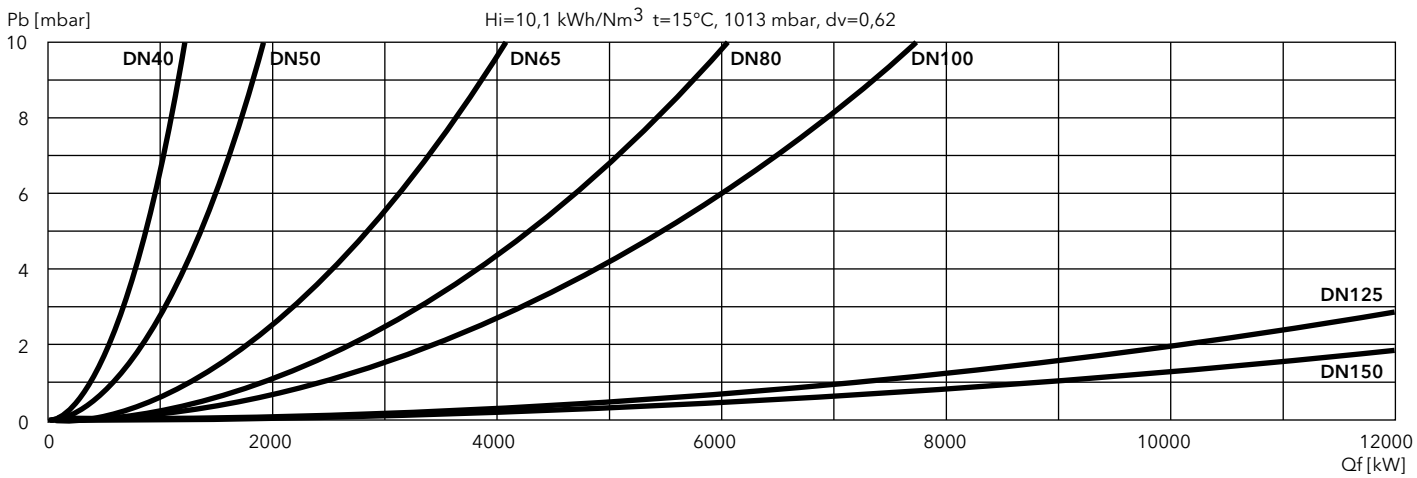
DUNGS



SIEMENS



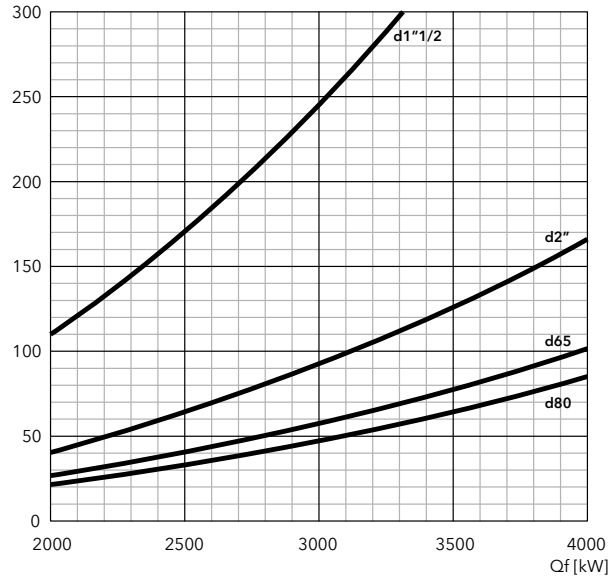
FILTERS



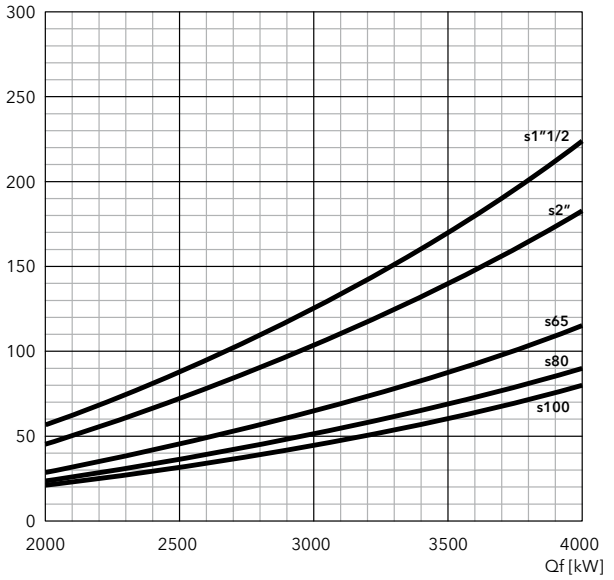
PRESSURE LOSSES (BURNER HEAD + GAS TRAIN)

EK EVO 7.3600 GL-EF3

DUNGS

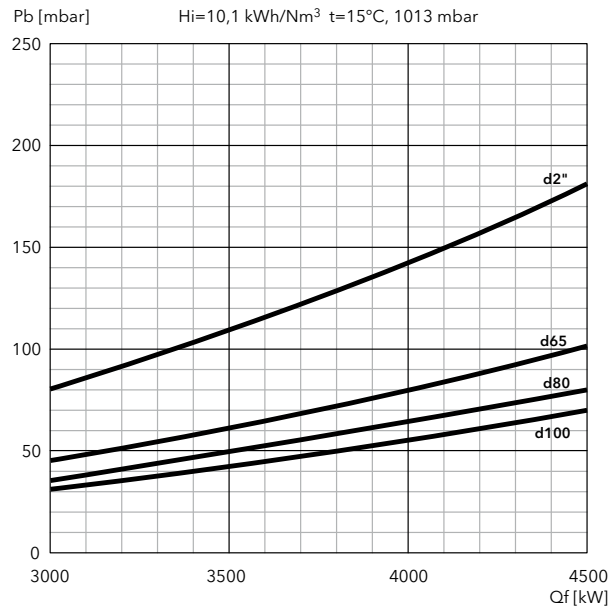


SIEMENS

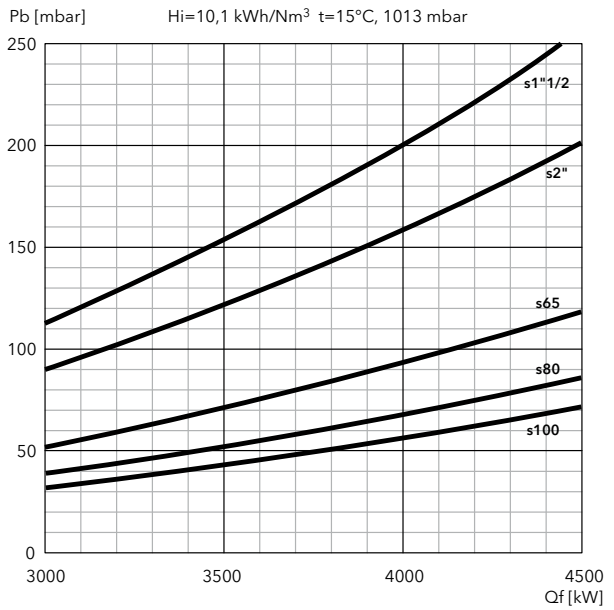


EK EVO 7.4500 GL-EF3

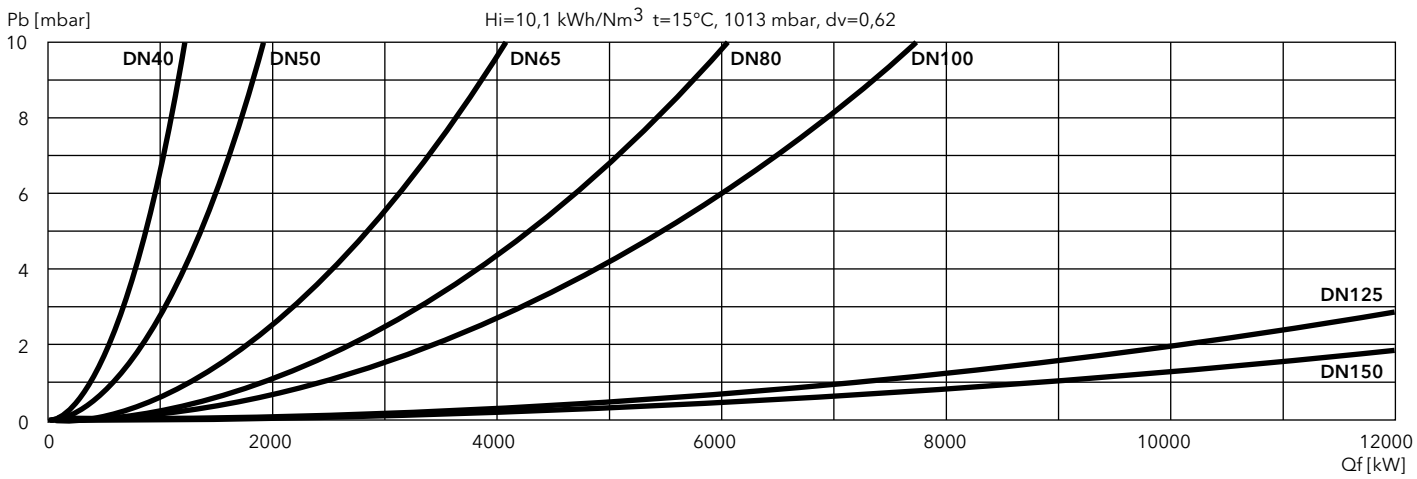
DUNGS



SIEMENS



FILTERS

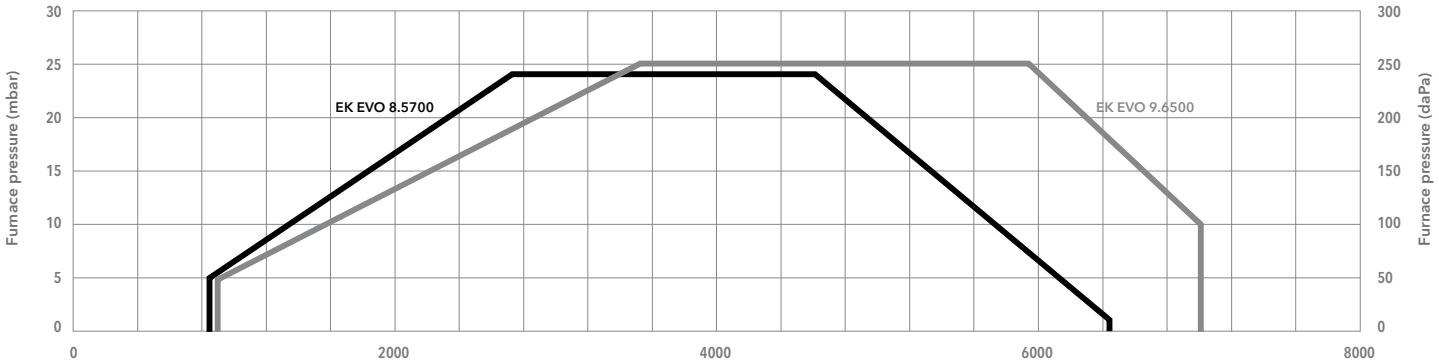


EK EVO 8 GL-EF3, EK EVO 9 GL-EF3

830 ... 6950 kW
2 stage progressive/modulating electronic in gas and in light oil (Low NOx class 3)

- **Fuels:** natural gas, Hi = 6,99 … 11,39 kWh/Nm³;
  light oil, viscosity 6 mm²/s at 20°C, Hi = 11,86 kWh/kg
- **Emission class:** Low NOx class 3 (≤80 mg/kWh) according to EN676 in gas
  Low NOx class 3 (≤120 mg/kWh) according to EN267 in light oil
- **Protection level:** IP 41

TECHNICAL DATA



Test conditions conforming to EN676 and EN267 - Temperature: 20°C - Pressure: 1013,5 mbar - Altitude: 0 m a.s.l.

		EK EVO 8.5700 GL-EF3	EK EVO 9.6500 GL-EF3
Operating range gas		830 - 6450 kW	860 - 6950 kW
Operating range oil		1100 - 6450 kW	1100 - 6600 kW
Gas pressure		100 – 500 mbar (100 – 360 mbar for d457)	100 – 500 mbar (100 – 360 mbar for d457)
Gas connection		DN100	DN100
Control box / flame detector		BT300 / FFS08	BT300 / FFS08
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 - 15 kW	50 Hz - 22 kW
Acoustic level		<80,2 dB(A)	<82,9 dB(A)
CE certificate		0085CL0215	0085CL0215
Burner codes (body + head)	KN	**3754825**	**3754826**
	KM	**3754829**	**3754830**
	KL	**3754833**	**3754834**

GAS TRAINS

DUNGS

Model	Code
GT-d457-2" (*)	3750515
GT-d458-65	3750516
GT-d459-80	3750517
GT-d460-100	3750518

*: integrated filter

SIEMENS

Model	Code
GT-s457-2"	3750537
GT-s458-65	3750538
GT-s459-80	3750539
GT-s460-100	3750540
GT-s461-125	3750541

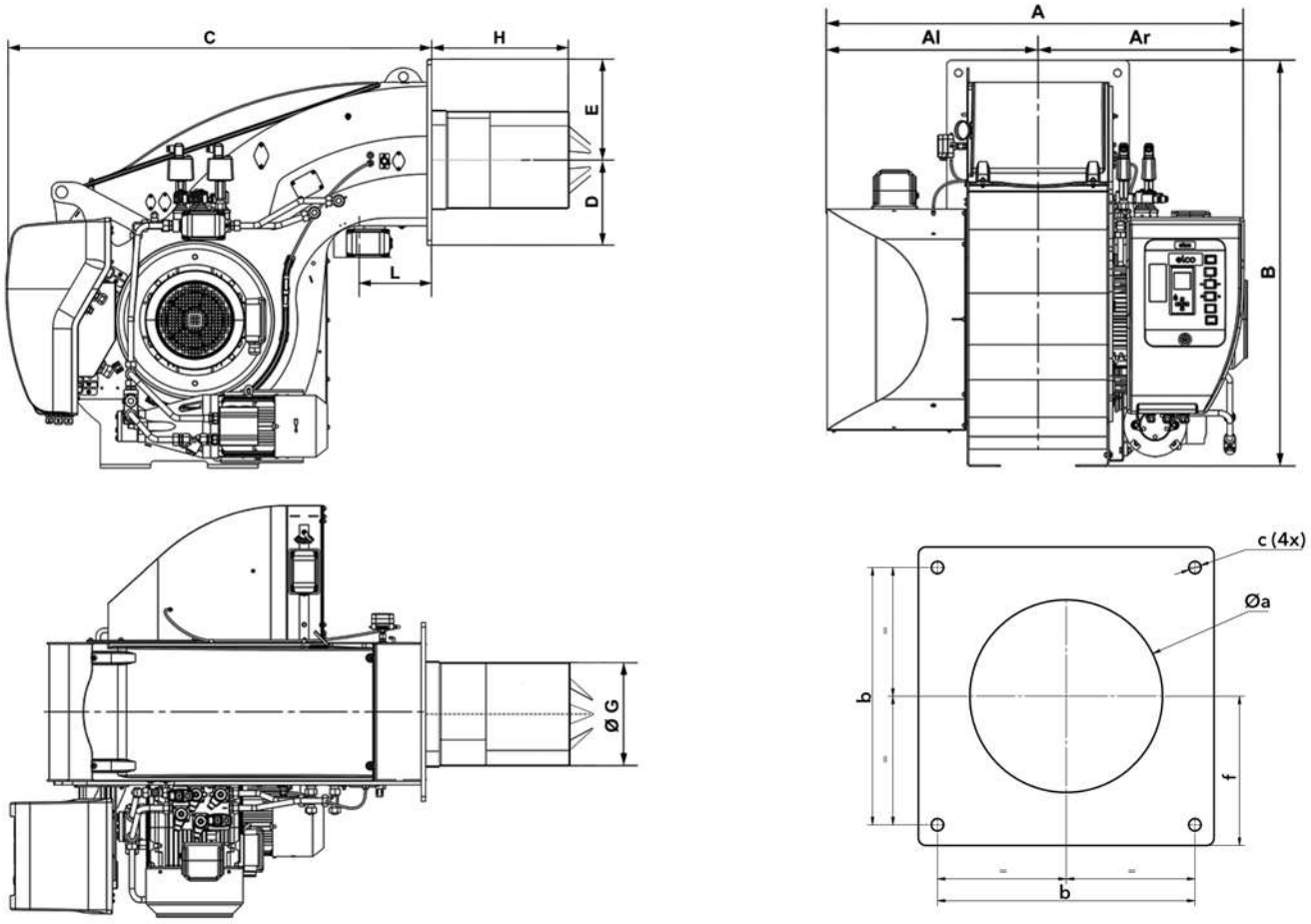
FILTERS

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

Pressure drops graphs: see following pages
Dimensions of gas trains and gas filters: see pag. 207

MDE2 GEM Variatron LOW NOx CLASS 3

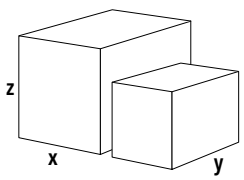
DIMENSIONS (mm)



Model	A	Al	Ar	B	C	D	E	ØG	ØG1	H			L	Øa	b	c	f
										KN	KM	KL					
EK EVO 8.5700	1325	670	655	1231	1351	307	288	369	376	528	668	808	230	380-410	505	M20	293
EK EVO 9.6500	1400	670	730	1291	1348	332	293	369	438,5	543	693	843	230	445-480	505	M20	293

PACKAGING

The burner is delivered on a pallet in 2 packages containing:
- burner body with mounted combustion head, boiler fixing accessories and technical documentation;
- gas train and filter.

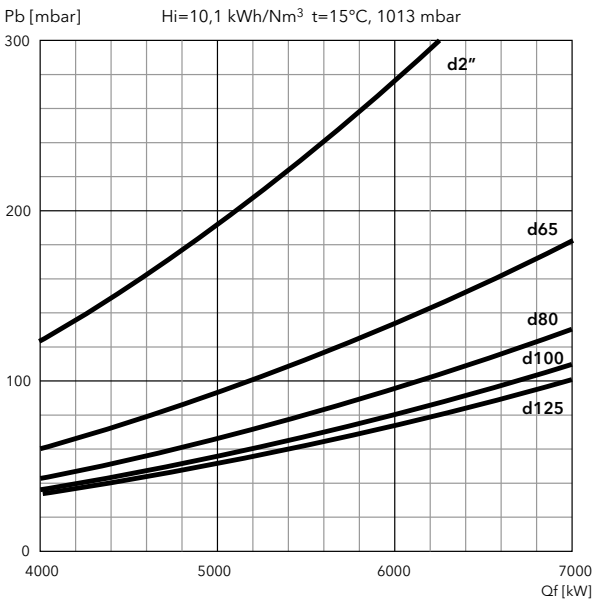


Models		Dimensions (mm)			Gross weight (kg)
		X	Y	Z	
EK EVO 8.5700 GL-EF3	KN	2300	1500	1396	369
	KM	2300	1500	1396	369
	KL	2300	1500	1396	369
EK EVO 9.6500 GL-EF3	KN	2300	1500	1461	369
	KM	2300	1500	1461	369
	KL	2300	1500	1461	369

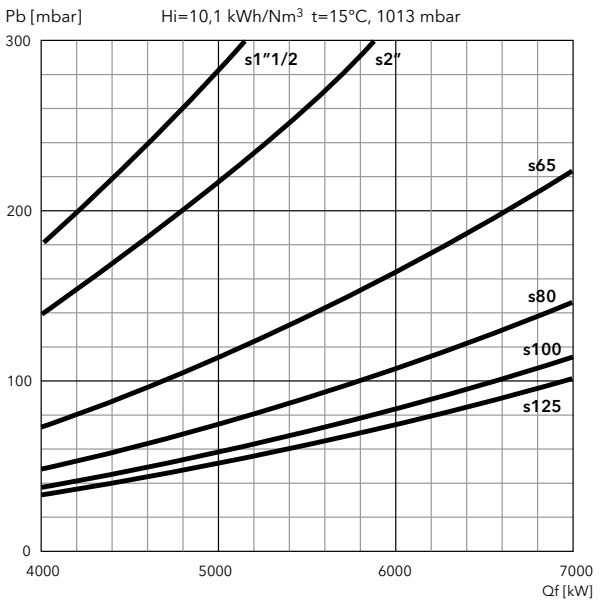
PRESSURE LOSSES (BURNER HEAD + GAS TRAIN)

EK EVO 8.5700 GL-EF3

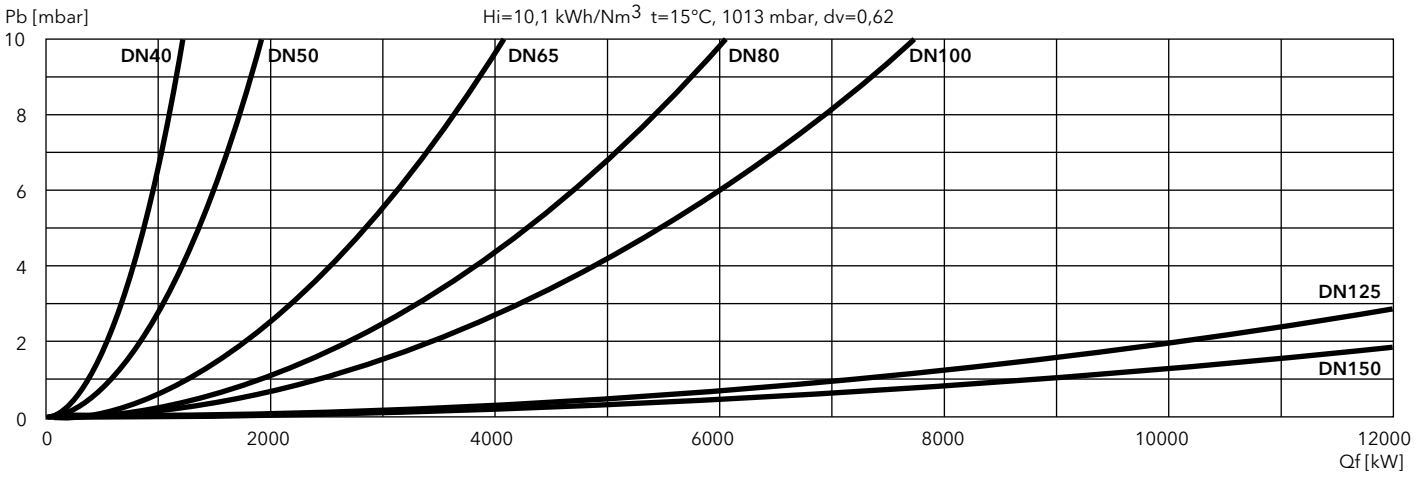
DUNGS



SIEMENS



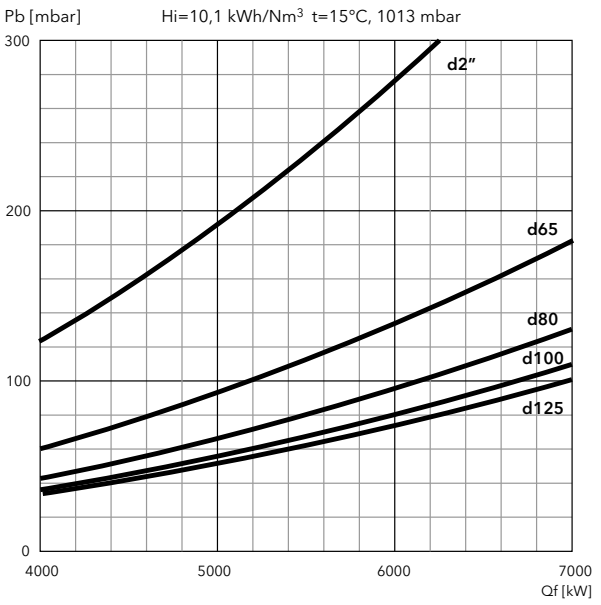
FILTERS



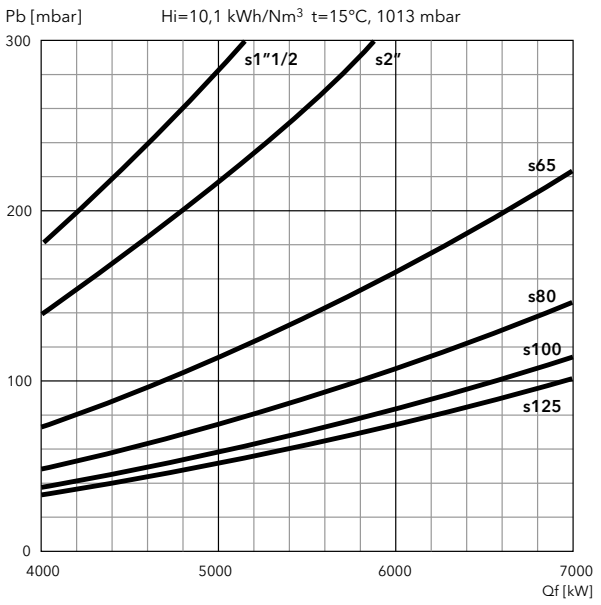
PRESSURE LOSSES (BURNER HEAD + GAS TRAIN)

EK EVO 9.6500 GL-EF3

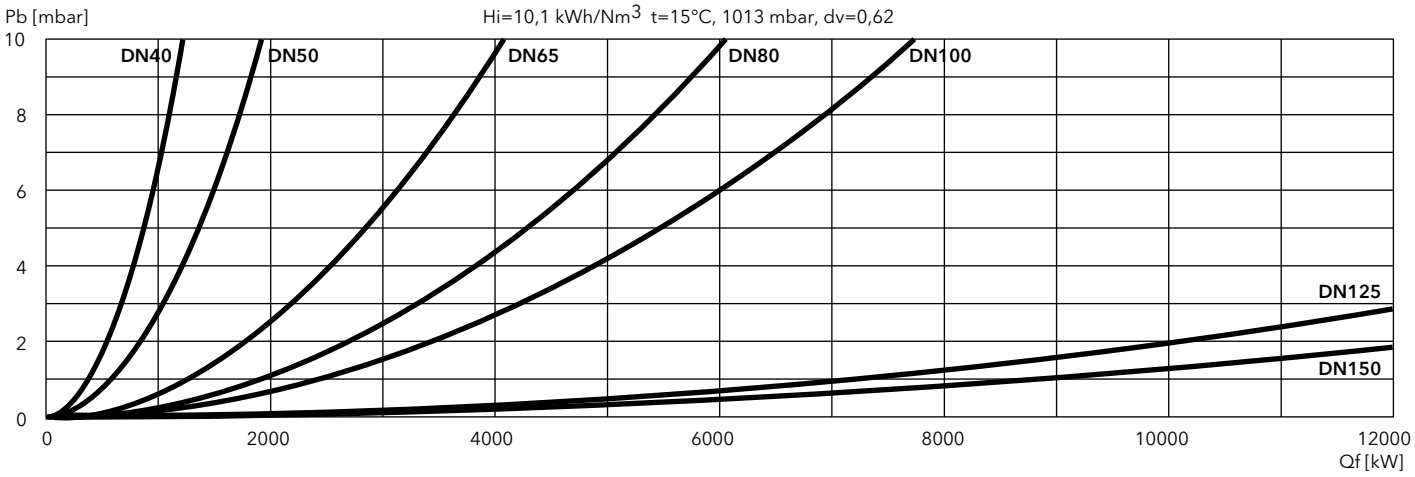
DUNGS



SIEMENS



FILTERS

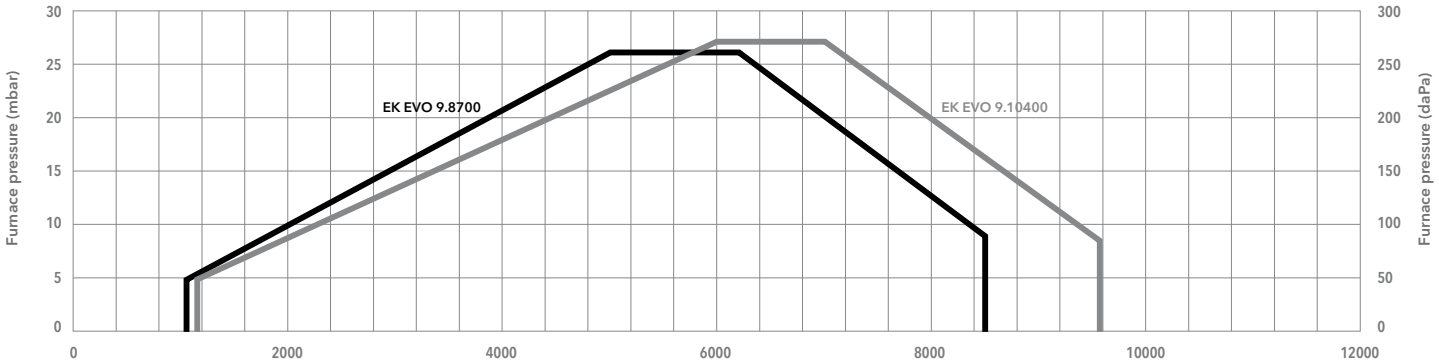


EK EVO 9 GL-EUF

1040 ... 9570 kW
2 stage progressive/modulating electronic in gas and in light oil (Low NOx class 3)

- **Fuels:** natural gas, Hi = 6,99 … 11,39 kWh/Nm³;
  light oil, viscosity 6 mm²/s at 20°C, Hi = 11,86 kWh/kg
- **Emission class:** Low NOx class 3 (≤80 mg/kWh) according to EN676 in gas
  Low NOx class 3 (≤120 mg/kWh) according to EN267 in light oil
- **Protection level:** IP 41

TECHNICAL DATA



Test conditions conforming to EN676 and EN267 - Temperature: 20°C - Pressure: 1013,5 mbar - Altitude: 0 m a.s.l.

		EK EVO 9.8700 GL-EUF	EK EVO 9.10400 GL-EUF
Operating range gas		1040 - 8500 kW	1160 - 9570 kW
Operating range oil		1800 - 8500 kW	2550 - 9570 kW
Gas pressure		100 – 500 mbar (100 – 360 mbar for d457)	100 – 500 mbar (100 – 360 mbar for d457)
Gas connection		DN100	DN100
Control box / flame detector		BT300 / FFS08	BT300 / FFS08
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 - 18,5 kW	50 Hz - 22 kW
Acoustic level		<85,9 dB(A)	<86,6 dB(A)
CE certificate		0085CL0215	0085CL0215
Burner codes (body + head)	KN	**3754827**	**3754828**
	KM	**3754831**	**3754832**
	KL	**3754835**	**3754836**

GAS TRAINS

DUNGS

Model	Code
GT-d457-2" (*)	3750515
GT-d458-65	3750516
GT-d459-80	3750517
GT-d460-100	3750518

*: integrated filter

SIEMENS

Model	Code
GT-s457-2"	3750537
GT-s458-65	3750538
GT-s459-80	3750539
GT-s460-100	3750540
GT-s461-125	3750541

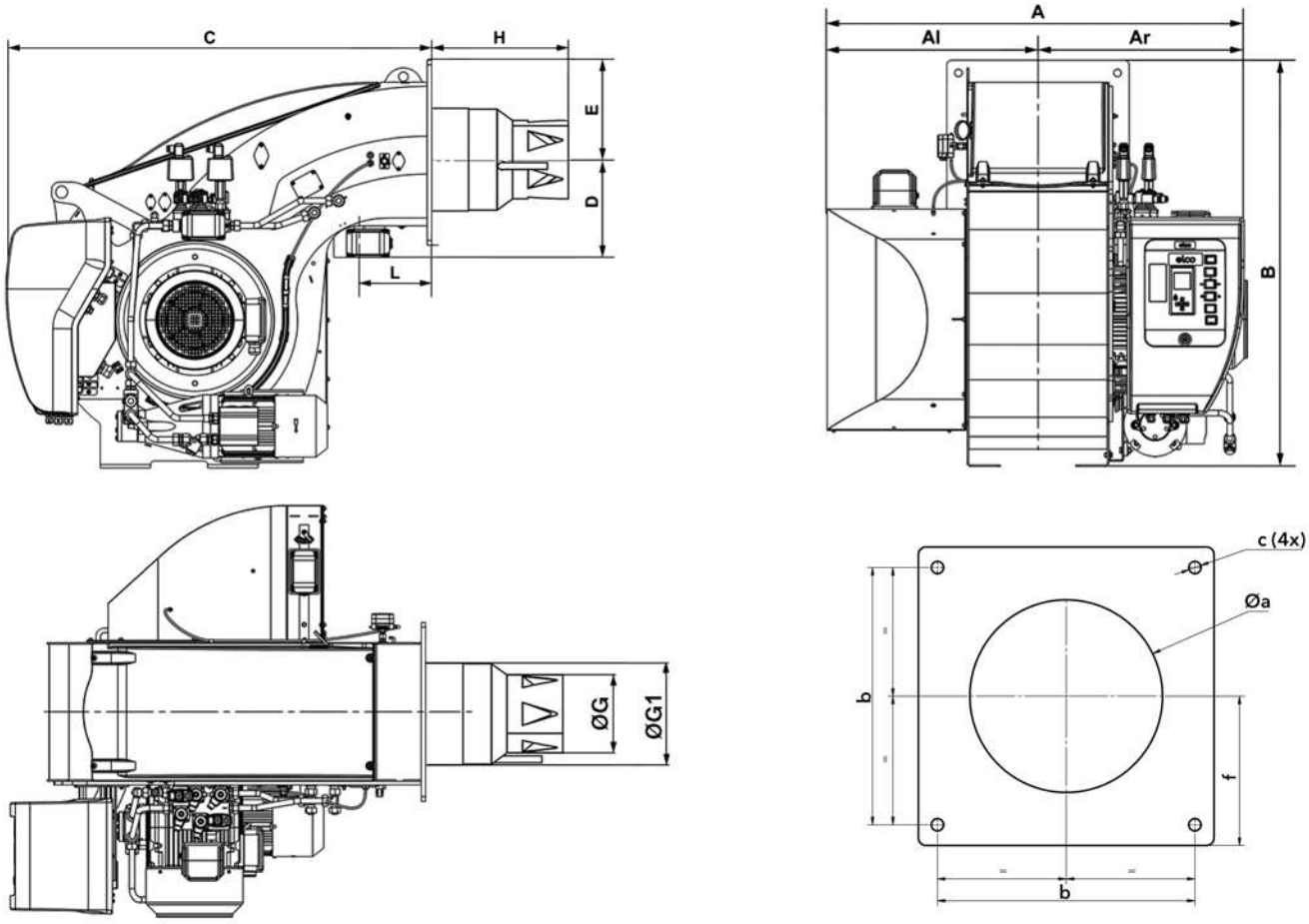
FILTERS

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

Pressure drops graphs: see following pages
Dimensions of gas trains and gas filters: see pag. 207

MDE2 GEM Variatron LOW NOx CLASS 3

DIMENSIONS (mm)

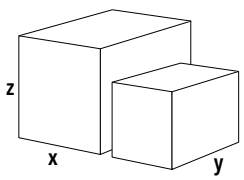


Model	A	Al	Ar	B	C	D	E	ØG	ØG1	H			L
										KN	KM	KL	
EK EVO 9.8700	1336	670	666	1291	1348	332	293	325	438,5	575	725	875	230
EK EVO 9.10400	1400	670	730	1291	1348	332	293	335	438,5	575	725	875	230

Øa	b	c	f
445-480	505	M20	293
445-480	505	M20	293

PACKAGING

The burner is delivered on a pallet in 2 packages containing:
- burner body with mounted combustion head, boiler fixing accessories and technical documentation;
- gas train and filter.

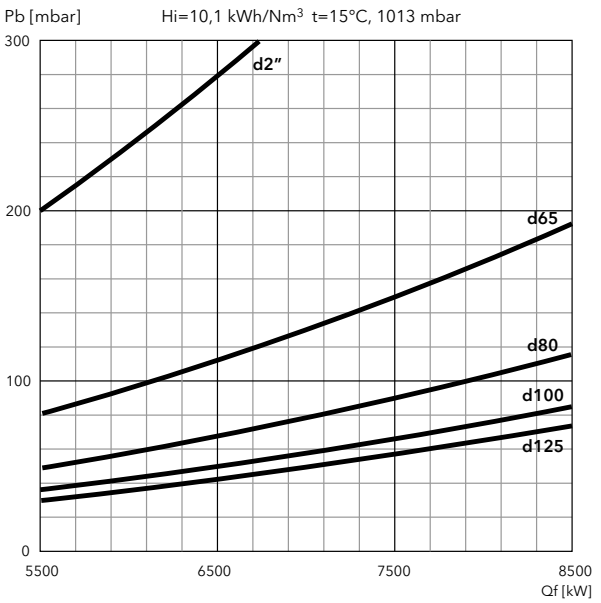


Models		Dimensions (mm)			Gross weight (kg)
		X	Y	Z	
EK EVO 9.8700 GL-EUF	KN	2300	1500	1461	369
	KM	2300	1500	1461	369
	KL	2300	1500	1461	369
EK EVO 9.10400 GL-EUF	KN	2300	1500	1461	369
	KM	2300	1500	1461	369
	KL	2300	1500	1461	369

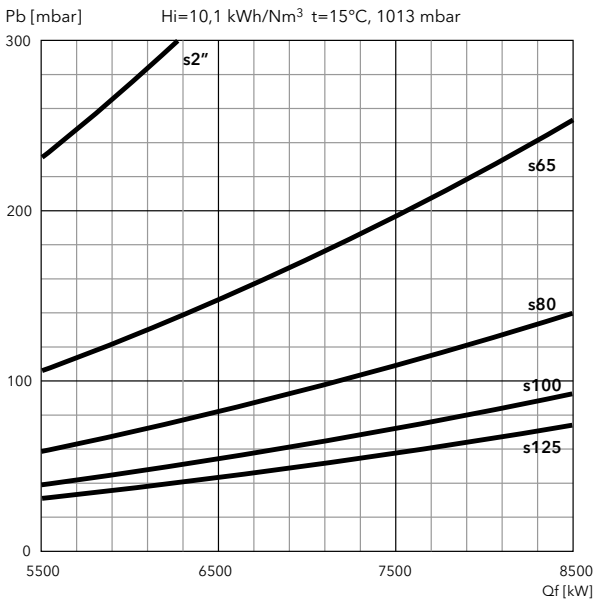
PRESSURE LOSSES (BURNER HEAD + GAS TRAIN)

EK EVO 9.8700 GL-EUF

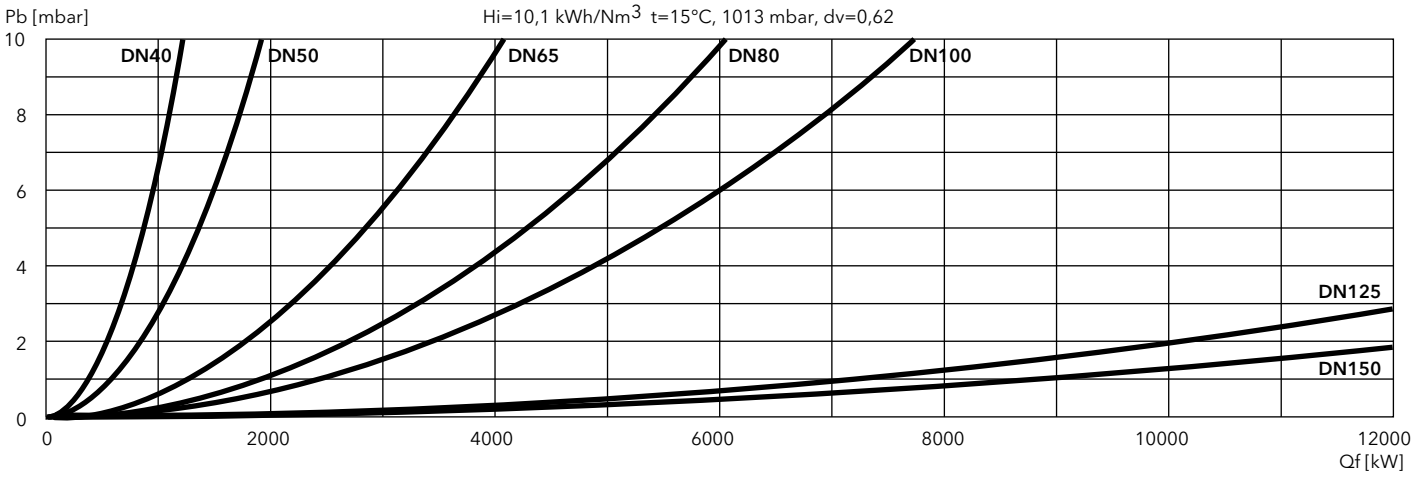
DUNGS



SIEMENS



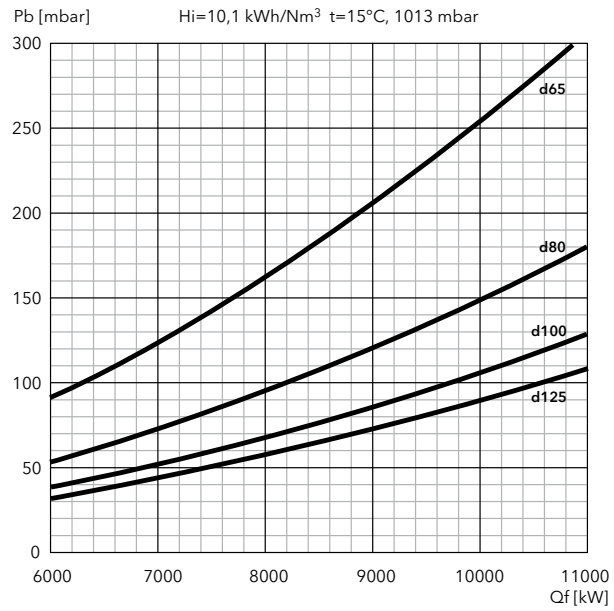
FILTERS



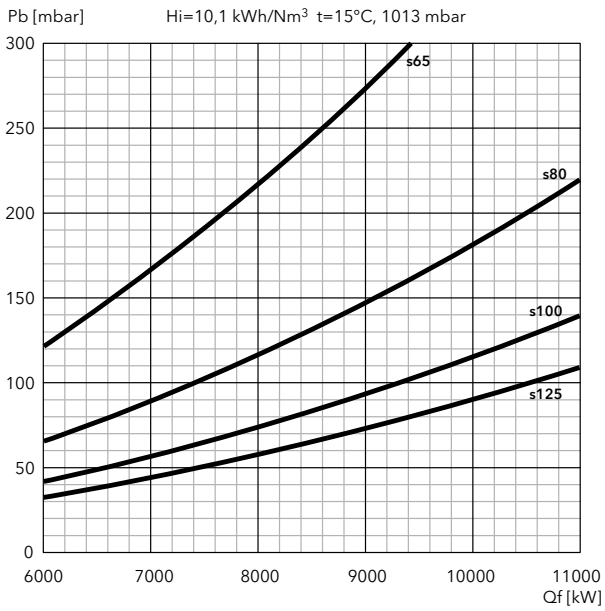
PRESSURE LOSSES (BURNER HEAD + GAS TRAIN)

EK EVO 9.10400 GL-EUF

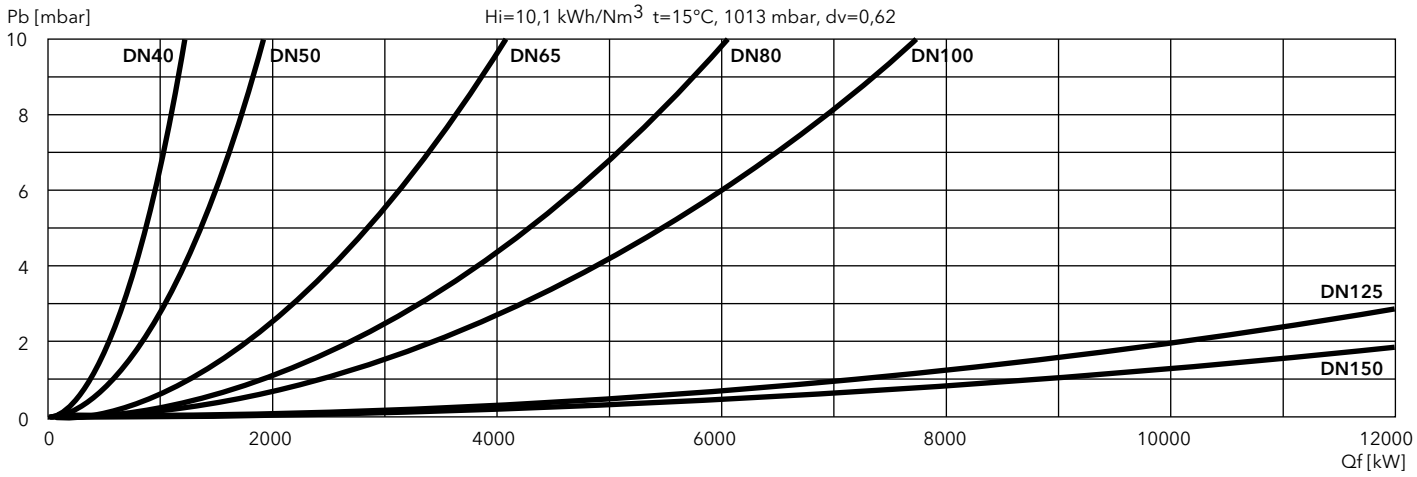
DUNGS



SIEMENS



FILTERS

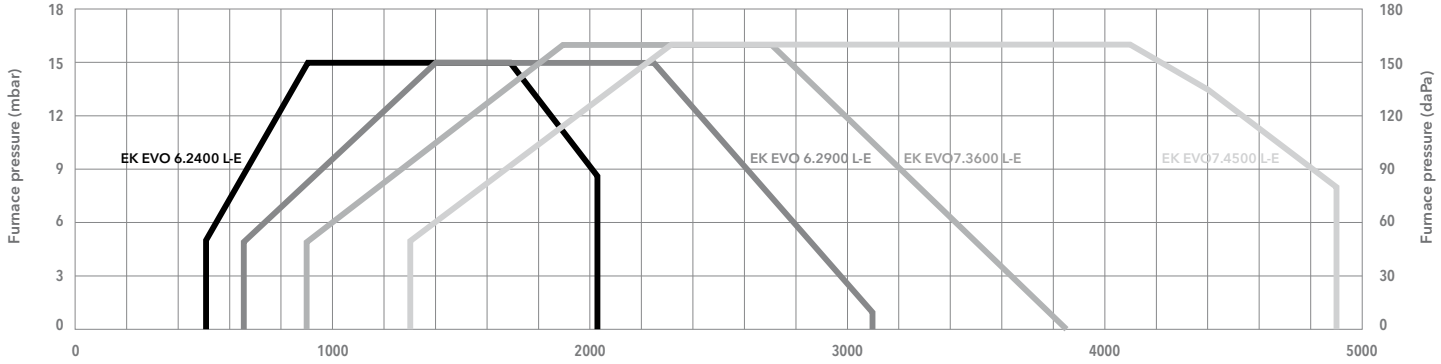


EK EVO 6 L-E, EK EVO 7 L-E

510 ... 4900 kW
2 stage progressive/modulating electronic

- **Fuels:** light oil, viscosity 6 mm²/s at 20°C, Hi = 11,86 kWh/kg
- **Emission class:** Low NOx class 2 (≤185 mg/kWh) according to EN267
- **Protection level:** IP 41

TECHNICAL DATA

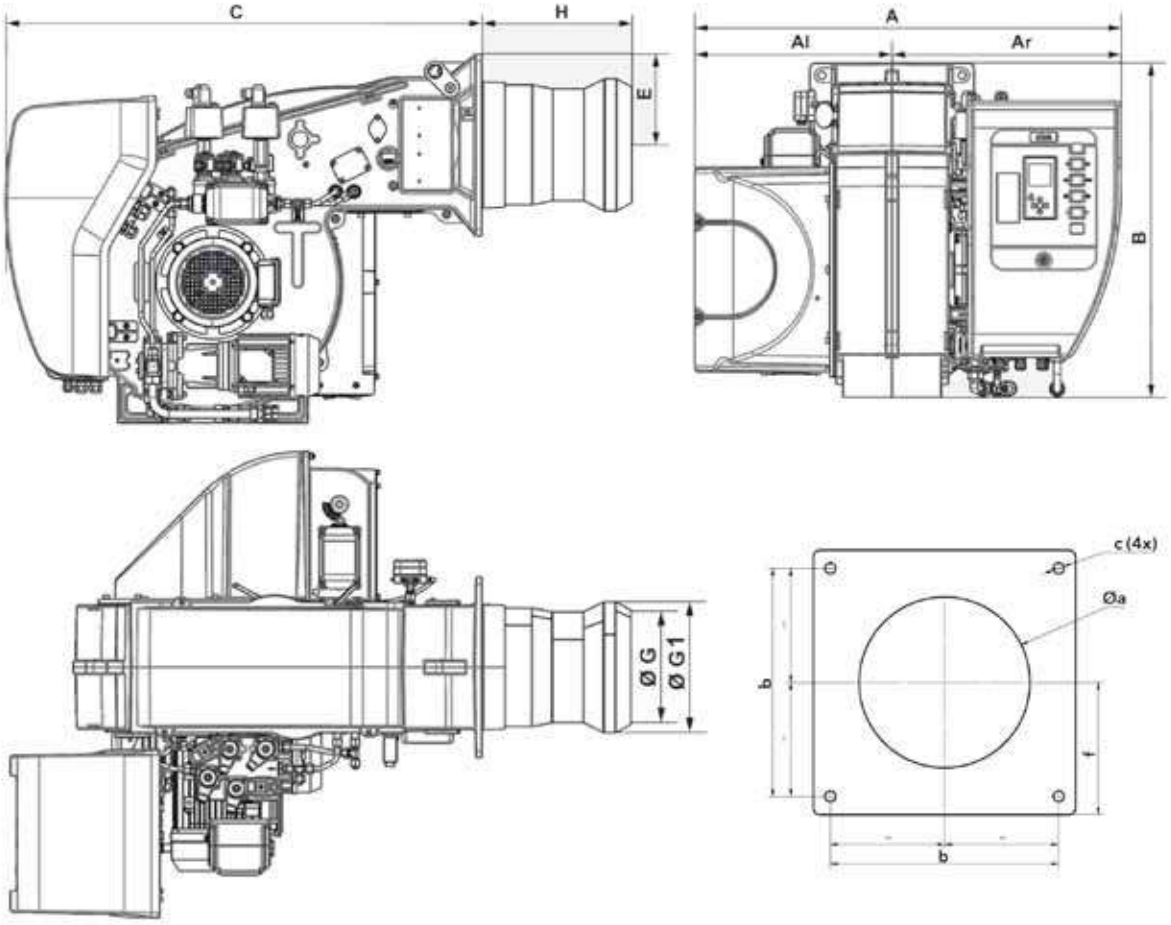


Test conditions conforming to EN267 - Temperature: 20°C - Pressure: 1013,5 mbar - Altitude: 0 m a.s.l.

		EK EVO 6.2400 L-E	EK EVO 6.2900 L-E	EK EVO 7.3600 L-E	EK EVO 7.4500 L-E
Operating range		510 - 2030 kW	650 - 3100 kW	900 - 3850 kW	1300 - 4900 kW
Fuel connection		DN20 x 1500 mm / R 1/2"	DN20 x 1500 mm / R 1/2"	DN20 x 1500 mm / R 3/4"	DN20 x 1500 mm / R 3/4"
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	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	3PE AC 400 V - 50 Hz
Control box / flame detector		BT300 / KLC20	BT300 / KLC20	BT300 / KLC20	BT300 / KLC20
Fan motor		50 Hz - 3 kW	50 Hz - 4 kW	50 Hz - 5,5 kW	50 Hz - 7,5 kW
Pump		SUNTEC TA3	SUNTEC TA3	SUNTEC TA4	SUNTEC TA5
Motor pump		50 Hz - 0,75 kW	50 Hz - 0,75 kW	50 Hz - 1,1 kW	50 Hz - 1,5 kW
Acoustic level		<77 dB(A)	<77 dB(A)	<81 dB(A)	<82,5 dB(A)
CE certificate		0085CL0215	0085CL0215	0085CL0215	0085CL0215
Burner codes (body + head)	**KN**	**3756752**	**3756755**	**3756758**	**3756761**
	KM	**3756751**	**3756754**	**3756757**	**3756760**
	KL	**3756750**	**3756753**	**3756756**	**3756759**

MDE2 GEM Variatron

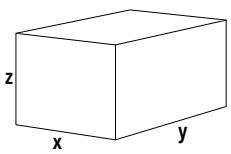
DIMENSIONS (mm)



Model	A	Al	Ar	B	C	E	ØG	ØG1	H			Øa	b	c	f
									KN	KM	KL				
EK EVO 6.2400 L-E	1035	479	556	812	1046	200	250	290	330	450	570	300-340	340	M16	200
EK EVO 6.2900 L-E	1035	479	556	812	1046	200	265	310	330	450	570	320-340	340	M16	200
EK EVO 7.3600 L-E	1107	510	597	941	1121	235	280	340	375	505	635	340-400	400	M16	235
EK EVO 7.4500 L-E	1107	510	597	941	1121	235	310	370	375	505	635	380-400	400	M16	235

PACKAGING

The burner is delivered on a pallet in 1 package containing:
- burner body with mounted combustion head, boiler fixing accessories, technical data including electrical diagram, exploded view, spare parts list, and instruction manual.



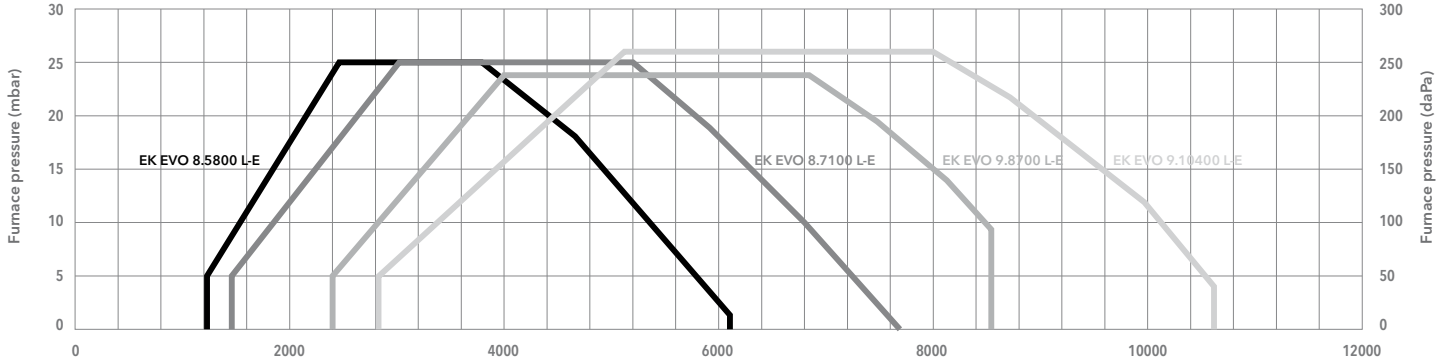
Models		Dimensions (mm)			Gross weight (kg)
		X	Y	Z	
EK EVO 6.2400 L-E	**KN**	2070	1420	990	315
	KM	2070	1420	990	315
	KL	2070	1420	990	315
EK EVO 6.2900 L-E	**KN**	2070	1420	990	325
	KM	2070	1420	990	325
	KL	2070	1420	990	325
EK EVO 7.3600 L-E	**KN**	2070	1420	1130	360
	KM	2070	1420	1130	360
	KL	2070	1420	1130	360
EK EVO 7.4500 L-E	**KN**	2070	1420	1130	370
	KM	2070	1420	1130	370
	KL	2070	1420	1130	370

EK EVO 8 L-E, EK EVO 9 L-E

1210 ... 10620 kW
2 stage progressive/modulating electronic

- **Fuels:** light oil, viscosity 6 mm²/s at 20°C, Hi = 11,86 kWh/kg
- **Emission class:** Low NOx class 2 (≤185 mg/kWh) according to EN267
- **Protection level:** IP 41

TECHNICAL DATA

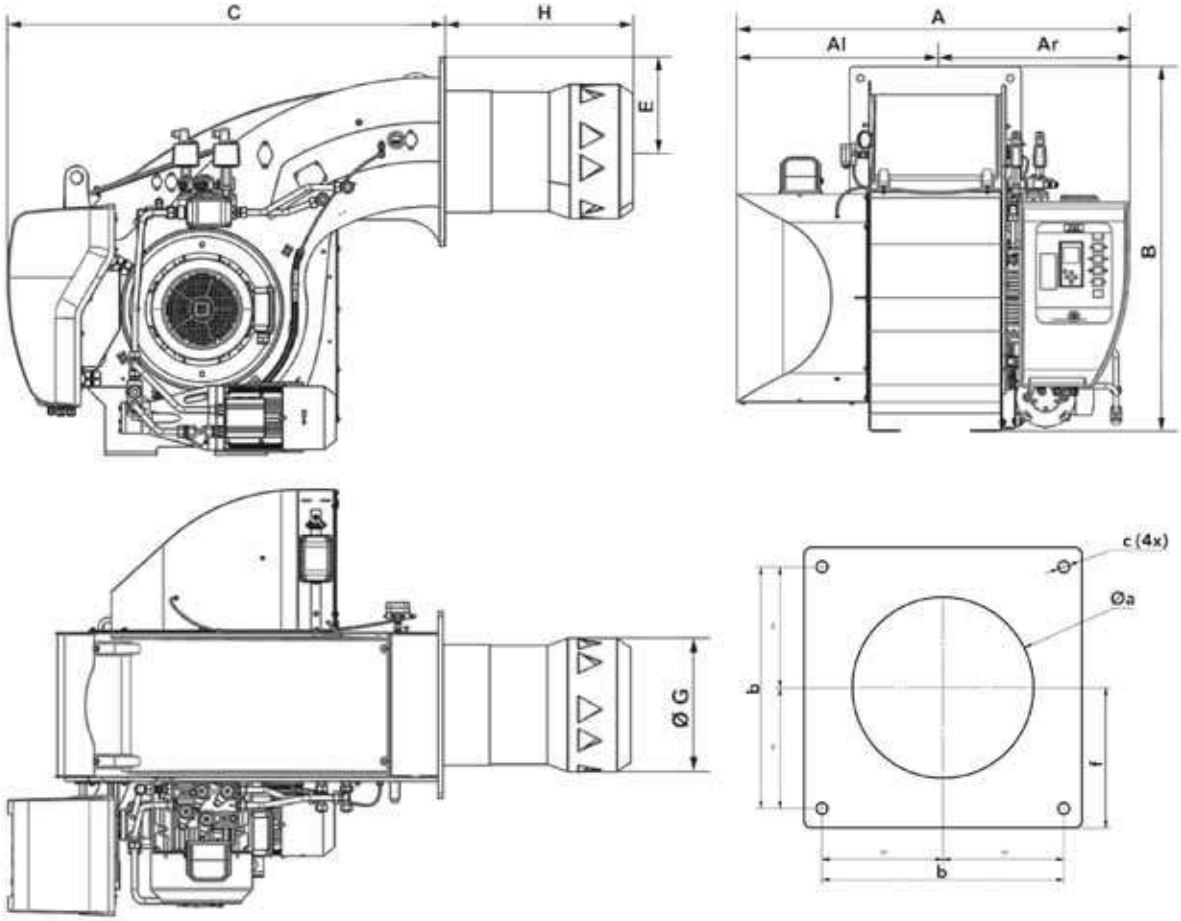


Test conditions conforming to EN267 - Temperature: 20°C - Pressure: 1013,5 mbar - Altitude: 0 m a.s.l.

		EK EVO 8.5800 L-E	EK EVO 8.7100 L-E	EK EVO 9.8700 L-E	EK EVO 9.10400 L-E
Operating range		1210 - 6100 kW	1450 - 7700 kW	2400 - 8530 kW	2820 - 10620 kW
Fuel connection		DN20 x 1500 mm / R 3/4"	DN20 x 1500 mm / R 3/4"	DN20 x 1500 mm / R 3/4"	DN25 x 1500 mm / R 1"
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	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	3PE AC 400 V - 50 Hz
Control box / flame detector		BT300 / KLC20	BT300 / KLC20	BT300 / KLC20	BT300 / KLC20
Fan motor		50 Hz - 11 kW	50 Hz - 15 kW	50 Hz - 18,5 kW	50 Hz - 22 kW
Pump		SMG1630 - 1700 l/h	SMG1630 - 1700 l/h	SMG1630 - 1700 l/h	SMG1631 - 2200 l/h
Motor pump		50 Hz - 3 kW	50 Hz - 3 kW	50 Hz - 3 kW	50 Hz - 4 kW
Acoustic level		<80,5 dB(A)	<82,6 dB(A)	<85,5 dB(A)	<86,2 dB(A)
CE certificate		0085CL0215	0085CL0215	0085CL0215	0085CL0215
Burner codes (body + head)	**KN**	**3756764**	**3756767**	**3756770**	**3756773**
	KM	**3756763**	**3756766**	**3756769**	**3756772**
	KL	**3756762**	**3756765**	**3756768**	**3756771**

MDE2 GEM Variatron LOW NOx CLASS 3

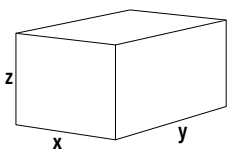
DIMENSIONS (mm)



Model	A	Al	Ar	B	C	E	ØG	H			Øa	b	c	f
								KN	KM	KL				
EK EVO 8.5800 L-E	1325	670	655	1231	1351	293	400	562	702	842	430-480	505	M20	293
EK EVO 8.7100 L-E	1325	670	655	1231	1351	293	415	583	723	863	445-480	505	M20	293
EK EVO 9.8700 L-E	1325	670	655	1291	1348	293	431,5	355	505	655	445-480	505	M20	293
EK EVO 9.10400 L-E	1400	670	730	1291	1348	293	431,5	355	505	655	445-480	505	M20	293

PACKAGING

The burner is delivered on a pallet in 1 package containing:
- burner body with mounted combustion head, boiler fixing accessories, technical data including electrical diagram, exploded view, spare parts list, and instruction manual.



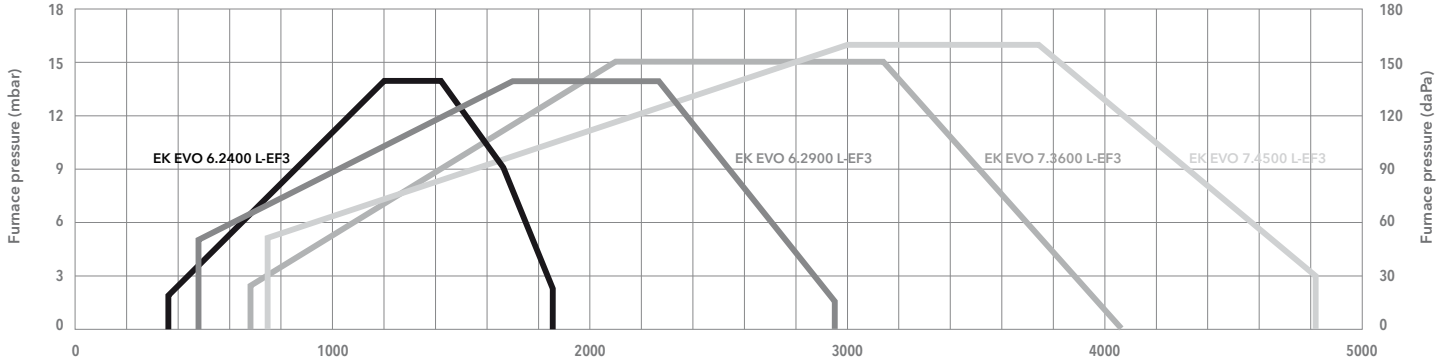
Models		Dimensions (mm)			Gross weight (kg)
		X	Y	Z	
EK EVO 8.5800 L-E	KN	2300	1500	1396	630
	KM	2300	1500	1396	637
	KL	2300	1500	1396	643
EK EVO 8.7100 L-E	KN	2300	1500	1396	630
	KM	2300	1500	1396	639
	KL	2300	1500	1396	645
EK EVO 9.8700 L-E	KN	2300	1500	1396	652
	KM	2300	1500	1396	660
	KL	2300	1500	1396	667
EK EVO 9.10400 L-E	KN	2300	1500	1461	662
	KM	2300	1500	1461	670
	KL	2300	1500	1461	677

EK EVO 6 L-EF3, EK EVO 7 L-EF3

360 ... 4820 kW
2 stage progressive/modulating electronic (Low NOx class 3)

- **Fuels:** light oil, viscosity 6 mm²/s at 20°C, Hi = 11,86 kWh/kg
- **Emission class:** Low NOx class 3 (≤120 mg/kWh) according to EN267
- **Protection level:** IP 41

TECHNICAL DATA

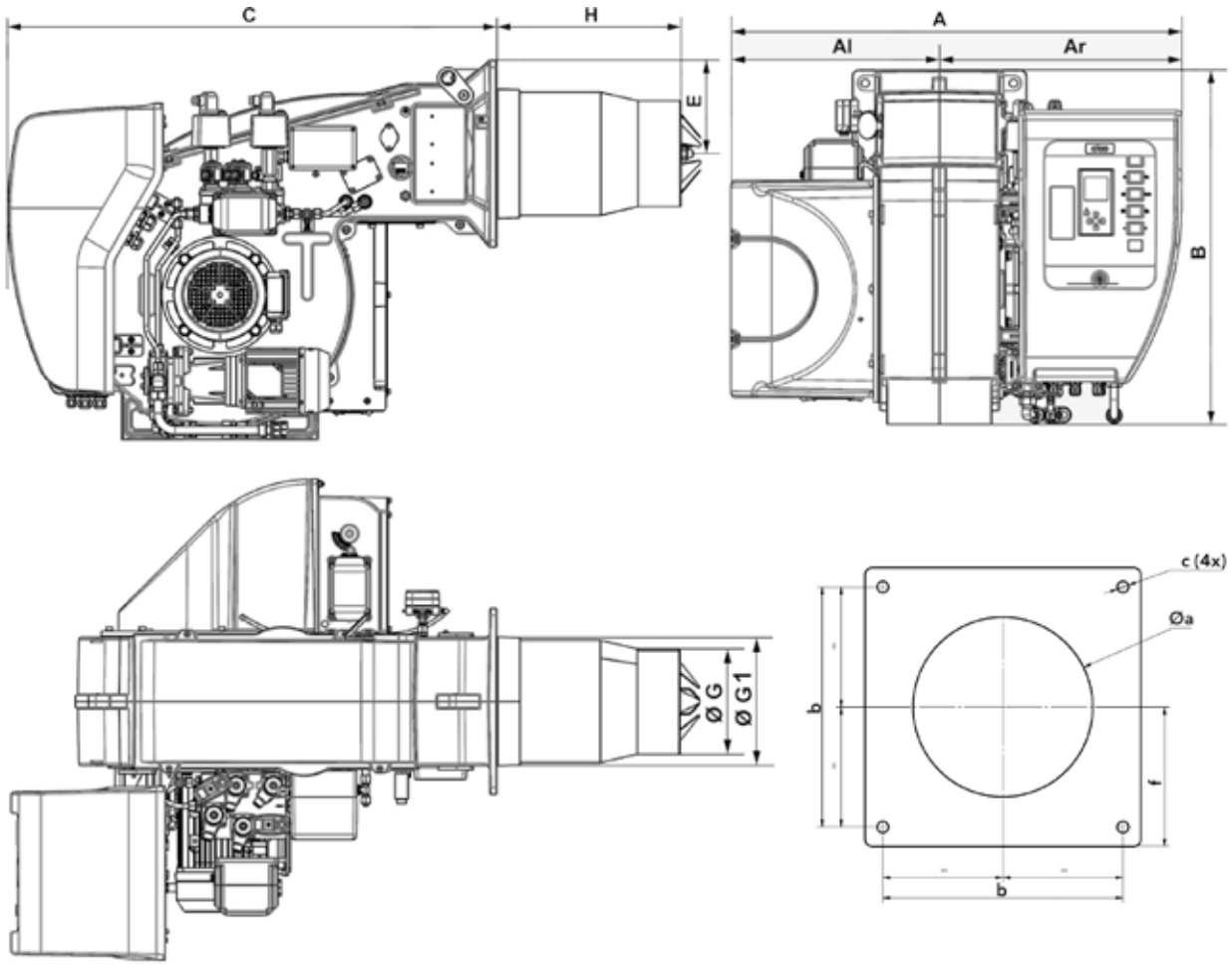


Test conditions conforming to EN267 - Temperature: 20°C - Pressure: 1013,5 mbar - Altitude: 0 m a.s.l.

		EK EVO 6.2400 L-EF3	EK EVO 6.2900 L-EF3	EK EVO 7.3600 L-EF3	EK EVO 7.4500 L-EF3
Operating range		360 - 1850 kW	480 - 2950 kW	680 - 4070 kW	740 - 4820 kW
Fuel connection		DN20 x 1500 mm / R 1/2"	DN20 x 1500 mm / R 1/2"	DN20 x 1500 mm / R 3/4"	DN20 x 1500 mm / R 3/4"
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	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	3PE AC 400 V - 50 Hz
Control box / flame detector		BT300 / KLC20	BT300 / KLC20	BT300 / KLC20	BT300 / KLC20
Fan motor		50 Hz - 3 kW	50 Hz - 4 kW	50 Hz - 7,5 kW	50 Hz - 7,5 kW
Pump		SUNTEC TA3	SUNTEC TA3	SUNTEC TA4	SUNTEC TA5
Motor pump		50 Hz - 0,75 kW	50 Hz - 0,75 kW	50 Hz - 1,1 kW	50 Hz - 1,5 kW
Acoustic level		<76 dB(A)	<77 dB(A)	<83 dB(A)	<81 dB(A)
CE certificate		0085CL0215	0085CL0215	0085CL0215	0085CL0215
Burner codes (body + head)	**KN**	**3756774**	**3756775**	**3756776**	**3756777**
	KM	**3756779**	**3756780**	**3756781**	**3756782**
	KL	**3756783**	**3756784**	**3756785**	**3756786**

MDE2 GEM Variatron

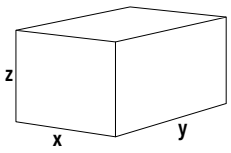
DIMENSIONS (mm)



Model	A	Al	Ar	B	C	E	ØG	ØG1	H			Øa	b	c	f
									KN	KM	KL				
EK EVO 6.2400	1035	479	556	812	1046	200	227	290	400	520	640	300-340	340	M16	200
EK EVO 6.2900	1035	479	556	812	1046	200	263	290	400	520	640	300-340	340	M16	200
EK EVO 7	1107	510	597	941	1121	255	325	325	375	505	635	360-400	400	M16	235

PACKAGING

The burner is delivered on a pallet in 1 package containing:
- burner body with mounted combustion head, boiler fixing accessories, technical data including electrical diagram, exploded view, spare parts list, and instruction manual.



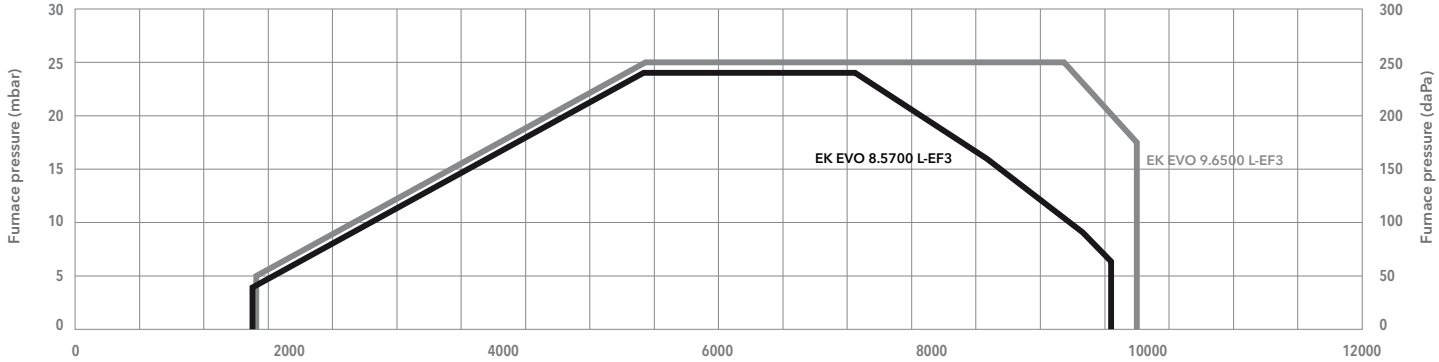
Models		Dimensions (mm)			Gross weight (kg)
		X	Y	Z	
EK EVO 6.2400 L-EF3	**KN**	2070	1420	990	315
	KM	2070	1420	990	315
	KL	2070	1420	990	315
EK EVO 6.2900 L-EF3	**KN**	2070	1420	990	325
	KM	2070	1420	990	325
	KL	2070	1420	990	325
EK EVO 7.3600 L-EF3	**KN**	2070	1420	1150	360
	KM	2070	1420	1150	360
	KL	2070	1420	1150	360
EK EVO 7.4500 L-EF3	**KN**	2070	1420	1150	370
	KM	2070	1420	1150	370
	KL	2070	1420	1150	370

EK EVO 8 L-EF3, EK EVO 9 L-EF3

1100 ... 6600 kW
2 stage progressive/modulating electronic (Low NOx class 3)

- **Fuels:** light oil, viscosity 6 mm²/s at 20°C, Hi = 11,86 kWh/kg
- **Emission class:** Low NOx class 3 (≤120 mg/kWh) according to EN267
- **Protection level:** IP 41

TECHNICAL DATA

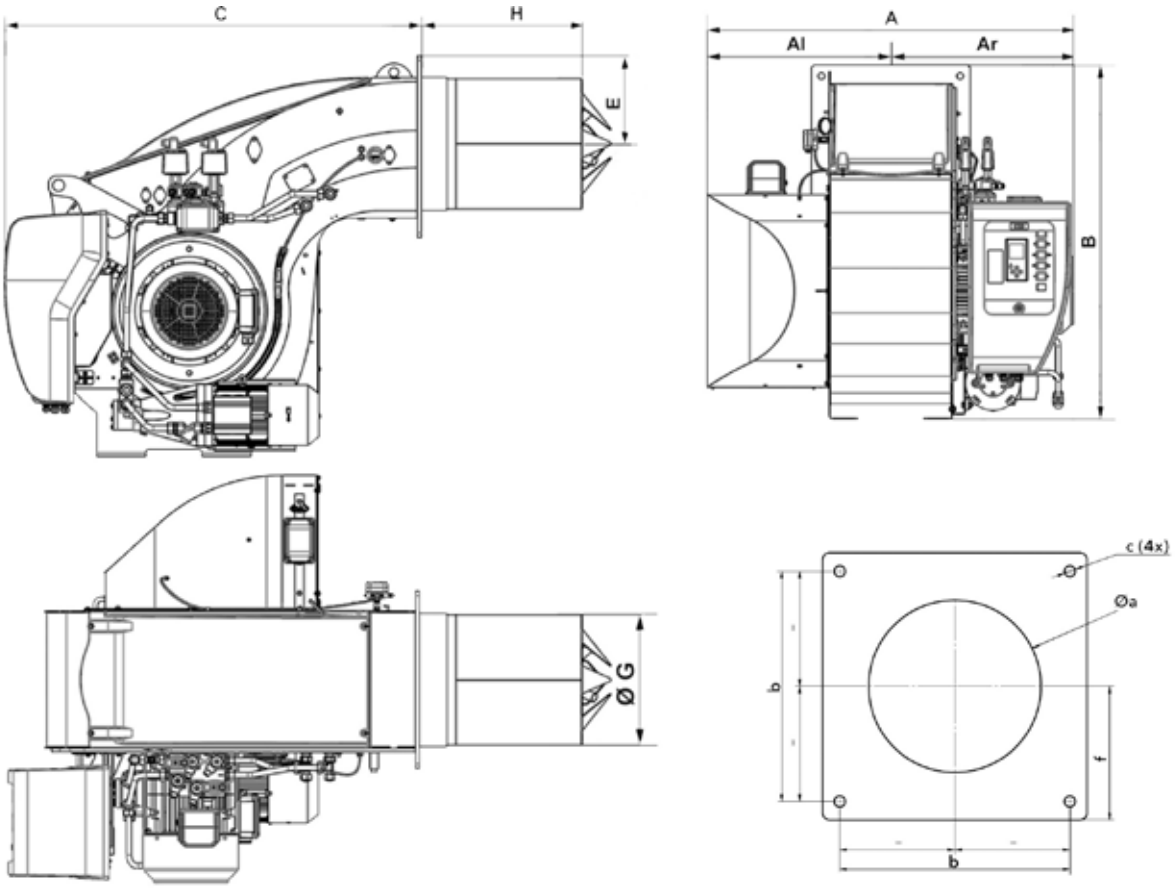


Test conditions conforming to EN267 - Temperature: 20°C - Pressure: 1013,5 mbar - Altitude: 0 m a.s.l.

		N8.5700 L-EF3	N9.6500 L-EF3
Operating range		1100 - 6450 kW	1200 - 6600 kW
Fuel connection		DN20 x 1500 mm / R 3/4"	DN20 x 1500 mm / R 3/4"
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
Control box / flame detector		BT300 / KLC20	BT300 / KLC20
Fan motor		50 Hz - 15 kW	50 Hz - 22 kW
Pump		SMG1630 - 1700 l/h	SMG1630 - 1700 l/h
Motor pump		50 Hz - 3 kW	50 Hz - 3 kW
Acoustic level		<83,9 dB(A)	<87,9 dB(A)
CE certificate		0085CL0215	0085CL0215
Burner codes (body + head)	**KN**	**3756799**	**3756800**
	KM	**3756803**	**3756804**
	KL	**3756807**	**3756808**

MDE2 GEM Variatron LOW NOx CLASS 3

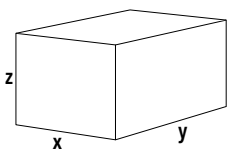
DIMENSIONS (mm)



Model	A	Al	Ar	B	C	E	ØG	H			Øa	b	c	f
								KN	KM	KL				
EK EVO 8.5700 L-EF3	1325	670	655	1231	1351	293	369	528	668	808	380-410	505	M20	293
EK EVO 9.6500 L-EF3	1400	670	730	1291	1348	293	431,5	543	693	843	445-480	505	M20	293

PACKAGING

The burner is delivered on a pallet in 1 package containing:
- burner body with mounted combustion head, boiler fixing accessories, technical data including electrical diagram, exploded view, spare parts list, and instruction manual.



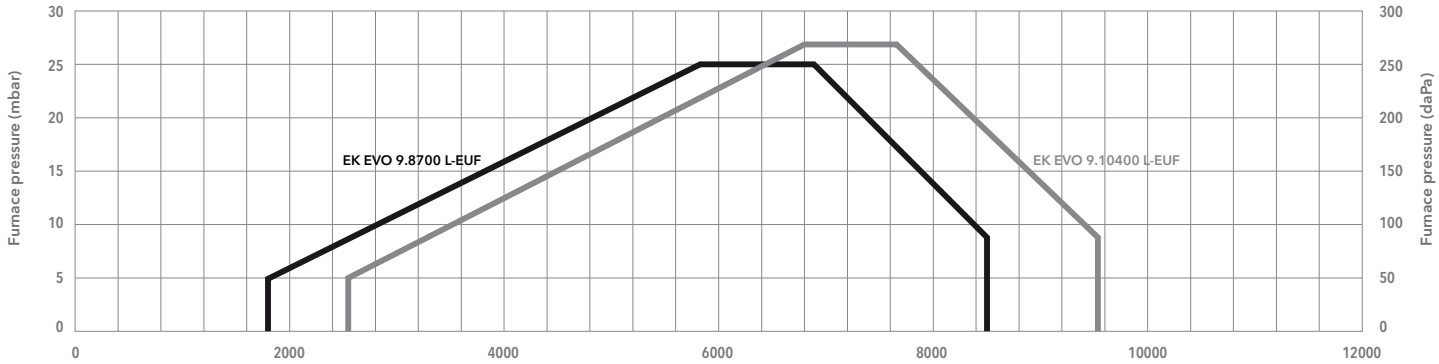
Models		Dimensions (mm)			Gross weight (kg)
		X	Y	Z	
EK EVO 8.5700 L-EF3	**KN**	2300	1500	1396	600
	KM	2300	1500	1396	608
	KL	2300	1500	1396	615
EK EVO 9.6500 L-EF3	**KN**	2300	1500	1461	670
	KM	2300	1500	1461	678
	KL	2300	1500	1461	685

EK EVO 9 L-EUF

1800 ... 9570 kW
2 stage progressive/modulating electronic (Low NOx class 3)

- **Fuels:** light oil, viscosity 6 mm²/s at 20°C, Hi = 11,86 kWh/kg
- **Emission class:** Low NOx class 3 (≤120 mg/kWh) according to EN267
- **Protection level:** IP 41

TECHNICAL DATA

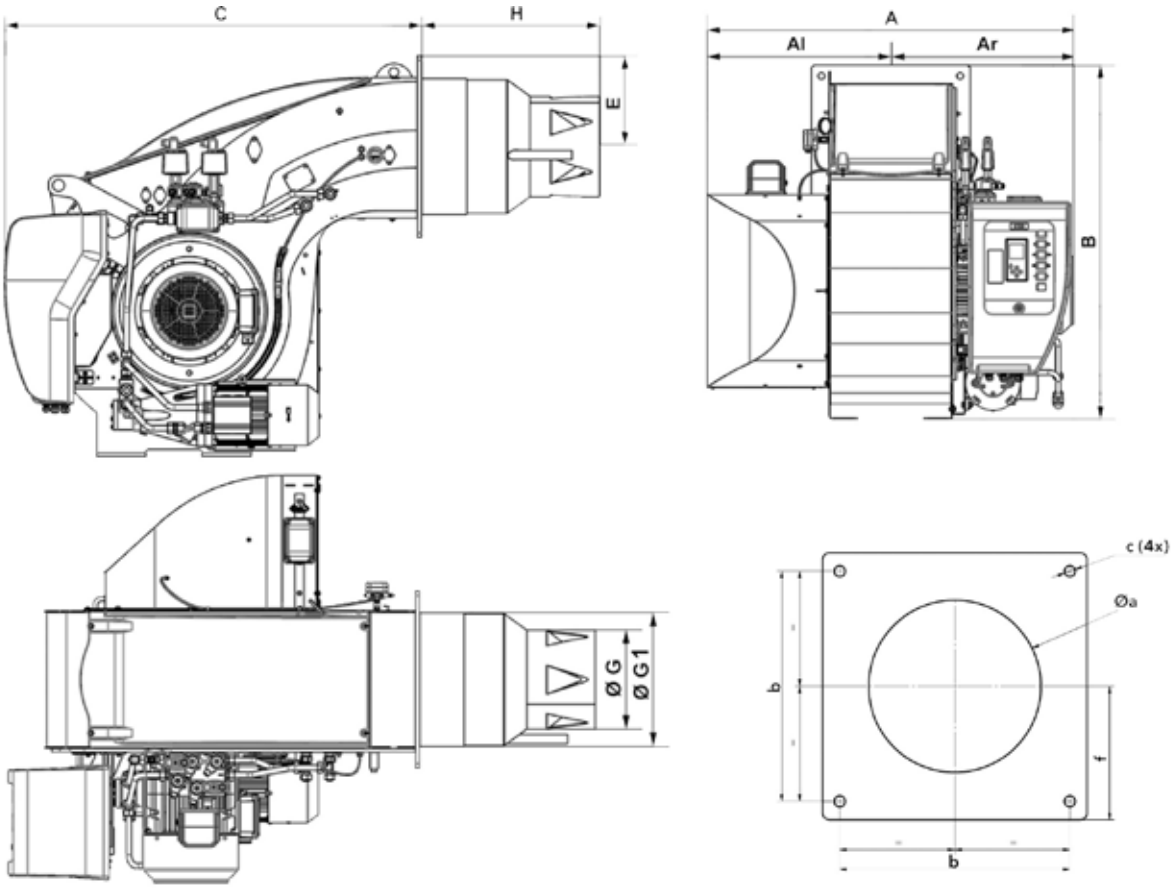


Test conditions conforming to EN267 - Temperature: 20°C - Pressure: 1013,5 mbar - Altitude: 0 m a.s.l.

		N9.8700 L-EUF	N9.10400 L-EUF
Operating range		1800 - 8500 kW	2550 - 9570 kW
Fuel connection		DN20 x 1500 mm / R 3/4"	DN25 x 1500 mm / R 1"
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
Control box / flame detector		BT300 / KLC20	BT300 / KLC20
Fan motor		50 Hz - 18,5 kW	50 Hz - 22 kW
Pump		SMG1630 - 1700 l/h	SMG1631 - 2200 l/h
Motor pump		50 Hz - 3 kW	50 Hz - 4 kW
Acoustic level		<85,9 dB(A)	<86,6 dB(A)
CE certificate		0085CL0215	0085CL0215
Burner codes (body + head)	**KN**	**3756801**	**3756802**
	KM	**3756805**	**3756806**
	KL	**3756809**	**3756810**

MDE2 GEM Variatron LOW NOx CLASS 3

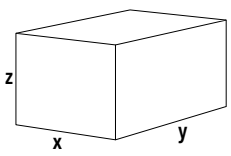
DIMENSIONS (mm)



Model	A	Al	Ar	B	C	E	ØG	ØG1	H			Øa	b	c	f
									KN	KM	KL				
EK EVO 9.8700 L-EUF	1336	670	666	1291	1348	293	320	431,5	575	725	875	445-480	505	M20	293
EK EVO 9.10400 L-EUF	1400	670	730	1291	1348	293	330	431,5	575	725	875	445-480	505	M20	293

PACKAGING

The burner is delivered on a pallet in 1 package containing:
- burner body with mounted combustion head, boiler fixing accessories, technical data including electrical diagram, exploded view, spare parts list, and instruction manual.



Models		Dimensions (mm)			Gross weight (kg)
		X	Y	Z	
EK EVO 9.8700 L-EUF	KN	2300	1500	1461	652
	KM	2300	1500	1461	660
	KL	2300	1500	1461	667
EK EVO 9.10400 L-EUF	KN	2300	1500	1461	662
	KM	2300	1500	1461	670
	KL	2300	1500	1461	677

BURNER VARIANTS (options already mounted in factory)

LCM MODULE (for communication, O_2 control, frequency converter)

Module mounted in factory, requested for O_2 control, Variatron and communication buses connections (the module is available also on request as a separate kit) Note: only one LCM module is necessary for these 3 options For all dual fuel models the LCM module is already included	**3751645**

MODULATING OPERATION

RS55 (Regulator RWF55 + instruction manual), mounted in factory on the switch cabinet – to be connected to the appropriate probe (see "BURNER KITS" session)	for EK EVO 6...9 G-... and EK EVO 6...9 GL-E/GL-EF3/GL-EUF	**3751646**
	for EK EVO 6/7 GL-EZ3	**3751647**

FREQUENCY CONVERTER ARRANGEMENT

Burner prepared to be connected to an external frequency converter; this variant includes the VSM module to control the frequency converter.
NOTE: one LCM module is required and must be ordered separately

EK EVO 6.2400 G-E/G-EF3 prepared for an external frequency converter of **3 kW**	**3751673**
EK EVO 6.2900 G-E/G-EF3 prepared for an external frequency converter of **4 kW**	**3751674**
EK EVO 7.3600 G-E prepared for an external frequency converter of **5,5 kW**	**3751675**
EK EVO 7.3600 G-EF3 and EK EVO 7.4500 G-E/G-EF3 prepared for an external frequency converter of **7,5 kW**	**3751676**
EK EVO 7.5800 G-EF3 prepared for an external frequency converter of **11 kW**	**3756304**
EK EVO 7.7000 G-EF3 prepared for an external frequency converter of **15 kW**	**3756304**
EK EVO 8.5800 G-E/G-EU3 prepared for an external frequency converter of **11 kW**	**3754025**
EK EVO 8.7100 G-E/G-EU3 prepared for an external frequency converter of **15 kW**	**3754026**
EK EVO 9.8700 G-E/G-EU3 prepared for an external frequency converter of **18,5 kW**	**3754027**
EK EVO 9.10400 G-E/G-EU3 prepared for an external frequency converter of **22 kW**	**3754028**
EK EVO 9.13000 G-EU2/G-EU3 prepared for an external frequency converter of **37 kW**	**3756303**
EK EVO 6.2400 GL-... prepared for an external frequency converter of **3 kW**	**3751677**
EK EVO 6.2900 GL-... prepared for an external frequency converter of **4 kW**	**3751678**
EK EVO 7.3600 GL-E prepared for an external frequency converter of **5,5 kW**	**3751679**
EK EVO 7.3600 GL-EF3 and EK EVO 7.4500 GL-E/GL-EF3 prepared for an external frequency converter of **7,5 kW**	**3751680**
EK EVO 8.5800 GL-E prepared for an external frequency converter of **11 kW**	**3755057**
EK EVO 8.7100 GL-E and EK EVO 8.5700 GL-EF3 prepared for an external frequency converter of **15 kW**	**3755058**
EK EVO 9.8700 GL-E/GL-EUF prepared for an external frequency converter of **18,5 kW**	**3755059**
EK EVO 9.10400 GL-E/GL-EUF and EK EVO 9.6500 GL-EF3 prepared for an external frequency converter of **22 kW**	**3755060**

MAX GAS PRESSURE SWITCH (mounted on the gas train)

EK EVO 6/7	with Siemens threaded gas trains	**3751669**
	with Siemens flanged gas trains	**3751670**
	with Dungs threaded gas trains	**3751671**
	with Dungs flanged gas trains	**3751672**
EK EVO 8/9	with Siemens threaded gas trains	**3754021**
	with Siemens flanged gas trains	**3754022**
	with Dungs threaded gas trains	**3754023**
	with Dungs flanged gas trains	**3754024**

BURNER VARIANTS (options already mounted in factory)

STAR/DELTA MOTOR STARTER

Star/Delta 4,0 G/BT3 for EK EVO 6.2900 G-E, G-EF3, GL-EZ3 and GL-E, GL-EF3	**3751650**
Star/Delta 5,5 G/BT3 for EK EVO 7.3600 G-E, GL-EZ3 and GL-E	**3751651**
Star/Delta 7,5 G/BT3 for EK EVO 7.3600 G-EF3, GL-EF3 and EK EVO 7.4500 G-E, G-EF3, GL-EZ3 GL-E, GL-EF3	**3751652**

PED EQUIPMENT

Equipment of the gas train and the burner body for continuous operation (PED):
- controller and flame sensor approved for continuous operation,
- maximum gas pressure switch on the gas train,
- test burner (to bleed the gas train),
- PED Conformity Declaration.

Note: if required, the antivibrating coupling (to avoid mechanical tension) has to be selected as option

PED for EK EVO 6/7 G-E	with Siemens threaded gas trains	**3751653**
	with Siemens flanged gas trains	**3751654**
	with Dungs threaded gas trains	**3751655**
	with Dungs flanged gas trains	**3751656**
PED for EK EVO 6/7 G-EF3	with Siemens threaded gas trains	**3751665**
	with Siemens flanged gas trains	**3751666**
	with Dungs threaded gas trains	**3751667**
	with Dungs flanged gas trains	**3751668**
PED for EK EVO 8/9 G-E and EK EVO 8/9 G-EU3	with Siemens threaded gas trains	**3754010**
	with Siemens flanged gas trains	**3754011**
	with Dungs threaded gas trains	**3754019**
	with Dungs flanged gas trains	**3754020**
PED for EK EVO 6/7 GL-EZ3 and EK EVO 6/7 GL-E	with Siemens threaded gas trains	**3751657**
	with Siemens flanged gas trains	**3751658**
	with Dungs threaded gas trains	**3751659**
	with Dungs flanged gas trains	**3751660**
PED for EK EVO 8/9 GL-E	with Siemens threaded gas trains	**3755055**
	with Siemens flanged gas trains	**3755056**
	with Dungs threaded gas trains	**3755053**
	with Dungs flanged gas trains	**3755054**
PED for EK EVO 6/7 GL-EF3	with Siemens threaded gas trains	**3755067**
	with Siemens flanged gas trains	**3755068**
	with Dungs threaded gas trains	**3755065**
	with Dungs flanged gas trains	**3755066**
PED for EK EVO 8/9 GL-EU3/GL-EUF	with Siemens threaded gas trains	**3755063**
	with Siemens flanged gas trains	**3755064**
	with Dungs threaded gas trains	**3755061**
	with Dungs flanged gas trains	**3755062**

BURNER KITS (delivered separately)

O_2 TRIM for BT300, Etamatic and Etamatic OEM

This device optimizes the combustion in order to keep the air excess as much stable as possible irrespective of the changings that can occur during operations, for instance slight calorific value variations, combustion air temperature and pressure. This improves the seasonal efficiency and therefore reduces the fuel consumption.
The kit includes all the fittings for the installation. Main components are:
- control unit with display;
- probe;
- intake pipe to be fixed to the stack (choose the proper length).

The control unit has to be installed close to the probe (max 20 m of cable)
The probe needs a calibration but no reference gas is necessary.
The display shows the O_2 content.
Maximum distance between the control unit and the burner control panel is 500 m.

	Output	Probe length	Code
Kit for O_2 trim (LT3 + LS2) - Flue temp max 300 °C - display for O_2 visualization (Note: for models equipped with BT3xx this kit needs a LCM module installed in the burner control panel)	1 x 4-20 mA	150 mm	**3757433**
	1 x 4-20 mA	300 mm	**3757137**
	1 x 4-20 mA	450 mm	**3757138**

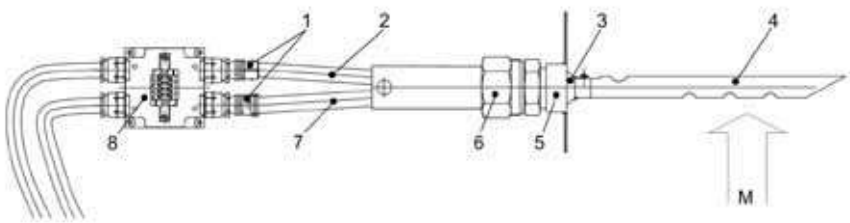
O_2 TRIM with CO measure for BT300, Etamatic and Etamatic OEM

This device optimizes the combustion in order to keep the air excess as low as possible in order to maximize the seasonal efficiency and therefore minimize the fuel consumption.
In addition to the features of the O_2 trim only, this kit reduces the air excess to its minimum because this system continuously measures the CO content in the flue: should the air excess be reduced too much, the CO raises and the system reacts by increasing the air excess in order to keep firing in safe conditions.
The kit includes all the fittings for the installation. Main components are:
- control unit with display;
- probe;
- intake pipe to be fixed to the stack (choose the proper length).

The control unit has to be installed close to the probe (max 20 m of cable).
The probe needs a calibration but no reference gas is necessary.
The display shows the O_2 content.
Maximum distance between the control unit and the burner control panel is 500 m.

Note: this system is not suitable for GL-EUF and L-EUF burners

	Output	Probe length	Code
Kit for O_2 trim and CO control (LT3-F + KS1D) - Flue temp max 300 °C (Note: for models equipped with BT3xx this kit needs a LCM module installed in the burner control panel)	None	150 mm	**3758001**
	None	300 mm	**3755046**
	None	450 mm	**3756533**
	4 x 0/4-20mA	300 mm	**3754549**
	4 x 0/4-20mA	450 mm	**3754550**
	4 x 0/4-20mA & 4 x digital	300 mm	**3754551**
	4 x 0/4-20mA & 4 x digital	450 mm	**3754552**



M - measuring gas 300°C max
1 - plug
2 - probe signal
3 - Lambda Probe
4 - gas extraction device (GED)
5 - half-collar R1"1/4
6 - probe installation fitting (PIF)
7 - probe heater
8 - probe connection box (PCB)

BURNER KITS (delivered separately)

REMOTE SOFTWARE

Kit to connect a PC laptop to the BT300 for its parametrization	LSA100 + USB/CAN + CD-Rom	**3751130**

COMMUNICATION MODULES

Module for external installation Note: LCM module is required	ModBus/BT3	**3754456**
	ProfiBus/BT3	**3752986**
	Ethernet/BT3	**on request**

POWER REGULATOR

Power regulator RWF55 stand-alone and kit wiring	**3753358**

PROBES

Immersion probes	130°C + pocket tube	**3750070**
	Pt 100 - 400°C (160 mm)	**1758574269**
	Pt 100 - 480°C (250 mm)	**3751009**
Pressure probes	0…1,6 bar	**3752217**
	0…2,5 bar	**1758713722**
	0…6 bar	**1758640660**
	0…10 bar	**1758577280**
	0…16 bar	**1758577291**
	0…25 bar	**3751015**

EXTERNAL AIR INLET CONNECTION KIT

Connection for external air channel for EK EVO 6 and EK EVO 7	**3752987**
Connection for external air channel for EK EVO 8 and EK EVO 9	**3754031**

ACOUSTIC SHROUDS

See page 215 for all sizes

SPECIAL CONFIGURATIONS (on request)

- Equipment according EN746-2
- Permanent ventilation
- 60 Hz versions
- Remote display (BT3xx)
- Separate switch box / terminal strip version (Etamatic OEM)
- LPG firing
- Hinge flange
- "Burner ON" feedback signal

Other special requests can be submitted to your Sales Reference for feasibility evaluation

NEXTRON

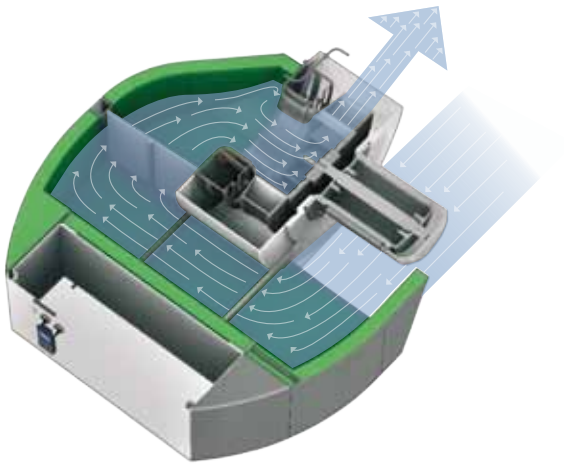
Monoblock burners from 250 to 11200 kW
Gas, light oil and dual fuel

Design: smooth and integral

The original design of NEXTRON® range is the result of a successful integration between burner and ELCO technologies. NEXTRON® burners are able to perfectly integrate themselves in any installation and professionals will appreciate the innovative construction that ease maintenance.

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® 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® burners is definitely a good replacement of the traditional bulky sound proofing box.

Built-in and modular switch cabinet

All the NEXTRON® burners feature integrated switch cabinet, the ISC System, with modular concept for control devices and accessories:

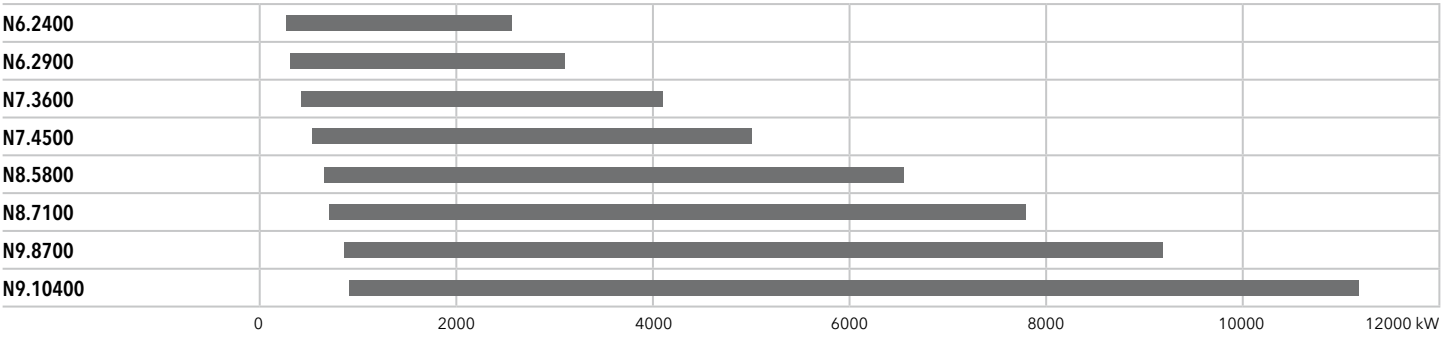
- adjusting and safety control box
- EMC protected power circuit of fan motor
- display with command keyboard in front of the panel

The ISC System houses options and accessories, such as the power regulator and the frequency inverter Variatron, and customizes each burner according to the installation needs.

MAIN TECHNICAL FEATURES

- Two stage progressive/modulating forced draught burner.
- Fuels:
  - natural gas, Hi = 6,99 … 11,39 kWh/Nm^3
  - LPG, Hi = 25,89 kWh/Nm^3
  - light oil, viscosity 6 mm^2/s at 20°C, Hi = 11,86 kWh/kg
- Combustion technology:
  - Low NOx class 2 (≤120 mg/kWh) and class 3 (≤80 mg/kWh) in gas operation acccording to EN676
  - Low NOx class 2 (≤185 mg/kWh) and class 3 (≤120 mg/kWh) in light oil operation according to EN267
- Integrated switch cabinet (ISC System) with modular concept complete for an easy installation with:
  - BT300 control box (MDE2 System and display);
  - fan motor direct start-up;
  - enumarated connection terminals;
  - power regulator (option);
  - speed controller Variatron (option);
  - O_2 control (option);
  - Bus interface (option)
- Innovative design allowing easy access to burner components for fast start-up and reduced maintenance time and space
- Three flame tube lengths available
- Secured burner head adjustments during maintenance (RTC System)
- Unique air intake channel design (patented) to reduce acoustic levels (Low Noise 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 and EN267 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

RANGE OVERVIEW

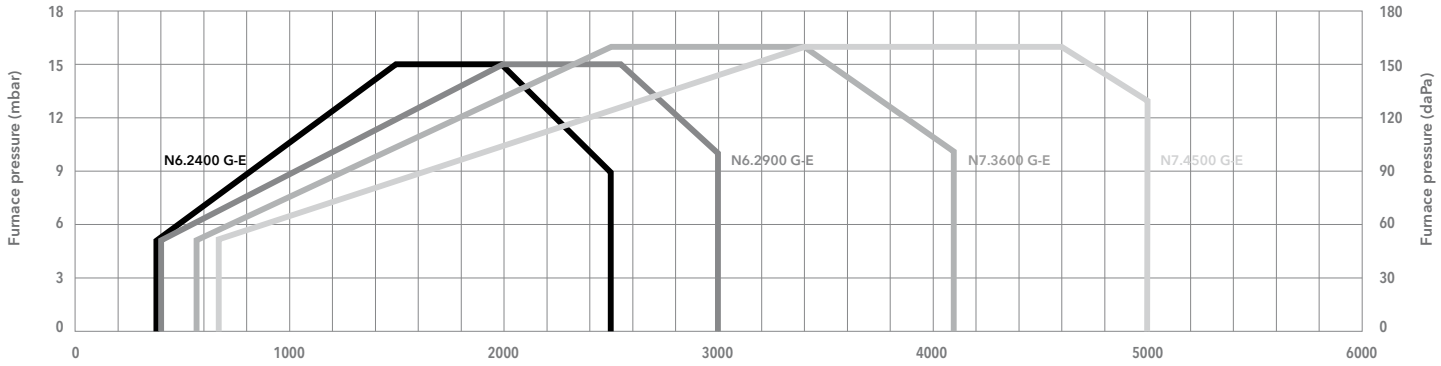


N6 G-E, N7 G-E

390 ... 5000 kW
2 stage progressive/modulating electronic

- **Fuels:** natural gas, Hi = 6,99 … 11,39 kWh/Nm³;
  LPG, Hi = 25,89 kWh/Nm³
- **Emission class:** Low NOx class 2 (≤120 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.

	N6.2400 G-E	N6.2900 G-E	N7.3600 G-E	N7.4500 G-E
Operating range	390 – 2500 kW	400 – 3000 kW	580 – 4100 kW	680 – 5000 kW
Gas pressure	50 – 500 mbar (50 - 360 mbar for d452 and d453 gas train)		50 – 500 mbar (50 - 360 mbar for d452 and d453 gas train)	
Gas connection	DN65	DN65	DN65	DN65
Control box / flame detector	BT300 / Ionisation	BT300 / Ionisation	BT300 / Ionisation	BT300 / Ionisation
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	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	3PE AC 400 V - 50 Hz
Fan motor	50 Hz - 3 kW	50 Hz - 4 kW	50 Hz – 5,5 kW	50 Hz – 7,5 kW
Acoustic level	<70 dB(A)	<71 dB(A)	<74 dB(A)	<75 dB(A)
CE certificate	0085CL0215	0085CL0215	0085CL0215	0085CL0215
Complete burner codes	**on request**	**on request**	**on request**	**on request**

GAS TRAINS

DUNGS

Model	Code
GT-d452-1"1/2 (*)	3750510
GT-d453-2" (*)	3750511
GT-d454-65	3750512
GT-d455-80	3750513
GT-d456-100	3750514

*: integrated filter

SIEMENS

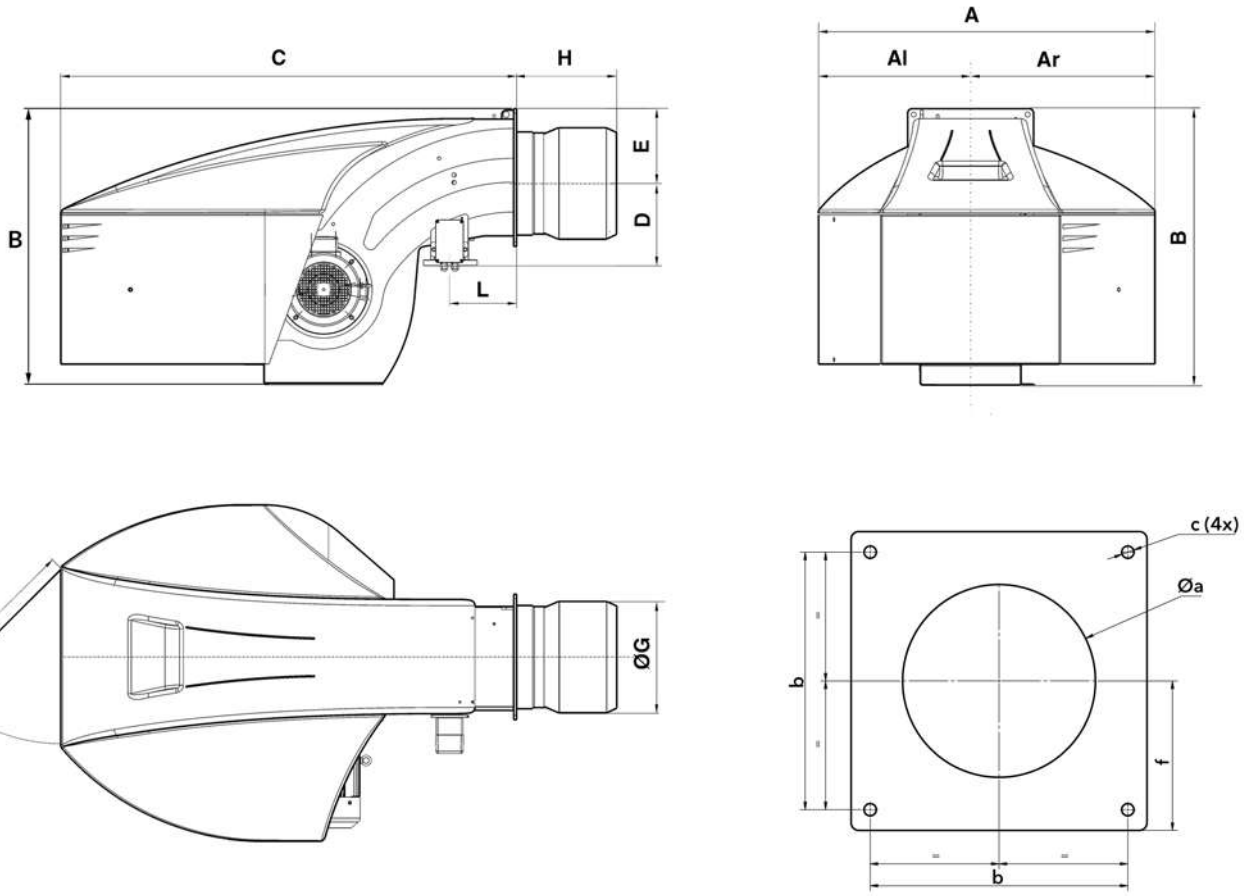
Model	Code
GT-s451-1"1/2	3750525
GT-s452-2"	3750526
GT-s453-65	3750527
GT-s454-80	3750528
GT-s455-100	3750529
GT-s456-125	3750530

FILTERS

Model	Code
FG-Rp1"1/2	3757199
FG-Rp2"	3757200
FG-DN65	3757198
FG-DN80	3757201
FG-DN100	3757195
FG-DN125	3757209

Pressure drops graphs: see following pages
Dimensions of gas trains and gas filters: see pag. 206

DIMENSIONS (mm)

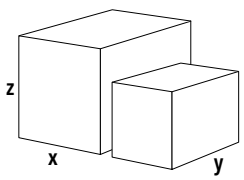


Model	A	Al	Ar	B	C	D	E	ØG	H			L	Q
									KN	KM	KL		
N6	990	479	510	837	1361	245	225	320	330	450	570	215	600
N7	1128	511	618	961	1529	276	255	370	375	505	635	225	600

Øa	b	c	f
330-340	340	M16	200
380-400	400	M16	235

PACKAGING

The burner is delivered on a pallet in 2 packages containing:
- burner body with mounted combustion head, boiler fixing accessories and technical documentation;
- gas train and filter.

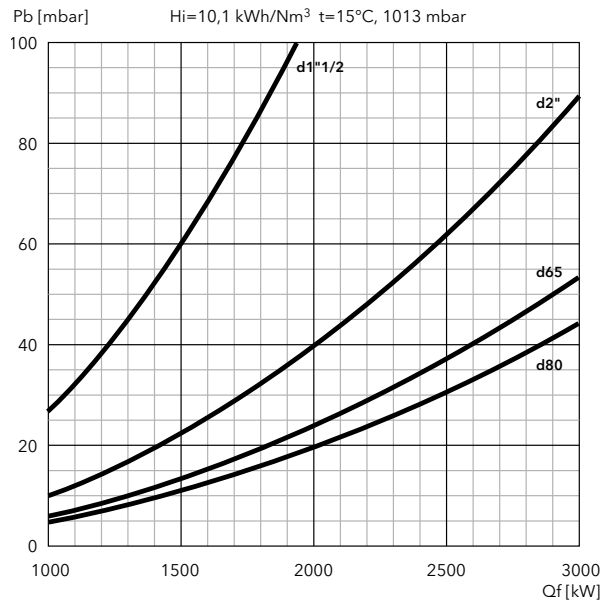


Models		Dimensions (mm)			Gross weight (kg)
		X	Y	Z	
N6.2400 G-E	KN	1691	990	837	280
	KM	1811	990	837	280
	KL	1931	990	837	280
N6.2900 G-E	KN	1691	990	837	290
	KM	1811	990	837	290
	KL	1931	990	837	290
N7.3600 G-E	KN	1904	1128	961	320
	KM	2034	1128	961	320
	KL	2164	1128	961	320
N7.4500 G-E	KN	2049	1128	961	330
	KM	2179	1128	961	330
	KL	2309	1128	961	330

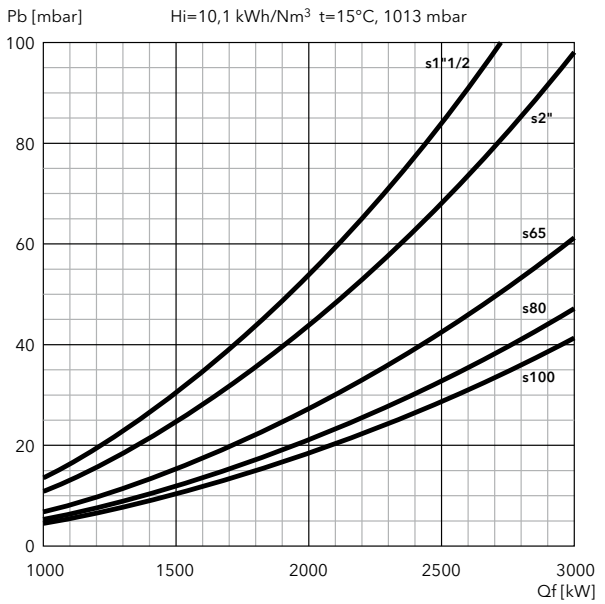
PRESSURE LOSSES (BURNER HEAD + GAS TRAIN)

N6.2400 G-E

DUNGS

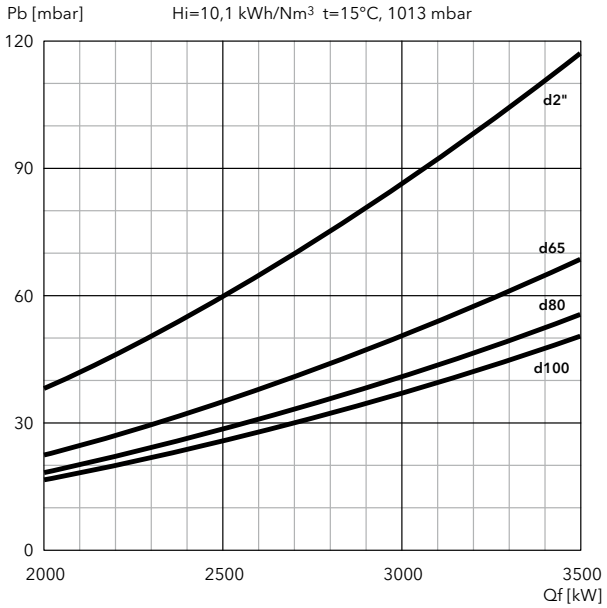


SIEMENS

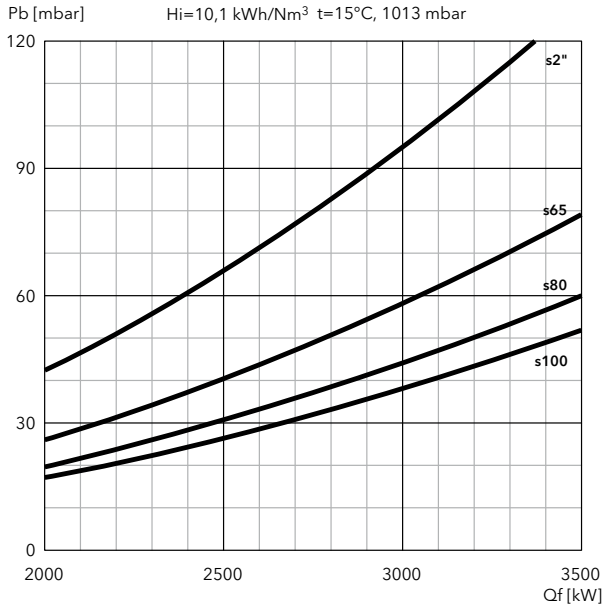


N6.2900 G-E

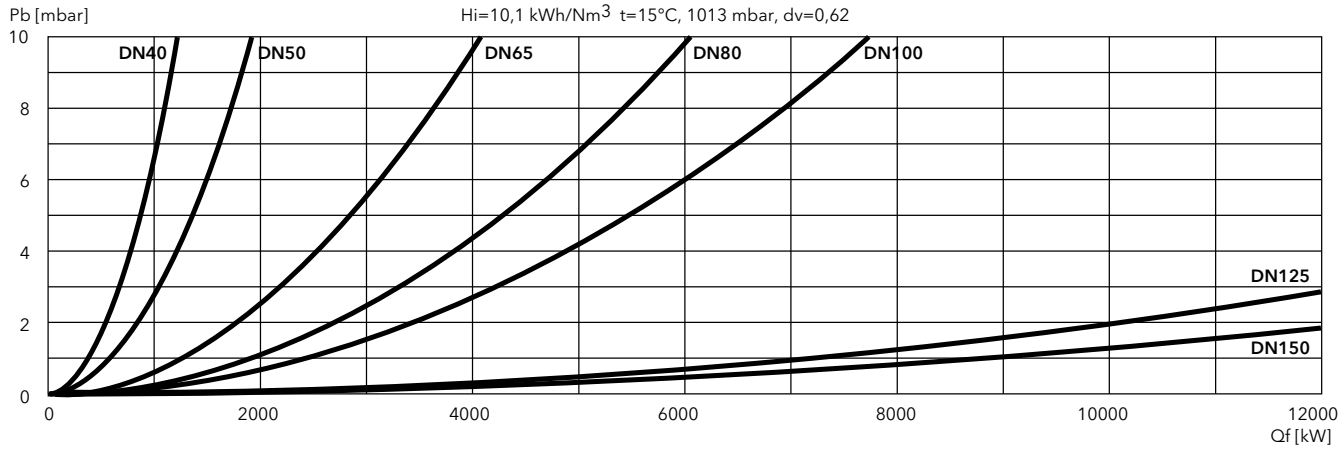
DUNGS



SIEMENS



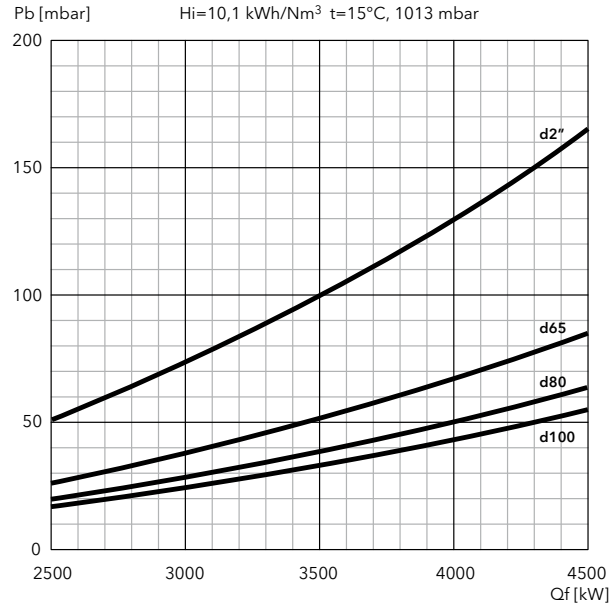
FILTERS



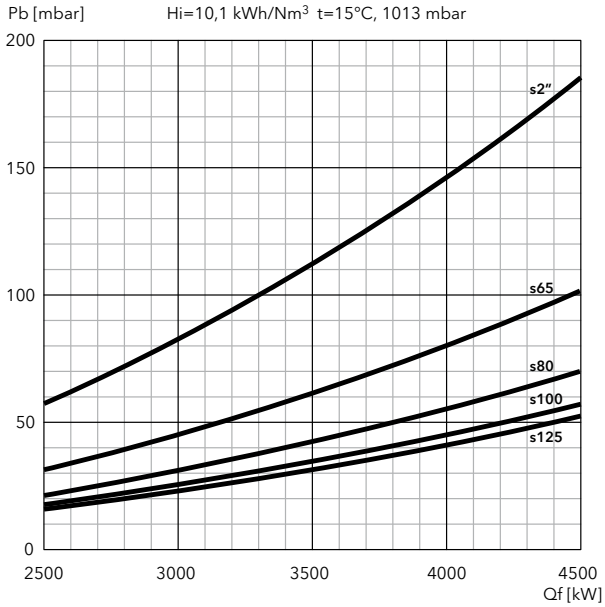
PRESSURE LOSSES (BURNER HEAD + GAS TRAIN)

N7.3600 G-E

DUNGS

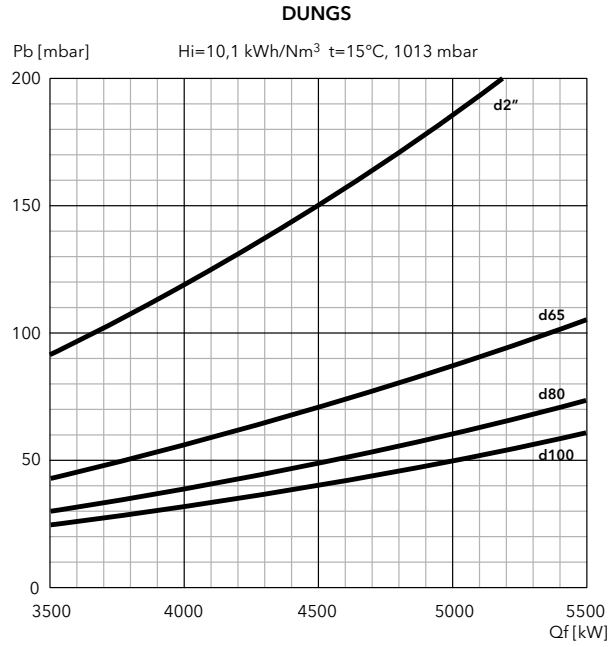


SIEMENS

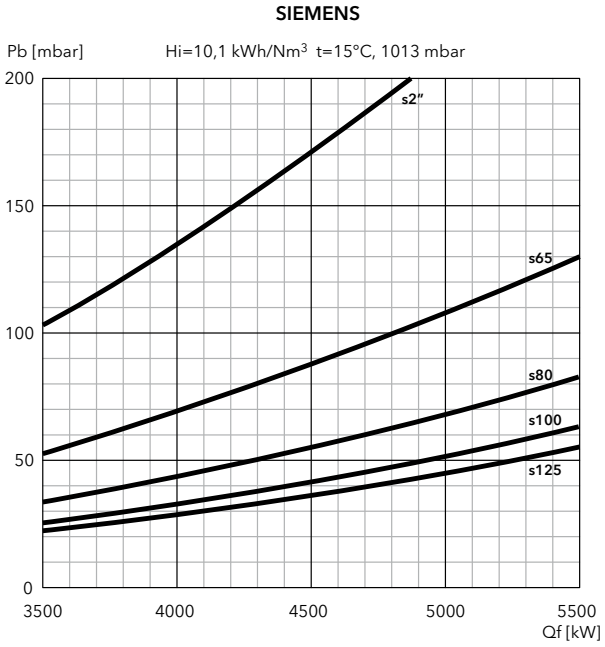


N7.4500 G-E

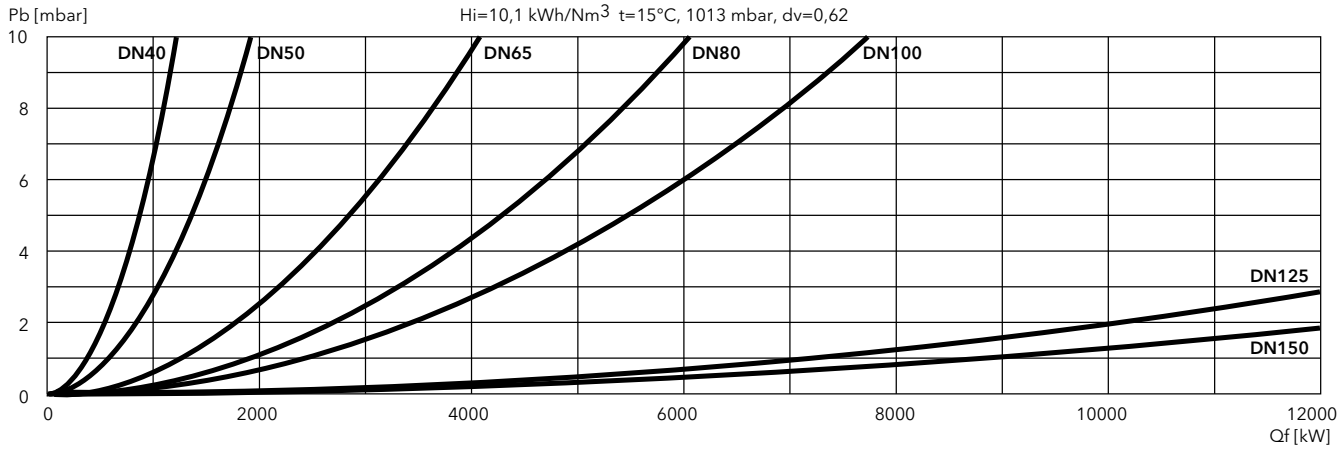
DUNGS



SIEMENS



FILTERS

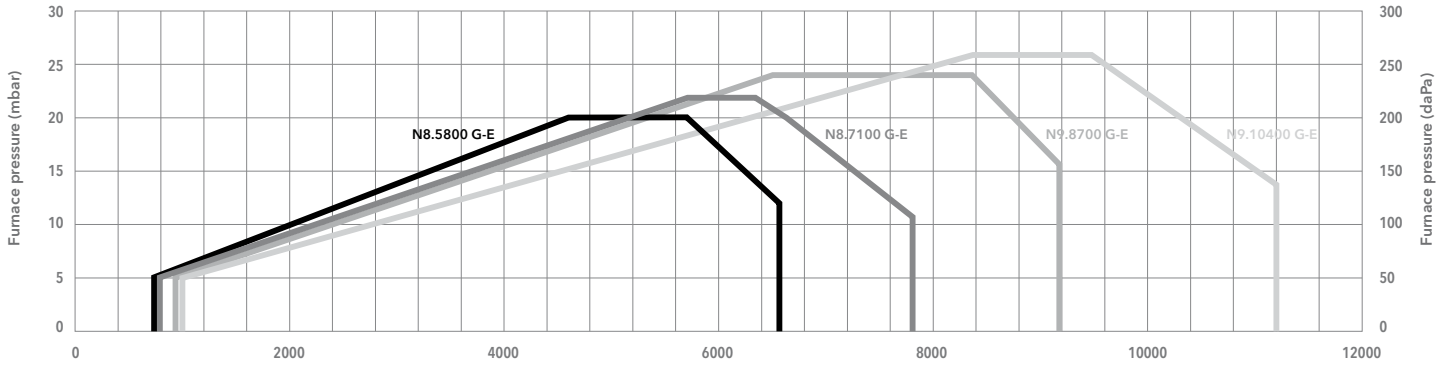


N8 G-E, N9 G-E

740 ... 11200 kW
2 stage progressive/modulating electronic

- **Fuels:** natural gas, Hi = 6,99 … 11,39 kWh/Nm³;
  LPG, Hi = 25,89 kWh/Nm³
- **Emission class:** Low NOx class 2 (≤120 mg/kWh) according to EN676
- **Modulating ratio:** 1:10
- **Protection level:** IP 41

TECHNICAL DATA



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

	N8.5800 G-E	N8.7100 G-E	N9.8700 G-E	N9.10400 G-E
Operating range	740 – 6570 kW	800 – 7800 kW	880 – 9200 kW	960 – 11200 kW
Gas pressure	60 – 500 mbar (60 - 360 mbar for d457 gas train)		70 – 500 mbar (70 - 360 mbar for d457 gas train)	
Gas connection	DN100	DN100	DN100	DN100
Control box / flame detector	BT300 / Ionisation	BT300 / Ionisation	BT300 / Ionisation	BT300 / Ionisation
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	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	3PE AC 400 V - 50 Hz
Fan motor	50 Hz – 11 kW	50 Hz – 15 kW	50 Hz – 18,5 kW	50 Hz – 22 kW
Acoustic level	<78 dB(A)	<78 dB(A)	<80 dB(A)	<81 dB(A)
CE certificate	0085CL0215	0085CL0215	0085CL0215	0085CL0215
Complete burner codes	**on request**	**on request**	**on request**	**on request**

GAS TRAINS

DUNGS

Model	Code
GT-d457-2" (*)	3750515
GT-d458-65	3750516
GT-d459-80	3750517
GT-d460-100	3750518

*: integrated filter

SIEMENS

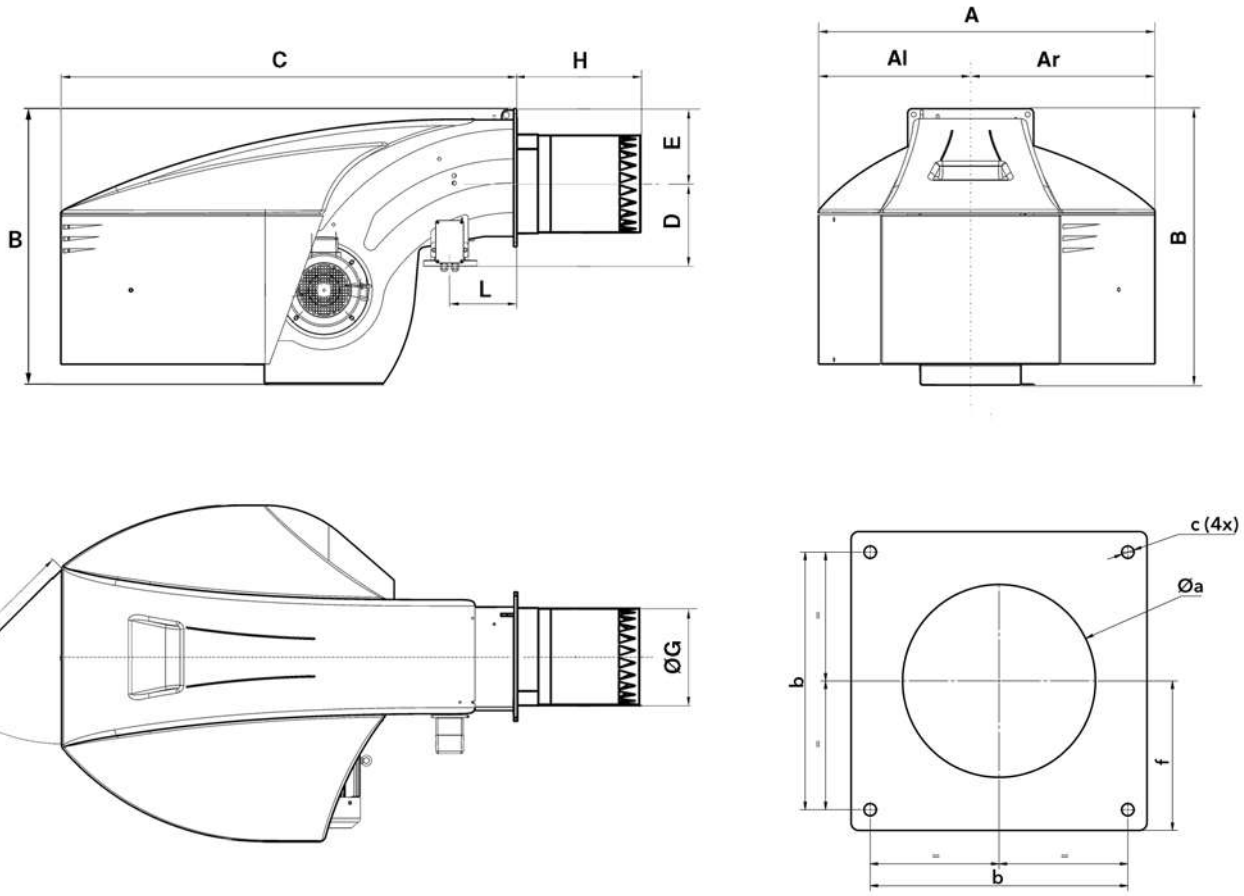
Model	Code
GT-s457-2"	3750537
GT-s458-65	3750538
GT-s459-80	3750539
GT-s460-100	3750540
GT-s461-125	3750541

FILTERS

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

Pressure drops graphs: see following pages
Dimensions of gas trains and gas filters: see pag. 207

DIMENSIONS (mm)

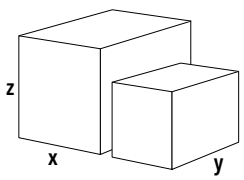


Model	A	Al	Ar	B	C	D	E	ØG	H			L	Q
									KN	KM	KL		
N8	1414	669	745	1231	1930	344	293	369	500	640	780	230	800
N9	1414	669	745	1291	1928	369	293	431,5	550	700	850	230	800

Øa	b	c	f
390-410	505	M20	293
460-480	505	M20	293

PACKAGING

The burner is delivered on a pallet in 2 packages containing:
- burner body with mounted combustion head, boiler fixing accessories and technical documentation;
- gas train and filter.

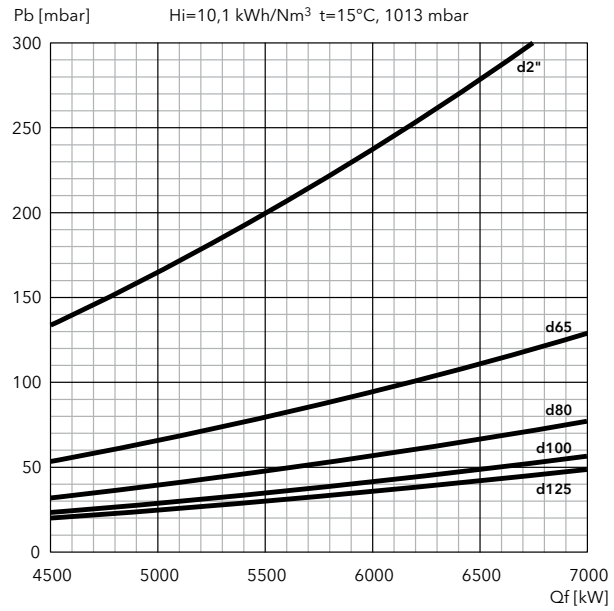


Models		Dimensions (mm)			Gross weight (kg)
		X	Y	Z	
N8.5800 G-E	KN	2430	1414	1231	527
	KM	2570	1414	1231	527
	KL	2710	1414	1231	527
N8.7100 G-E	KN	2430	1414	1231	535
	KM	2570	1414	1231	535
	KL	2710	1414	1231	535
N9.8700 G-E	KN	2430	1414	1231	527
	KM	2570	1414	1231	527
	KL	2710	1414	1231	527
N9.10400 G-E	KN	2430	1414	1231	535
	KM	2570	1414	1231	535
	KL	2710	1414	1231	535

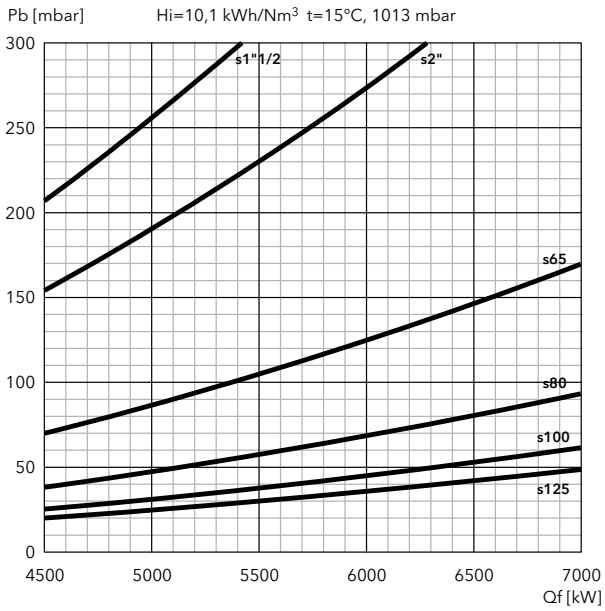
PRESSURE LOSSES (BURNER HEAD + GAS TRAIN)

N8.5800 G-E

DUNGS

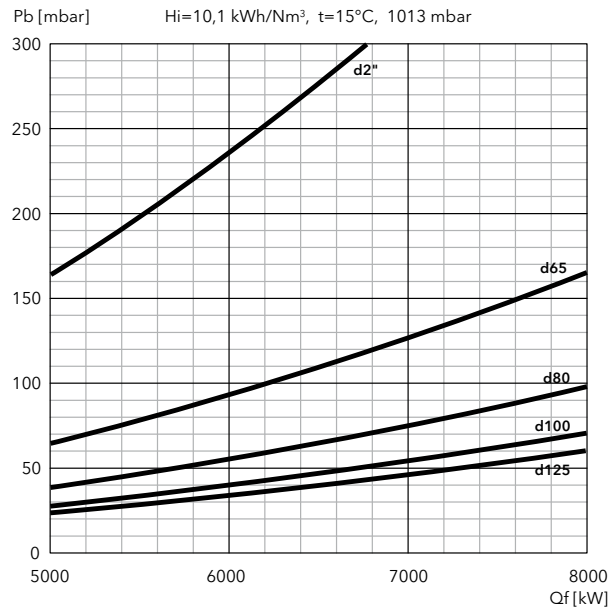


SIEMENS

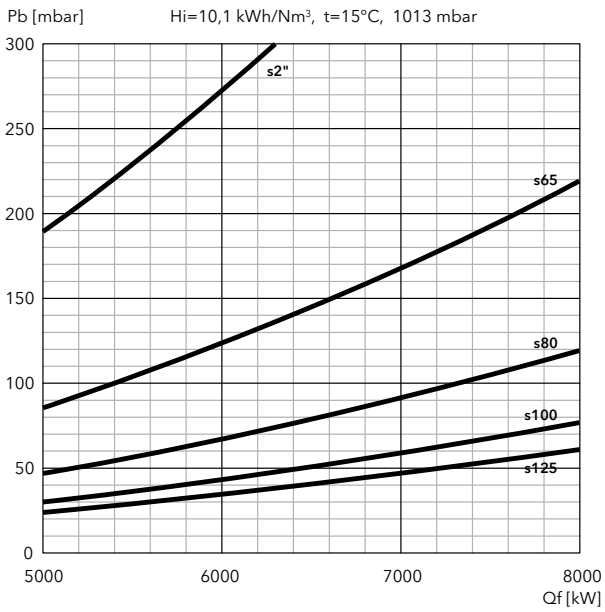


N8.7100 G-E

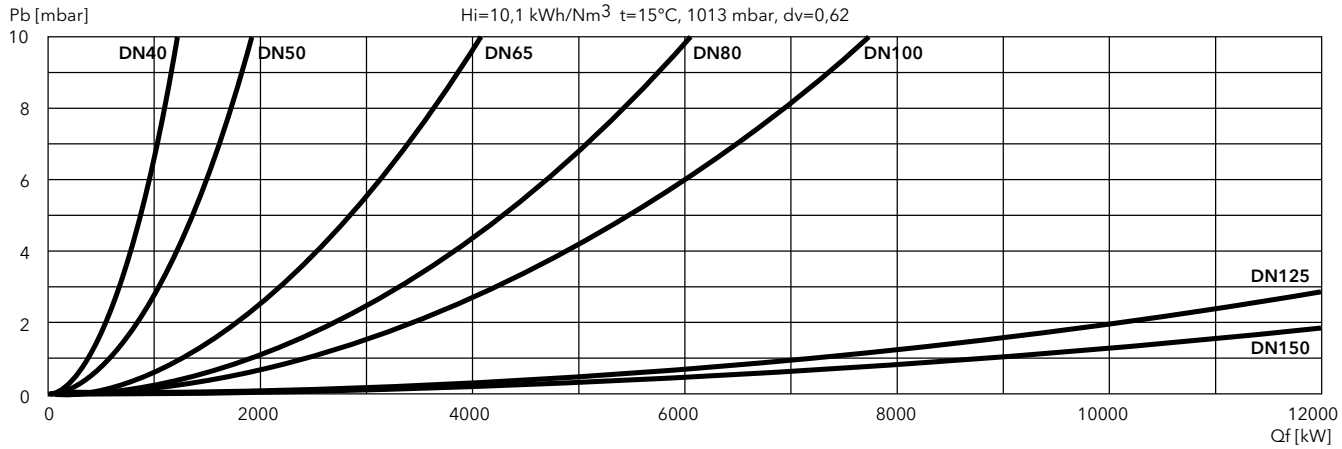
DUNGS



SIEMENS



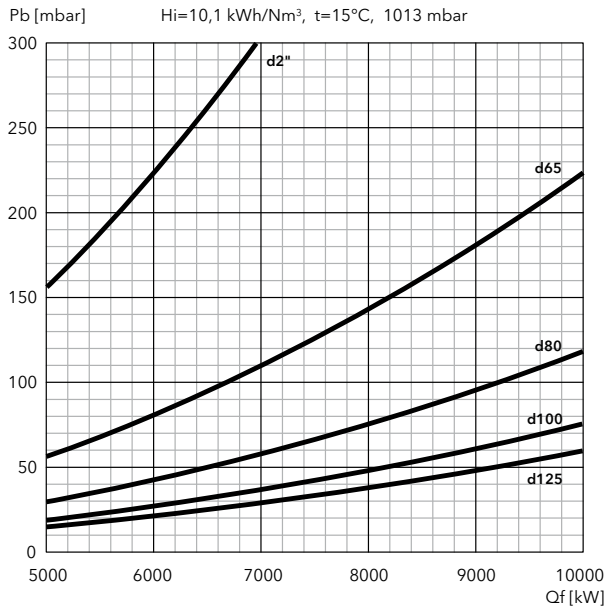
FILTERS



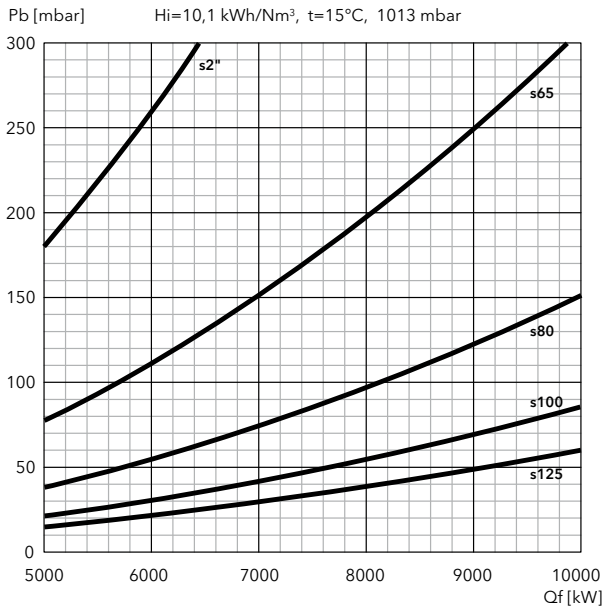
PRESSURE LOSSES (BURNER HEAD + GAS TRAIN)

N9.8700 G-E

DUNGS

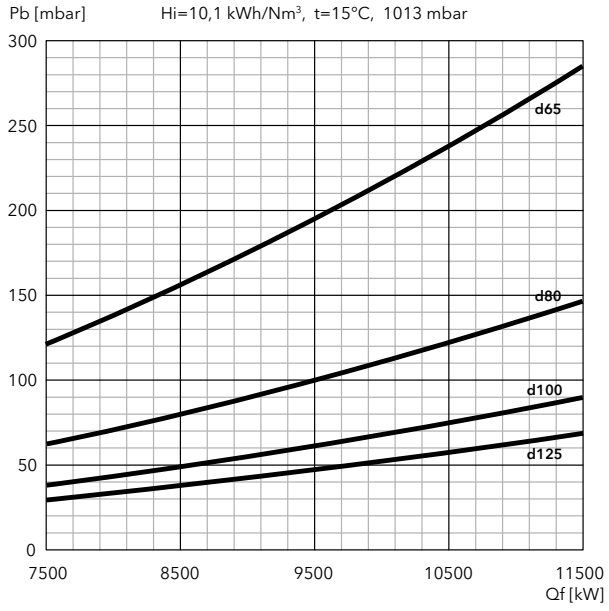


SIEMENS

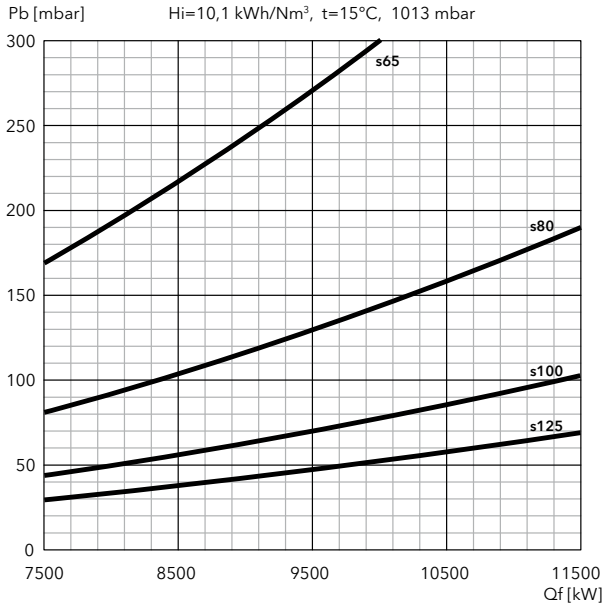


N9.10400 G-E

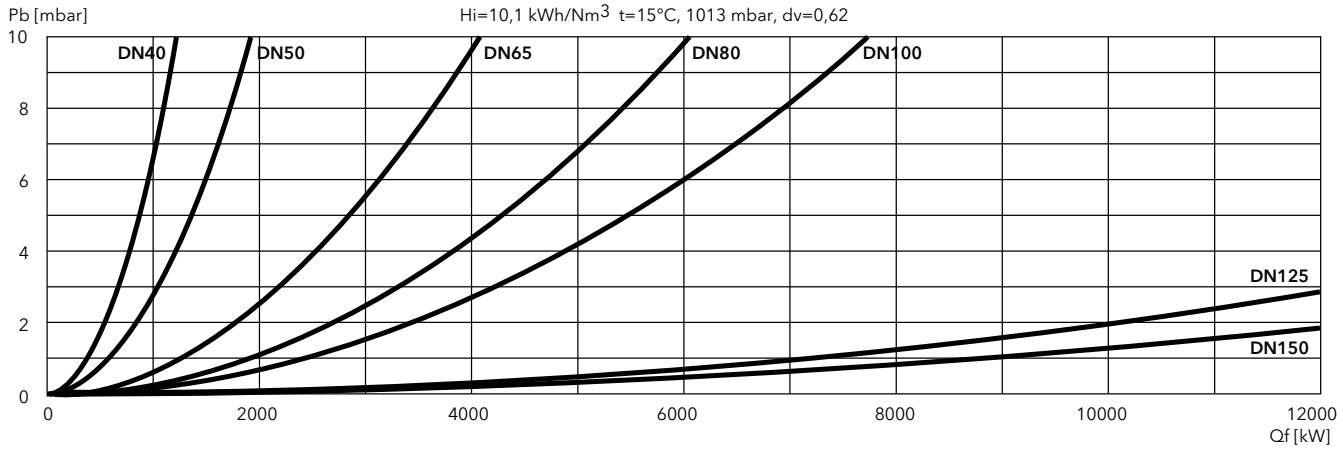
DUNGS



SIEMENS



FILTERS

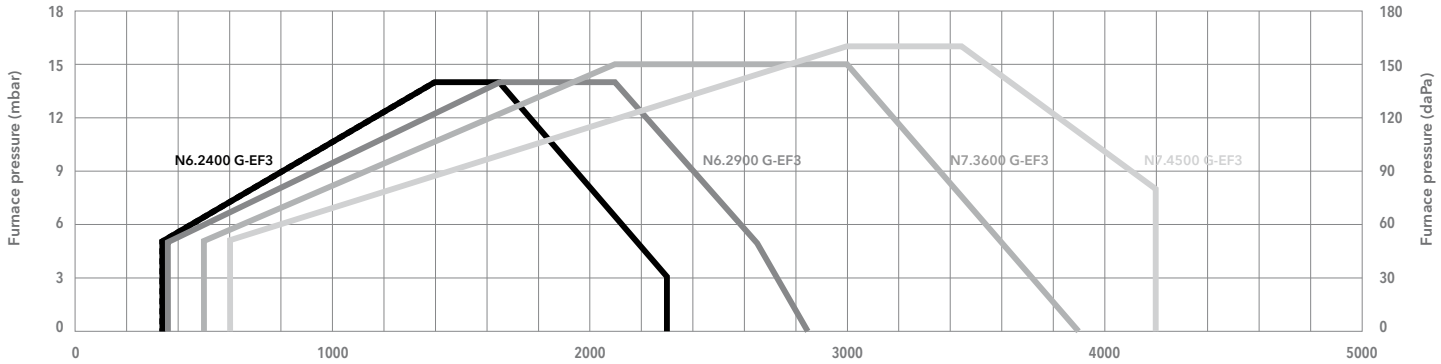


N6 G-EF3, N7 G-EF3

340 ... 4200 kW
2 stage progressive/modulating electronic (Low NOx class 3)

- **Fuels:** natural gas, Hi = 6,99 … 11,39 kWh/Nm³;
  LPG, Hi = 25,89 kWh/Nm³
- **Emission class:** Low NOx class 3 (≤80 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.

	N6.2400 G-EF3	N6.2900 G-EF3	N7.3600 G-EF3	N7.4500 G-EF3
Operating range	340 - 2300 kW	360 - 2850 kW	500 - 3900 kW	600 - 4200 kW
Gas pressure	50 – 500 mbar (50 - 360 mbar for d452 and d453 gas train)		50 – 500 mbar (50 - 360 mbar for d452 and d453 gas train)	
Gas connection	DN65	DN65	DN65	DN65
Control box / flame detector	BT300 / QRA2	BT300 / QRA2	BT300 / QRA2	BT300 / QRA2
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	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	3PE AC 400 V - 50 Hz
Fan motor	50 Hz - 3 kW	50 Hz - 4 kW	50 Hz – 7,5 kW	50 Hz – 7,5 kW
Acoustic level	<70 dB(A)	<71 dB(A)	<74 dB(A)	<75 dB(A)
CE certificate	0085CL0215	0085CL0215	0085CL0215	0085CL0215
Complete burner codes	**on request**	**on request**	**on request**	**on request**

GAS TRAINS

DUNGS

Model	Code
GT-d452-1"1/2 (*)	3750510
GT-d453-2" (*)	3750511
GT-d454-65	3750512
GT-d455-80	3750513
GT-d456-100	3750514

*: integrated filter

SIEMENS

Model	Code
GT-s451-1"1/2	3750525
GT-s452-2"	3750526
GT-s453-65	3750527
GT-s454-80	3750528
GT-s455-100	3750529
GT-s456-125	3750530

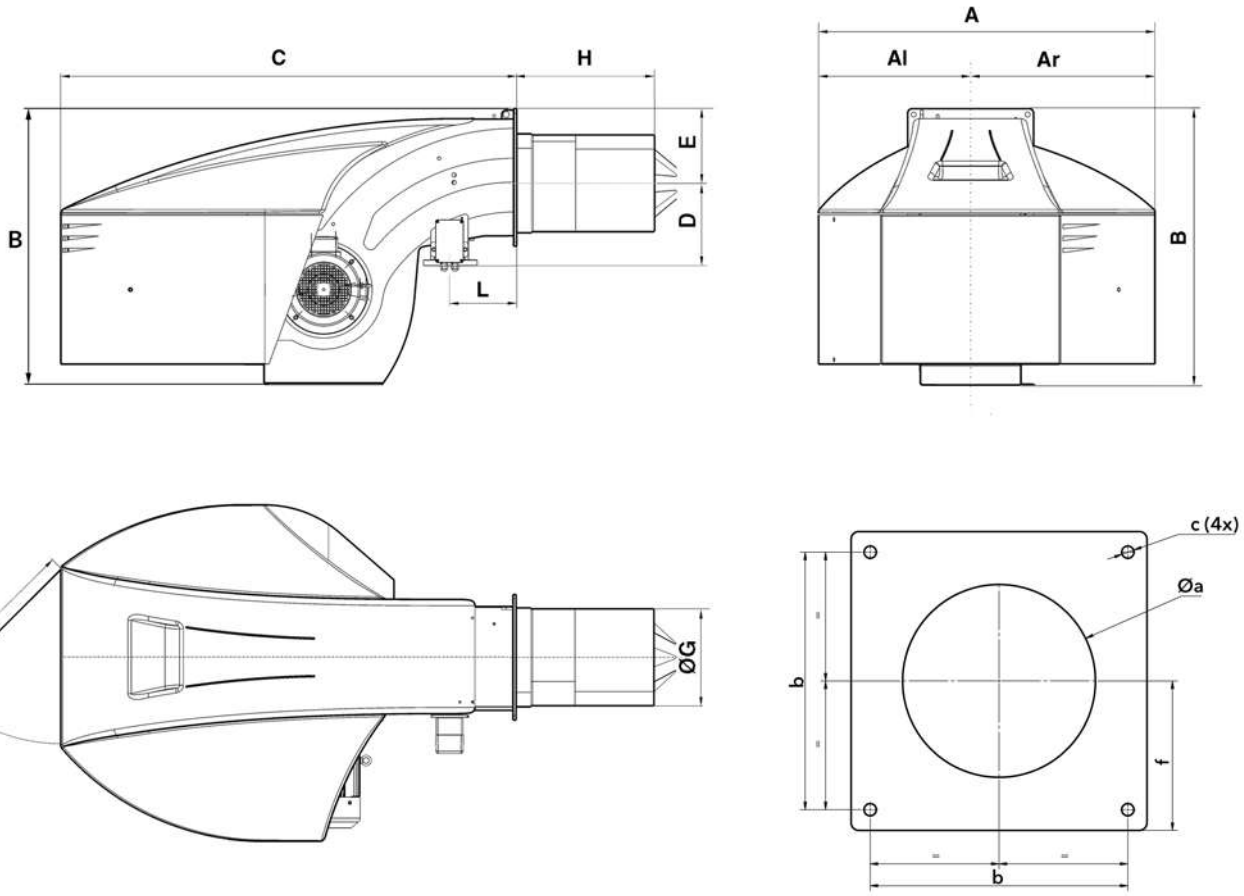
FILTERS

Model	Code
FG-Rp1"1/2	3757199
FG-Rp2"	3757200
FG-DN65	3757198
FG-DN80	3757201
FG-DN100	3757195
FG-DN125	3757209

Pressure drops graphs: see following pages
Dimensions of gas trains and gas filters: see pag. 206

MDE2 GEM Variatron Low Noise LOW NOx CLASS 3

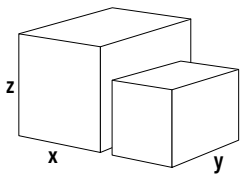
DIMENSIONS (mm)



Model	A	Al	Ar	B	C	D	E	ØG	H			L	Q	Øa	b	c	f
									KN	KM	KL						
N6	990	479	510	837	1361	245	225	264	400	520	640	215	600	330-340	340	M16	200
N7	1128	511	618	961	1529	276	255	326	420	550	680	225	600	380-400	400	M16	235

PACKAGING

The burner is delivered on a pallet in 2 packages containing:
- burner body with mounted combustion head, boiler fixing accessories and technical documentation;
- gas train and filter.

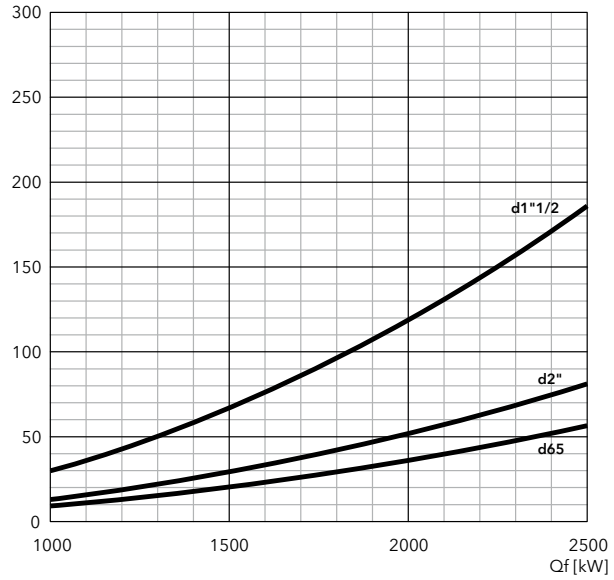


Models		Dimensions (mm)			Gross weight (kg)
		X	Y	Z	
N6.2400 G-EF3	KN	1861	990	837	280
	KM	1981	990	837	280
	KL	2101	990	837	280
N6.2900 G-EF3	KN	1861	990	837	290
	KM	1981	990	837	290
	KL	2101	990	837	290
N7.3600 G-EF3	KN	2049	1128	961	320
	KM	2179	1128	961	320
	KL	2309	1128	961	320
N7.4500 G-EF3	KN	2049	1128	961	330
	KM	2179	1128	961	330
	KL	2309	1128	961	330

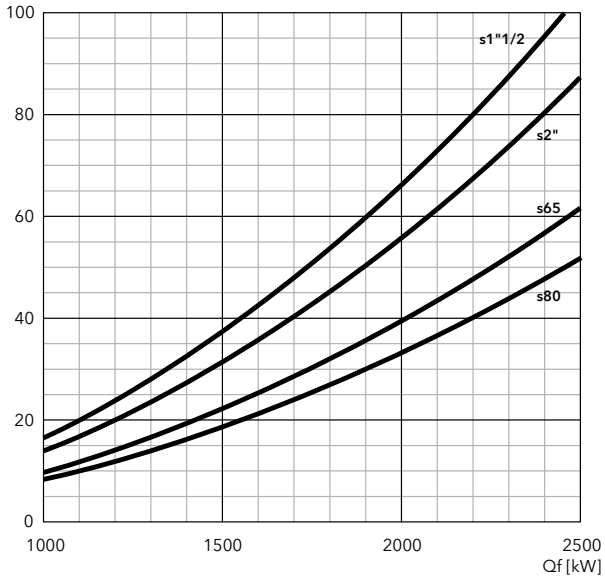
PRESSURE LOSSES (BURNER HEAD + GAS TRAIN)

N6.2400 G-EF3

DUNGS

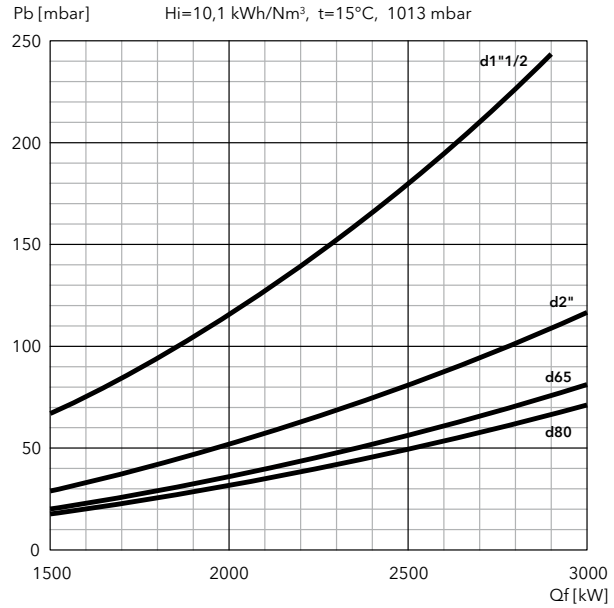


SIEMENS

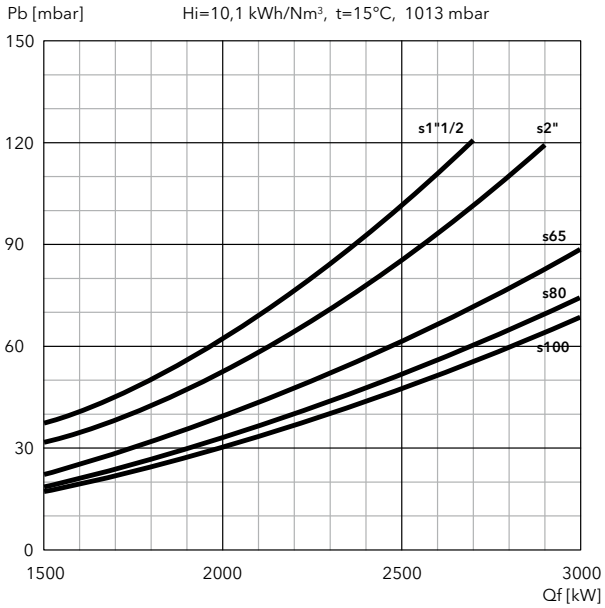


N6.2900 G-EF3

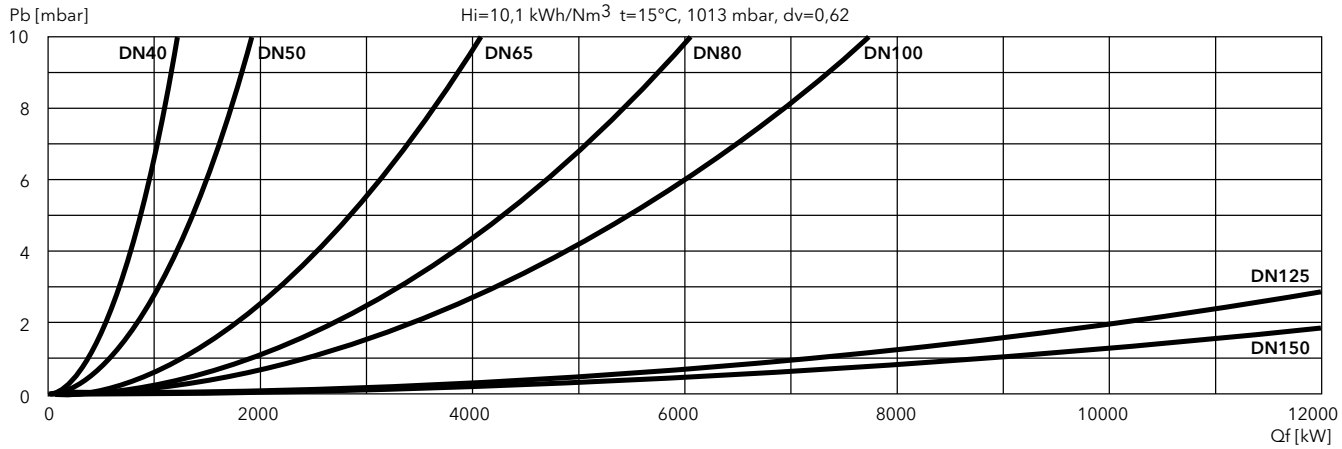
DUNGS



SIEMENS



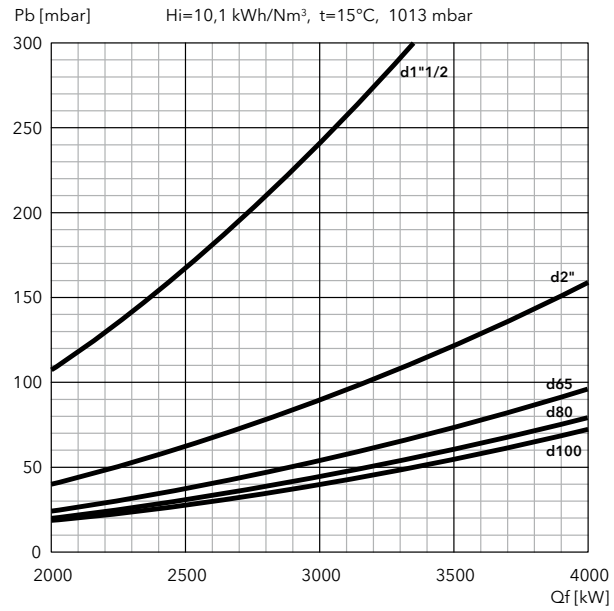
FILTERS



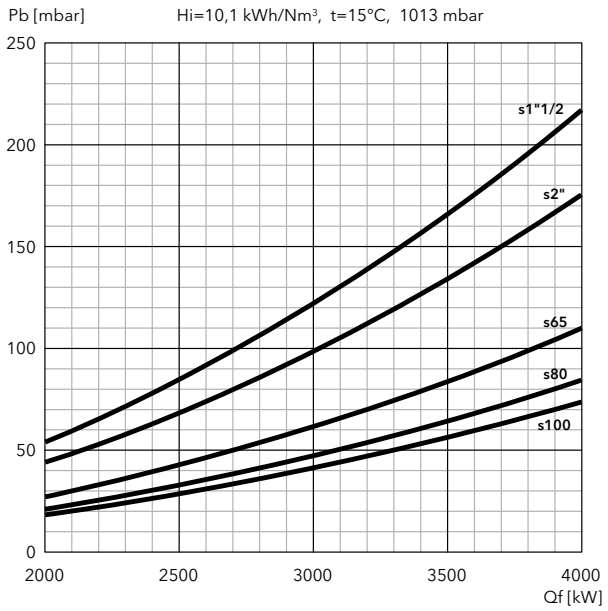
PRESSURE LOSSES (BURNER HEAD + GAS TRAIN)

N7.3600 G-EF3

DUNGS

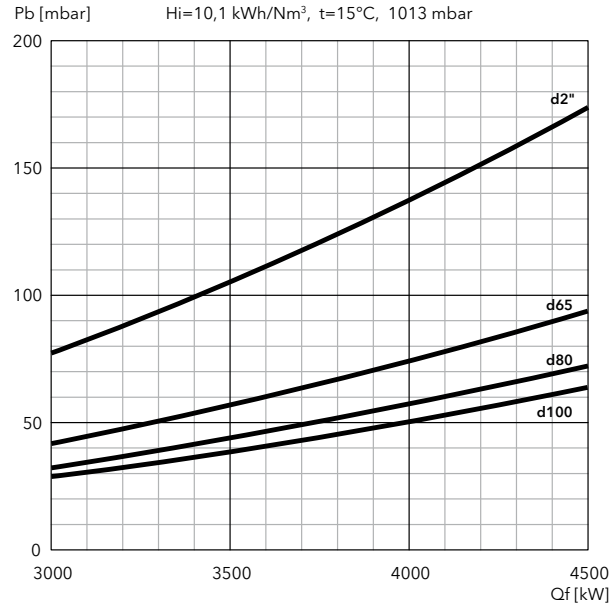


SIEMENS

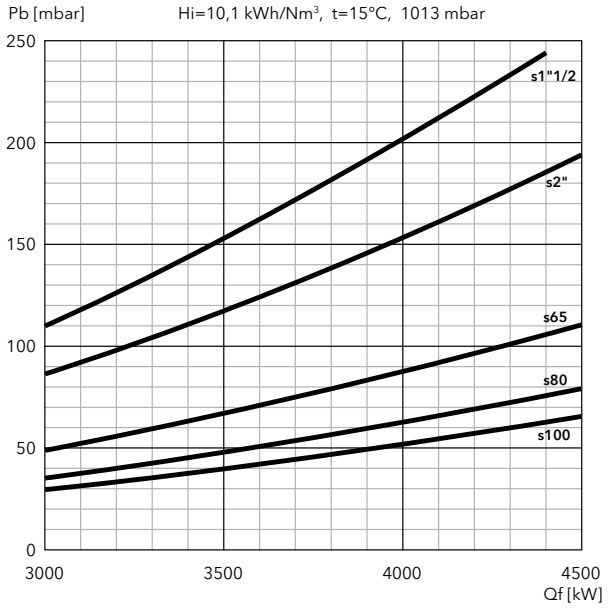


N7.4500 G-EF3

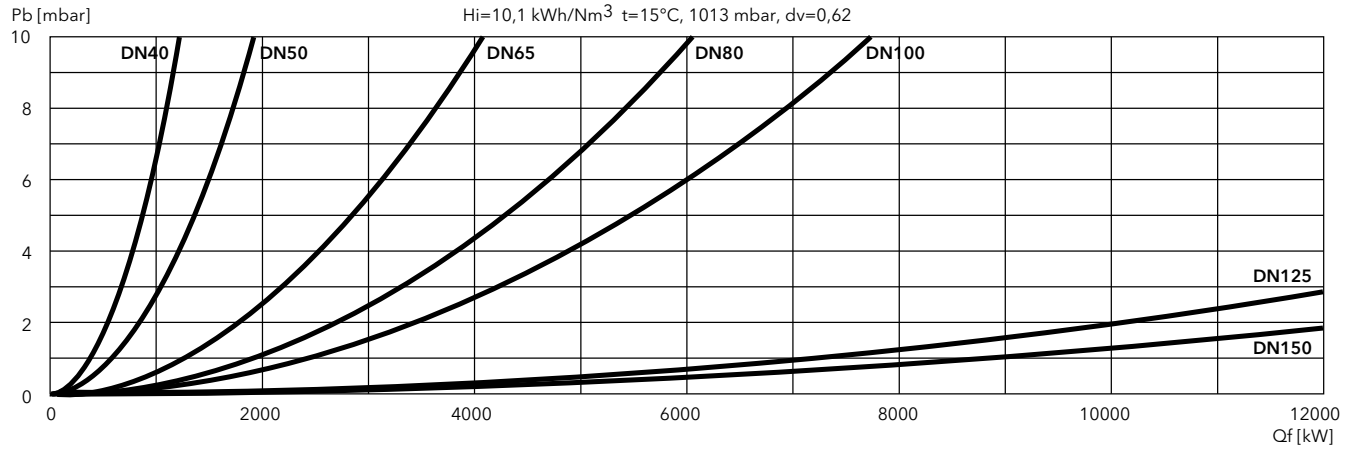
DUNGS



SIEMENS



FILTERS

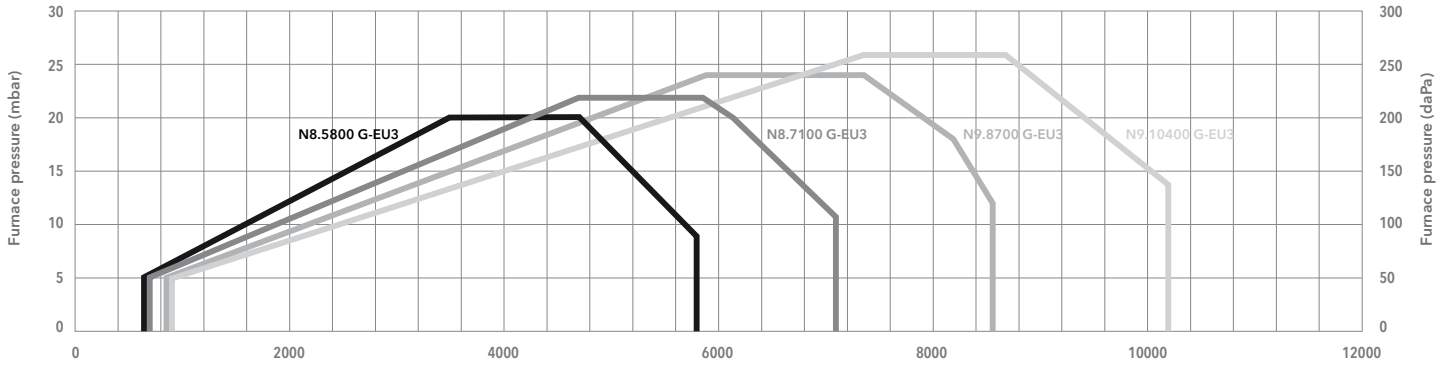


N8 G-EU3, N9 G-EU3

640 ... 10200 kW
2 stage progressive/modulating electronic (Low NOx class 3)

- **Fuels:** natural gas, Hi = 6,99 … 11,39 kWh/Nm³;
  LPG, Hi = 25,89 kWh/Nm³
- **Emission class:** Low NOx class 3 (≤80 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.

	N8.5800 G-EU3	N8.7100 G-EU3	N9.8700 G-EU3	N9.10400 G-EU3
Operating range	640 - 5800 kW	700 - 7100 kW	850 - 8530 kW	900 - 10200 kW
Gas pressure	70 – 500 mbar (70 - 360 mbar for d457 gas train)		80 – 500 mbar (80 - 360 mbar for d457 gas train)	
Gas connection	DN100	DN100	DN100	DN100
Control box / flame detector	BT300 / Ionisation	BT300 / Ionisation	BT300 / Ionisation	BT300 / Ionisation
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	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	3PE AC 400 V - 50 Hz
Fan motor	50 Hz – 11 kW	50 Hz – 15 kW	50 Hz – 18,5 kW	50 Hz – 22 kW
Acoustic level	<78 dB(A)	<78 dB(A)	<80 dB(A)	<81 dB(A)
CE certificate	0085CL0215	0085CL0215	0085CL0215	0085CL0215
Complete burner codes	**on request**	**on request**	**on request**	**on request**

GAS TRAINS

DUNGS

Model	Code
GT-d457-2" (*)	3750515
GT-d458-65	3750516
GT-d459-80	3750517
GT-d460-100	3750518

*: integrated filter

SIEMENS

Model	Code
GT-s457-2"	3750537
GT-s458-65	3750538
GT-s459-80	3750539
GT-s460-100	3750540
GT-s461-125	3750541

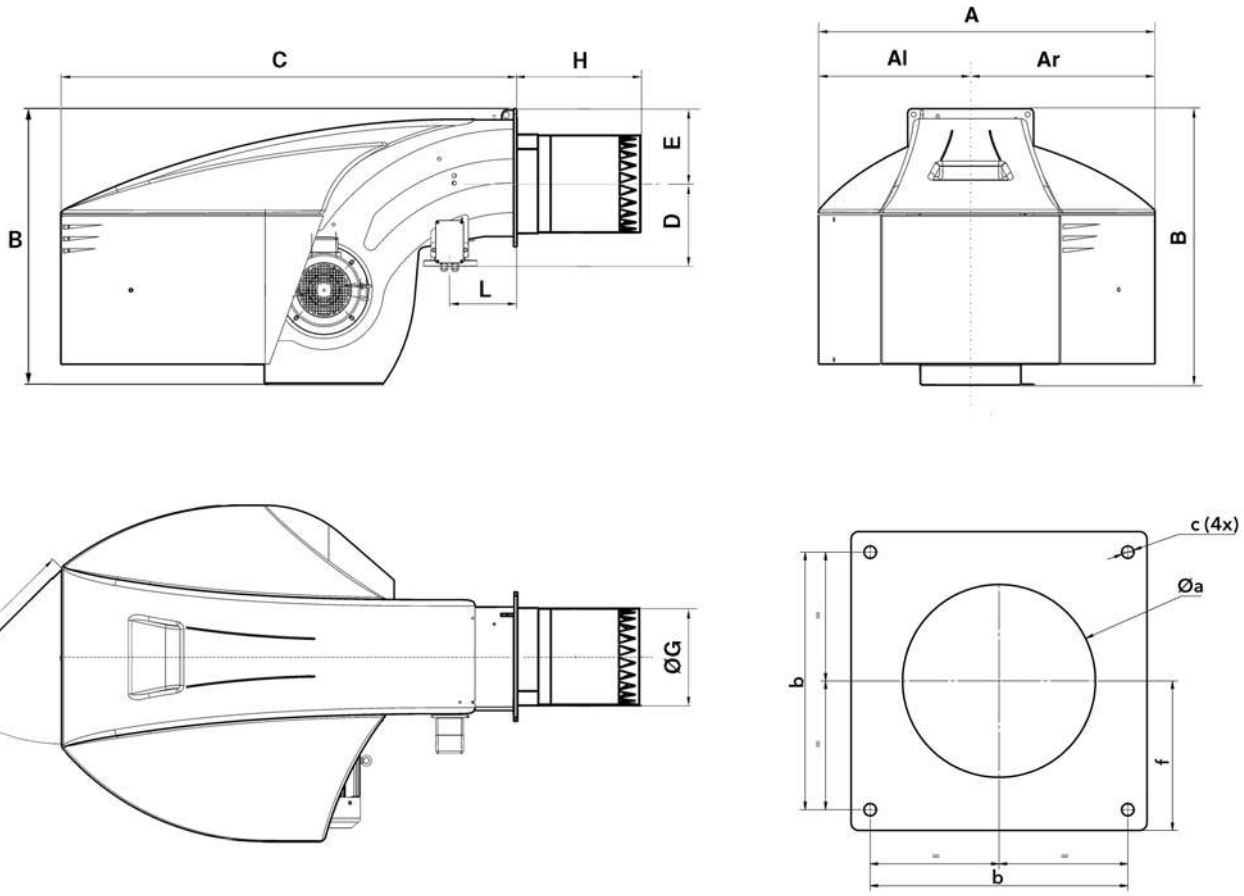
FILTERS

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

Pressure drops graphs: see following pages
Dimensions of gas trains and gas filters: see pag. 207

MDE2 GEM Variatron Low Noise LOW NOx CLASS 3

DIMENSIONS (mm)

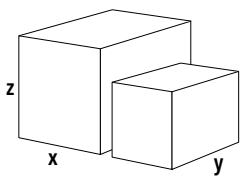


Model	A	Al	Ar	B	C	D	E	ØG	H			L	Q
									KN	KM	KL		
N8	1414	669	745	1231	1930	344	293	369	500	640	780	230	800
N9	1414	669	745	1291	1928	369	293	431,5	550	700	850	230	800

Øa	b	c	f
390-410	505	M20	293
460-480	505	M20	293

PACKAGING

The burner is delivered on a pallet in 2 packages containing:
- burner body with mounted combustion head, boiler fixing accessories and technical documentation;
- gas train and filter.

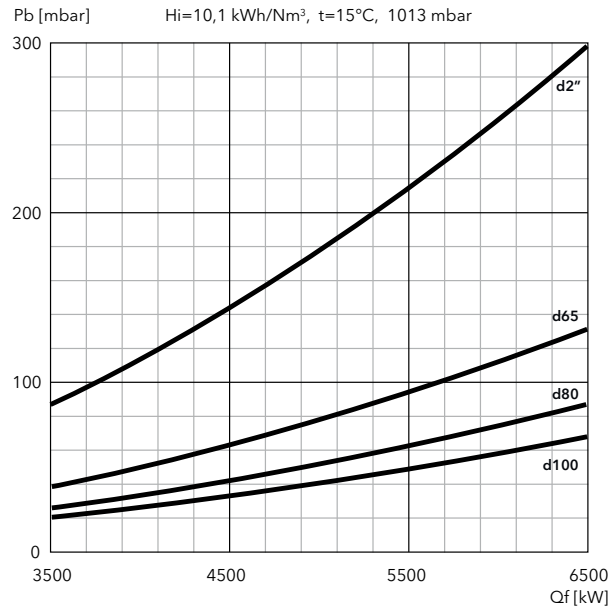


Models		Dimensions (mm)			Gross weight (kg)
		X	Y	Z	
N8.5800 G-EU3	KN	2530	1414	1231	527
	KM	2670	1414	1231	527
	KL	2810	1414	1231	527
N8.7100 G-EU3	KN	2530	1414	1231	535
	KM	2670	1414	1231	535
	KL	2810	1414	1231	535
N9.8700 G-EU3	KN	2430	1414	1231	527
	KM	2570	1414	1231	527
	KL	2710	1414	1231	527
N9.10400 G-EU3	KN	2580	1414	1231	535
	KM	2730	1414	1231	535
	KL	2880	1414	1231	535

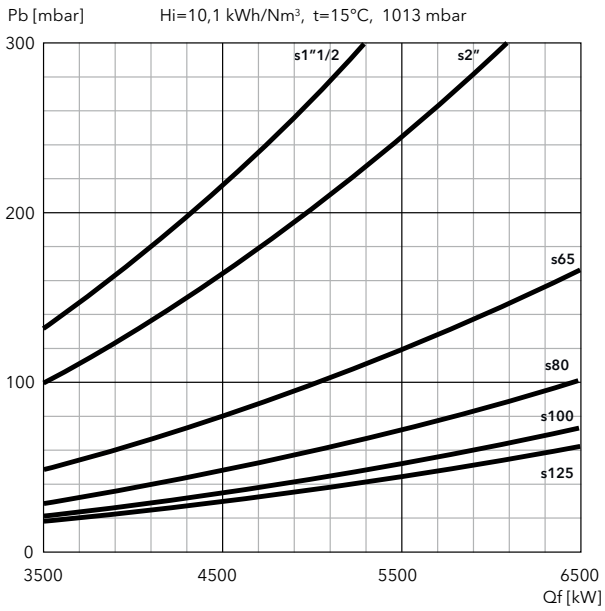
PRESSURE LOSSES (BURNER HEAD + GAS TRAIN)

N8.5800 G-EU3

DUNGS

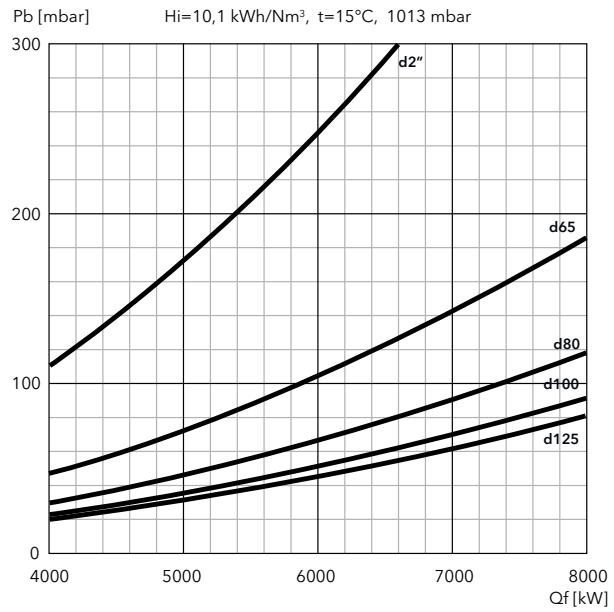


SIEMENS

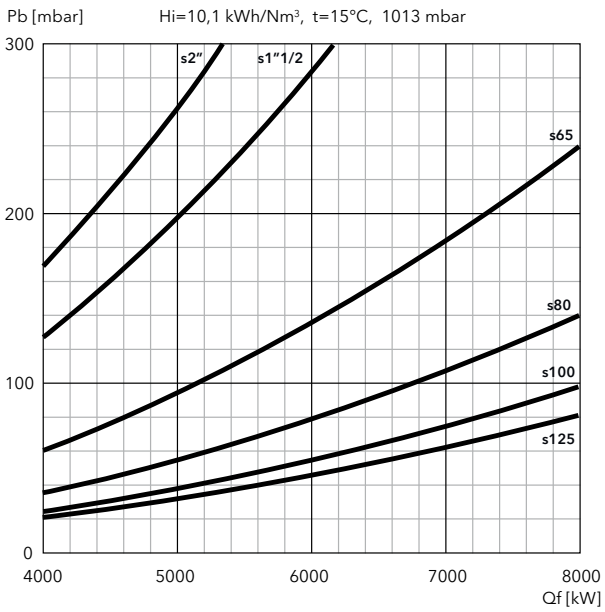


N8.7100 G-EU3

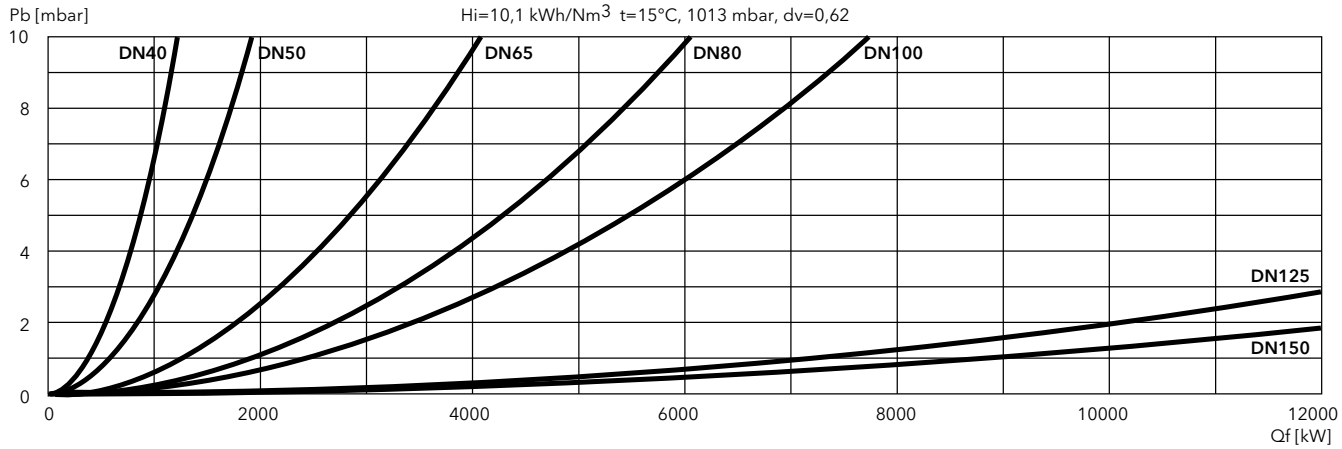
DUNGS



SIEMENS



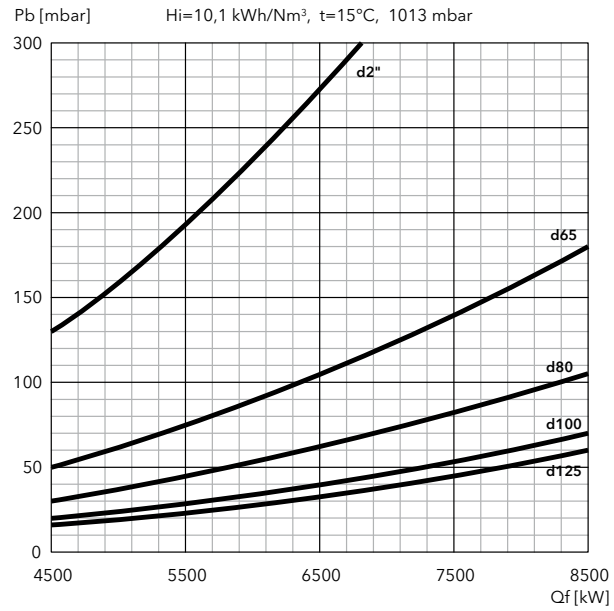
FILTERS



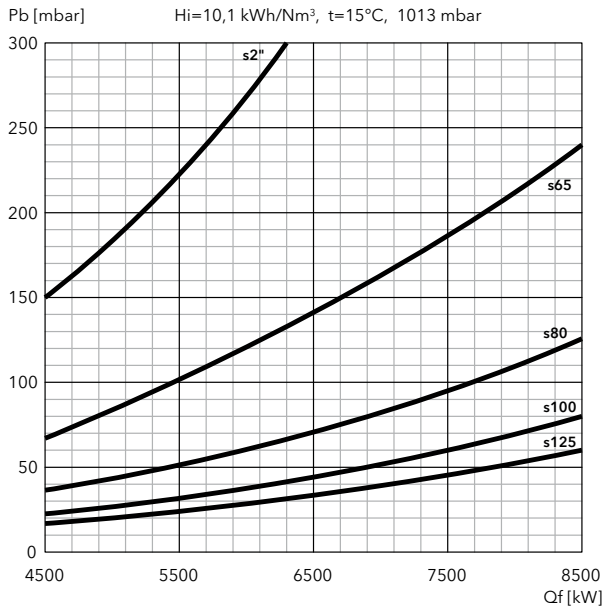
PRESSURE LOSSES (BURNER HEAD + GAS TRAIN)

N9.8700 G-EU3

DUNGS

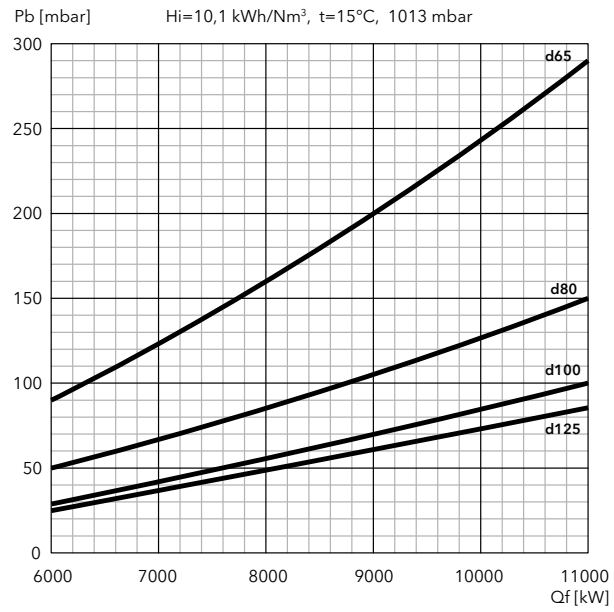


SIEMENS

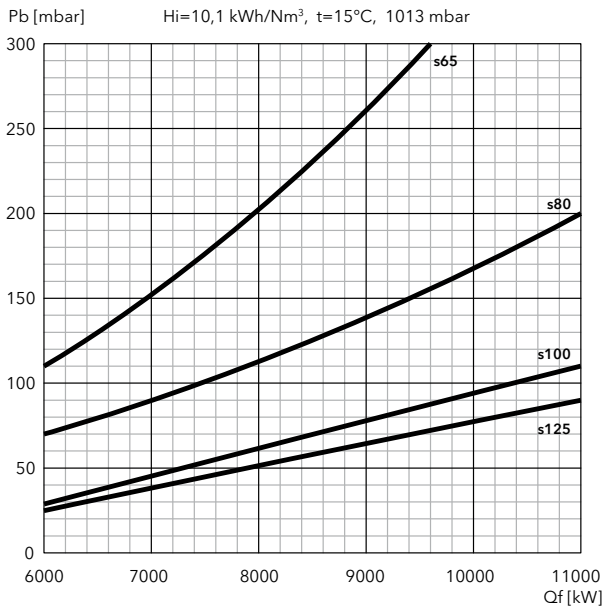


N9.10400 G-EU3

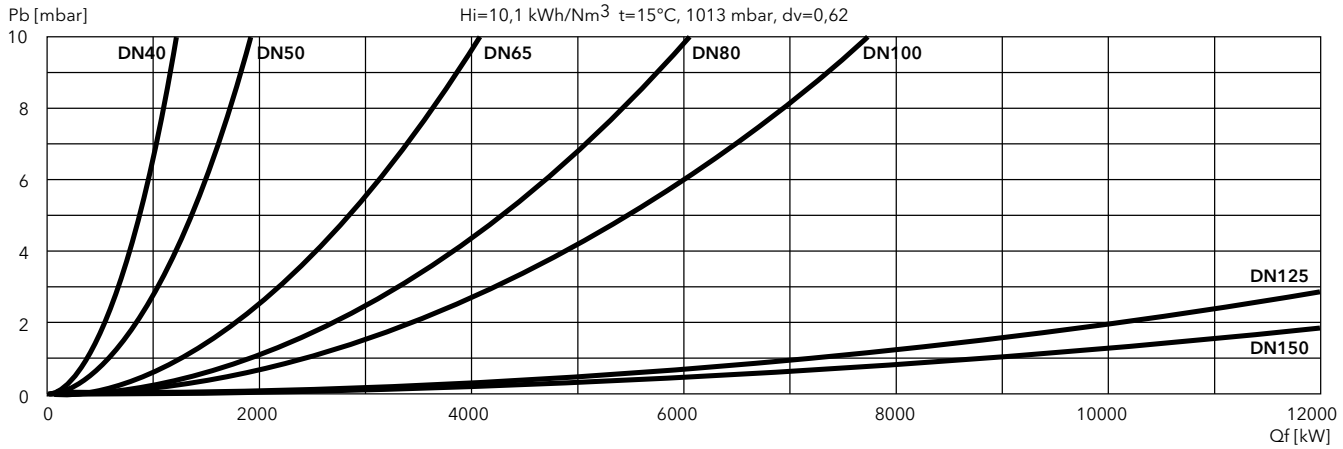
DUNGS



SIEMENS



FILTERS

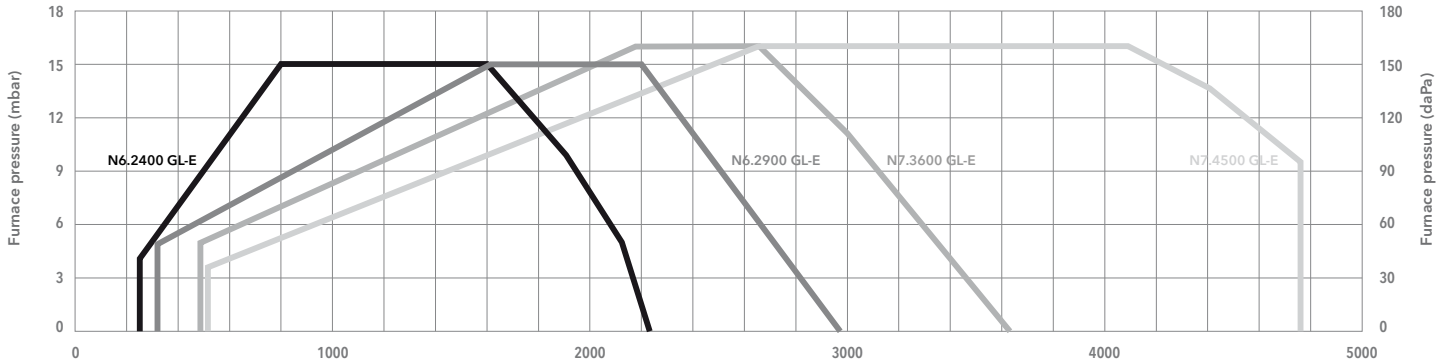


N6 GL-E, N7 GL-E

250 ... 4750 kW
2 stage progressive/modulating electronic

- **Fuels:** natural gas, Hi = 6,99 … 11,39 kWh/Nm³;
  light oil, viscosity 6 mm²/s at 20°C, Hi = 11,86 kWh/kg
- **Emission class:** Low NOx class 2 (≤120 mg/kWh) according to EN676 in gas
  Low NOx class 2 (≤185 mg/kWh) according to EN267 in light oil
- **Protection level:** IP 41

TECHNICAL DATA



Test conditions conforming to EN676 and EN267 - Temperature: 20°C - Pressure: 1013,5 mbar - Altitude: 0 m a.s.l.

	N6.2400 GL-E	N6.2900 GL-E	N7.3600 GL-E	N7.4500 GL-E
Operating range gas	250 - 2230 kW	320 - 2970 kW	490 - 3650 kW	510 - 4750 kW
Operating range oil	510 - 2030 kW	650 - 2970 kW	900 - 3650 kW	1300 - 4750 kW
Gas pressure	50 – 500 mbar (50 - 360 mbar for d452 and d453 gas train)		50 – 500 mbar (50 - 360 mbar for d452 and d453 gas train)	
Gas connection	DN65	DN65	DN65	DN65
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	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	3PE AC 400 V - 50 Hz
Control box / flame detector	BT300 / QRA2	BT300 / QRA2	BT300 / QRA2	BT300 / QRA2
Fan motor	50 Hz - 3 kW	50 Hz - 4 kW	50 Hz - 5,5 kW	50 Hz - 7,5 kW
Pump	SUNTEC TA3	SUNTEC TA3	SUNTEC TA4	SUNTEC TA4
Motor pump	50 Hz - 0,74 kW	50 Hz - 0,74 kW	50 Hz - 1,1 kW	50 Hz - 1,5 kW
Acoustic level	<70 dB(A)	<71 dB(A)	<74 dB(A)	<74 dB(A)
CE certificate	0085CL0215	0085CL0215	0085CL0215	0085CL0215
Complete burner codes	**on request**	**on request**	**on request**	**on request**

GAS TRAINS

DUNGS

Model	Code
GT-d452-1"1/2 (*)	3750510
GT-d453-2" (*)	3750511
GT-d454-65	3750512
GT-d455-80	3750513
GT-d456-100	3750514

*: integrated filter

SIEMENS

Model	Code
GT-s451-1"1/2	3750525
GT-s452-2"	3750526
GT-s453-65	3750527
GT-s454-80	3750528
GT-s455-100	3750529
GT-s456-125	3750530

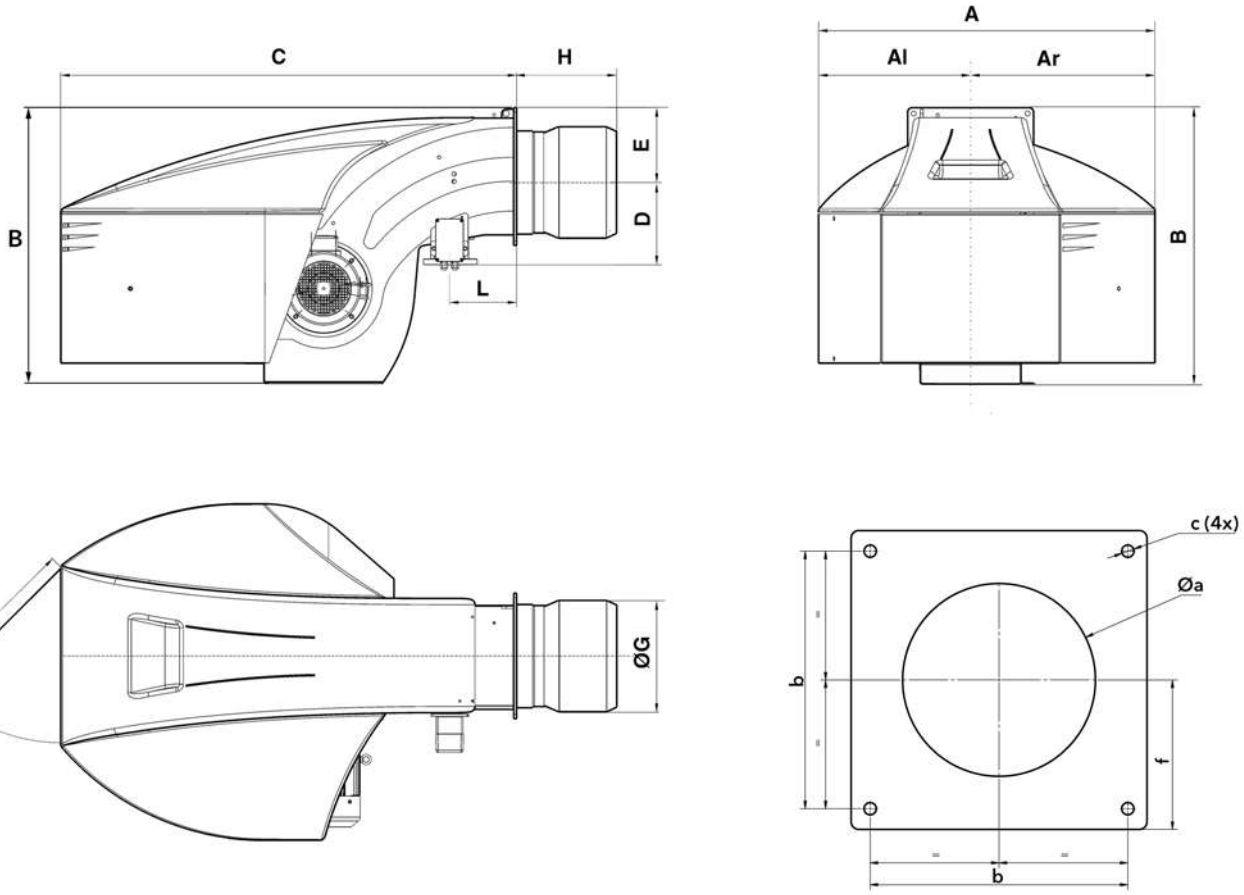
FILTERS

Model	Code
FG-Rp1"1/2	3757199
FG-Rp2"	3757200
FG-DN65	3757198
FG-DN80	3757201
FG-DN100	3757195
FG-DN125	3757209

Pressure drops graphs: see following pages
Dimensions of gas trains and gas filters: see pag. 206

MDE2 GEM Variatron Low Noise

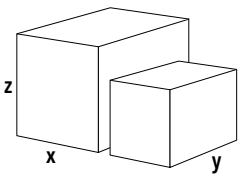
DIMENSIONS (mm)



Model	A	Al	Ar	B	C	D	E	ØG	H			L	Q	Øa	b	c	f
									KN	KM	KL						
N6.2400	990	479	510	837	1361	245	225	290	330	450	570	215	600	300-340	340	M16	200
N6.2900	990	479	510	837	1361	245	225	310	330	450	570	215	600	320-340	340	M16	200
N7.3600	1128	511	618	961	1529	276	255	340	375	505	635	225	600	350-400	400	M16	235
N7.4500	1128	511	618	961	1529	276	255	370	375	505	635	225	600	380-400	400	M16	235

PACKAGING

The burner is delivered on a pallet in 2 packages containing:
- burner body with mounted combustion head, boiler fixing accessories and technical documentation;
- gas train and filter.

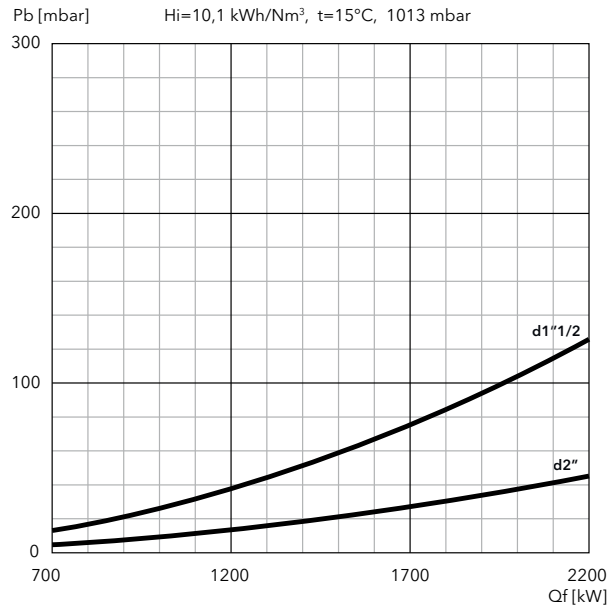


Models		Dimensions (mm)			Gross weight (kg)
		X	Y	Z	
N6.2400 GL-E	**KN**	1691	990	837	320
	KM	1811	990	837	320
	KL	1931	990	837	320
N6.2900 GL-E	**KN**	1691	990	837	330
	KM	1811	990	837	330
	KL	1931	990	837	330
N7.3600 GL-E	**KN**	1904	1128	961	360
	KM	2034	1128	961	360
	KL	2164	1128	961	360
N7.4500 GL-E	**KN**	1904	1128	961	370
	KM	2034	1128	961	370
	KL	2164	1128	961	370

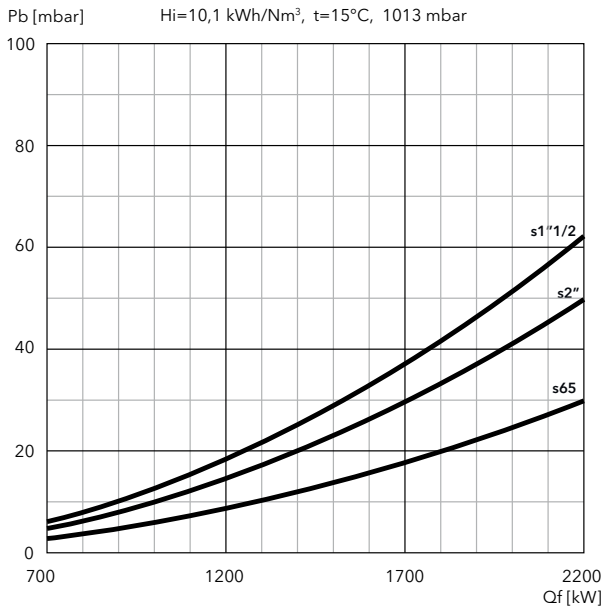
PRESSURE LOSSES (BURNER HEAD + GAS TRAIN)

N6.2400 GL-E

DUNGS

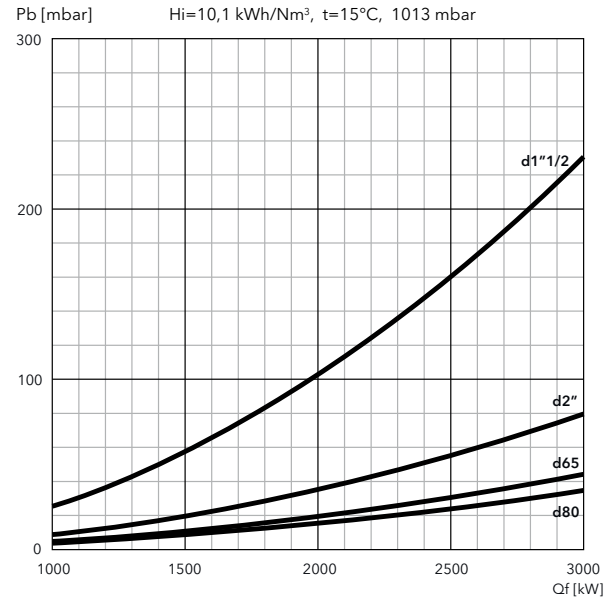


SIEMENS

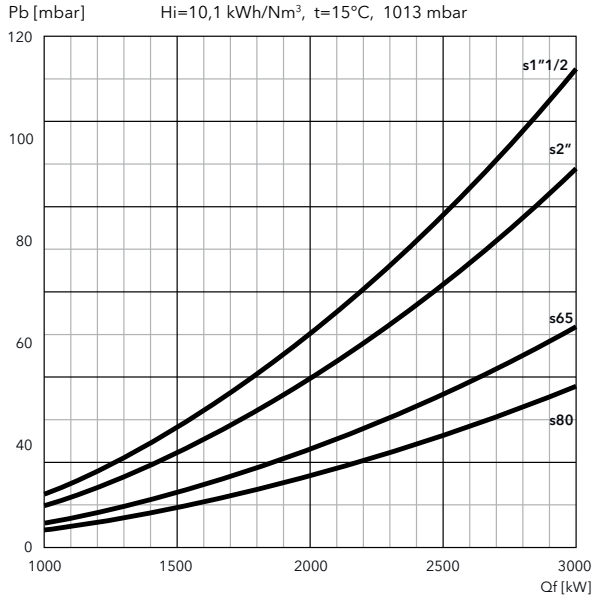


N6.2900 GL-E

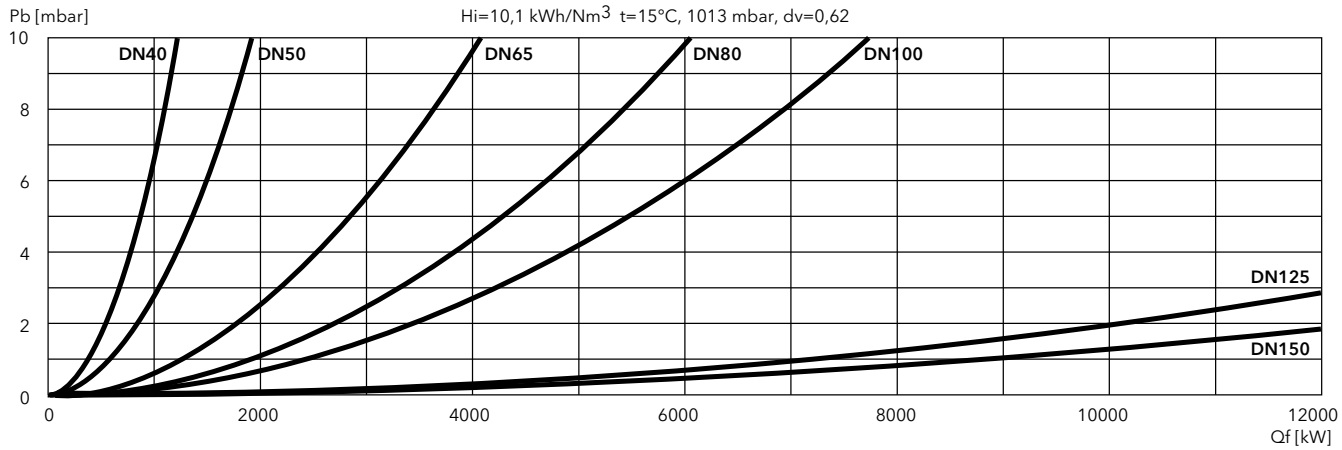
DUNGS



SIEMENS



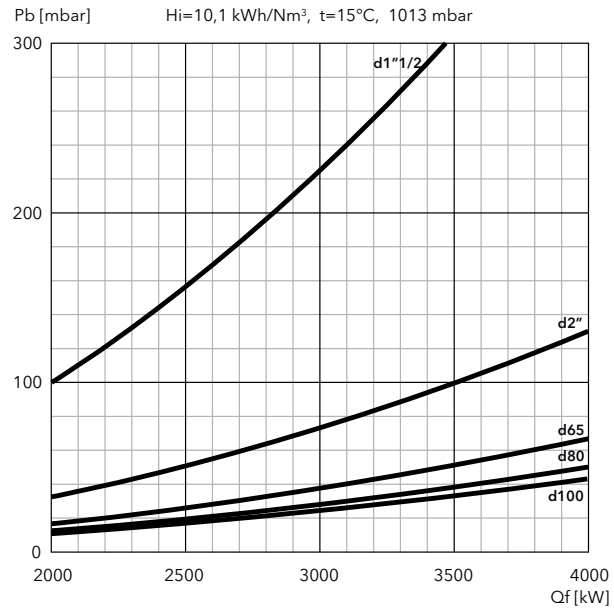
FILTERS



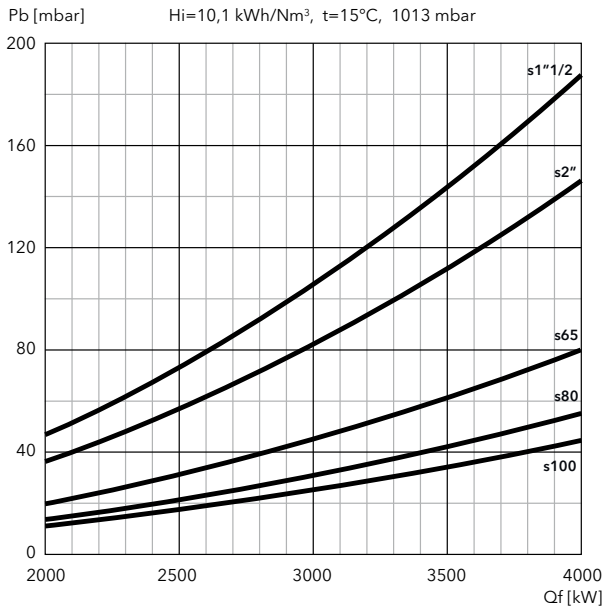
PRESSURE LOSSES (BURNER HEAD + GAS TRAIN)

N7.3600 GL-E

DUNGS

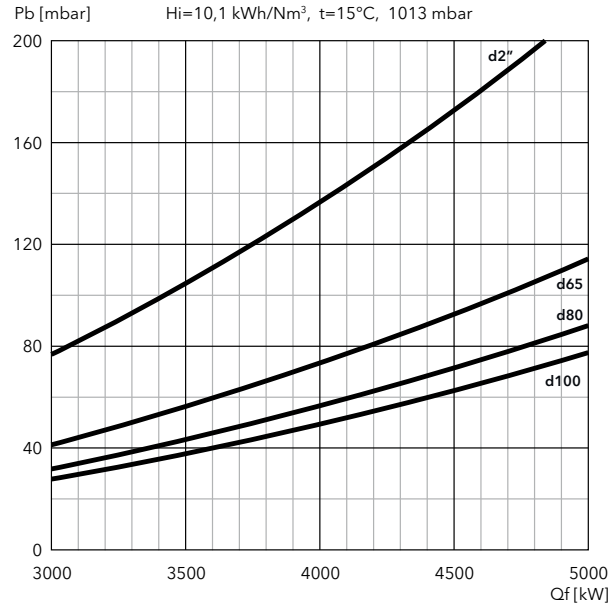


SIEMENS

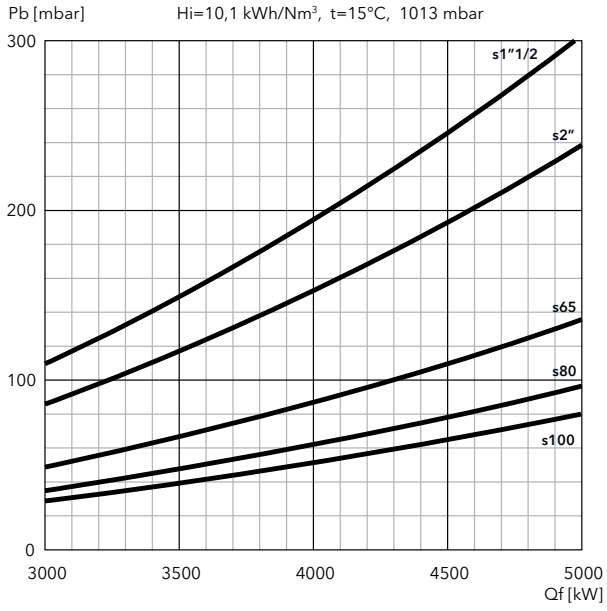


N7.4500 GL-E

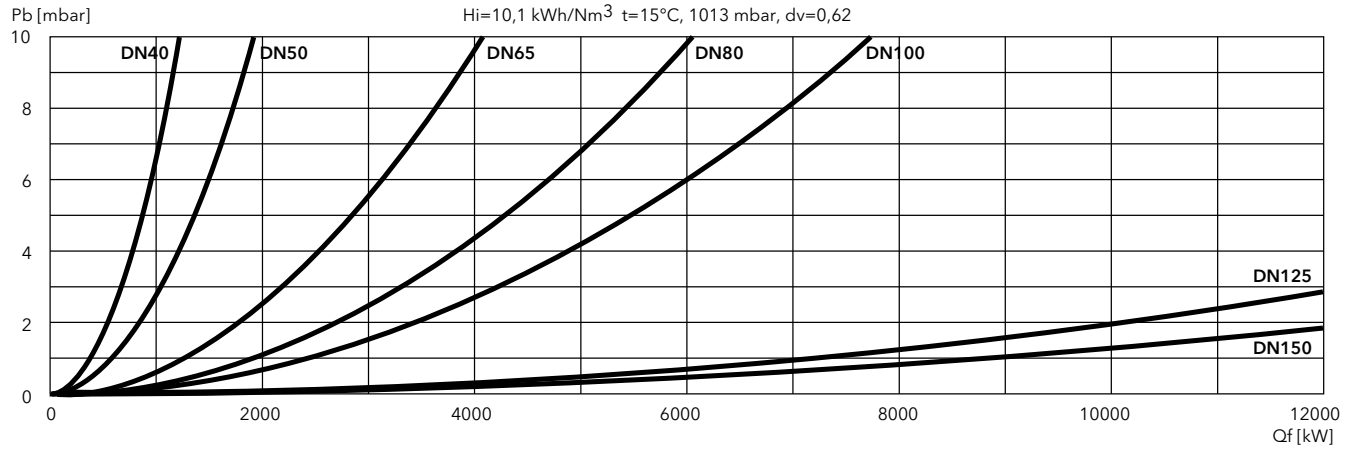
DUNGS



SIEMENS



FILTERS

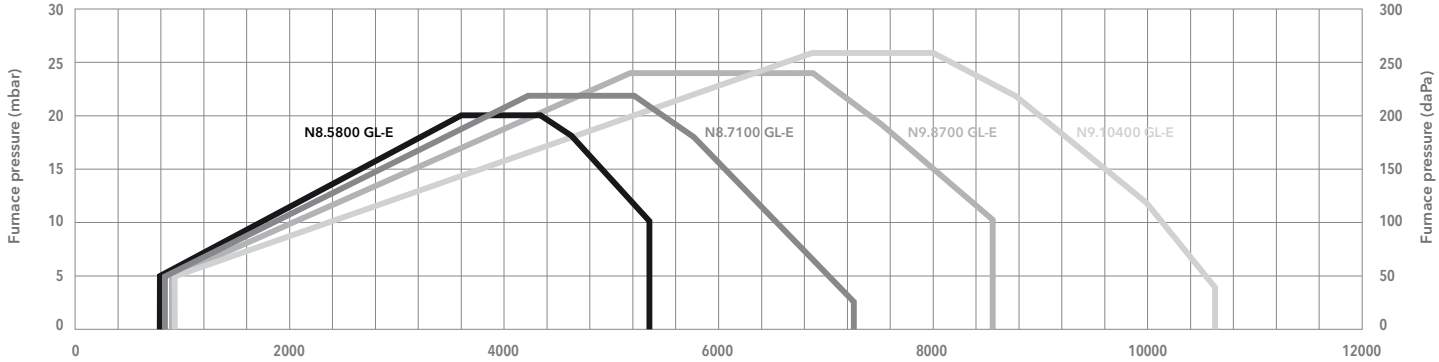


N8 GL-E, N9 GL-E

800 ... 10620 kW
2 stage progressive/modulating electronic

- **Fuels:** natural gas, Hi = 6,99 … 11,39 kWh/Nm³;
  light oil, viscosity 6 mm²/s at 20°C, Hi = 11,86 kWh/kg
- **Emission class:** Low NOx class 2 (≤120 mg/kWh) according to EN676 in gas
  Low NOx class 2 (≤185 mg/kWh) according to EN267 in light oil
- **Protection level:** IP 41

TECHNICAL DATA



Test conditions conforming to EN676 and EN267 - Temperature: 20°C - Pressure: 1013,5 mbar - Altitude: 0 m a.s.l.

	N8.5800 GL-E	N8.7100 GL-E	N9.8700 GL-E	N9.10400 GL-E
Operating range gas	800 - 5350 kW	820 - 7340 kW	880 - 8530 kW	910 - 10620 kW
Operating range oil	1210 - 5350 kW	1470 - 7340 kW	2400 - 8530 kW	2820 - 10620 kW
Gas pressure	100 - 500 mbar (100 - 360 mbar for d457 gas train)		100 - 500 mbar (100 - 360 mbar for d457 gas train)	
Gas connection	DN100	DN100	DN100	DN100
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	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	3PE AC 400 V - 50 Hz
Control box / flame detector	BT300 / QRA2	BT300 / QRA2	BT300 / QRA2	BT300 / QRA2
Fan motor	50 Hz - 11 kW	50 Hz - 15 kW	50 Hz - 18,5 kW	50 Hz - 22 kW
Pump	SMG1630 - 1700 l/h	SMG1630 - 1700 l/h	SMG1630 - 1700 l/h	SMG1631 - 2200 l/h
Motor pump	50 Hz - 3 kW	50 Hz - 3 kW	50 Hz - 3 kW	50 Hz - 4 kW
Acoustic level	<77,4 dB(A)	<79,5 dB(A)	<81 dB(A)	<81,7 dB(A)
CE certificate	0085CL0215	0085CL0215	0085CL0215	0085CL0215
Complete burner codes	**on request**	**on request**	**on request**	**on request**

GAS TRAINS

DUNGS

Model	Code
GT-d457-2" (*)	3750515
GT-d458-65	3750516
GT-d459-80	3750517
GT-d460-100	3750518

*: integrated filter

SIEMENS

Model	Code
GT-s457-2"	3750537
GT-s458-65	3750538
GT-s459-80	3750539
GT-s460-100	3750540
GT-s461-125	3750541

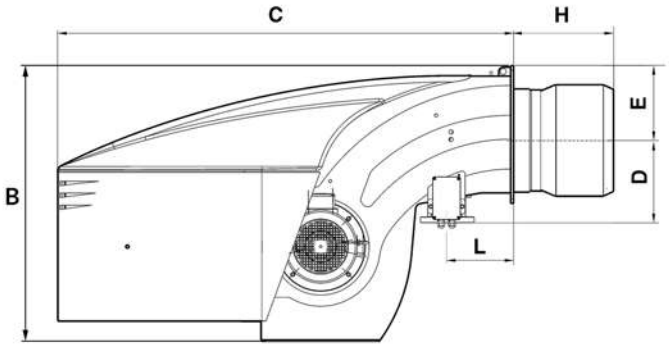
FILTERS

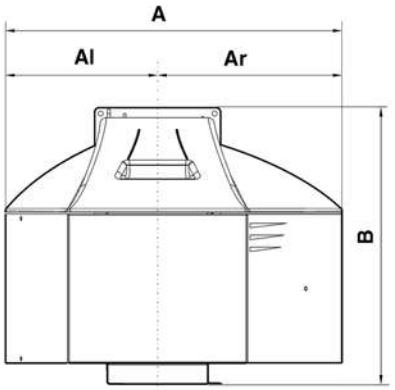
Model	Code
FG-Rp2"	3757200
FG-DN65	3757198
FG-DN80	3757201
FG-DN100	3757195
FG-DN125	3757209

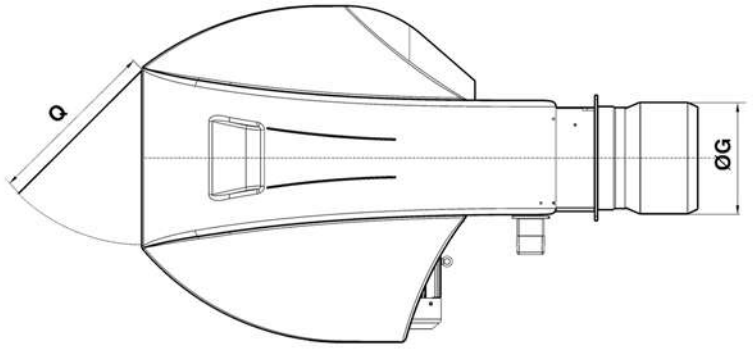
Pressure drops graphs: see following pages
Dimensions of gas trains and gas filters: see pag. 207

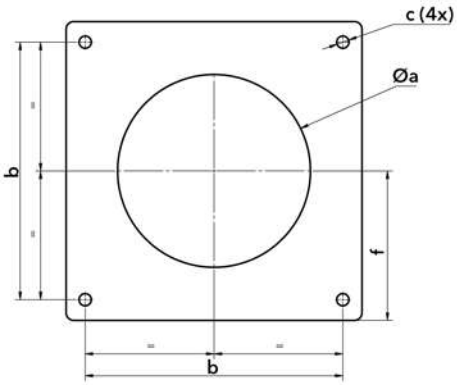
MDE2 GEM Variatron Low Noise

DIMENSIONS (mm)







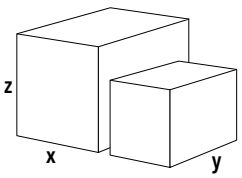


Model	A	Al	Ar	B	C	D	E	ØG	H			L	Q
									KN	KM	KL		
N8.5800	1414	669	745	1231	1930	391	293	400	562	702	842	230	800
N8.7100	1414	669	745	1231	1930	391	293	415	583	723	863	230	800
N9	1414	669	745	1291	1928	434	293	431,5	355	505	655	230	800

Øa	b	c	f
430-480	505	M20	293
445-480	505	M20	293
445-480	505	M20	293

PACKAGING

The burner is delivered on a pallet in 2 packages containing:
- burner body with mounted combustion head, boiler fixing accessories and technical documentation;
- gas train and filter.

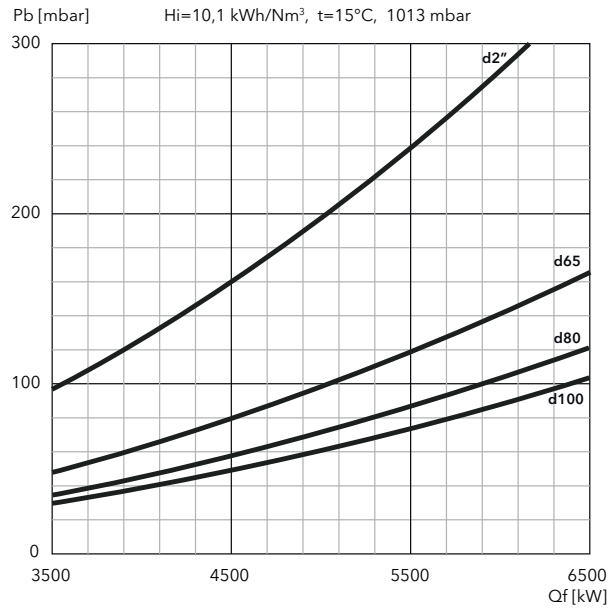


Models		Dimensions (mm)			Gross weight (kg)
		X	Y	Z	
N8.5800 GL-E	KN	2582	1414	1231	638
	KM	2632	1414	1231	647
	KL	2772	1414	1231	653
N8.7100 GL-E	KN	2513	1414	1231	640
	KM	2653	1414	1231	649
	KL	2793	1414	1231	655
N9.8700 GL-E	KN	2283	1414	1291	662
	KM	2433	1414	1291	669
	KL	2583	1414	1291	677
N9.10400 GL-E	KN	2283	1414	1291	672
	KM	2433	1414	1291	679
	KL	2583	1414	1291	687

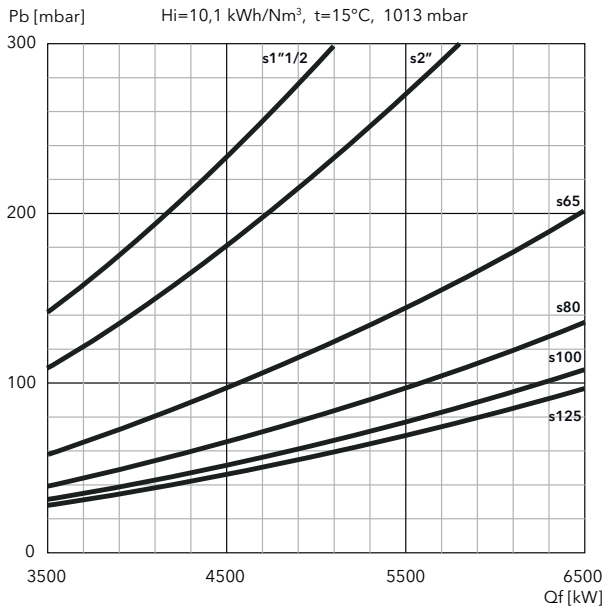
PRESSURE LOSSES (BURNER HEAD + GAS TRAIN)

N8.5800 GL-E

DUNGS

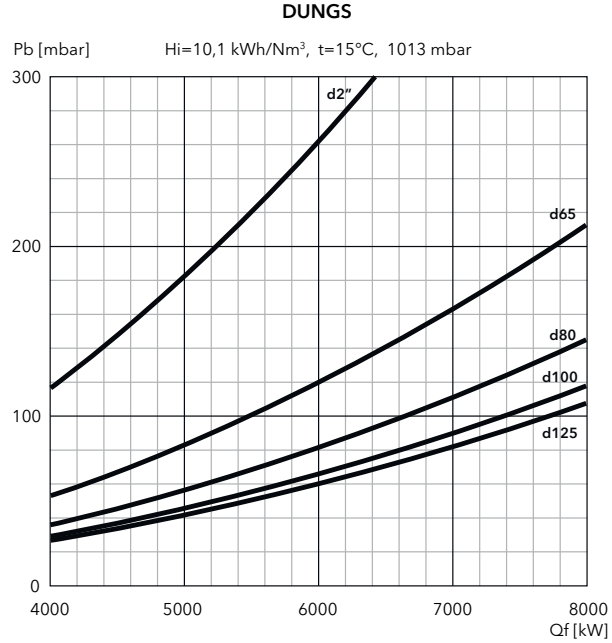


SIEMENS

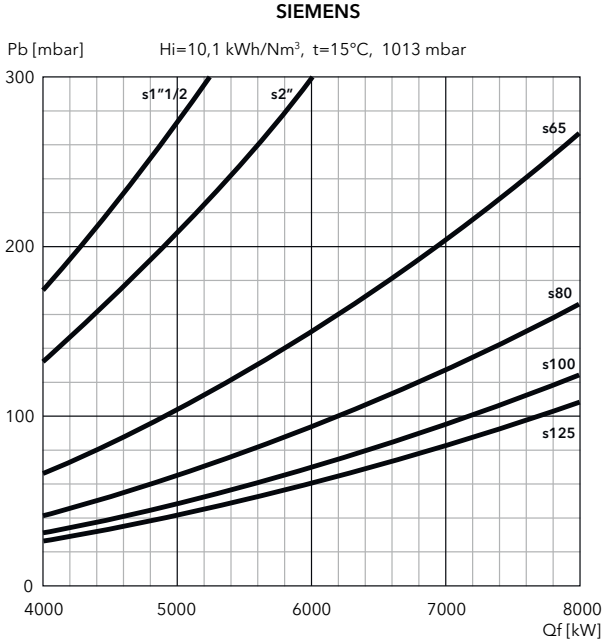


N8.7100 GL-E

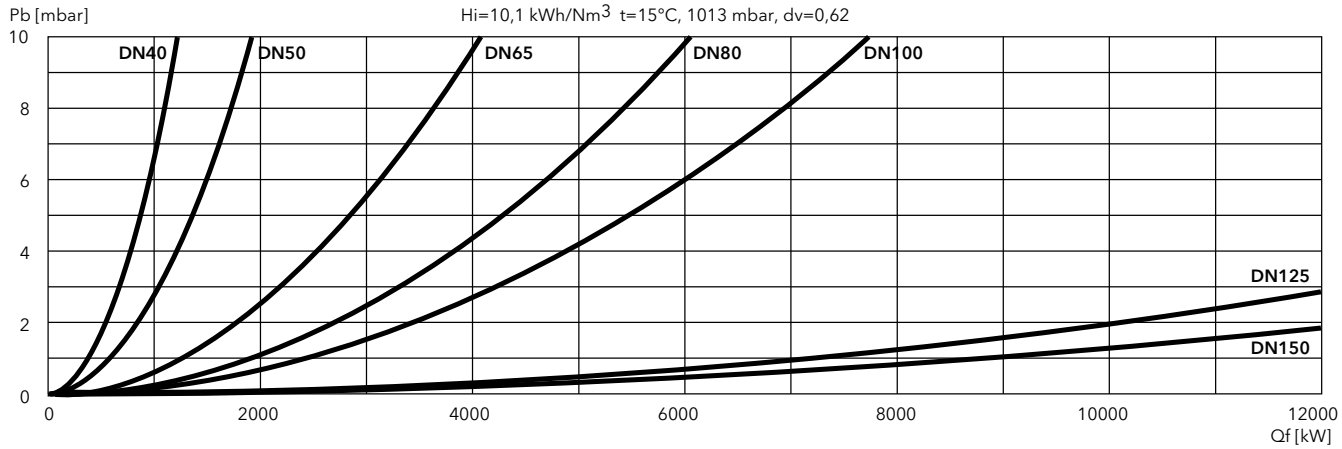
DUNGS



SIEMENS



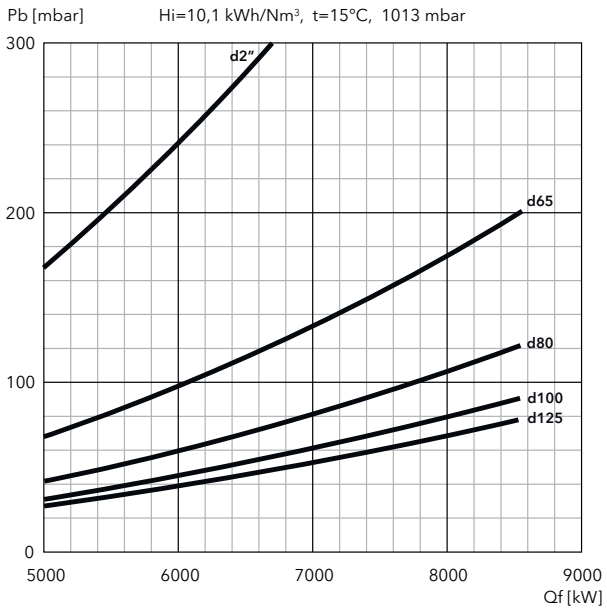
FILTERS



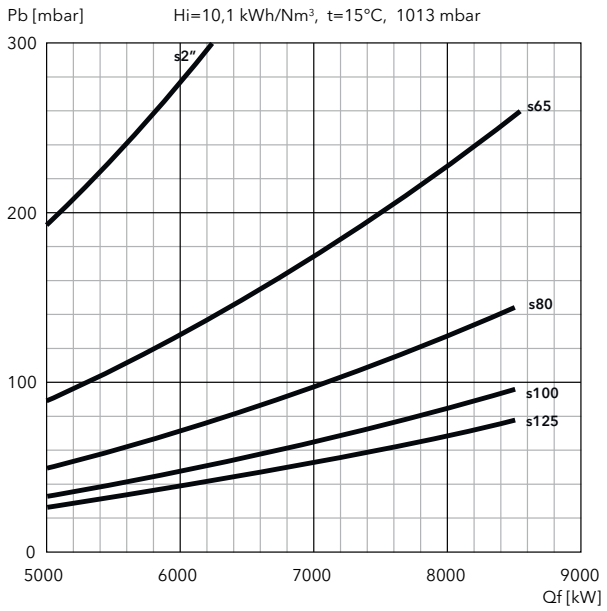
PRESSURE LOSSES (BURNER HEAD + GAS TRAIN)

N9.8700 GL-E

DUNGS

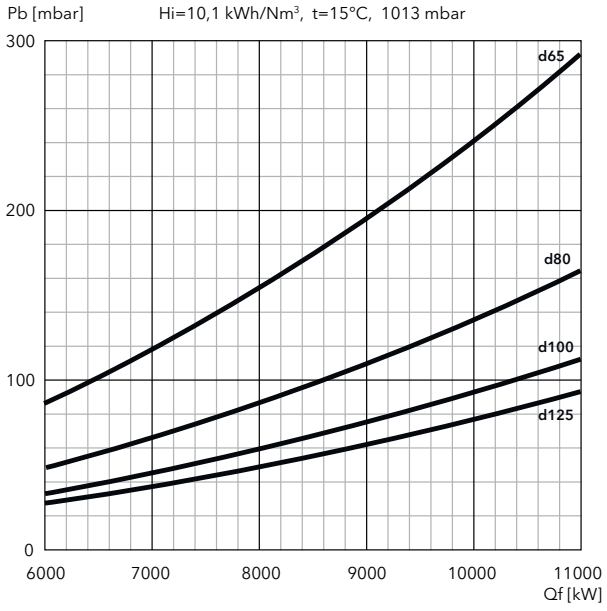


SIEMENS

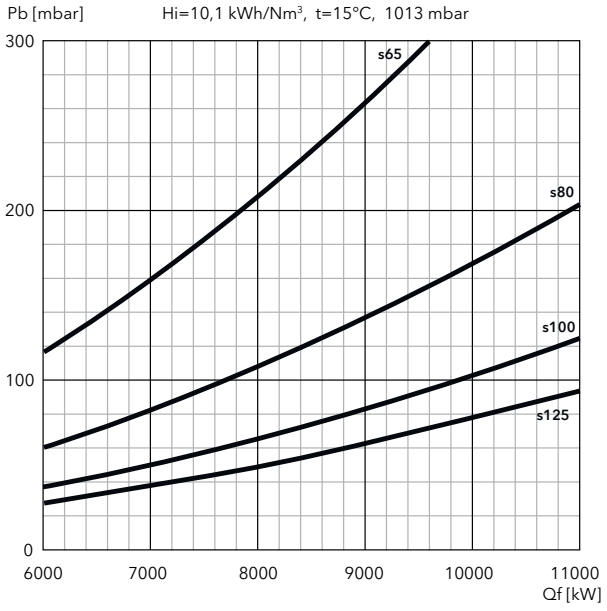


N9.10400 GL-E

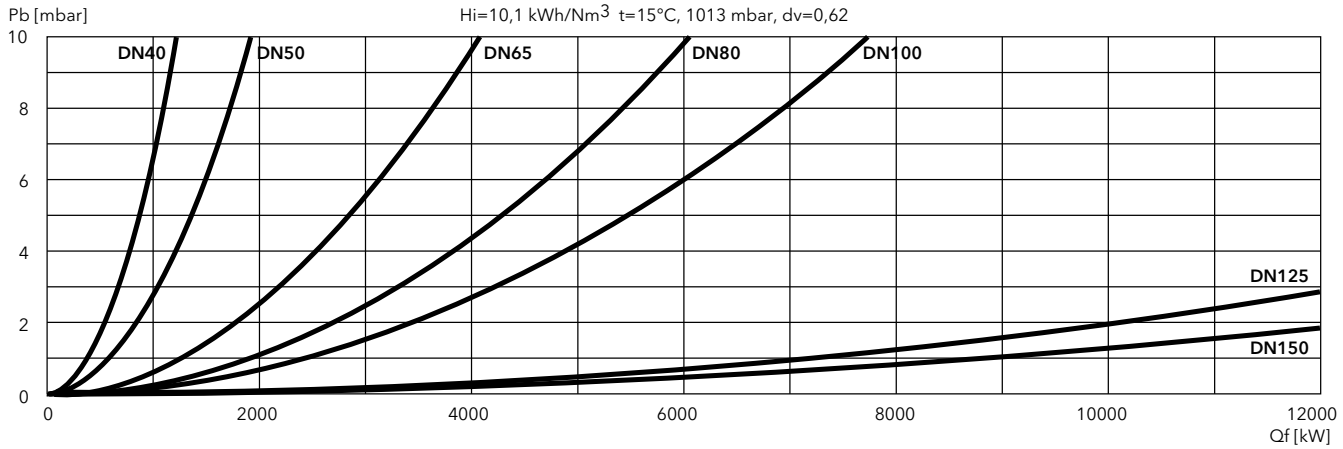
DUNGS



SIEMENS



FILTERS

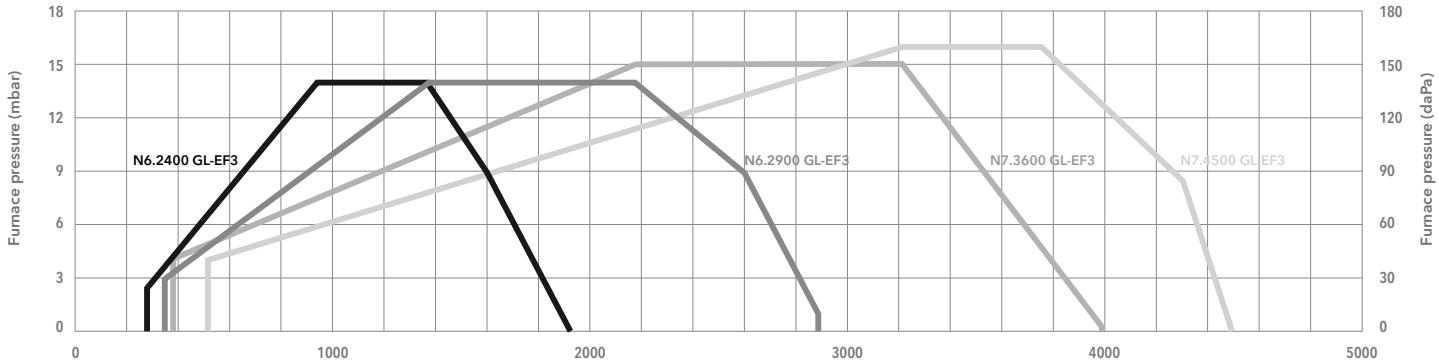


N6 GL-EF3, N7 GL-EF3

280 ... 4500 kW
2 stage progressive/modulating electronic (Low NOx class 3)

- **Fuels:** natural gas, Hi = 6,99 … 11,39 kWh/Nm³;
  light oil, viscosity 6 mm²/s at 20°C, Hi = 11,86 kWh/kg
- **Emission class:** Low NOx class 3 (≤80 mg/kWh) according to EN676 in gas
  Low NOx class 3 (≤120 mg/kWh) according to EN267 in light oil
- **Protection level:** IP 41

TECHNICAL DATA



Test conditions conforming to EN676 and EN267 - Temperature: 20°C - Pressure: 1013,5 mbar - Altitude: 0 m a.s.l.

	N6.2400 GL-EF3	N6.2900 GL-EF3	N7.3600 GL-EF3	N7.4500 GL-EF3
Operating range gas	280 - 1920 kW	340 - 2890 kW	470 - 3980 kW	510 - 4500 kW
Operating range oil	360 - 1920 kW	740 - 2890 kW	680 - 3980 kW	740 - 4500 kW
Gas pressure	50 – 500 mbar (50 - 360 mbar for d452 and d453 gas train)		50 – 500 mbar (50 - 360 mbar for d452 and d453 gas train)	
Gas connection	DN65	DN65	DN65	DN65
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	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	3PE AC 400 V - 50 Hz
Control box / flame detector	BT300 / D-LX 100 EK-S	BT300 / D-LX 100 EK-S	BT300 / D-LX 100 EK-S	BT300 / D-LX 100 EK-S
Fan motor	50 Hz - 3 kW	50 Hz - 4 kW	50 Hz - 7,5 kW	50 Hz - 7,5 kW
Pump	SUNTEC TA3	SUNTEC TA3	SUNTEC TA4	SUNTEC TA4
Motor pump	50 Hz - 0,74 kW	50 Hz - 0,74 kW	50 Hz - 1,1 kW	50 Hz - 1,5 kW
Acoustic level	<71 dB(A)	<71 dB(A)	<76 dB(A)	<74 dB(A)
CE certificate	0085CL0215	0085CL0215	0085CL0215	0085CL0215
Complete burner codes	**on request**	**on request**	**on request**	**on request**

GAS TRAINS

DUNGS

Model	Code
GT-d452-1"1/2 (*)	3750510
GT-d453-2" (*)	3750511
GT-d454-65	3750512
GT-d455-80	3750513
GT-d456-100	3750514

*: integrated filter

SIEMENS

Model	Code
GT-s451-1"1/2	3750525
GT-s452-2"	3750526
GT-s453-65	3750527
GT-s454-80	3750528
GT-s455-100	3750529
GT-s456-125	3750530

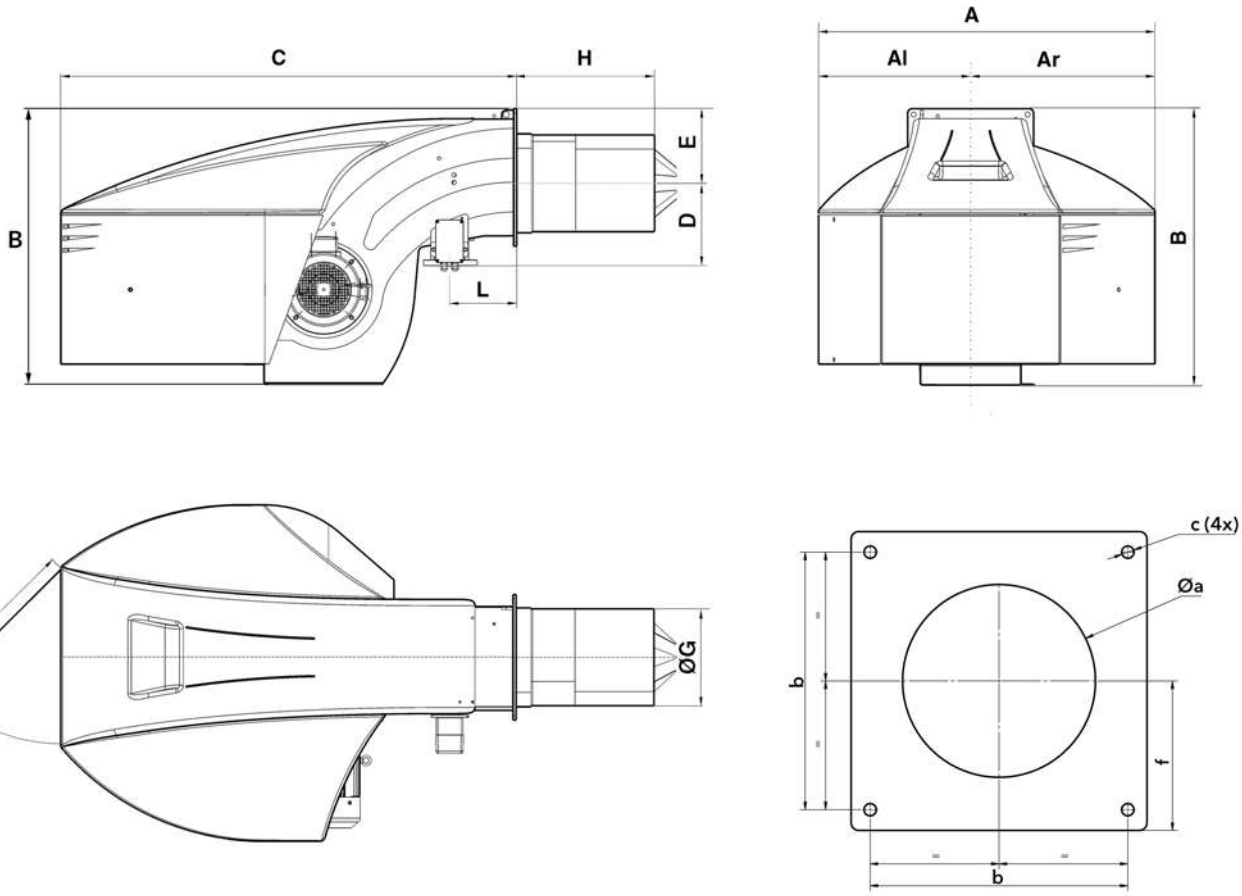
FILTERS

Model	Code
FG-Rp1"1/2	3757199
FG-Rp2"	3757200
FG-DN65	3757198
FG-DN80	3757201
FG-DN100	3757195
FG-DN125	3757209

Pressure drops graphs: see following pages
Dimensions of gas trains and gas filters: see pag. 206

MDE2 GEM Variatron Low Noise LOW NOx CLASS 3

DIMENSIONS (mm)

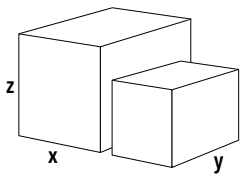


Model	A	Al	Ar	B	C	D	E	ØG	H			L	Q
									KN	KM	KL		
N6	990	479	510	837	1361	245	225	264	400	520	640	215	600
N7	1128	511	618	961	1529	276	255	325	420	550	680	225	600

Øa	b	c	f
300-340	340	M16	200
360-400	400	M16	235

PACKAGING

The burner is delivered on a pallet in 2 packages containing:
- burner body with mounted combustion head, boiler fixing accessories and technical documentation;
- gas train and filter.

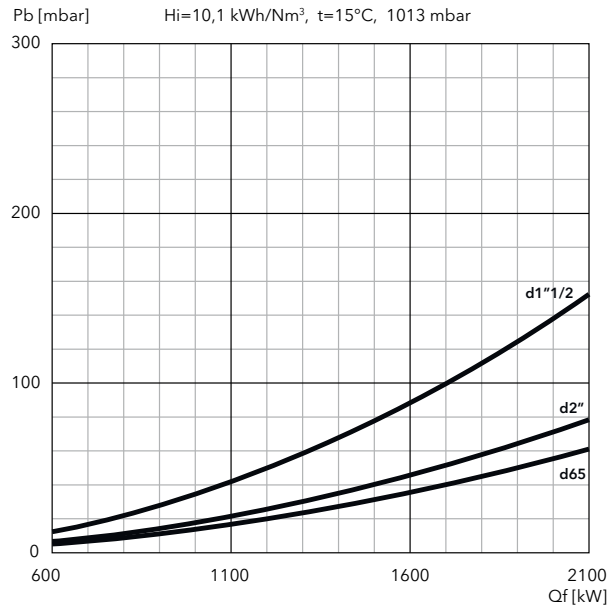


Models		Dimensions (mm)			Gross weight (kg)
		X	Y	Z	
N6.2400 GL-EF3	KN	1861	990	837	320
	KM	1981	990	837	320
	KL	2101	990	837	320
N6.2900 GL-EF3	KN	1861	990	837	330
	KM	1981	990	837	330
	KL	2101	990	837	330
N7.3600 GL-EF3	KN	2029	1128	961	360
	KM	2179	1128	961	360
	KL	2309	1128	961	360
N7.4500 GL-EF3	KN	2029	1128	961	370
	KM	2179	1128	961	370
	KL	2309	1128	961	370

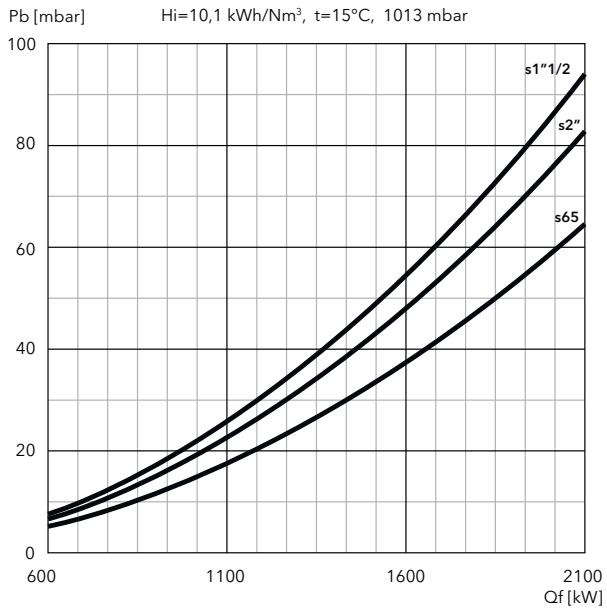
PRESSURE LOSSES (BURNER HEAD + GAS TRAIN)

N6.2400 GL-EF3

DUNGS

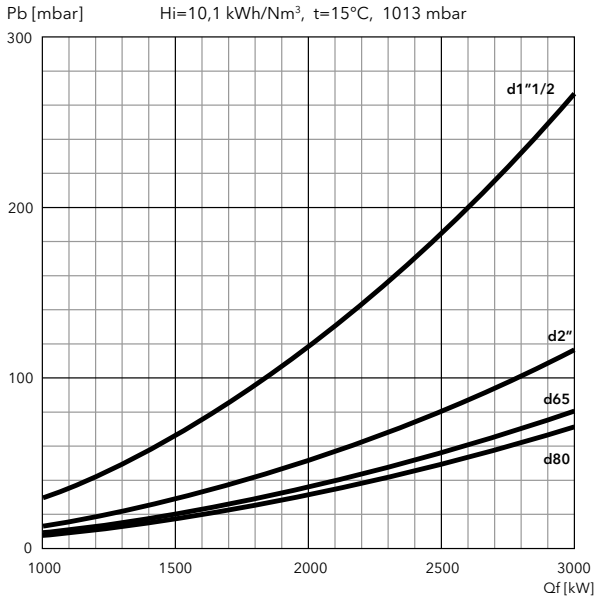


SIEMENS

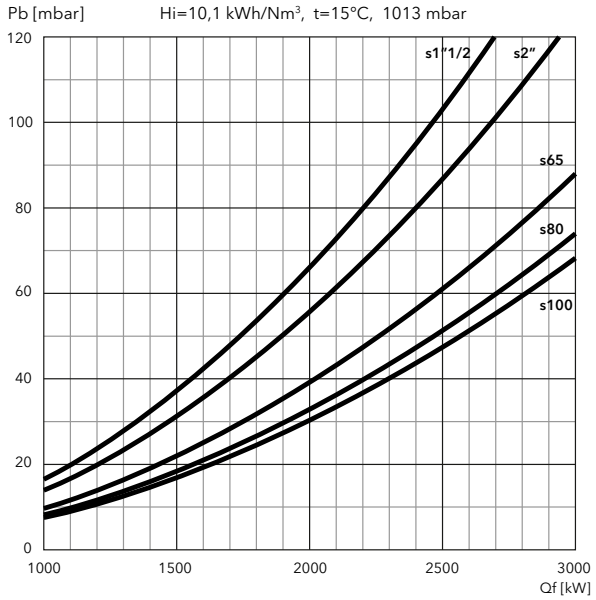


N6.2900 GL-EF3

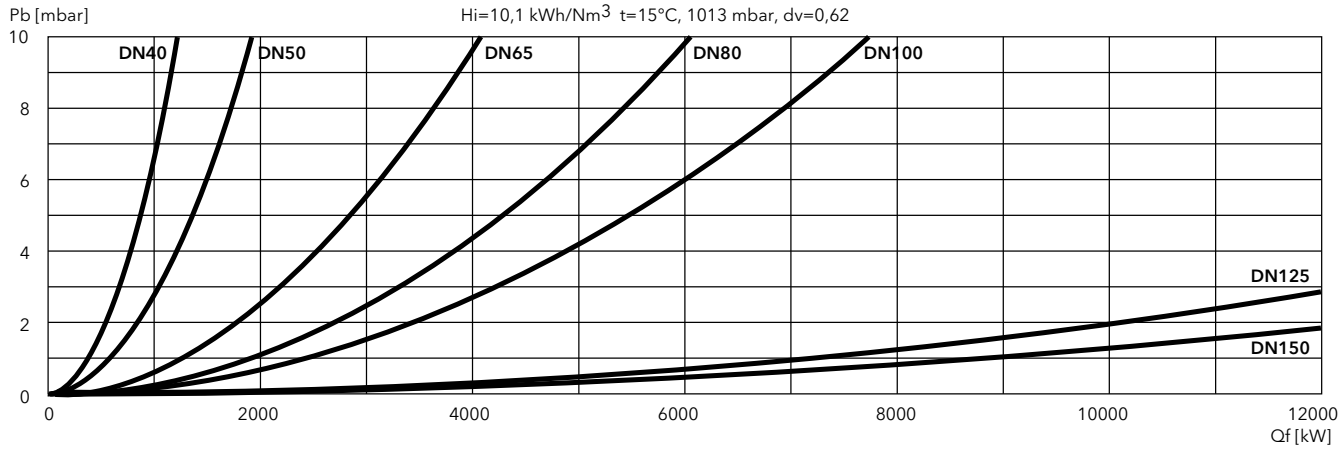
DUNGS



SIEMENS



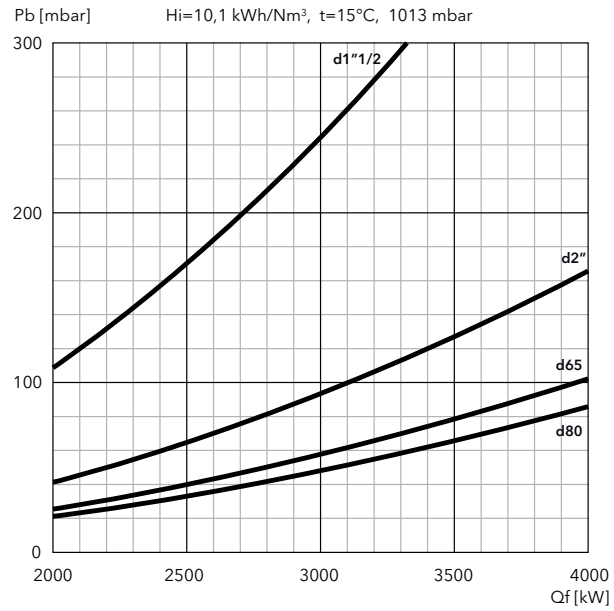
FILTERS



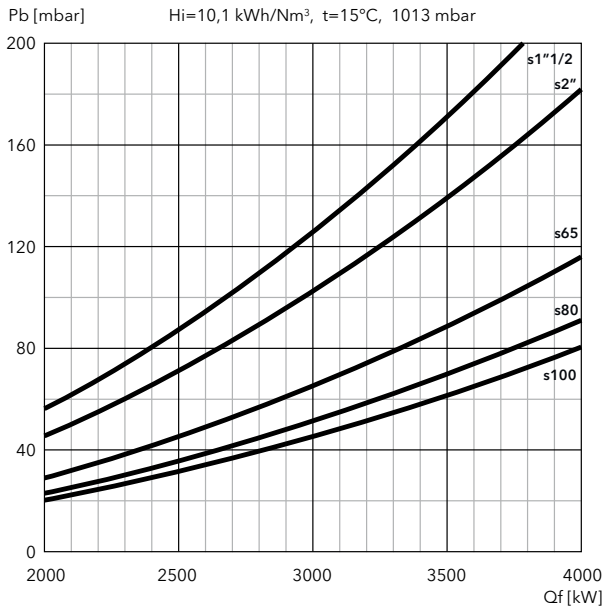
PRESSURE LOSSES (BURNER HEAD + GAS TRAIN)

N7.3600 GL-EF3

DUNGS

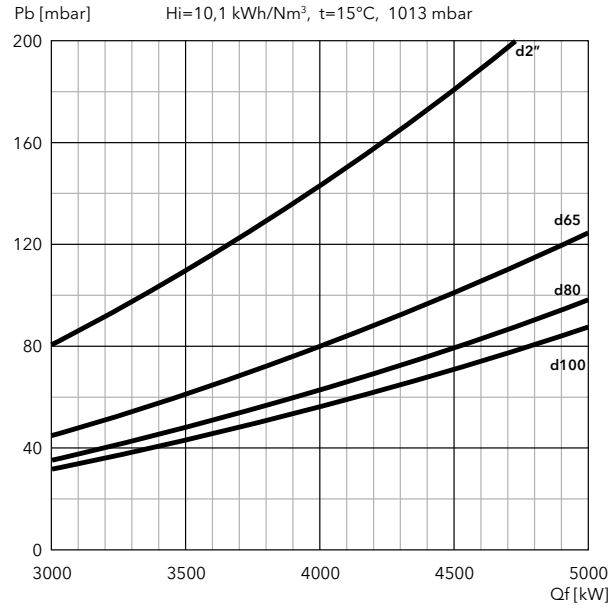


SIEMENS

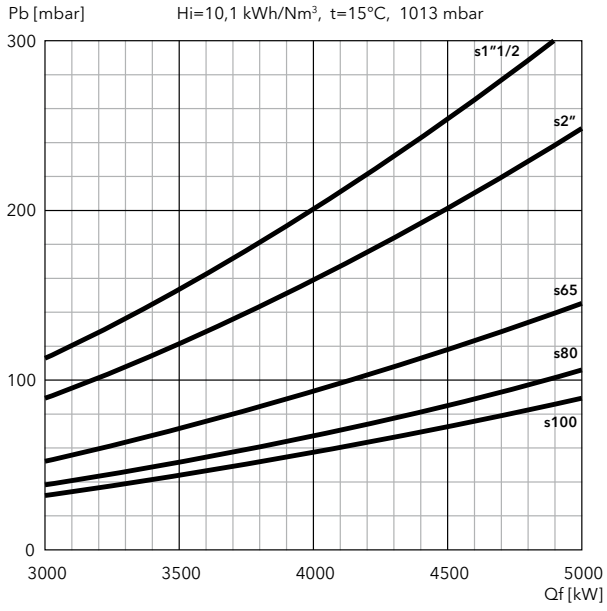


N7.4500 GL-EF3

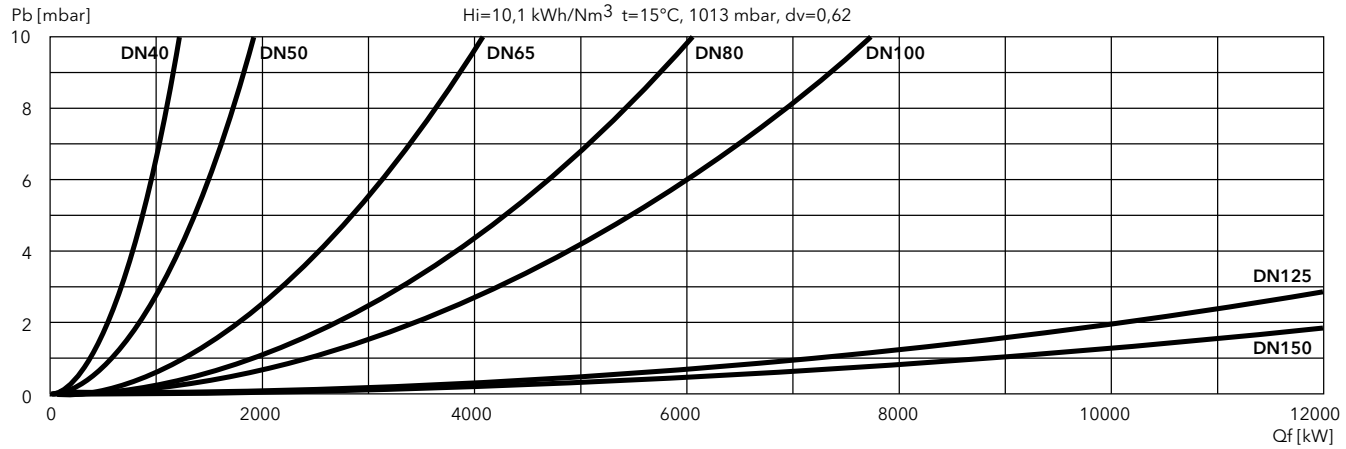
DUNGS



SIEMENS



FILTERS

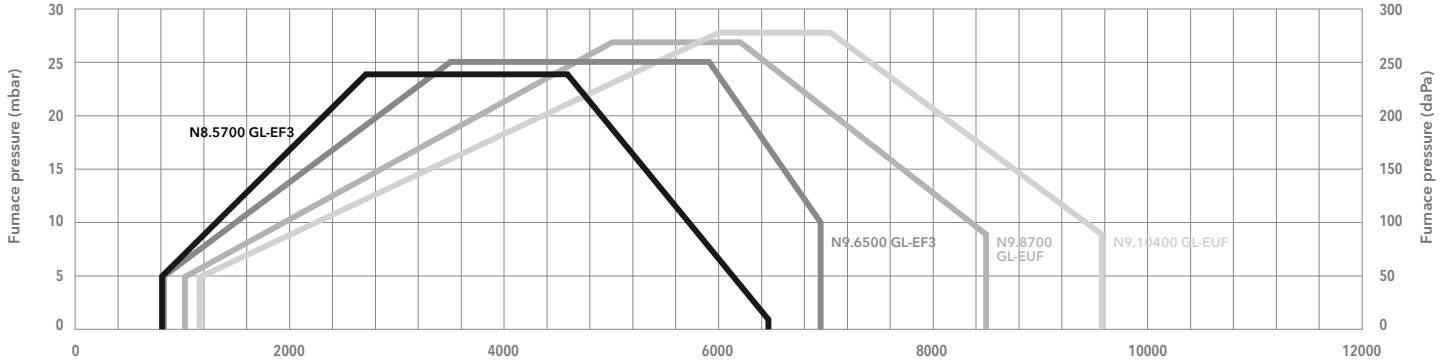


N8/N9 GL-EF3, N9 GL-EUF

830 ... 9570 kW
2 stage progressive/modulating electronic (Low NOx class 3)

- **Fuels:** natural gas, Hi = 6,99 … 11,39 kWh/Nm³;
  light oil, viscosity 6 mm²/s at 20°C, Hi = 11,86 kWh/kg
- **Emission class:** Low NOx class 3 (≤80 mg/kWh) according to EN676 in gas
  Low NOx class 3 (≤120 mg/kWh) according to EN267 in light oil
- **Protection level:** IP 41

TECHNICAL DATA



Test conditions conforming to EN676 and EN267 - Temperature: 20°C - Pressure: 1013,5 mbar - Altitude: 0 m a.s.l.

	N8.5700 GL-EF3	N9.6500 GL-EF3	N9.8700 GL-EUF	N9.10400 GL-EUF
Operating range gas	830 - 6450 kW	830 - 6950 kW	1040 - 8500 kW	1160 - 9570 kW
Operating range oil	1030 - 6450 kW	1030 - 6600 kW	1800 - 8500 kW	2550 - 9570 kW
Gas pressure	100 – 500 mbar (100 - 360 mbar for d457 gas train)		100 – 500 mbar (100 - 360 mbar for d457 gas train)	
Gas connection	DN100	DN100	DN100	DN100
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	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	3PE AC 400 V - 50 Hz
Control box / flame detector	BT300 / Satronic 1020	BT300 / Satronic 1020	BT300 / D-LX 100 EK-S	BT300 / D-LX 100 EK-S
Fan motor	50 Hz - 15 kW	50 Hz - 22 kW	50 Hz - 18,5 kW	50 Hz - 22 kW
Pump	SMG1630 - 1700 l/h	SMG1630 - 1700 l/h	SMG1630 - 1700 l/h	SMG1631 - 2200 l/h
Motor pump	50 Hz - 3 kW	50 Hz - 3 kW	50 Hz - 3 kW	50 Hz - 4 kW
Acoustic level	<80 dB(A)	<83 dB(A)	<81 dB(A)	<81,7 dB(A)
CE certificate	0085CL0215	0085CL0215	0085CL0215	0085CL0215
Complete burner codes	**on request**	**on request**	**on request**	**on request**

GAS TRAINS

DUNGS

Model	Code
GT-d457-2" (*)	3750515
GT-d458-65	3750516
GT-d459-80	3750517
GT-d460-100	3750518

*: integrated filter

SIEMENS

Model	Code
GT-s457-2"	3750537
GT-s458-65	3750538
GT-s459-80	3750539
GT-s460-100	3750540
GT-s461-125	3750541

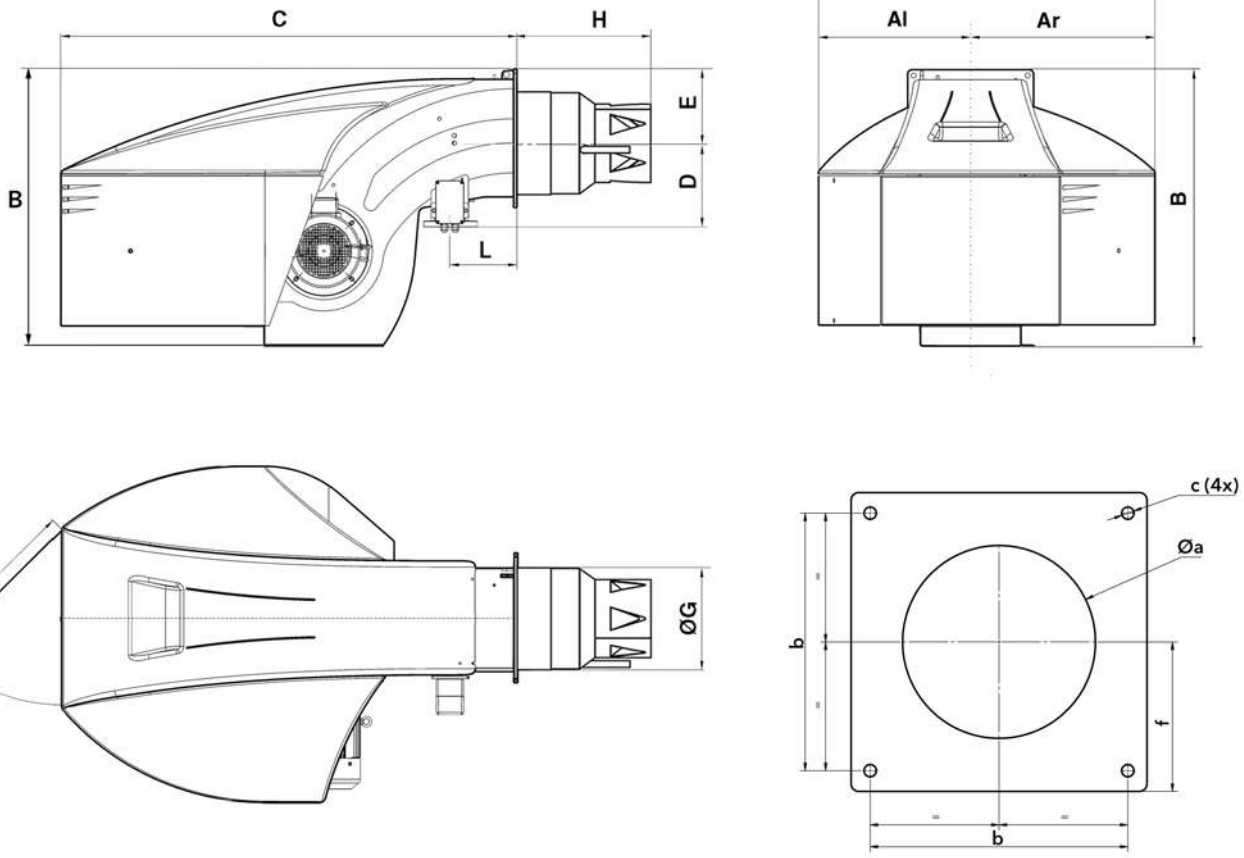
FILTERS

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

Pressure drops graphs: see following pages
Dimensions of gas trains and gas filters: see pag. 207

MDE2 GEM Variatron Low Noise LOW NOx CLASS 3

DIMENSIONS (mm)

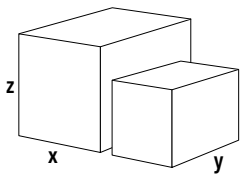


Model	A	Al	Ar	B	C	D	E	ØG	H			L	Q
									KN	KM	KL		
N8.5700	1414	669	745	1231	1930	391	293	369	528	668	808	230	800
N9.6500	1414	669	745	1291	1928	434	293	431,5	543	693	843	230	800
N9 GL-EUF	1414	669	745	1291	1928	434	293	431,5	575	725	875	230	800

Øa	b	c	f
380-410	505	M20	293
445-480	505	M20	293
445-480	505	M20	293

PACKAGING

The burner is delivered on a pallet in 2 packages containing:
- burner body with mounted combustion head, boiler fixing accessories and technical documentation;
- gas train and filter.

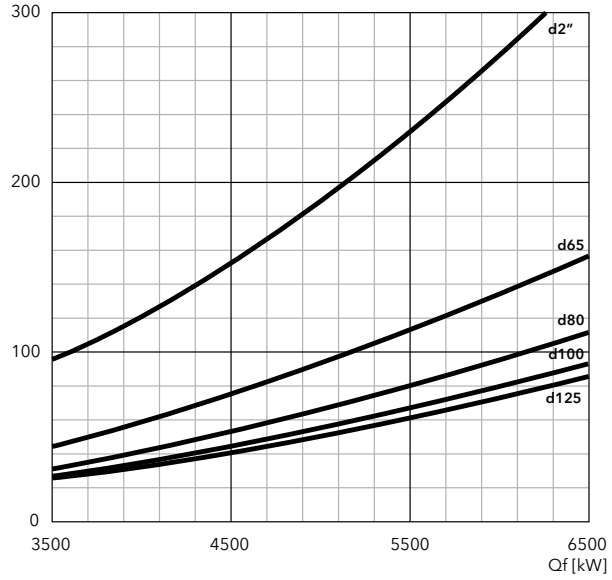


Models		Dimensions (mm)			Gross weight (kg)
		X	Y	Z	
N8.5700 GL-EF3	KN	2530	1414	1231	600
	KM	2670	1414	1231	608
	KL	2810	1414	1231	615
N9.6500 GL-EF3	KN	2550	1414	1291	670
	KM	2700	1414	1291	678
	KL	2850	1414	1291	685
N9.8700 GL-EUF	KN	2503	1414	1291	662
	KM	2653	1414	1291	670
	KL	2803	1414	1291	677
N9.10400 GL-EUF	KN	2503	1414	1291	672
	KM	2653	1414	1291	680
	KL	2803	1414	1291	687

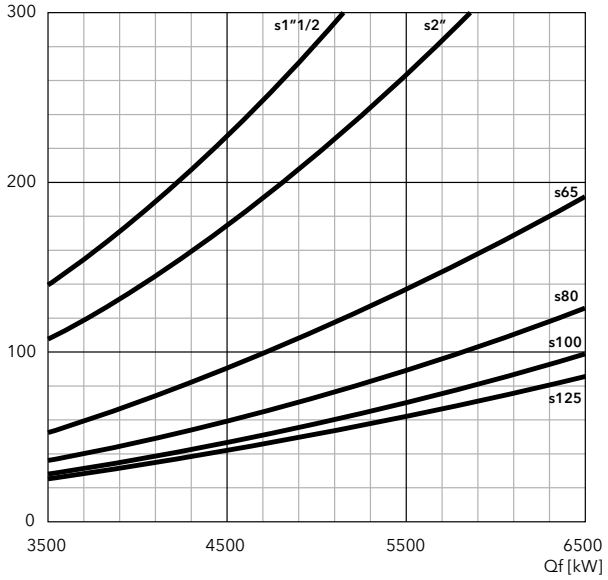
PRESSURE LOSSES (BURNER HEAD + GAS TRAIN)

N8.5700 GL-EF3

DUNGS

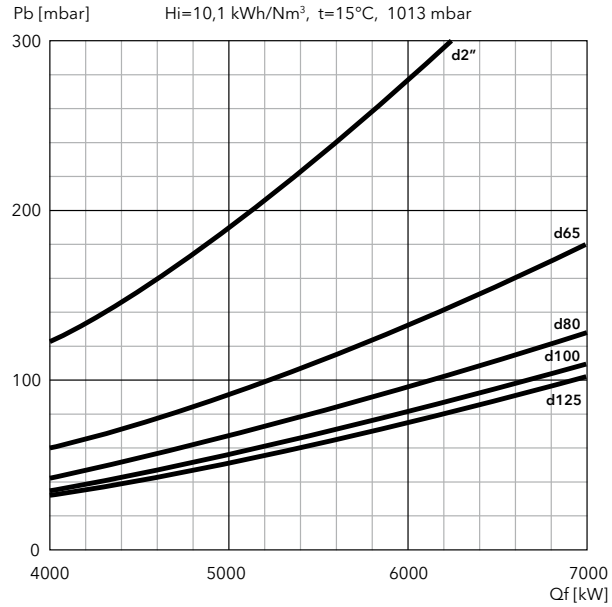


SIEMENS

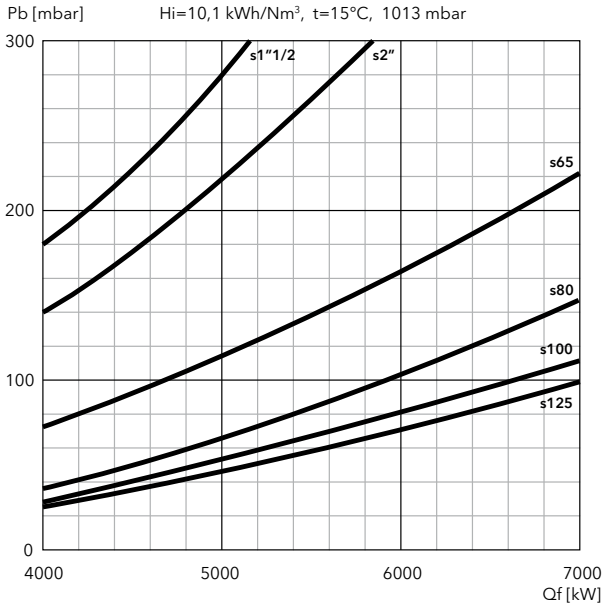


N9.6500 GL-EF3

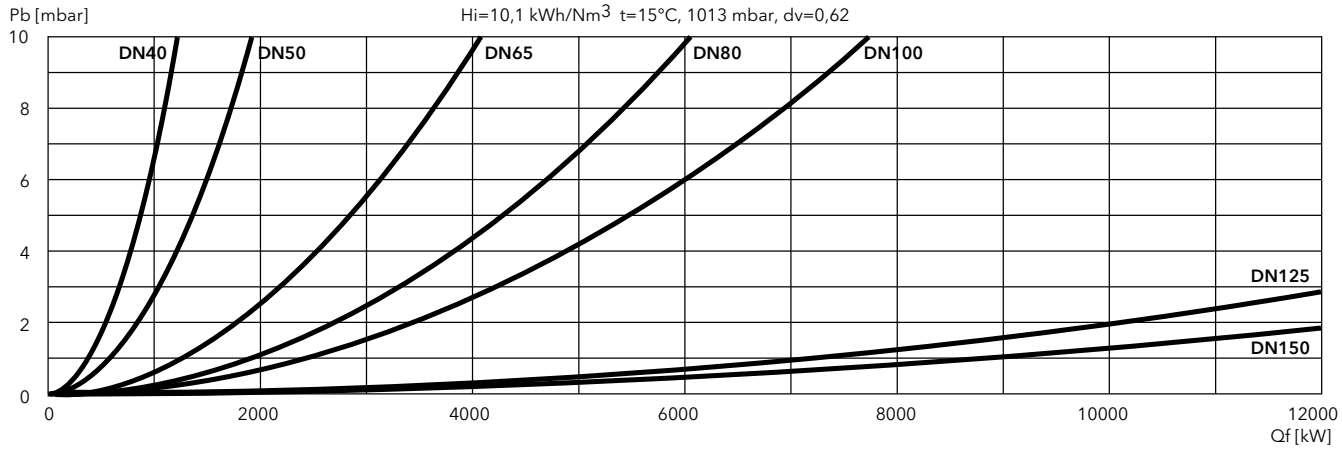
DUNGS



SIEMENS



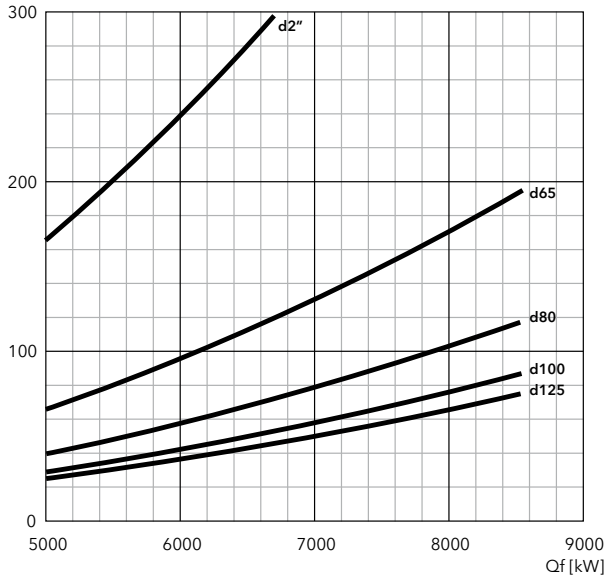
FILTERS



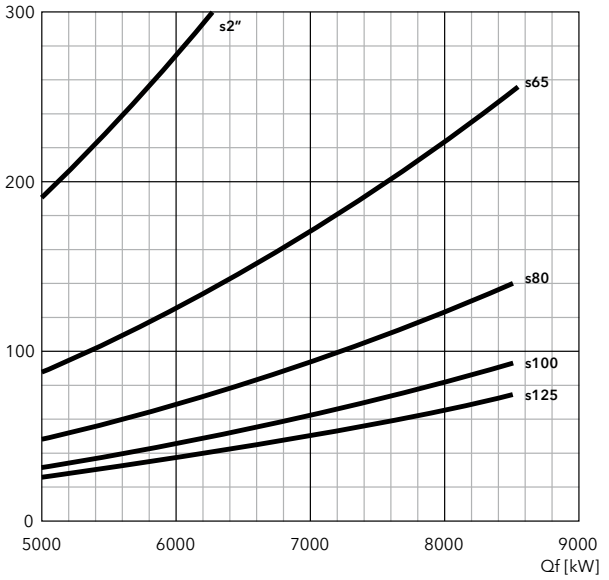
PRESSURE LOSSES (BURNER HEAD + GAS TRAIN)

N9.8700 GL-EUF

DUNGS

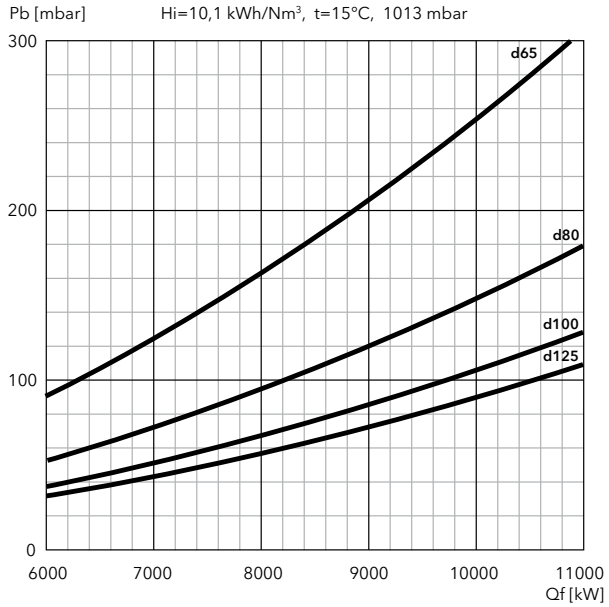


SIEMENS

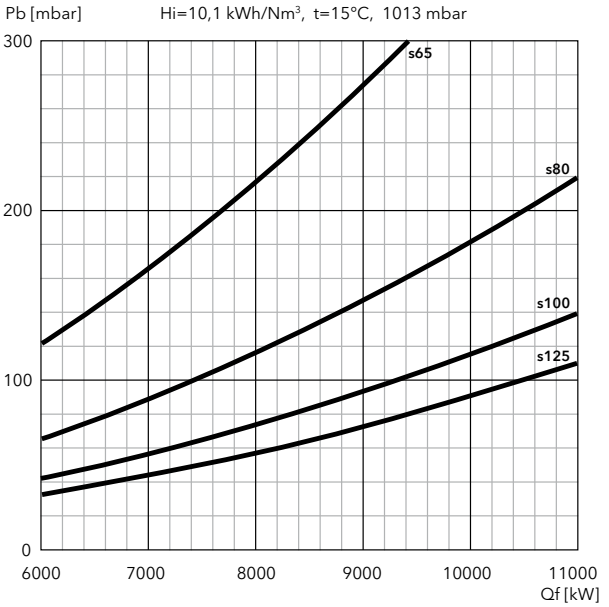


N9.10400 GL-EUF

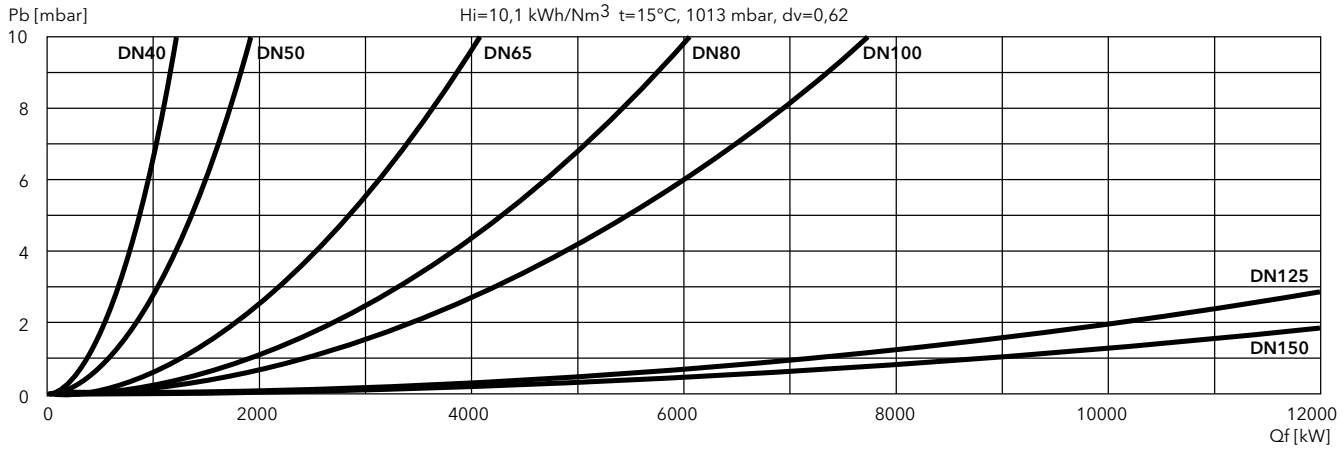
DUNGS



SIEMENS



FILTERS

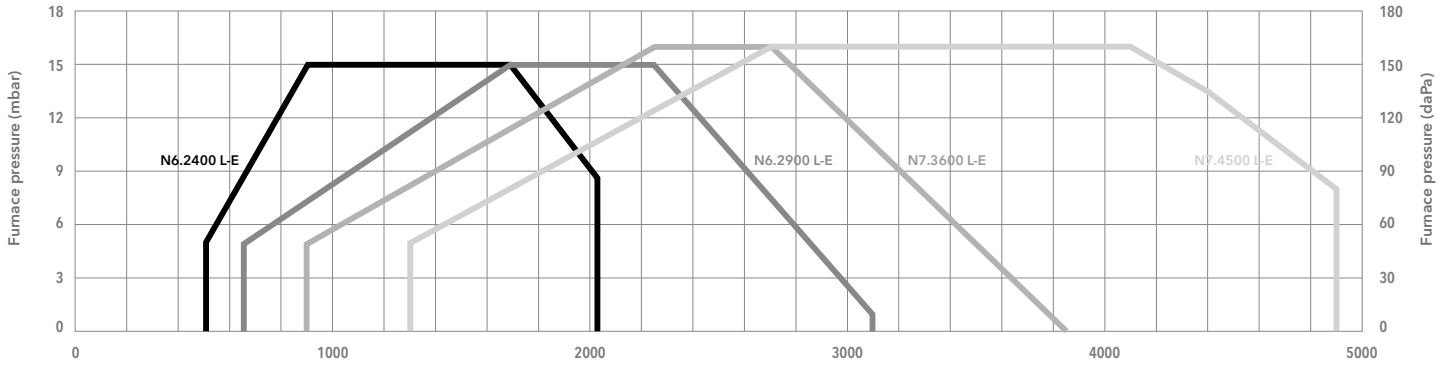


N6 L-E, N7 L-E

510 ... 4900 kW
2 stage progressive/modulating electronic

- **Fuels:** light oil, viscosity 6 mm²/s at 20°C, Hi = 11,86 kWh/kg
- **Emission class:** Low NOx class 2 (≤185 mg/kWh) according to EN267
- **Protection level:** IP 41

TECHNICAL DATA

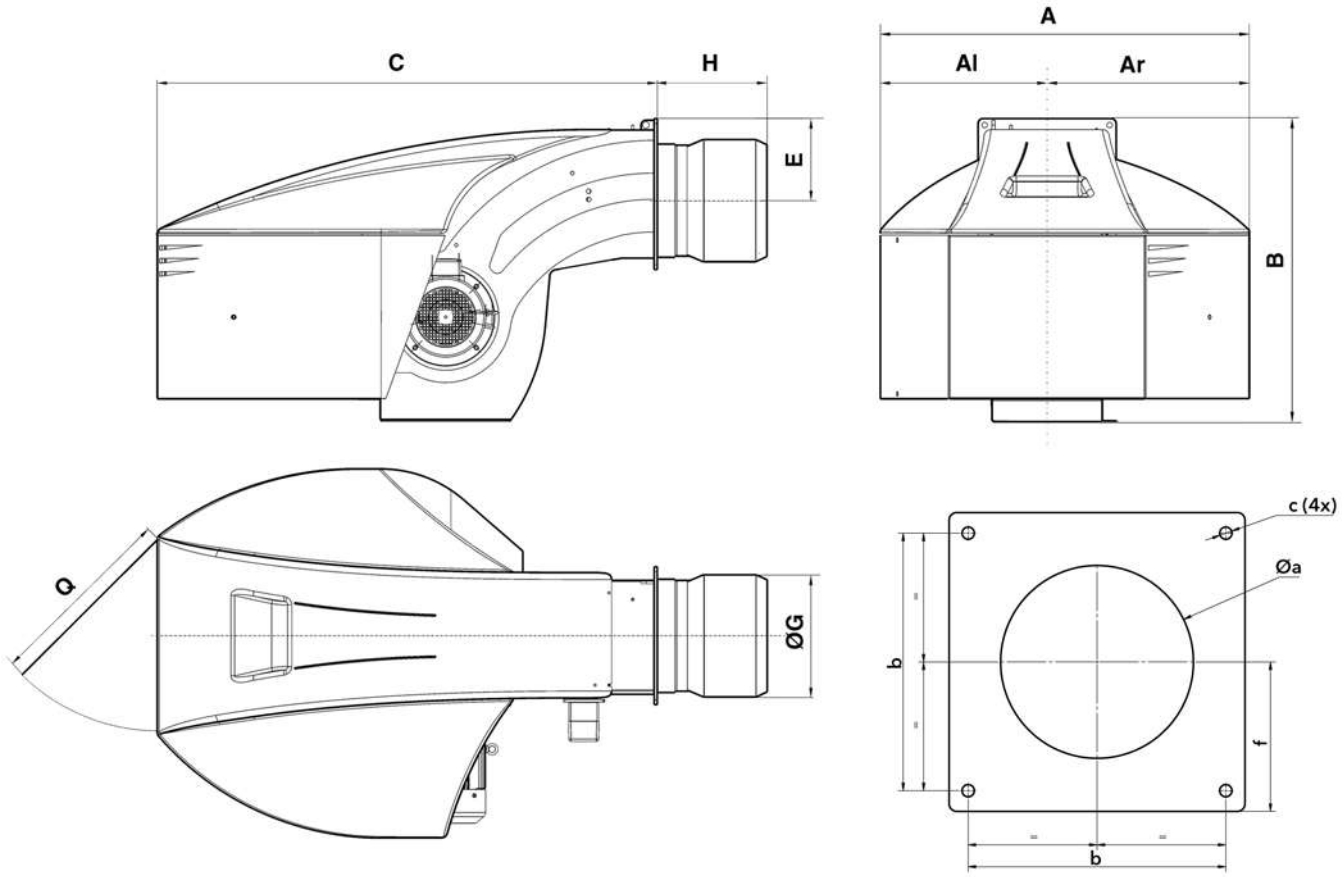


Test conditions conforming to EN267 - Temperature: 20°C - Pressure: 1013,5 mbar - Altitude: 0 m a.s.l.

	N6.2400 L-E	N6.2900 L-E	N7.3600 L-E	N7.4500 L-E
Operating range	510 - 2030 kW	650 - 3100 kW	900 - 3850 kW	1300 - 4900 kW
Fuel connection	DN20 x 1500 mm / R 1/2"	DN20 x 1500 mm / R 1/2"	DN20 x 1500 mm / R 3/4"	DN20 x 1500 mm / R 3/4"
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	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	3PE AC 400 V - 50 Hz
Control box / flame detector	BT300 / QRA2	BT300 / QRA2	BT300 / QRA2	BT300 / QRA2
Fan motor	50 Hz - 3 kW	50 Hz - 4 kW	50 Hz - 5,5 kW	50 Hz - 7,5 kW
Pump	SUNTEC TA3	SUNTEC TA3	SUNTEC TA4	SUNTEC TA5
Motor pump	50 Hz - 0,74 kW	50 Hz - 0,74 kW	50 Hz - 1,1 kW	50 Hz - 1,5 kW
Acoustic level	<70 dB(A)	<71 dB(A)	<74 dB(A)	<75 dB(A)
CE certificate	0085CL0215	0085CL0215	0085CL0215	0085CL0215
Complete burner codes	**on request**	**on request**	**on request**	**on request**

MDE2 GEM Variatron Low Noise

DIMENSIONS (mm)

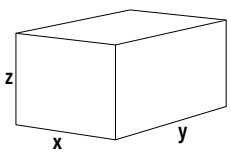


Model	A	Al	Ar	B	C	E	ØG	H			Q
								KN	KM	KL	
N6.2400 L-E	990	479	510	837	1361	225	290	330	450	570	600
N6.2900 L-E	990	479	510	837	1361	225	310	330	450	570	600
N7.3600 L-E	1128	511	618	961	1529	255	330	375	505	635	600
N7.4500 L-E	1128	511	618	961	1529	255	370	375	505	635	600

Øa	b	c	f
300-340	340	M16	200
320-340	340	M16	200
340-400	400	M16	235
380-400	400	M16	235

PACKAGING

The burner is delivered on a pallet in 1 package containing:
- burner body with mounted combustion head, boiler fixing accessories, technical data including electrical diagram, exploded view, spare parts list, and instruction manual.



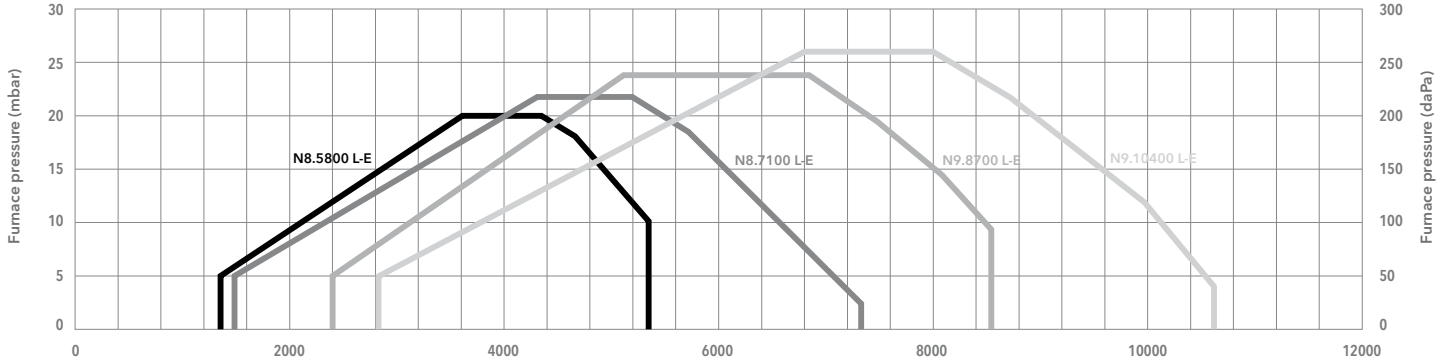
Models		Dimensions (mm)			Gross weight (kg)
		X	Y	Z	
N6.2400 L-E	**KN**	1691	990	837	315
	KM	1811	990	837	315
	KL	1931	990	837	315
N6.2900 L-E	**KN**	1691	990	837	325
	KM	1811	990	837	325
	KL	1931	990	837	325
N7.3600 L-E	**KN**	1904	1128	961	360
	KM	2034	1128	961	360
	KL	2164	1128	961	360
N7.4500 L-E	**KN**	1904	1128	961	370
	KM	2034	1128	961	370
	KL	2164	1128	961	370

N8 L-E, N9 L-E

1350 ... 10620 kW
2 stage progressive/modulating electronic

- **Fuels:** light oil, viscosity 6 mm²/s at 20°C, Hi = 11,86 kWh/kg
- **Emission class:** Low NOx class 2 (≤185 mg/kWh) according to EN267
- **Protection level:** IP 41

TECHNICAL DATA

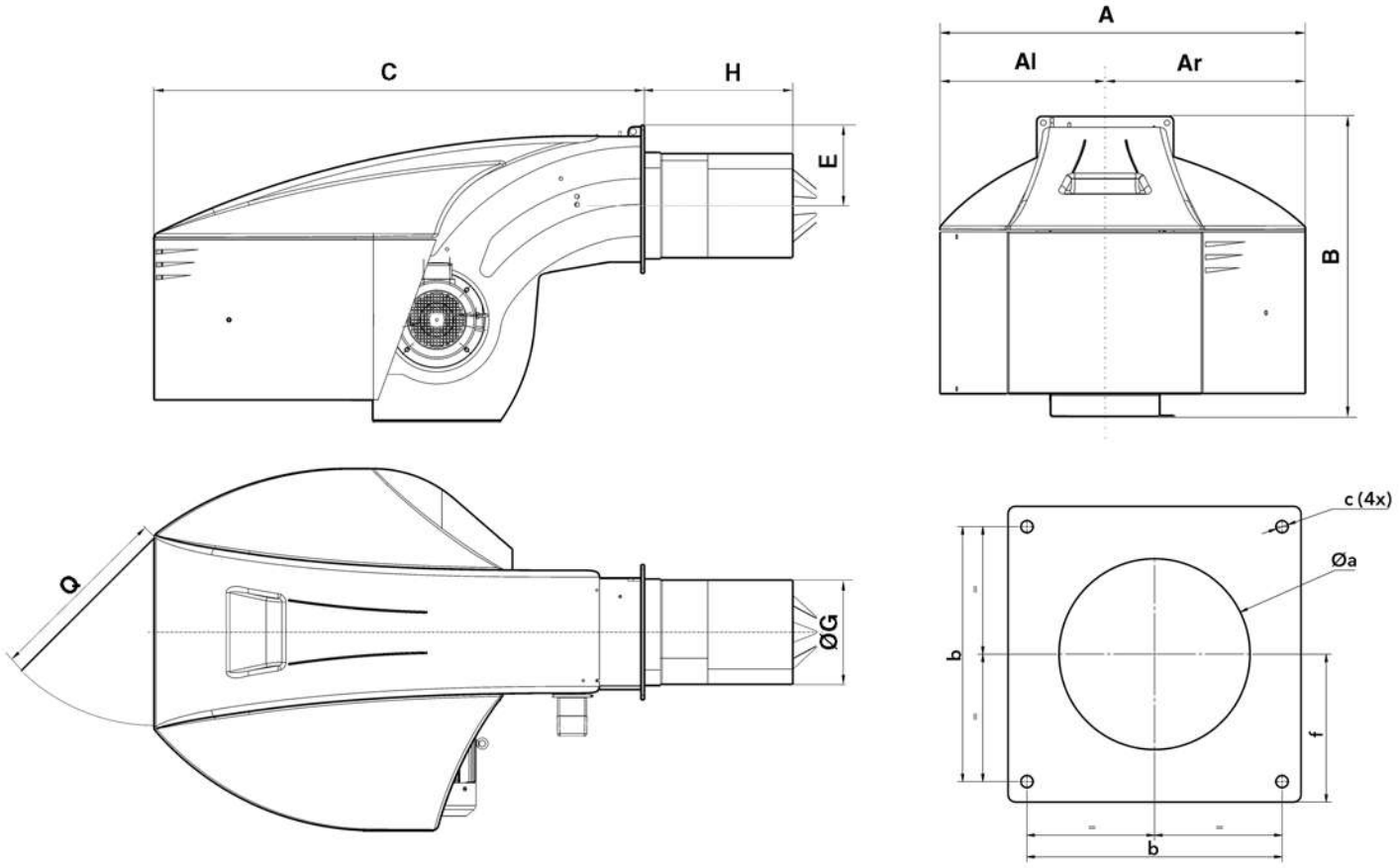


Test conditions conforming to EN267 - Temperature: 20°C - Pressure: 1013,5 mbar - Altitude: 0 m a.s.l.

	N8.5800 L-E	N8.7100 L-E	N9.8700 L-E	N9.10400 L-E
Operating range	1350 - 5350 kW	1470 - 7340 kW	2400 - 8530 kW	2820 - 10620 kW
Fuel connection	DN20 x 1500 mm / R 3/4"	DN20 x 1500 mm / R 3/4"	DN25 x 1500 mm / R 1"	DN25 x 1500 mm / R 1"
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	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	3PE AC 400 V - 50 Hz
Control box / flame detector	BT300 / QRA2	BT300 / QRA2	BT300 / QRA2	BT300 / QRA2
Fan motor	50 Hz - 11 kW	50 Hz - 15 kW	50 Hz - 18,5 kW	50 Hz - 22 kW
Pump	SMG1630 - 1700 l/h	SMG1630 - 1700 l/h	SMG1631 - 2200 l/h	SMG1631 - 2200 l/h
Motor pump	50 Hz - 3 kW	50 Hz - 3 kW	50 Hz - 4 kW	50 Hz - 4 kW
Acoustic level	<77,4 dB(A)	<79,5 dB(A)	<81 dB(A)	<81,7 dB(A)
CE certificate	0085CL0215	0085CL0215	0085CL0215	0085CL0215
Complete burner codes	**on request**	**on request**	**on request**	**on request**

MDE2 GEM Variatron Low Noise

DIMENSIONS (mm)

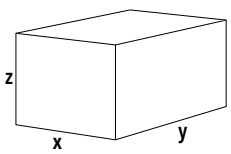


Model	A	Al	Ar	B	C	E	ØG	H			Q
								KN	KM	KL	
N8.5800 L-E	1414	669	745	1231	1930	293	400	562	702	842	800
N8.7100 L-E	1414	669	745	1231	1930	293	415	583	723	863	800
N9.8700 L-E	1414	669	745	1291	1928	293	431,5	355	505	655	800
N9.10400 L-E	1414	669	745	1291	1928	293	431,5	355	505	655	800

Øa	b	c	f
430-480	505	M20	293
454-480	505	M20	293
445-480	505	M20	293
445-480	505	M20	293

PACKAGING

The burner is delivered on a pallet in 1 package containing:
- burner body with mounted combustion head, boiler fixing accessories, technical data including electrical diagram, exploded view, spare parts list, and instruction manual.



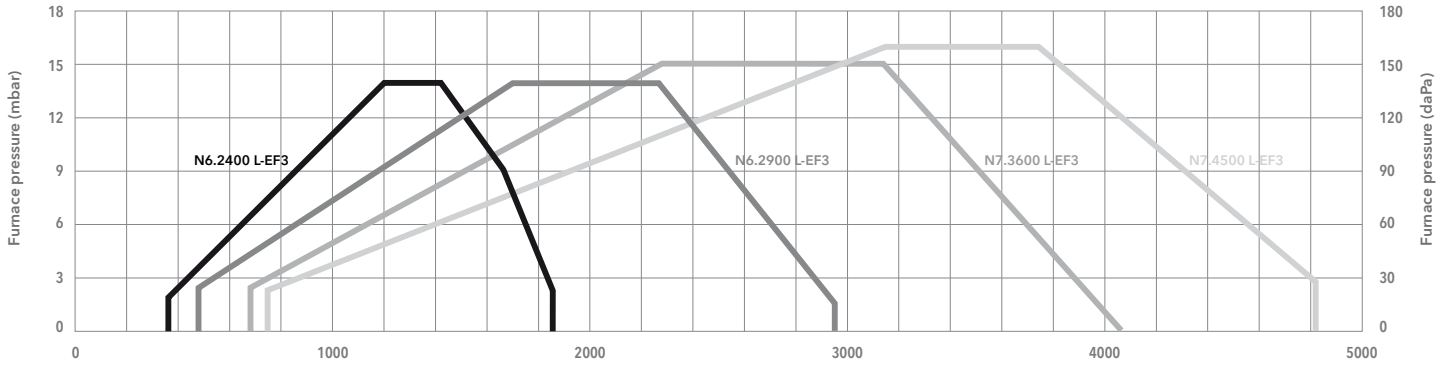
Models		Dimensions (mm)			Gross weight (kg)
		X	Y	Z	
N8.5800 L-E	**KN**	2492	1414	1231	630
	KM	2632	1414	1231	637
	KL	2772	1414	1231	643
N8.7100 L-E	**KN**	2513	1414	1231	630
	KM	2653	1414	1231	639
	KL	2793	1414	1231	645
N9.8700 L-E	**KN**	2283	1414	1291	652
	KM	2433	1414	1291	660
	KL	2583	1414	1291	667
N9.10400 L-E	**KN**	2283	1414	1291	662
	KM	2433	1414	1291	670
	KL	2583	1414	1291	677

N6 L-EF3, N7 L-EF3

360 ... 4820 kW
2 stage progressive/modulating electronic (Low NOx class 3)

- **Fuels:** light oil, viscosity 6 mm²/s at 20°C, Hi = 11,86 kWh/kg
- **Emission class:** Low NOx class 3 (≤120 mg/kWh) according to EN267
- **Protection level:** IP 41

TECHNICAL DATA

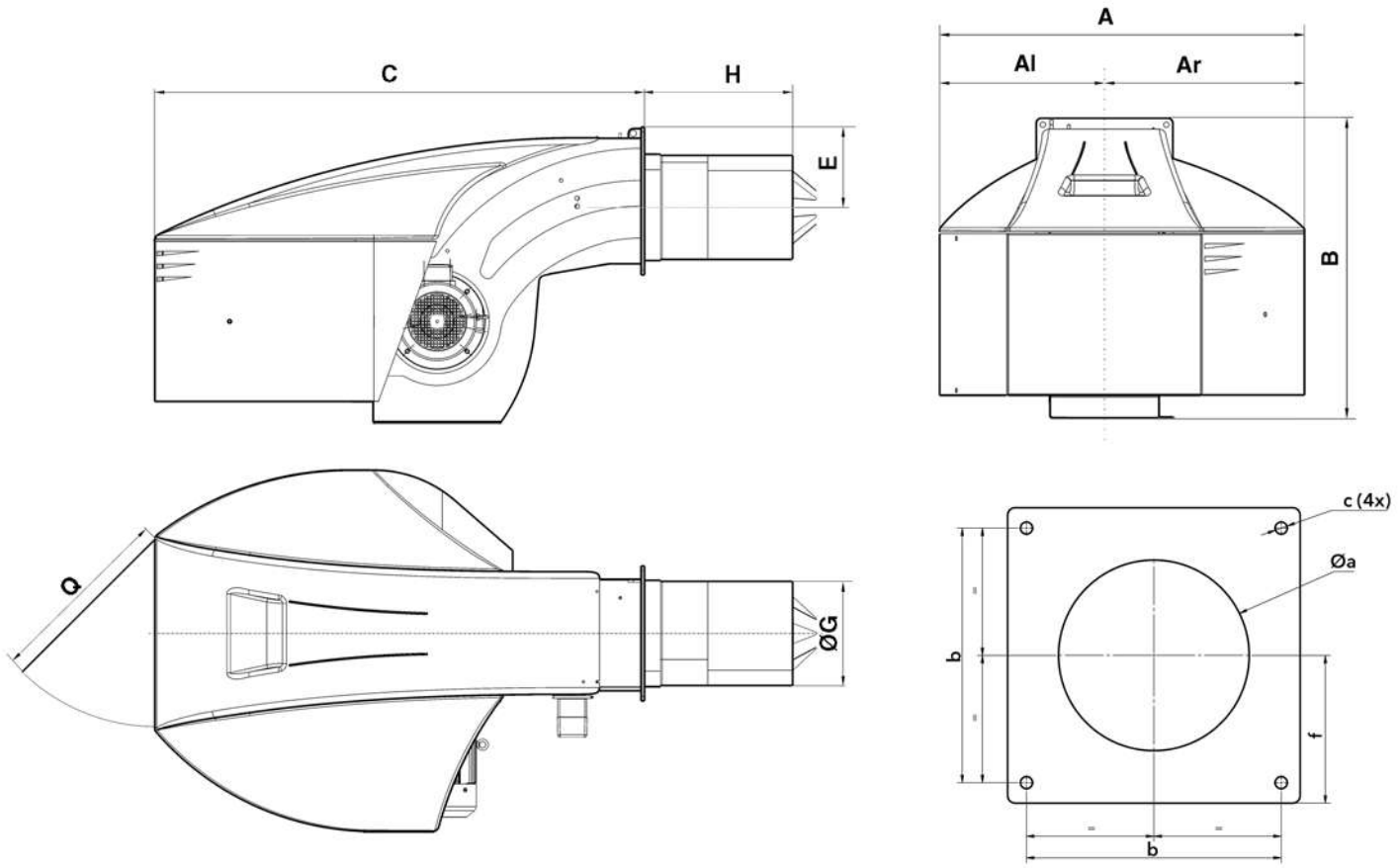


Test conditions conforming to EN267 - Temperature: 20°C - Pressure: 1013,5 mbar - Altitude: 0 m a.s.l.

	N6.2400 L-EF3	N6.2900 L-EF3	N7.3600 L-EF3	N7.4500 L-EF3
Operating range	360 - 1850 kW	480 - 2950 kW	680 - 4070 kW	740 - 4820 kW
Fuel connection	DN20 x 1500 mm / R 1/2"	DN20 x 1500 mm / R 1/2"	DN20 x 1500 mm / R 3/4"	DN20 x 1500 mm / R 3/4"
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	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	3PE AC 400 V - 50 Hz
Control box / flame detector	BT300 / D-LX 100 EK-S	BT300 / D-LX 100 EK-S	BT300 / D-LX 100 EK-S	BT300 / D-LX 100 EK-S
Fan motor	50 Hz - 3 kW	50 Hz - 4 kW	50 Hz - 7,5 kW	50 Hz - 7,5 kW
Pump	SUNTEC TA3	SUNTEC TA3	SUNTEC TA4	SUNTEC TA5
Motor pump	50 Hz - 0,74 kW	50 Hz - 0,74 kW	50 Hz - 1,1 kW	50 Hz - 1,5 kW
Acoustic level	<71 dB(A)	<71 dB(A)	<76 dB(A)	<74 dB(A)
CE certificate	0085CL0215	0085CL0215	0085CL0215	0085CL0215
Complete burner codes	**on request**	**on request**	**on request**	**on request**

MDE2 GEM Variatron Low Noise LOW NOx CLASS 3

DIMENSIONS (mm)

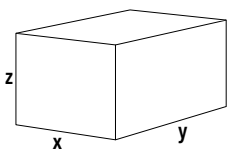


Model	A	Al	Ar	B	C	E	ØG	H			Q
								KN	KM	KL	
N6	990	479	510	837	1361	225	264	330	450	570	600
N7	1128	511	618	961	1529	255	325	375	505	635	600

Øa	b	c	f
300-340	340	M16	200
360-400	400	M16	235

PACKAGING

The burner is delivered on a pallet in 1 package containing:
- burner body with mounted combustion head, boiler fixing accessories, technical data including electrical diagram, exploded view, spare parts list, and instruction manual.



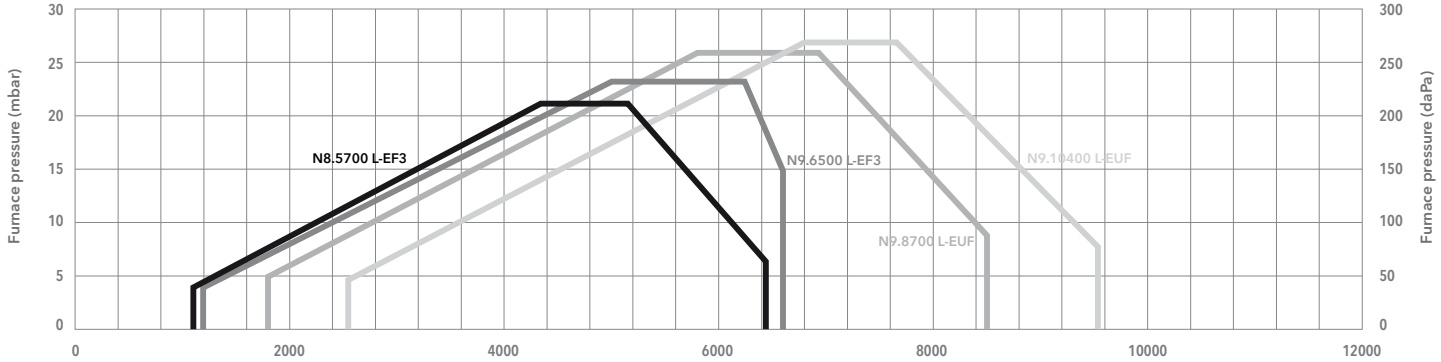
Models		Dimensions (mm)			Gross weight (kg)
		X	Y	Z	
N6.2400 L-EF3	KN	1861	990	837	315
	KM	1981	990	837	315
	KL	2101	990	837	315
N6.2900 L-EF3	KN	1861	990	837	325
	KM	1981	990	837	325
	KL	2101	990	837	325
N7.3600 L-EF3	KN	2029	1128	961	360
	KM	2179	1128	961	360
	KL	2309	1128	961	360
N7.4500 L-EF3	KN	2029	1128	961	370
	KM	2179	1128	961	370
	KL	2309	1128	961	370

N8/N9 L-EF3, N9 L-EUF

1100 ... 9570 kW
2 stage progressive/modulating electronic (Low NOx class 3)

- **Fuels:** light oil, viscosity 6 mm²/s at 20°C, Hi = 11,86 kWh/kg
- **Emission class:** Low NOx class 3 (≤120 mg/kWh) according to EN267
- **Protection level:** IP 41

TECHNICAL DATA

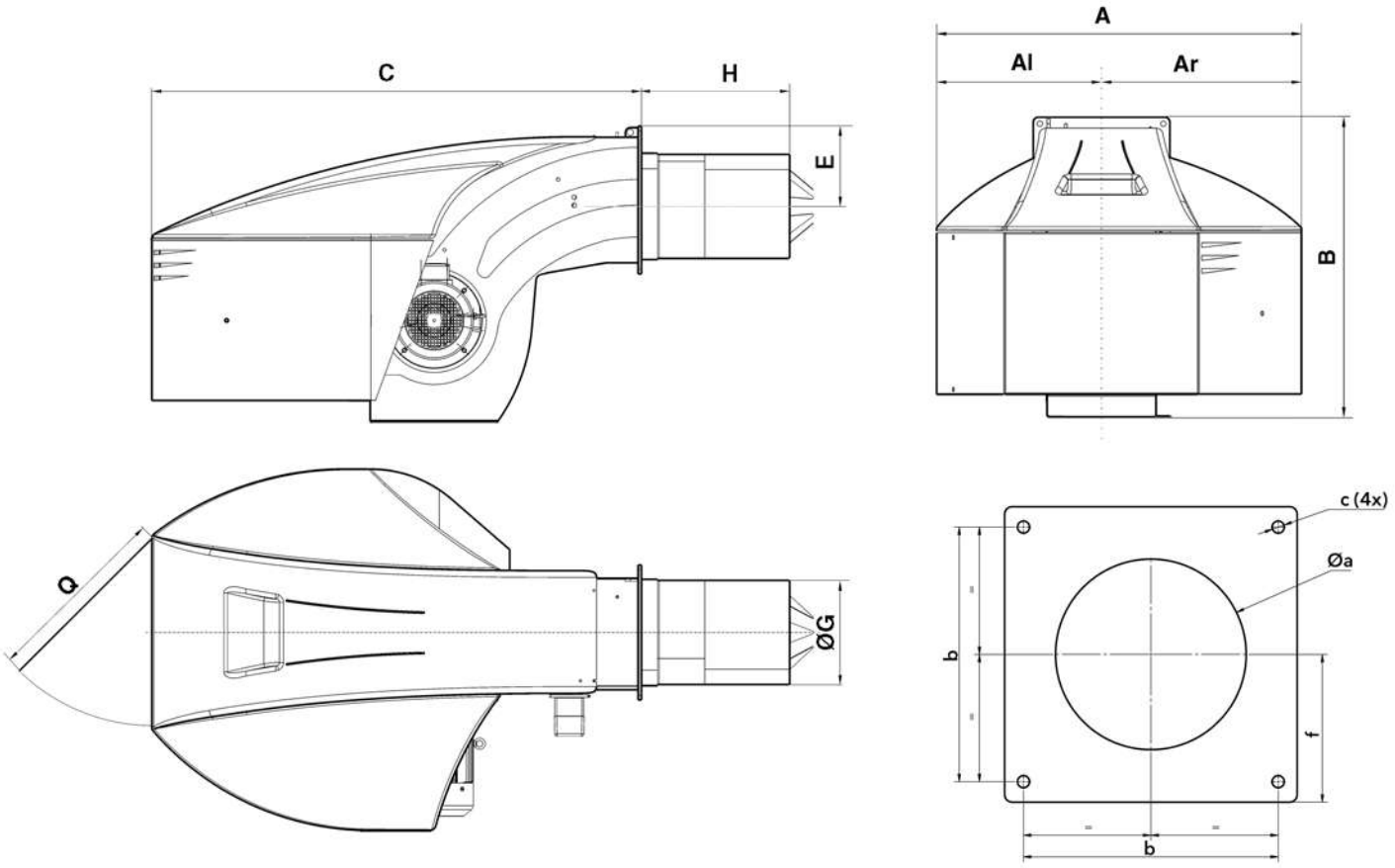


Test conditions conforming to EN267 - Temperature: 20°C - Pressure: 1013,5 mbar - Altitude: 0 m a.s.l.

	N8.5700 L-EF3	N9.6500 L-EF3	N9.8700 L-EUF	N9.10400 L-EUF
Operating range	1100 - 6450 kW	1200 - 6600 kW	1800 - 8500 kW	2550 - 9570 kW
Fuel connection	DN20 x 1500 mm / R 3/4"	DN20 x 1500 mm / R 3/4"	DN20 x 1500 mm / R 3/4"	DN25 x 1500 mm / R 1"
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	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	3PE AC 400 V - 50 Hz
Control box / flame detector	BT300 / D-LX 100 EK-S	BT300 / D-LX 100 EK-S	BT300 / D-LX 100 EK-S	BT300 / D-LX 100 EK-S
Fan motor	50 Hz - 15 kW	50 Hz - 22 kW	50 Hz - 18,5 kW	50 Hz - 22 kW
Pump	SMG1630 - 1700 l/h	SMG1630 - 1700 l/h	SMG1630 - 1700 l/h	SMG1631 - 2200 l/h
Motor pump	50 Hz - 3 kW	50 Hz - 3 kW	50 Hz - 3 kW	50 Hz - 4 kW
Acoustic level	<80,2 dB(A)	<82,9 dB(A)	<81 dB(A)	<81,7 dB(A)
CE certificate	0085CL0215	0085CL0215	0085CL0215	0085CL0215
Complete burner codes	**on request**	**on request**	**on request**	**on request**

MDE2 GEM Variatron Low Noise LOW NOx CLASS 3

DIMENSIONS (mm)

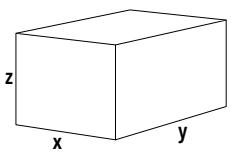


Model	A	Al	Ar	B	C	E	ØG	H			Q
								KN	KM	KL	
N8.5700 L-EF3	1414	669	745	1291	1928	293	369	528	668	808	800
N9.6500 L-EF3	1414	669	745	1291	1928	293	431,5	543	693	843	800
N9 L-EUF	1414	669	745	1291	1928	293	431,5	575	725	875	800

Øa	b	c	f
380-410	505	M20	293
445-480	505	M20	293
445-480	505	M20	293

PACKAGING

The burner is delivered on a pallet in 1 package containing:
- burner body with mounted combustion head, boiler fixing accessories, technical data including electrical diagram, exploded view, spare parts list, and instruction manual.



Models		Dimensions (mm)			Gross weight (kg)
		X	Y	Z	
N8.5700 L-EF3	KN	2530	1414	1231	600
	KM	2670	1414	1231	608
	KL	2810	1414	1231	615
N9.6500 L-EF3	KN	2550	1414	1291	670
	KM	2700	1414	1291	678
	KL	2850	1414	1291	685
N9.8700 L-EUF	KN	2503	1414	1291	652
	KM	2653	1414	1291	660
	KL	2803	1414	1291	667
N9.10400 L-EUF	KN	2503	1414	1291	662
	KM	2653	1414	1291	670
	KL	2803	1414	1291	677

BURNER VARIANTS (options already mounted in factory)

LCM MODULE (for communication, O_2 control, frequency converter)

Module mounted in factory, requested for O_2 control, Variatron and communication buses connections (the module is available also on request as a separate kit) Note: only one LCM module is necessary for these 3 options; it is already included in the GL-E.../BT3 versions	**3752433**

MODULATING OPERATION

Regulator RWF55 + instruction manual Kit mounted in factory on the switch cabinet to be connected to the appropriate probe (see "BURNER KITS" session)	**3752364**

FREQUENCY CONVERTER

Variatron mounted in factory inside the switch cabinet including the VSM module for the burners with BT300 control box
Note: one LCM module is required and must be ordered separately (for burners equipped with the BT300)

Frequency converter for **N6.2400**	**3751418**
Frequency converter for **N6.2900**	**3751419**
Frequency converter for **N7.3600**	**3751420**
Frequency converter for **N7.4500**	**3751421**
Frequency converter for **N8.5800 G-...**	**3750778**
Frequency converter for **N8.7100 G-...**	**3750779**
Frequency converter for **N9.8700 G-...**	**3750780**
Frequency converter for **N9.10400 G-...**	**3750781**
Frequency converter for **N8.5800 GL-... and L-...**	**3751422**
Frequency converter for **N8.7100 GL-... and L-...**	**3751423**
Frequency converter for **N9.8700 GL-E and L-...**	**3751424**
Frequency converter for **N9.10400 GL-E and L-...**	**3751425**
Frequency converter for **N9.8700 GL-EUF**	**3751498**
Frequency converter for **N9.10400 GL-EUF**	**3751499**

FREQUENCY CONVERTER ARRANGEMENT

Burner prepared to be connected to an external frequency inverter
NOTE: one LCM module is required and must be ordered separately (for burners equipped with the BT300)

N6.2400 G-... prepared for an external frequency converter of **3 kW**	**3751426**
N6.2900 G-... prepared for an external frequency converter of **4 kW**	**3751427**
N7.3600 G-E prepared for an external frequency converter of **5,5 kW**	**3751428**
N7.3600 G-EF3 and N7.4500 G-E/G-EF3 prepared for an external frequency converter of **7,5 kW**	**3751429**
N8.5800 G-E prepared for an external frequency converter of **11 kW**	**3751113**
N8.7100 G-E prepared for an external frequency converter of **15 kW**	**3751114**
N9.8700 G-E prepared for an external frequency converter of **18,5 kW**	**3751115**
N9.10400 G-E prepared for an external frequency converter of **22 kW**	**3751116**
N6 GL-... and N6 L-... prepared for an external frequency converter of **3 kW**	**3751430**
N6 GL-... and N6 L-... prepared for an external frequency converter of **4 kW**	**3751431**
N7 GL-... and N7 L-... prepared for an external frequency converter of **5,5 kW**	**3751432**
N7 GL-... and N7 L-... prepared for an external frequency converter of **7,5 kW**	**3751433**
N8 GL-... and N8 L-... prepared for an external frequency converter of **11 kW**	**3751434**
N8 GL-... and N8 L-... prepared for an external frequency converter of **15 kW**	**3751435**
N9.8700 GL-E and N9 L-... prepared for an external frequency converter of **18,5 kW**	**3751436**
N9.10400 GL-E/GL-EF3 and N9 L-... prepared for an external frequency converter of **22 kW**	**3751437**
N9.8700 GL-EUF prepared for an external frequency converter of **18,5 kW**	**3751500**
N9.10400 GL-EUF prepared for an external frequency converter of **22 kW**	**3751501**

BURNER VARIANTS (options already mounted in factory)

PED EQUIPMENT

Equipment of the gas train and the burner body for continuous operation (PED):
- controller and flame sensor approved for continuous operation,
- maximum gas pressure switch on the gas train,
- test burner (to bleed the gas train),
- PED Conformity Declaration.

Note: if required, the antivibrating coupling (to avoid mechanical tension) has to be selected as option

PED for N6/N7 G-E	with Siemens threaded gas trains	**3750768**
	with Siemens flanged gas trains	**3750769**
	with Dungs threaded gas trains	**3750770**
	with Dungs flanged gas trains	**3750771**
PED for N8/N9 G-E	with Siemens threaded gas trains	**3751120**
	with Siemens flanged gas trains	**3751121**
	with Dungs threaded gas trains	**3751122**
	with Dungs flanged gas trains	**3751123**
PED for N6/N7 G-EF3	with Siemens threaded gas trains	**3750772**
	with Siemens flanged gas trains	**3750773**
	with Dungs threaded gas trains	**3750.873**
	with Dungs flanged gas trains	**3751058**
PED for N6/N7 GL-E	with Siemens threaded gas trains	**3751059**
	with Siemens flanged gas trains	**3751060**
	with Dungs threaded gas trains	**3751061**
	with Dungs flanged gas trains	**3750447**
PED for N6/N7 GL-EF3	with Siemens threaded gas trains	**3751062**
	with Siemens flanged gas trains	**3751063**
	with Dungs threaded gas trains	**3750450**
	with Dungs flanged gas trains	**3751064**
PED for N8/N9 GL-E	with Siemens threaded gas trains	**3751069**
	with Siemens flanged gas trains	**3751070**
	with Dungs threaded gas trains	**3751071**
	with Dungs flanged gas trains	**3751072**
PED for N8/N9 GL-EF3	with Siemens threaded gas trains	**3750460**
	with Siemens flanged gas trains	**3751073**
	with Dungs threaded gas trains	**3751074**
	with Dungs flanged gas trains	**3751075**
PED for N6...N9 G-... and GL-... with terminal block switch cabinet	with Siemens threaded gas trains	**3750764**
	with Siemens flanged gas trains	**3750765**
	with Dungs threaded gas trains	**3750766**
	with Dungs flanged gas trains	**3750767**
PED for N6/N7 L-E		**3751065**
PED for N6/N7 L-EF3		**3751066**
PED for N8/N9 L-E		**3751067**
PED for N8/N9 L-EF3		**3751068**

BURNER VARIANTS (options already mounted in factory)

MAX GAS PRESSURE SWITCH (mounted on the gas train)

N6/N7 G-E.../GL-E...	with Siemens threaded gas trains	**3751088**
	with Siemens flanged gas trains	**3751089**
	with Dungs threaded gas trains	**3751090**
	with Dungs flanged gas trains	**3751091**
N8/N9 G-E.../GL-E...	with Siemens threaded gas trains	**3751124**
	with Siemens flanged gas trains	**3751125**
	with Dungs threaded gas trains	**3751126**
	with Dungs flanged gas trains	**3751127**
N6...N9 G-E.../GL-E... with terminal block switch cabinet	with Siemens threaded gas trains	**3751076**
	with Siemens flanged gas trains	**3751077**
	with Dungs threaded gas trains	**3751078**
	with Dungs flanged gas trains	**3751079**

STAR/DELTA MOTOR STARTER

Star/Delta 3,0 G/BT3 for N6.2400	**3751414**
Star/Delta 4,0 G/BT3 for N6.2900	**3751415**
Star/Delta 5,5 G/BT3 for N7.3600	**3751416**
Star/Delta 7,5 G/BT3 for N7.4500	**3751417**

BLIND DOOR

Door of the switch cabinet without any component. The switches and the power regulator (if required) are mounted inside the switch cabinet

For N6/N7 in gas and light oil operation	**3751411**
For N6/N7 in dual fuel operation	**3751412**
For N8/N9 in gas and light oil operation	**3751119**
For N8/N9 in dual fuel operation	**3751413**

REMOTE SIGNAL 4-20 mA

Remote signal 4-20 mA for BT300 burner variant (Note: one LCM module is required for burners equipped with BT3xx)	**14099397**

BURNER KITS (delivered separately)

O_2 TRIM for BT300, Etamatic and Etamatic OEM

This device optimizes the combustion in order to keep the air excess as much stable as possible irrespective of the changings that can occur during operations, for instance slight calorific value variations, combustion air temperature and pressure. This improves the seasonal efficiency and therefore reduces the fuel consumption.
The kit includes all the fittings for the installation. Main components are:
- control unit with display;
- probe;
- intake pipe to be fixed to the stack (choose the proper length).

The control unit has to be installed close to the probe (max 20 m of cable)
The probe needs a calibration but no reference gas is necessary.
The display shows the O_2 content.
Maximum distance between the control unit and the burner control panel is 500 m.

	Output	Probe length	Code
Kit for O_2 trim (LT3 + LS2) - Flue temp max 300 °C - display for O_2 visualization (Note: for models equipped with BT3xx this kit needs a LCM module installed in the burner control panel)	1 x 4-20 mA	150 mm	**3757433**
	1 x 4-20 mA	300 mm	**3757137**
	1 x 4-20 mA	450 mm	**3757138**

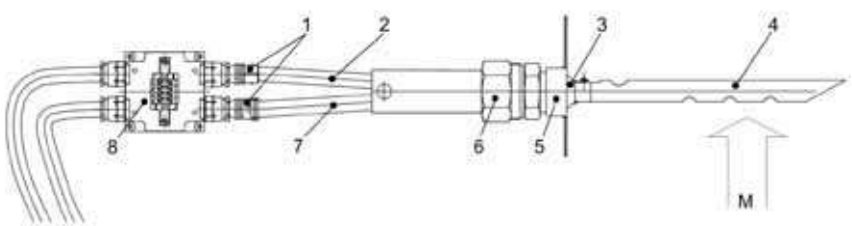
O_2 TRIM with CO measure for BT300, Etamatic and Etamatic OEM

This device optimizes the combustion in order to keep the air excess as low as possible in order to maximize the seasonal efficiency and therefore minimize the fuel consumption.
In addition to the features of the O_2 trim only, this kit reduces the air excess to its minimum because this system continuously measures the CO content in the flue: should the air excess be reduced too much, the CO raises and the system reacts by increasing the air excess in order to keep firing in safe conditions.
The kit includes all the fittings for the installation. Main components are:
- control unit with display;
- probe;
- intake pipe to be fixed to the stack (choose the proper length).

The control unit has to be installed close to the probe (max 20 m of cable).
The probe needs a calibration but no reference gas is necessary.
The display shows the O_2 content.
Maximum distance between the control unit and the burner control panel is 500 m.

Note: this system is not suitable for GL-EUF and L-EUF burners

	Output	Probe length	Code
Kit for O_2 trim and CO control (LT3-F + KS1D) - Flue temp max 300 °C (Note: for models equipped with BT3xx this kit needs a LCM module installed in the burner control panel)	None	150 mm	**3758001**
	None	300 mm	**3755046**
	None	450 mm	**3756533**
	4 x 0/4-20mA	300 mm	**3754549**
	4 x 0/4-20mA	450 mm	**3754550**
	4 x 0/4-20mA & 4 x digital	300 mm	**3754551**
	4 x 0/4-20mA & 4 x digital	450 mm	**3754552**



M - measuring gas 300°C max
1 - plug
2 - probe signal
3 - Lambda Probe
4 - gas extraction device (GED)
5 - half-collar R1"1/4
6 - probe installation fitting (PIF)
7 - probe heater
8 - probe connection box (PCB)

BURNER KITS (delivered separately)

REMOTE SOFTWARE

Kit to connect a PC laptop to the BT300 for its parametrization	LSA100 + USB/CAN + CD-Rom	**3751130**

COMMUNICATION MODULES

Module for external installation Note: one LCM module is required	ModBus/BT3	**on request**
	ProfiBus/BT3	**3752986**
	Ethernet/BT3	**on request**

POWER REGULATOR

Power regulator RWF55 stand-alone and kit wiring	**on request**

PROBES

Immersion probes	130°C + pocket tube	**3750070**
	Pt 100 - 400°C (160 mm)	**1758574269**
	Pt 100 - 480°C (250 mm)	**3751009**
Pressure probes	0…1,6 bar	**3752217**
	0…2,5 bar	**1758713722**
	0…6 bar	**1758640660**
	0…10 bar	**1758577280**
	0…16 bar	**1758577291**
	0…25 bar	**3751015**

COUNTER FACE PLATE

CP11	for N6	**3833908**
CP12	for N7	**3833909**
CP13	for N8	**3833910**
CP14	for N9	**3833911**

SEALS AND CONNECTING KIT

DN40	**3751040**
DN50	**3751041**
DN65	**3751042**
DN80	**3751043**
DN100	**3751044**
DN125	**3751045**
DN150	**3751046**

SPECIAL CONFIGURATIONS (on request)

- Equipment according EN746-2
- Permanent ventilation
- 60 Hz versions
- Remote display (BT3xx)
- Separate switch box / terminal strip version (Etamatic OEM)
- LPG firing
- Hinge flange
- "Burner ON" feedback signal

Other special requests can be submitted to your Sales Reference for feasibility evaluation

Monoblock burners from 1300 to 22000 kW

Gas, light oil and dual fuel

High power and ease of use up to 22 MW

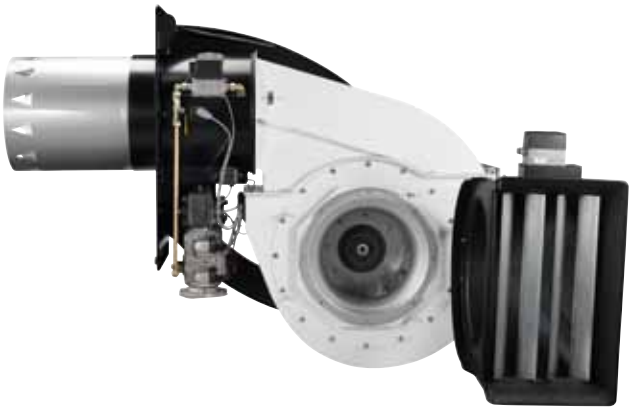
Wherever a compact solution is needed, a monoblock burner offers advantages over individual components. However, above a power output of 10 MW, the conventional burner becomes too heavy: ease of handling during installation and maintenance work suffers, the strain on the boiler door is too high.
N burner solves this problem with innovative, weight-saving enclosure technology. The key feature is the physical division of the burner into a support frame and a separate air-routing housing.
Thanks to its innovative solutions N range provides high performance and ease of use up to 22 MW.

Load distribution and reduced weight

N10 is characterised by a chassis frame mounted directly on the door of the generator; this independently supports the fan and motor assembly, which constitutes a large proportion of the total weight of the burner.
This structure significantly reduces the torque generated by the motor and, consequently, reduces the strain on the boiler door.
The choice of materials has been dictated by the need to reduce weight: as a result, the combustion air inlet is made of composite materials, and the air register flaps in aluminium.

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 generator door from any mechanical stress.



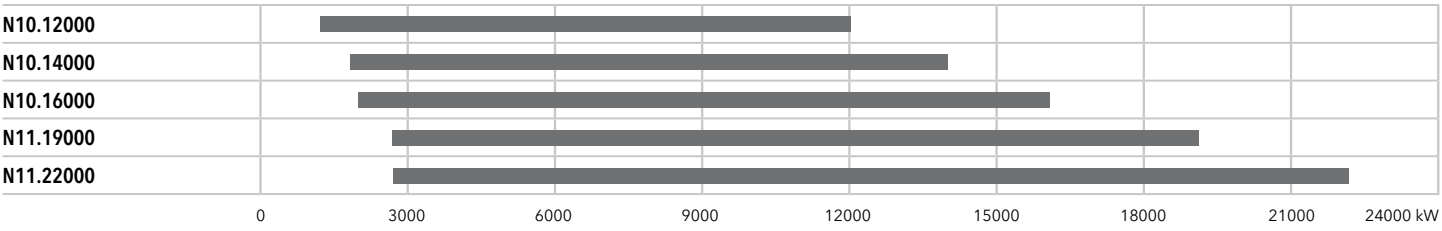
Advanced design for low noise levels

Special attention has been paid to 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 rearward facing blades. The result is a stable combustion and reduced noise at the air inlet.

MAIN TECHNICAL FEATURES

- Two stage progressive/modulating forced draught burner
- Fuels:
  – natural gas, Hi = 6,99 … 11,39 kWh/Nm^3
  – light oil, viscosity 6 mm^2/s at 20°C, Hi = 11,86 kWh/kg
- Combustion technology:
  – Low NOx class 2 (≤120 mg/kWh) and class 3 (≤80 mg/kWh) in gas operation acccording to EN676
  – Low NOx class 2 (≤185 mg/kWh) and class 3 (≤120 mg/kWh) in light oil operation according to EN267
- Control box: built-in (Etamatic OEM control box installed inside the junction box) or external, according to customer requirements
- Three flame tube lengths available
- 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 and EN267 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

RANGE OVERVIEW

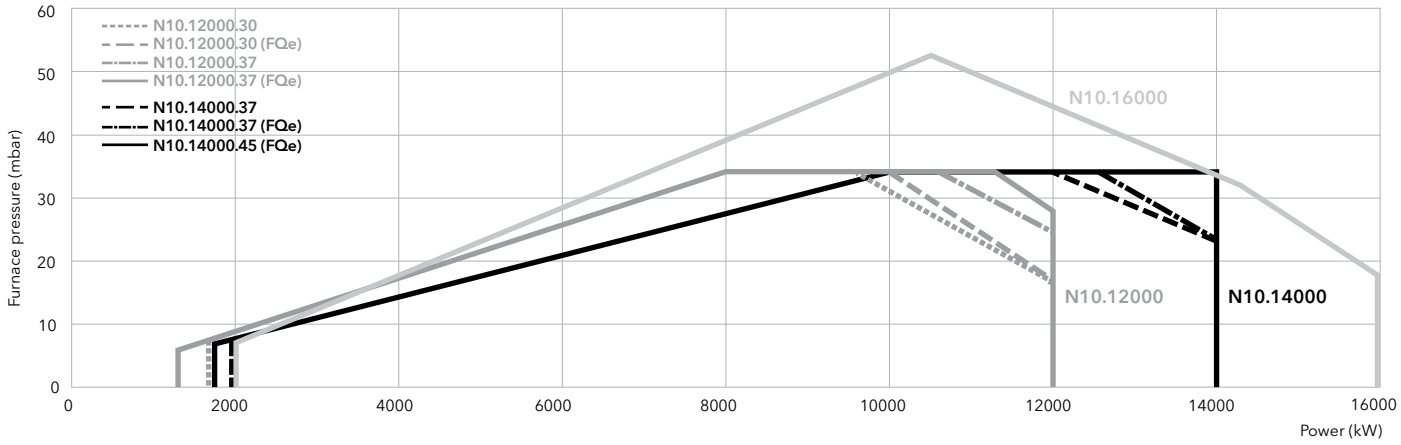


N10 G-E

1300 ... 16000 kW
2 stage progressive/modulating electronic

- **Fuels:** natural gas, Hi = 6,99 ... 11,39 kWh/m³
- **Emission class:** Low NOx class 2 (≤120 mg/kWh) according to EN676
- **Protection level:** IP 41 (IP 54 as option)

TECHNICAL DATA



FQe = external frequency converter

	N10.12000.30 G-E	N10.12000.37 G-E	N10.14000.37 G-E	N10.14000.45 G-E	N10.16000.45 G-E
Operating range	1300* - 12000 kW (*: 1750 without FQe)	1300* - 12000 kW (*: 1750 without FQe)	1750* - 14000 kW (*: 2000 without FQe)	1750 - 14000 kW* (*: with FQe)	2000 - 16000 kW* (*: with FQe)
Gas connection	DN100	DN100	DN100	DN100	DN100
Fan motor	50/60 Hz - 30 kW	50/60 Hz - 37 kW	50/60 Hz - 37 kW	50/60 Hz - 45 kW	50/60 Hz - 45 kW
Acoustic level	< 97 dB(A)	< 97 dB(A)	< 97 dB(A)	< 97 dB(A)	< 97 dB(A)
Complete burner code	on request	on request	on request	on request	on request

GAS TRAINS

DUNGS

Model	Code
d80	on request
d100	on request
d125	on request

SIEMENS

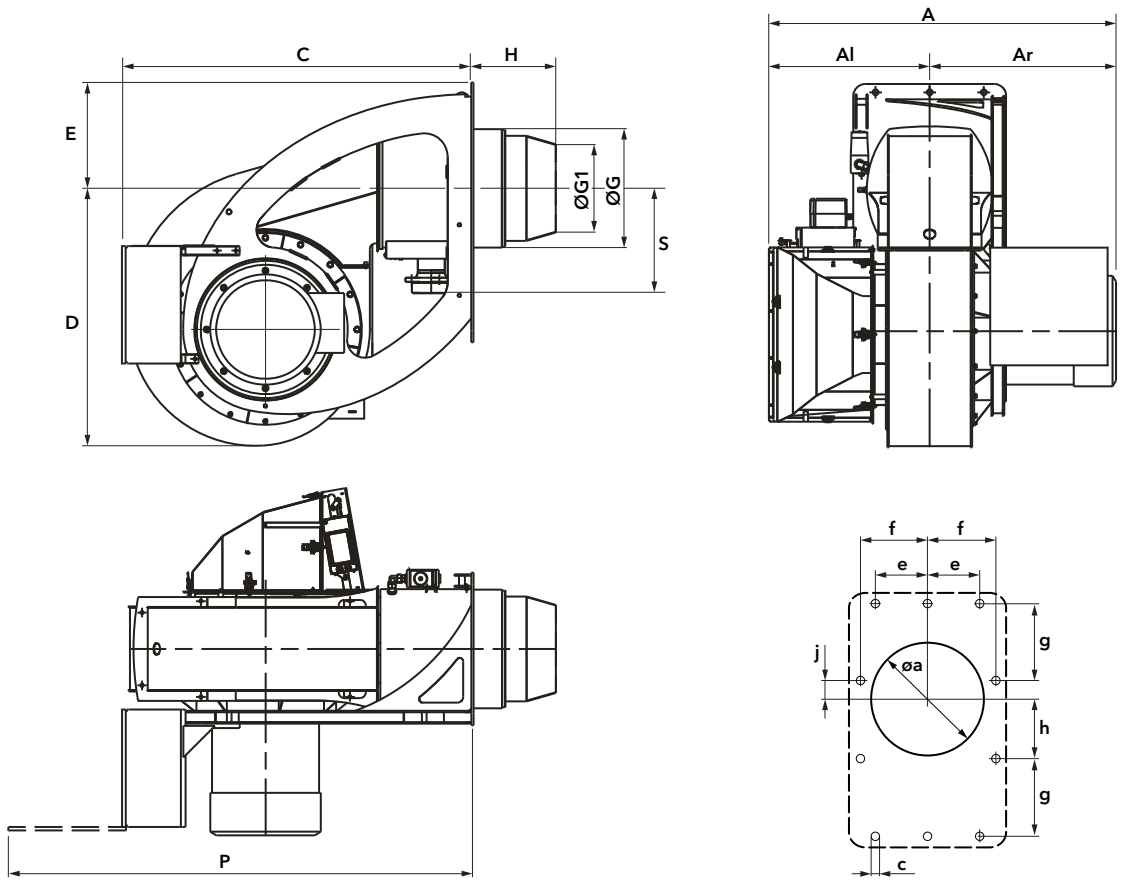
Model	Code
s80	3757394
s100	3757395
s125	3757396
s150	3757397

FILTERS

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

Pressure drops graphs: see following pages
Dimensions of gas trains and gas filters: see pag.202

DIMENSIONS (mm)

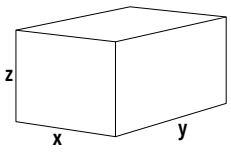


Model	A	Al	Ar	C	D	E	ØG	ØG1	H			P	S
									KN	KM	KL		
N10 G-E	1480	685	795	1500	1095	450	504	369	350	450	550	1980	446

Øa	c	e	f	g	h	j
525	M20	230	290	345	275	70

PACKAGING

The complete burner is delivered on a pallet with:
- 1 carton box for gas train and filter
- 1 carton box for boiler fixing accessories
- 1 bag with technical documentation

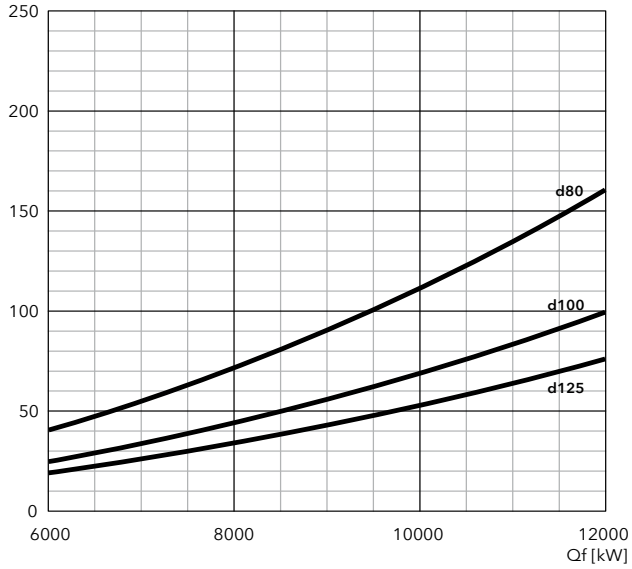


Models	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
N10 G-E	1505	2125	1545	550 (+100 for transport rack)

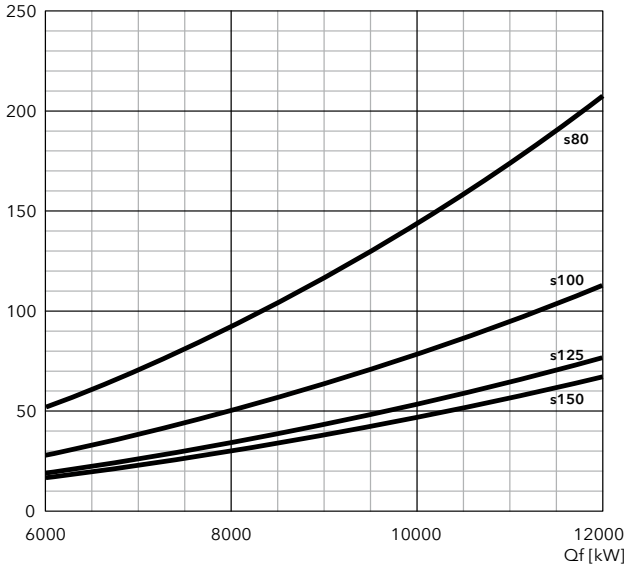
PRESSURE LOSSES (BURNER HEAD + GAS TRAIN)

N10.12000 G-E

DUNGS

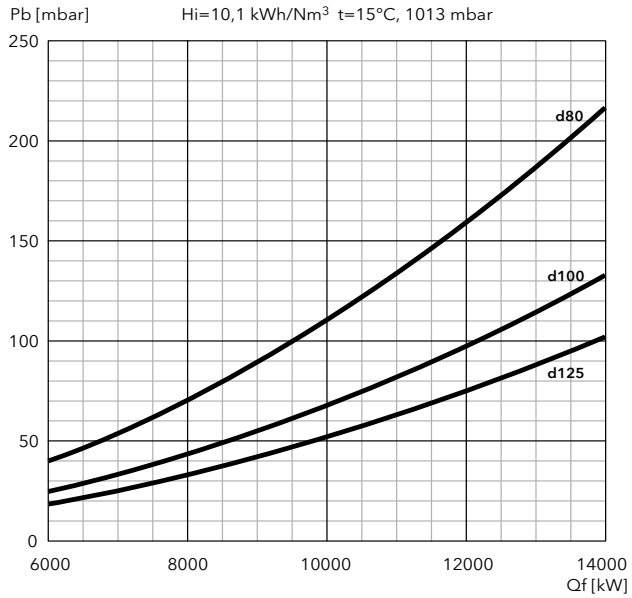


SIEMENS

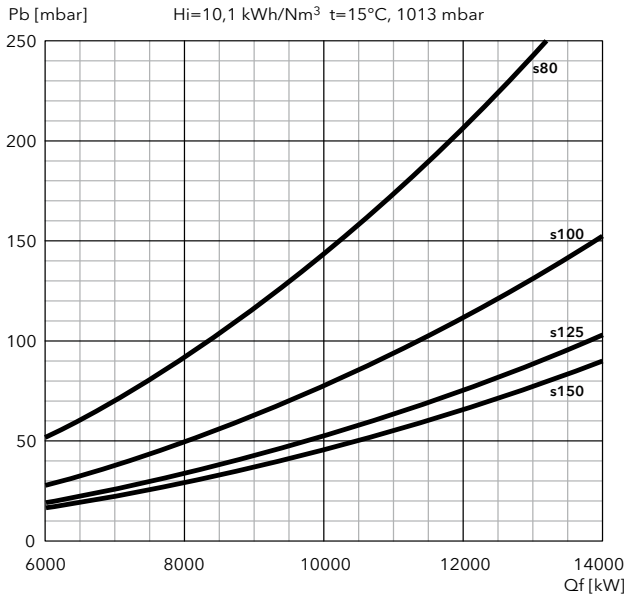


N10.14000 G-E

DUNGS



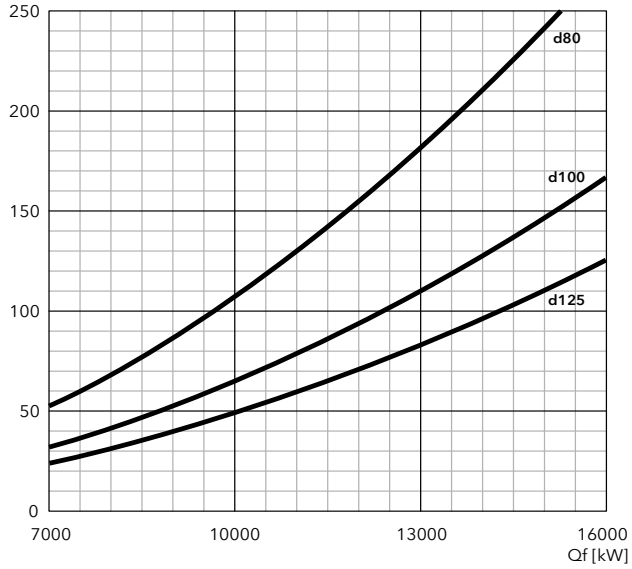
SIEMENS



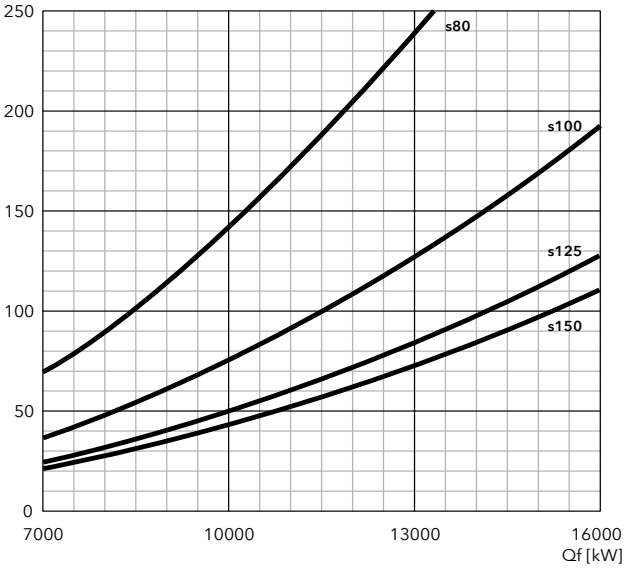
PRESSURE LOSSES (BURNER HEAD + GAS TRAIN)

N10.16000 G-E

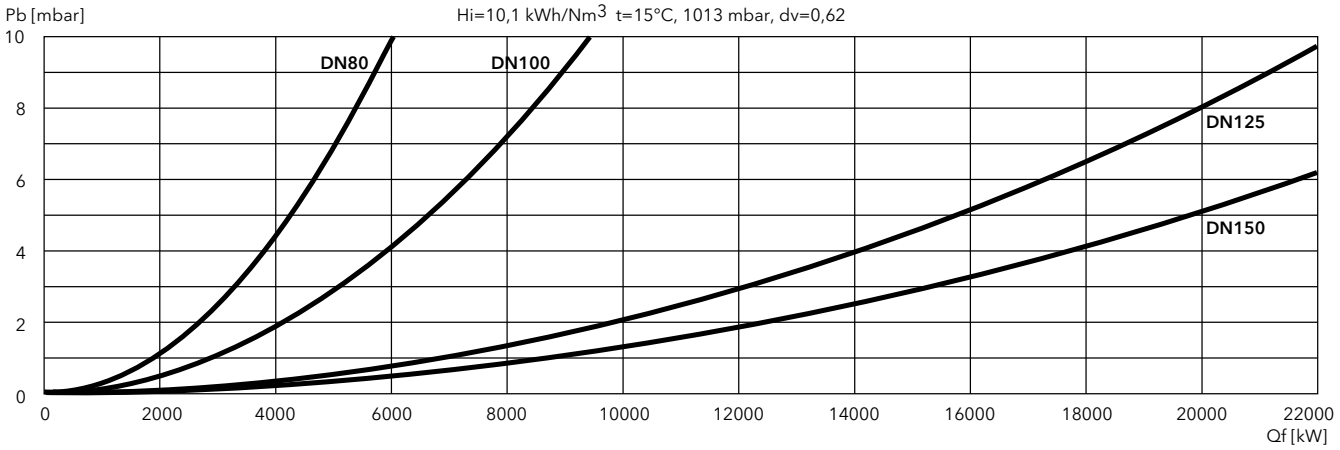
DUNGS



SIEMENS



FILTERS

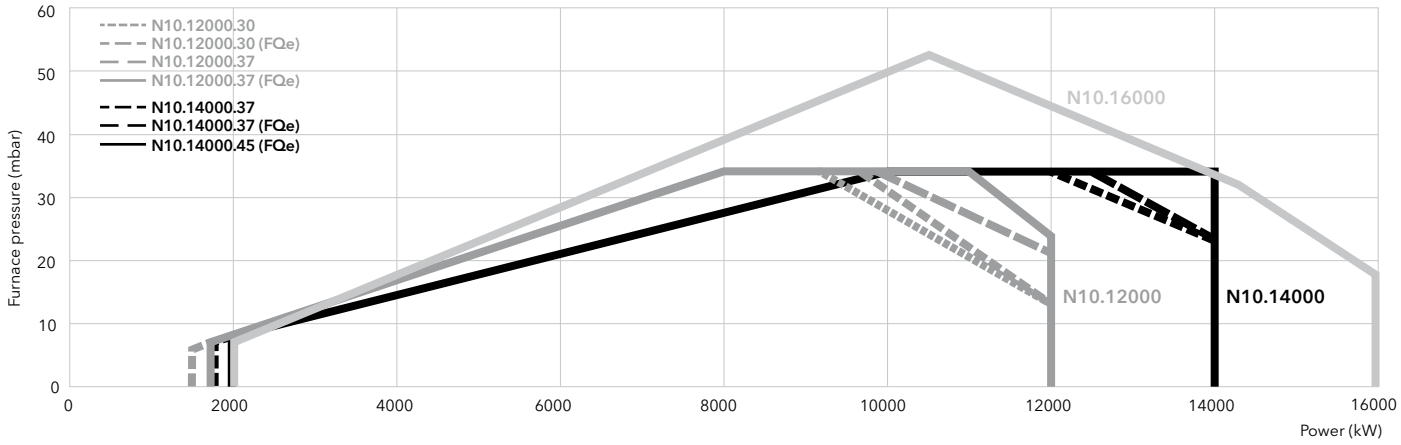


N10 G-EU2

1500 ... 16000 kW
2 stage progressive/modulating electronic (Low NOx class 3)

- **Fuels:** natural gas, Hi = 6,99 ... 11,39 kWh/m³
- **Emission class:** Low NOx class 3 (≤80 mg/kWh) according to EN676
- **Protection level:** IP 40 (IP 54 as option)

TECHNICAL DATA



FQe = external frequency converter

	N10.12000.30 G-EU2	N10.12000.37 G-EU2	N10.14000.37 G-EU2	N10.14000.45 G-EU2	N10.16000.45 G-EU2
Operating range	1500* - 12000 kW (*: 1750 without FQ)	1500* - 12000 kW (*: 1750 without FQ)	1750* - 14000 kW (*: 2000 without FQ)	1750 - 14000 kW* (*: with FQe)	2000 - 16000 kW* (*: with FQe)
Gas connection	DN100	DN100	DN100	DN100	DN100
Fan motor	50/60 Hz - 30 kW	50/60 Hz - 37 kW	50/60 Hz - 37 kW	50/60 Hz - 45 kW	50/60 Hz - 45 kW
Acoustic level	< 97 dB(A)	< 97 dB(A)	< 97 dB(A)	< 97 dB(A)	< 97 dB(A)
Complete burner code	on request	on request	on request	on request	on request

GAS TRAINS

DUNGS

Model	Code
d80	on request
d100	on request
d125	on request

SIEMENS

Model	Code
s80	3757394
s100	3757395
s125	3757396
s150	3757397

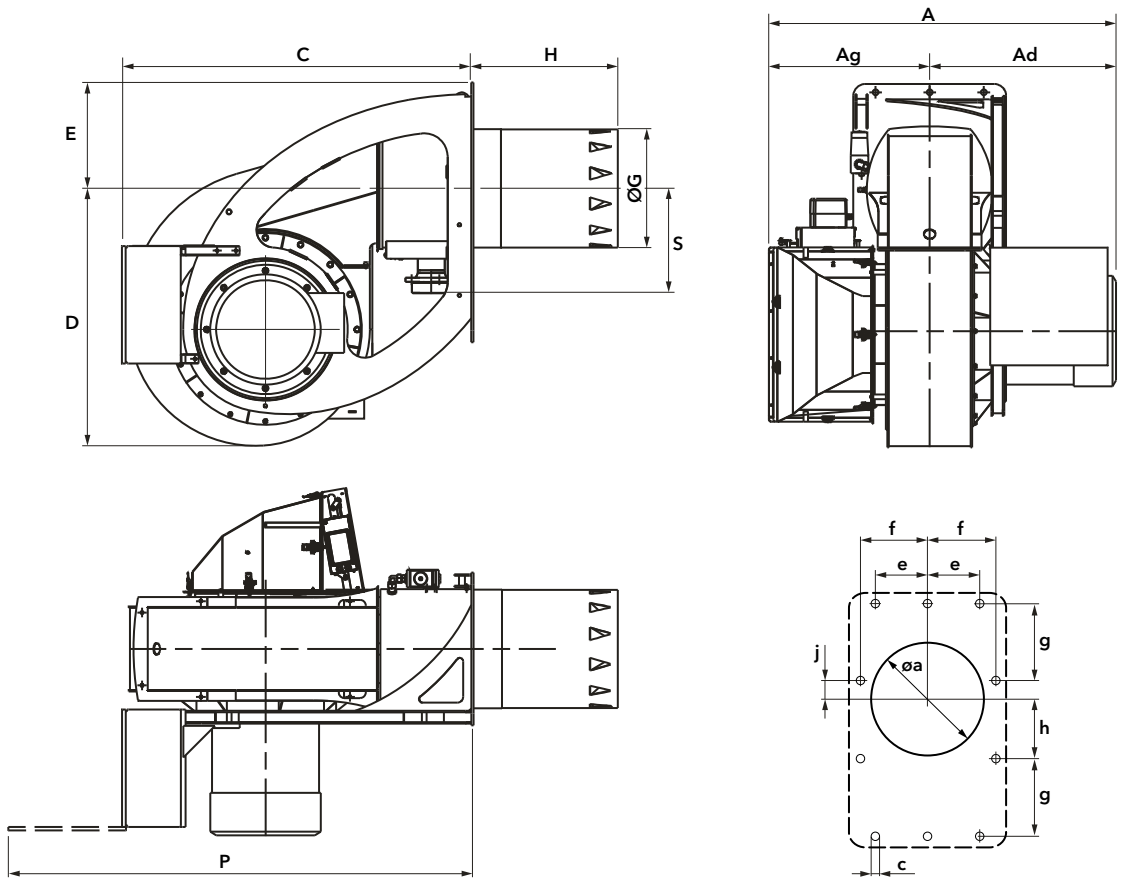
FILTERS

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

Pressure drops graphs: see following pages
Dimensions of gas trains and gas filters: see pag. 208

MDE2 | GEM | Variatron | LOW NOx CLASS 3 | FGR

DIMENSIONS (mm)

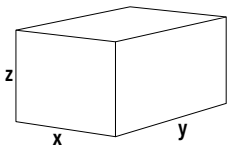


Model	A	Al	Ar	C	D	E	ØG	H			P	S
								KN	KM	KL		
N10 G-EU2	1480	685	795	1500	1095	450	504	620	720	820	1980	446

Øa	c	e	f	g	h	j
525	M20	230	290	345	275	70

PACKAGING

The complete burner is delivered on a pallet with:
- 1 carton box for gas train and filter
- 1 carton box for boiler fixing accessories
- 1 bag with technical documentation

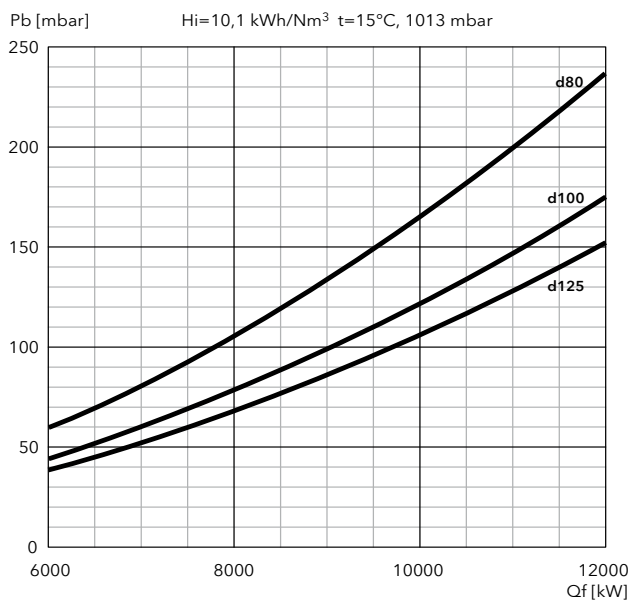


Models	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
N10 G-EU2	1505	2125	1545	550 (+100 transport rack)

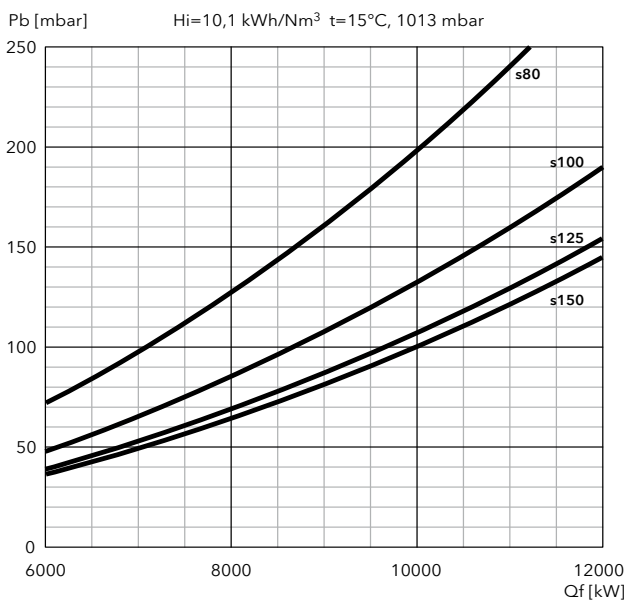
PRESSURE LOSSES (BURNER HEAD + GAS TRAIN)

N10.12000 G-EU2

DUNGS

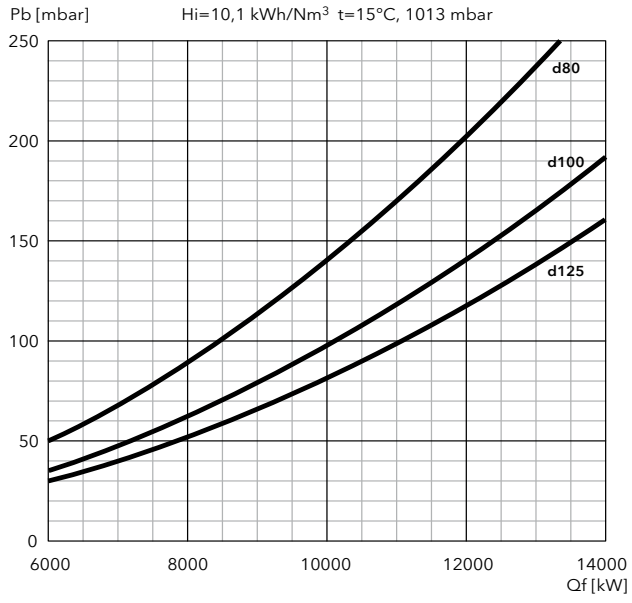


SIEMENS

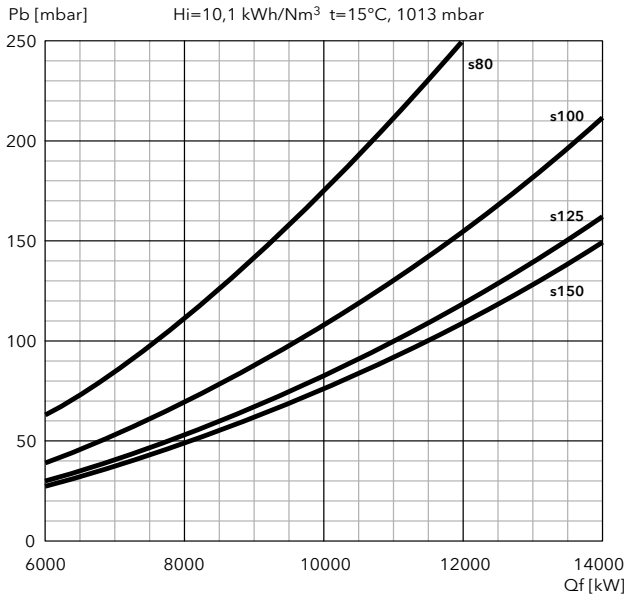


N10.14000 G-EU2

DUNGS



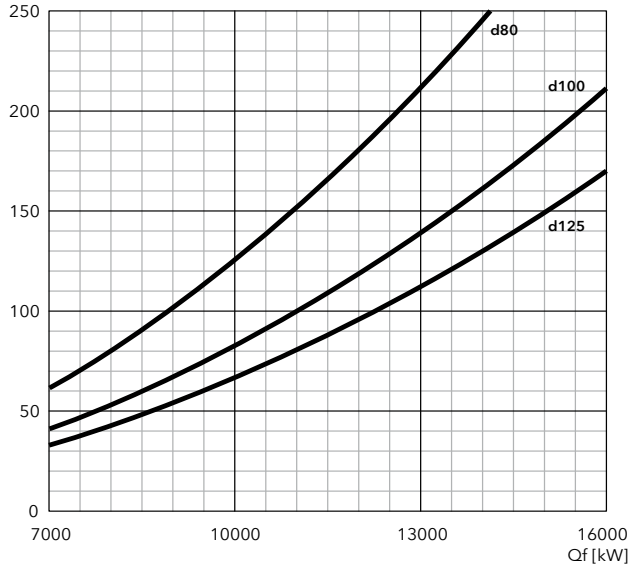
SIEMENS



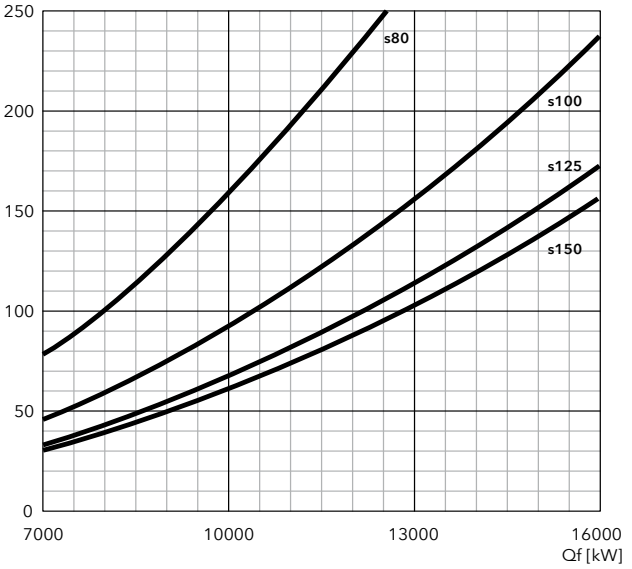
PRESSURE LOSSES (BURNER HEAD + GAS TRAIN)

N10.16000 G-EU2

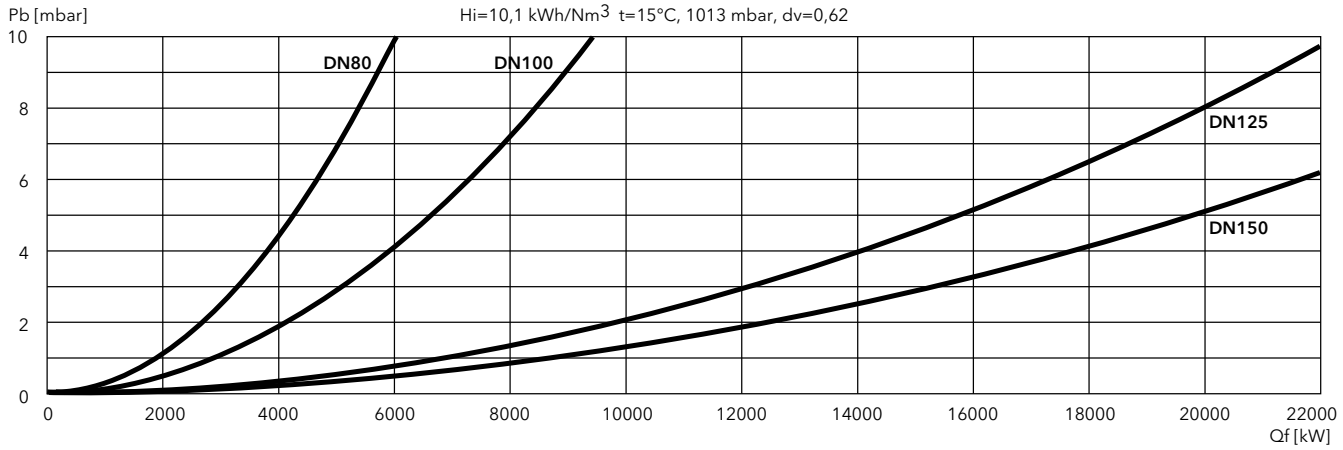
DUNGS



SIEMENS



FILTERS

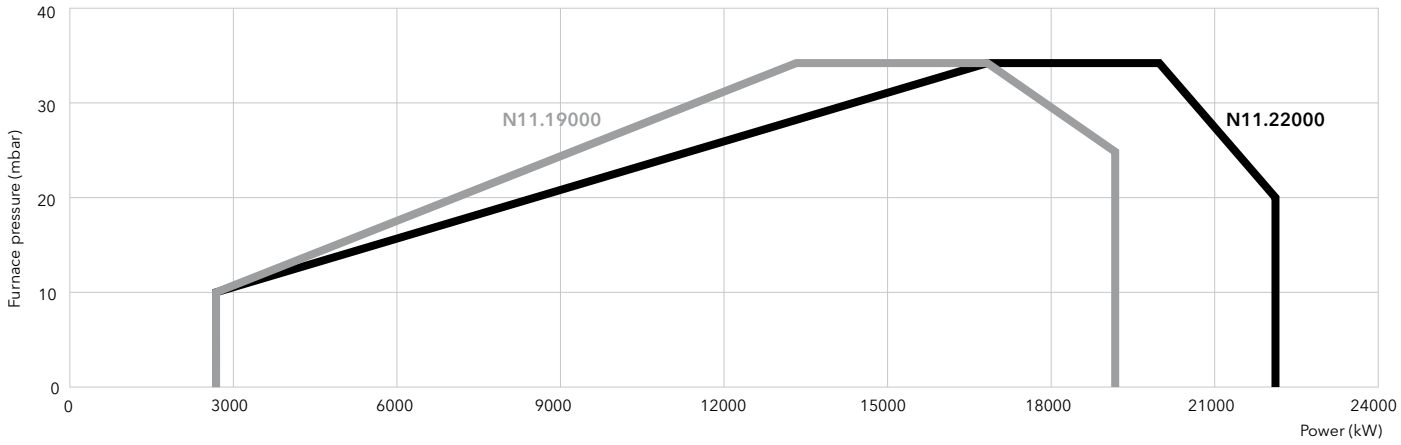


N11 G-EU2

2750 ... 22000 kW
2 stage progressive/modulating electronic (Low NOx class 3)

- **Fuels:** natural gas, Hi = 6,99 ... 11,39 kWh/m³
- **Emission class:** Low NOx class 3 (≤80 mg/kWh) according to EN676
- **Protection level:** IP 41 (optional IP 54)

TECHNICAL DATA



FQe = external frequency converter

	N11.19000.55 G-EU2	N11.22000.75 G-EU2
Operating range	2750 - 19000 kW	2750 - 22000 kW
Gas connection	DN125	DN125
Fan motor	50/60 Hz - 55 kW	50/60 Hz - 75 kW
Acoustic level	< 96,5 dB(A)	< 96,5 dB(A)
Complete burner code	on request	on request

GAS TRAINS

DUNGS

Model	Code
d100	3758179
d125	3758180

SIEMENS

Model	Code
s100	3758176
s125	3758177
s150	3758178

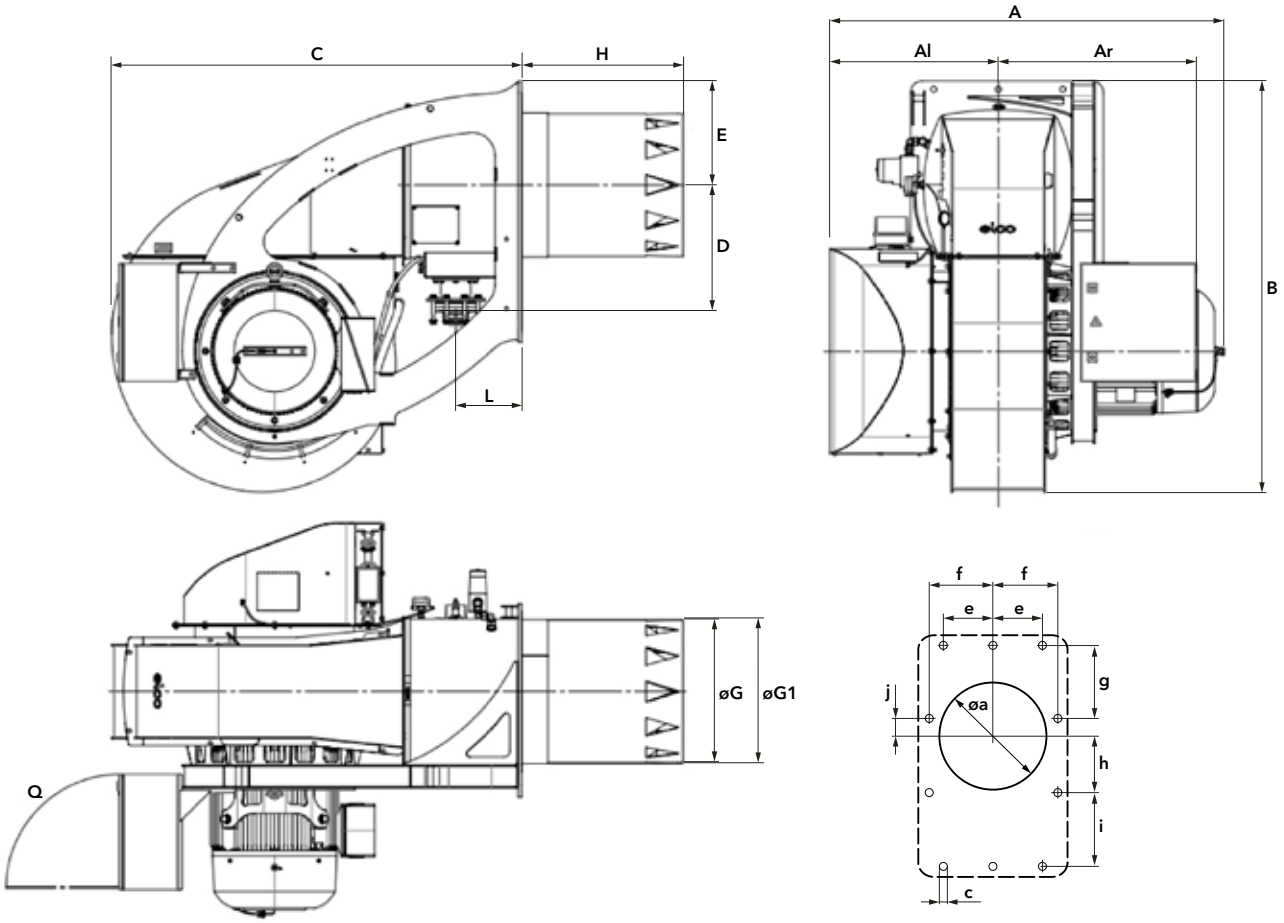
FILTERS

Model	Code
FG-DN100	3757195
FG-DN125	3757209
FG-DN150	3757210

Pressure drops graphs: see following pages
Dimensions of gas trains and gas filters: see pag. 209

MDE2 GEM Variatron LOW NOx CLASS 3 FGR

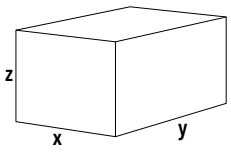
DIMENSIONS (mm)



Model	A	Al	Ar	B	C	D	E	ØG	ØG1	H			L	Q	Øa	c	e	f	g	h	i	j
										KN	KM	KL										
N11.19000	1636	730	858	1780	1777	543	450	617	624	700	850	1000	285	800	645	M20	280	345	570	300	345	45
N11.22000	1709	730	858	1780	1777	543	450	617	624	700	850	1000	285	800	645	M20	280	345	570	300	345	45

PACKAGING

The complete burner is delivered on a pallet with:
- 1 carton box for gas train and filter
- 1 carton box for boiler fixing accessories
- 1 bag with technical documentation

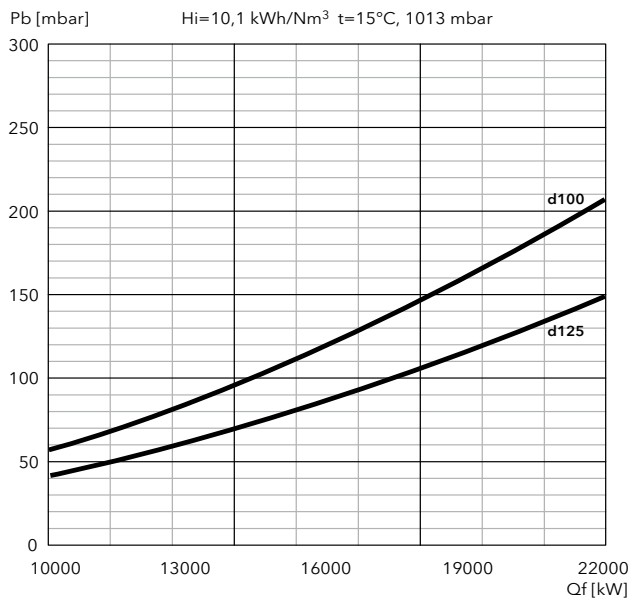


Models	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
N11 G-EU2	2000	3100	1900	1400...1500

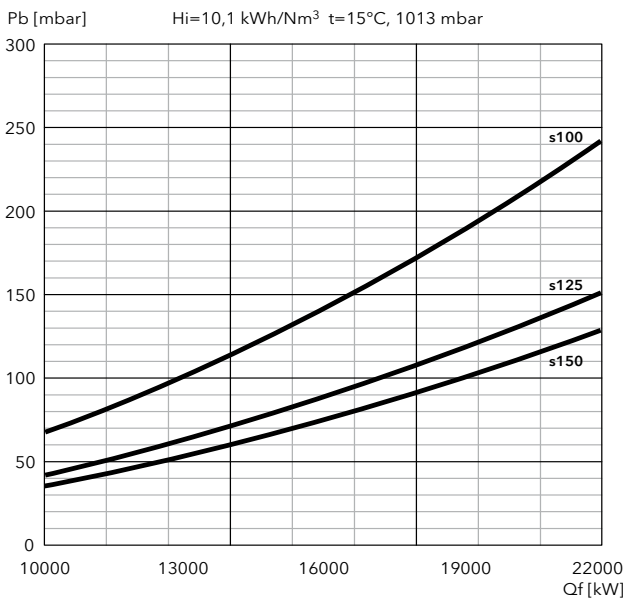
PRESSURE LOSSES (BURNER HEAD + GAS TRAIN)

N11.19000 G-EU2

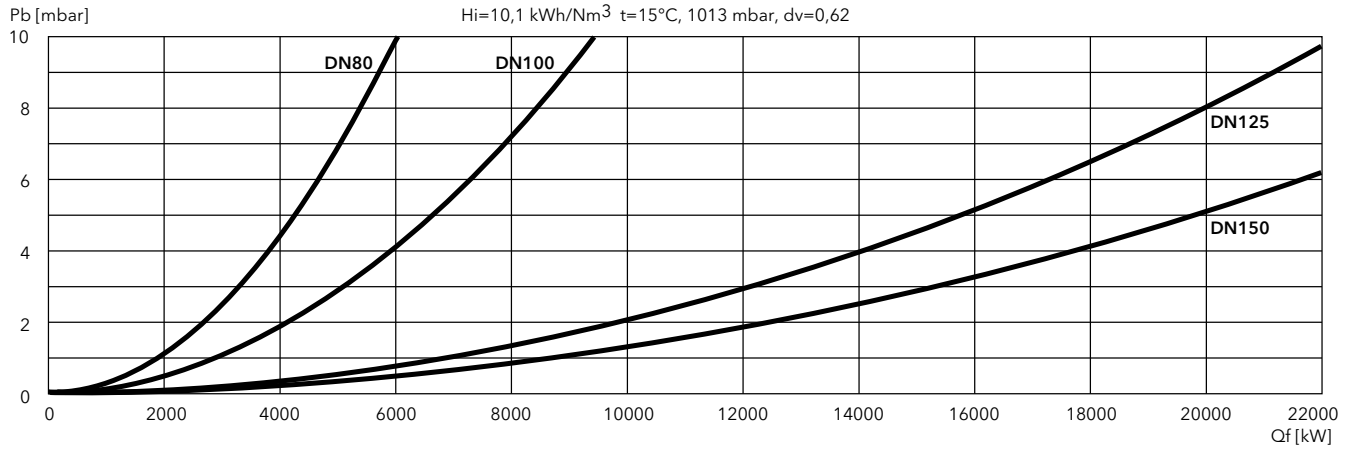
DUNGS



SIEMENS



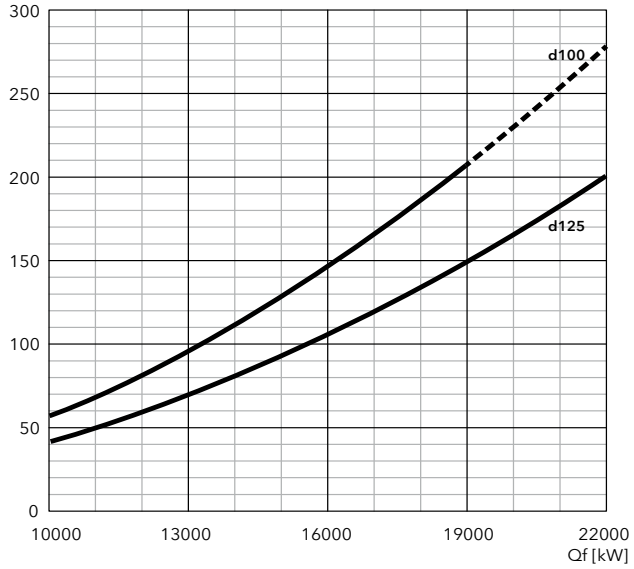
FILTERS



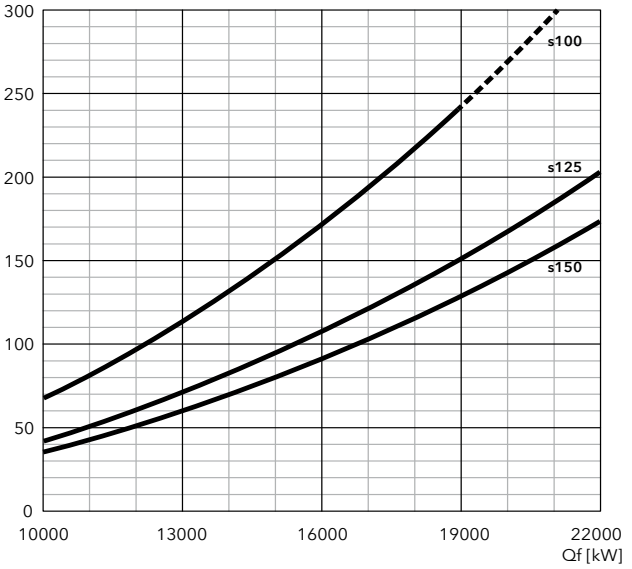
PRESSURE LOSSES (BURNER HEAD + GAS TRAIN)

N11.22000 G-EU2

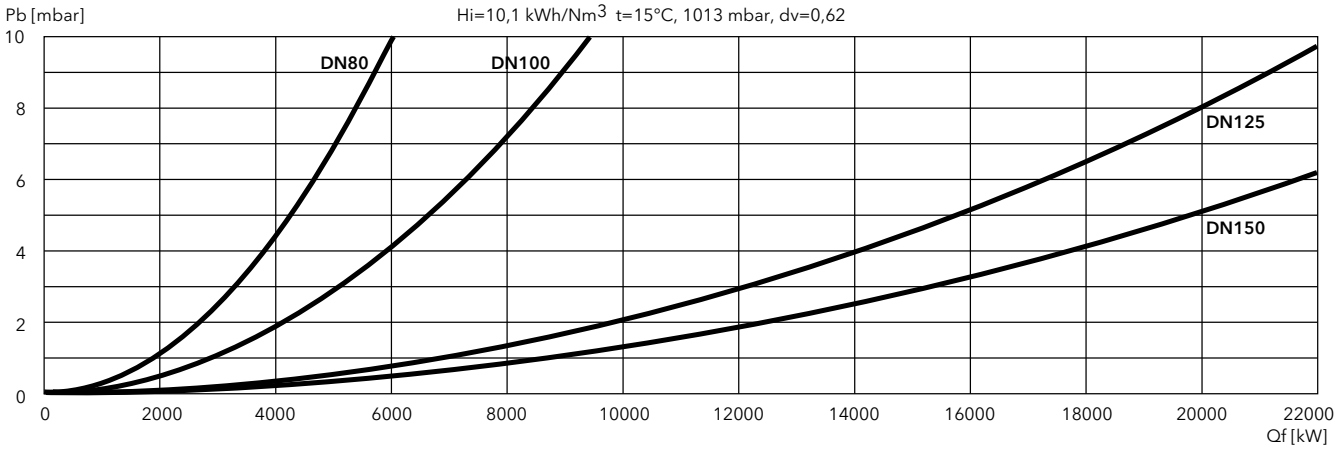
DUNGS



SIEMENS



FILTERS

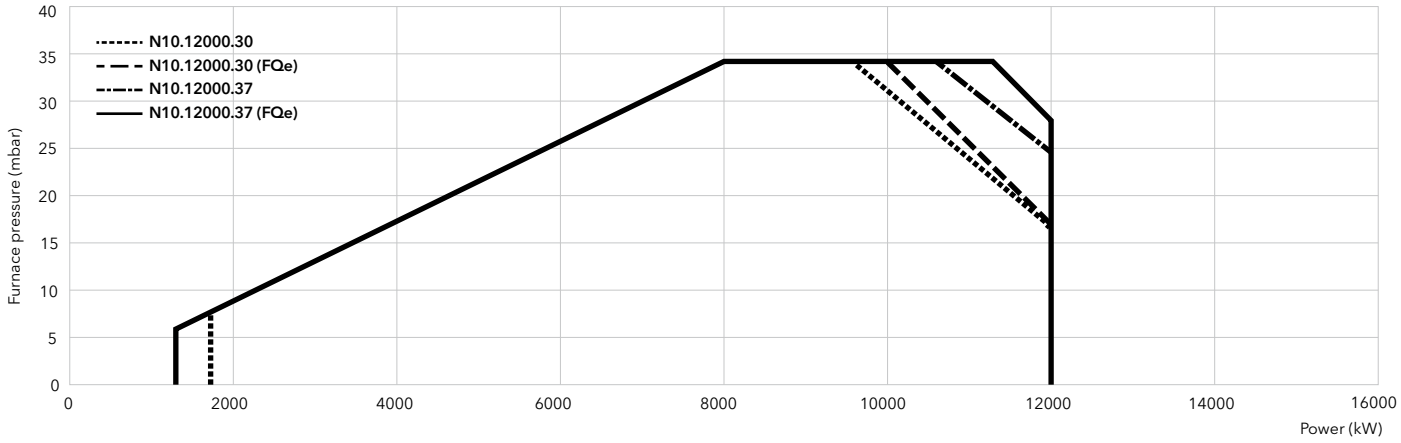


N10 GL-E

1300 ... 12000 kW
2 stage progressive/modulating electronic

- **Fuels:** natural gas, Hi = 6,99 … 11,39 kWh/Nm³;
  light oil, viscosity 6 mm²/s at 20°C, Hi = 11,86 kWh/kg
- **Emission class:** Low NOx class 2 (≤120 mg/kWh) according to EN676 in gas
  Low NOx class 2 (≤185 mg/kWh) according to EN267 in light oil
- **Protection level:** IP 41 (IP 54 as option)

TECHNICAL DATA



FQe = external frequency converter

	N10.12000.30 GL-E	N10.12000.37 GL-E
Operating range gas	1300* - 12000 kW (*: 1750 without FQ)	1300* - 12000 kW (*: 1750 without FQ)
Operating range oil	3600 - 12000 kW	3600 - 12000 kW
Gas connection	DN100	DN100
Fan motor	50/60 Hz - 30 kW	50/60 Hz - 37 kW
Pump	2700 l/h - 4 kW	2700 l/h - 4 kW
Acoustic level	< 97 dB(A)	< 97 dB(A)
Complete burner code	on request	on request

GAS TRAINS

DUNGS

Model	Code
d80	on request
d100	on request
d125	on request

SIEMENS

Model	Code
s80	3757394
s100	3757395
s125	3757396
s150	3757397

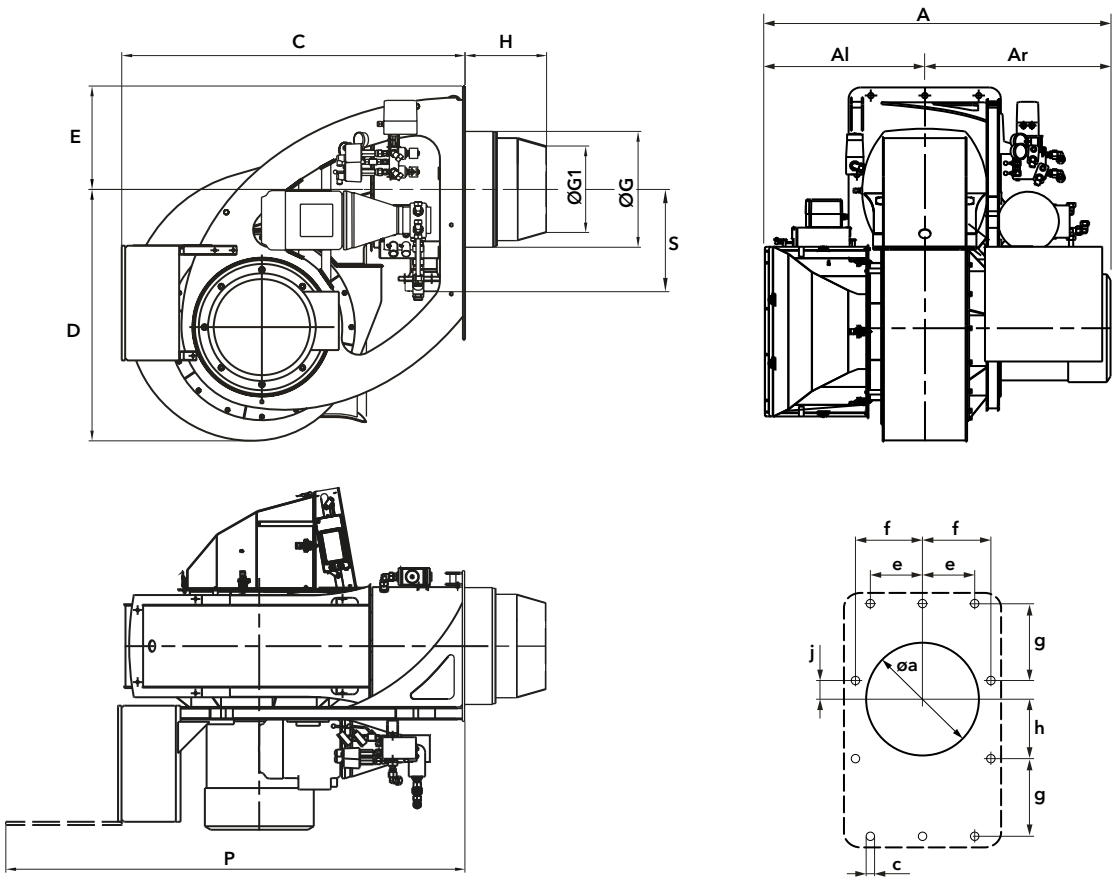
FILTERS

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

Pressure drops graphs: see following pages
Dimensions of gas trains and gas filters: see pag. 208

MDE2 GEM Variatron FGR

DIMENSIONS (mm)

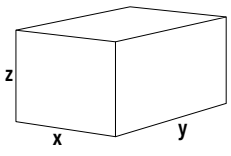


Model	A	Al	Ar	C	D	E	ØG	ØG1	H			P	S
									KN	KM	KL		
N10 GL-E	1480	685	795	1500	1095	450	504	369	350	450	550	1980	446

Øa	c	e	f	g	h	j
525	M20	230	290	345	275	70

PACKAGING

The complete burner is delivered on a pallet with:
- 1 carton box for gas train and filter
- 1 carton box for flexible hoses
- 1 carton box for boiler fixing accessories
- 1 bag with technical documentation



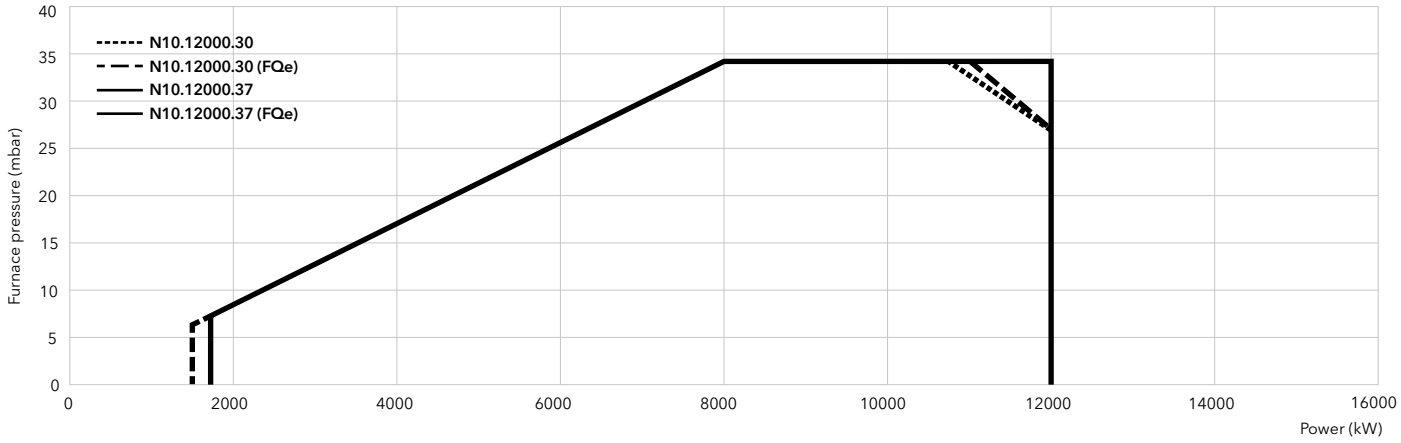
Models	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
N10 GL-E	1505	2125	1545	650 (+100 transport rack)

N10 GL-EUF

1500 ... 12000 kW
2 stage progressive/modualting electronic (Low NOx class 3)

- **Fuels:** natural gas, Hi = 6,99 … 11,39 kWh/Nm³;
  light oil, viscosity 6 mm²/s at 20°C, Hi = 11,86 kWh/kg
- **Emission class:** Low NOx class 3 (≤80 mg/kWh) according to EN676 in gas
  Low NOx class 3 (≤120 mg/kWh) according to EN267 in light oil
- **Protection level:** IP 41 (IP 54 as option)

TECHNICAL DATA



FQe = external frequency converter

	N10.12000.30 GL-EUF	N10.12000.37 GL-EUF
Operating range gas	1500* - 12000 kW (*: 1750 without FQ)	1500* - 12000 kW (*: 1750 without FQ)
Operating range oil	3000 - 12000 kW	3000 - 12000 kW
Gas connection	DN100	DN100
Fan motor	50/60 Hz - 30 kW	50/60 Hz - 37 kW
Pump	2200 l/h - 4 kW	2200 l/h - 4 kW
Acoustic level	< 97 dB(A)	< 97 dB(A)
Complete burner code	on request	on request

GAS TRAINS

DUNGS

Model	Code
d80	on request
d100	on request
d125	on request

SIEMENS

Model	Code
s80	3757394
s100	3757395
s125	3757396
s150	3757397

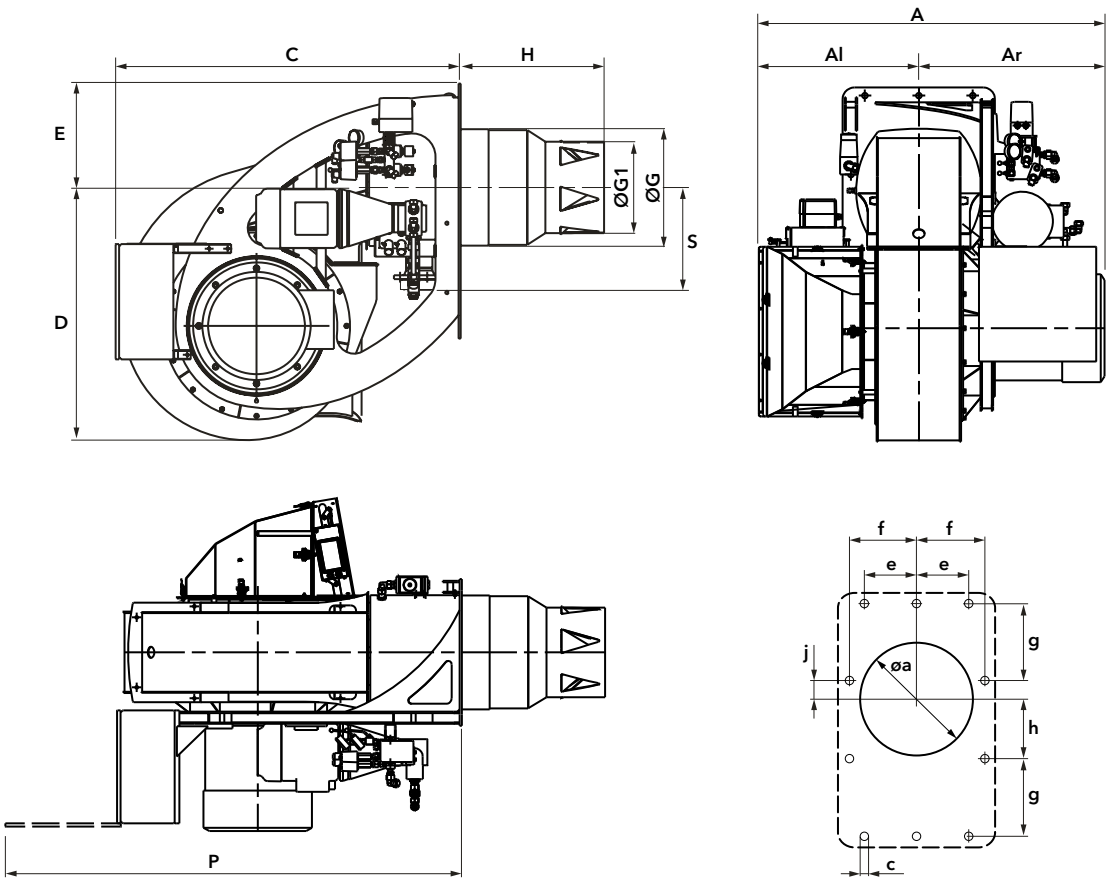
FILTERS

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

Pressure drops graphs: see following pages
Dimensions of gas trains and gas filters: see pag. 208

MDE2 | GEM | Variatron | LOW NOx CLASS 3 | FGR

DIMENSIONS (mm)

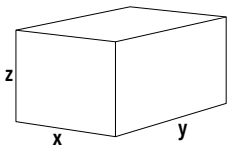


Model	A	Al	Ar	C	D	E	ØG	ØG1	H			P	S
									KN	KM	KL		
N10 GL-EUF	1480	685	795	1500	1095	450	504	390	620	720	820	1980	446

Øa	c	e	f	g	h	j
525	M20	230	290	345	275	70

PACKAGING

The complete burner is delivered on a pallet with:
- 1 carton box for gas train and filter
- 1 carton box for flexible hoses
- 1 carton box for boiler fixing accessories
- 1 bag with technical documentation

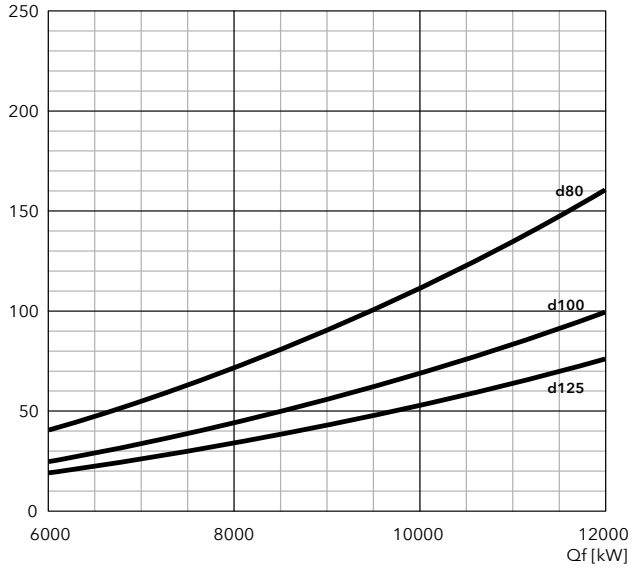


Models	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
N10 GL-EUF	1505	2125	1545	650 (+100 transport rack)

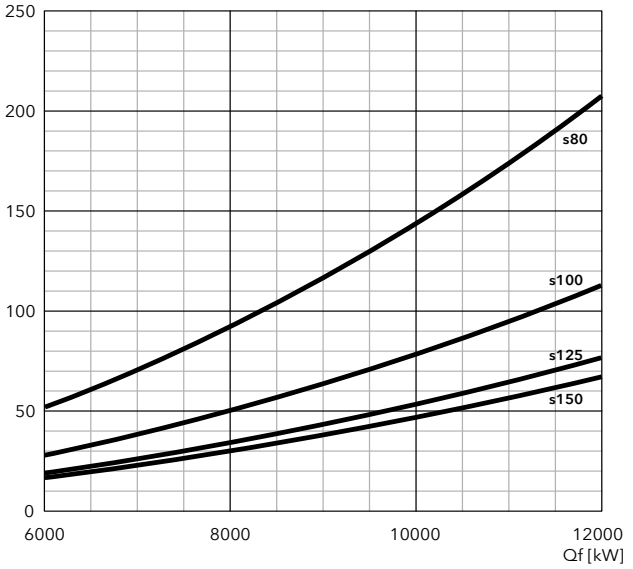
PRESSURE LOSSES (BURNER HEAD + GAS TRAIN)

N10.12000 GL-E

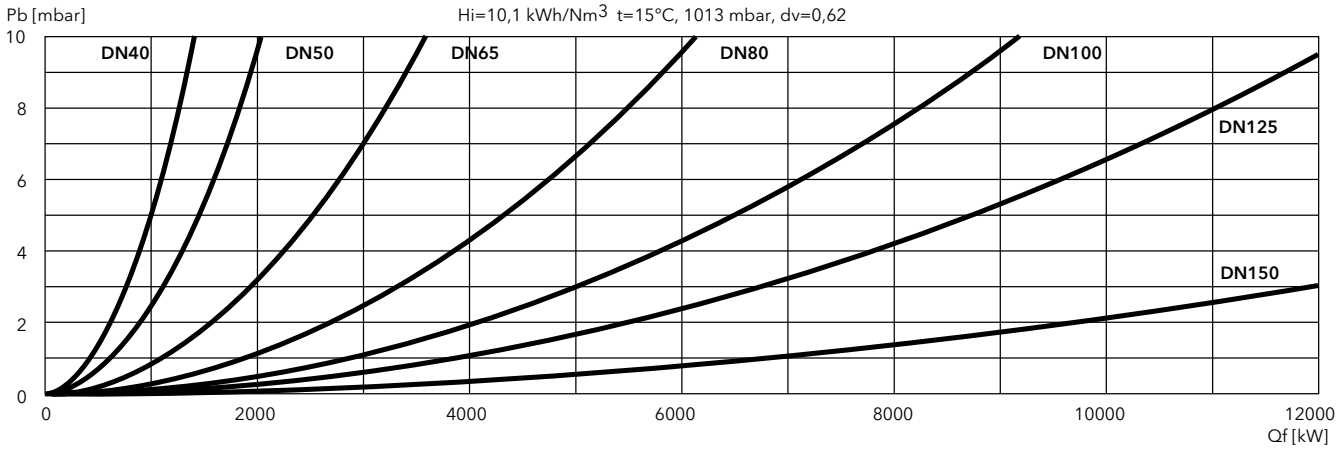
DUNGS



SIEMENS



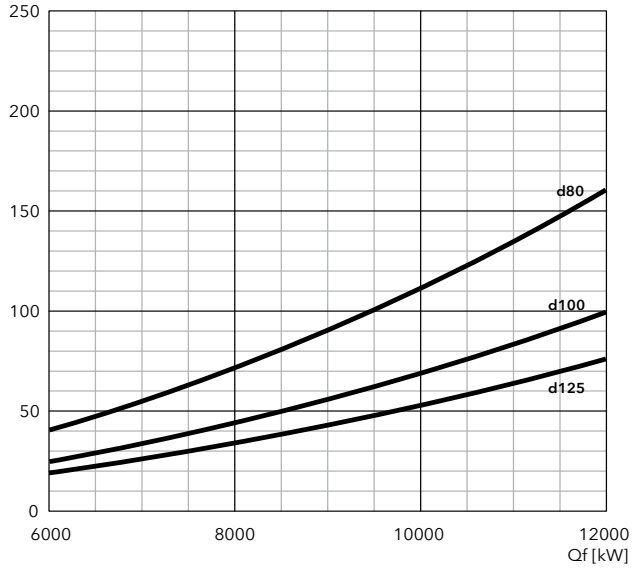
FILTERS



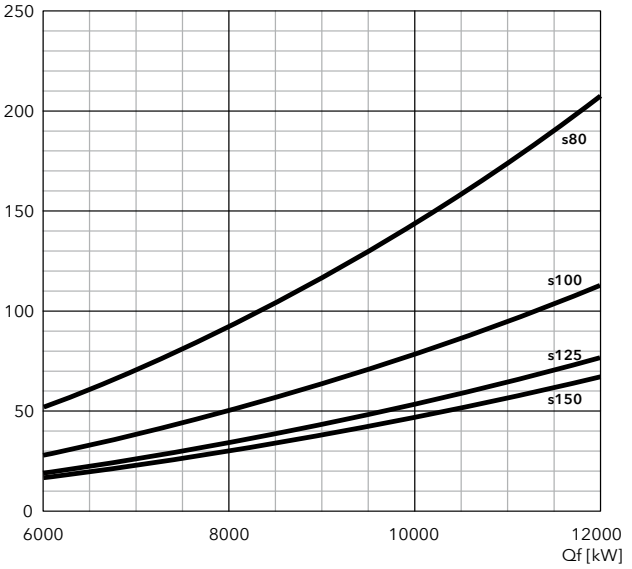
PRESSURE LOSSES (BURNER HEAD + GAS TRAIN)

N10.12000 GL-EUF

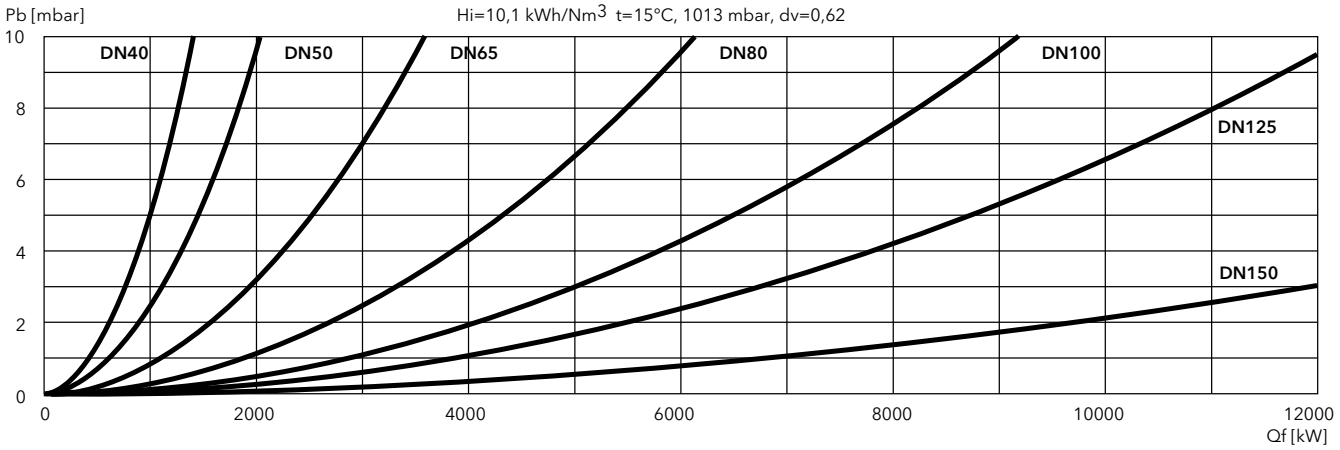
DUNGS



SIEMENS



FILTERS

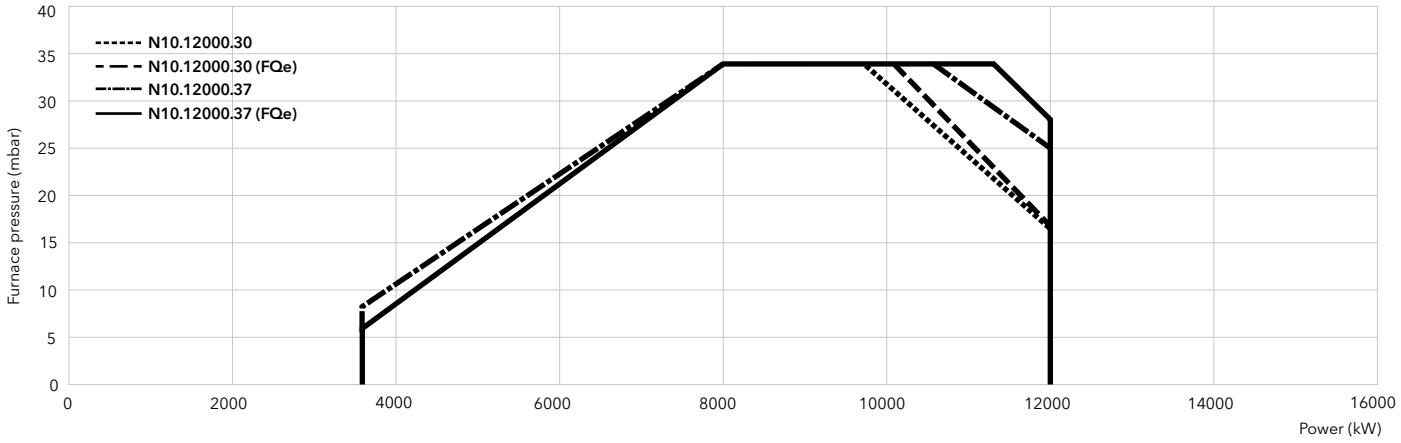


N10 L-E

3600 ... 12000 kW
2 stage progressive/modulating electronic

- **Fuels:** light oil, viscosity 6 mm²/s at 20°C, Hi = 11,86 kWh/kg
- **Emission class:** Low NOx class 2 (≤185 mg/kWh) according to EN267 in light oil
- **Protection level:** IP 41 (IP 54 as option)

TECHNICAL DATA

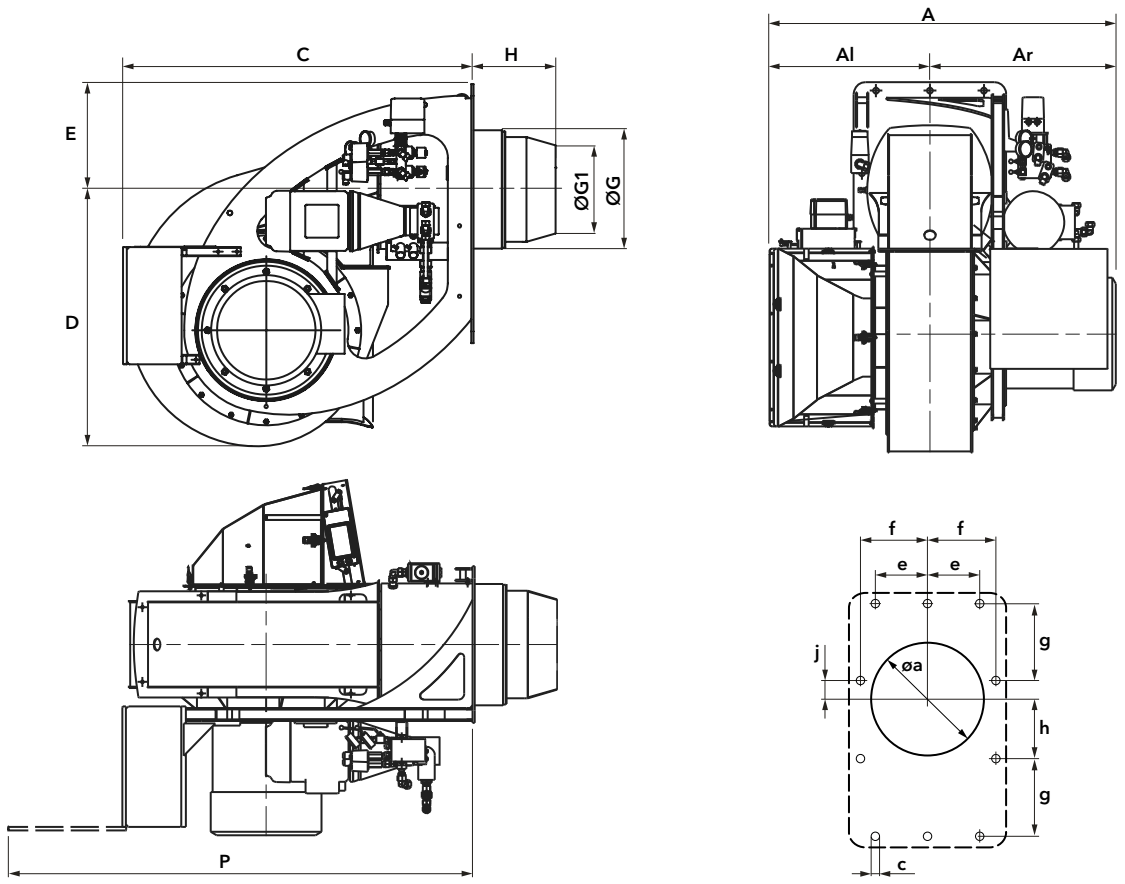


FQe = external frequency converter

	N10.12000.30 L-E	N10.12000.37 L-E
Operating range	3600 - 12000 kW	3600 - 12000 kW
Fan motor	50/60 Hz - 30 kW	50/60 Hz - 37 kW
Pump	2 200 l/h - 4 kW	2 200 l/h - 4 kW
Acoustic level	< 97 dB(A)	< 97 dB(A)
Complete burner code	on request	on request

MDE2 GEM Variatron

DIMENSIONS (mm)

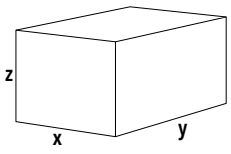


Model	A	Al	Ar	C	D	E	ØG	ØG1	H			P
									KN	KM	KL	
N10 L-E	1480	685	795	1500	1095	450	504	369	350	450	550	1980

Øa	c	e	f	g	h	j
525	M20	230	290	345	275	70

PACKAGING

The complete burner is delivered on a pallet with:
- 1 carton box for boiler fixing accessories
- 1 bag with technical documentation



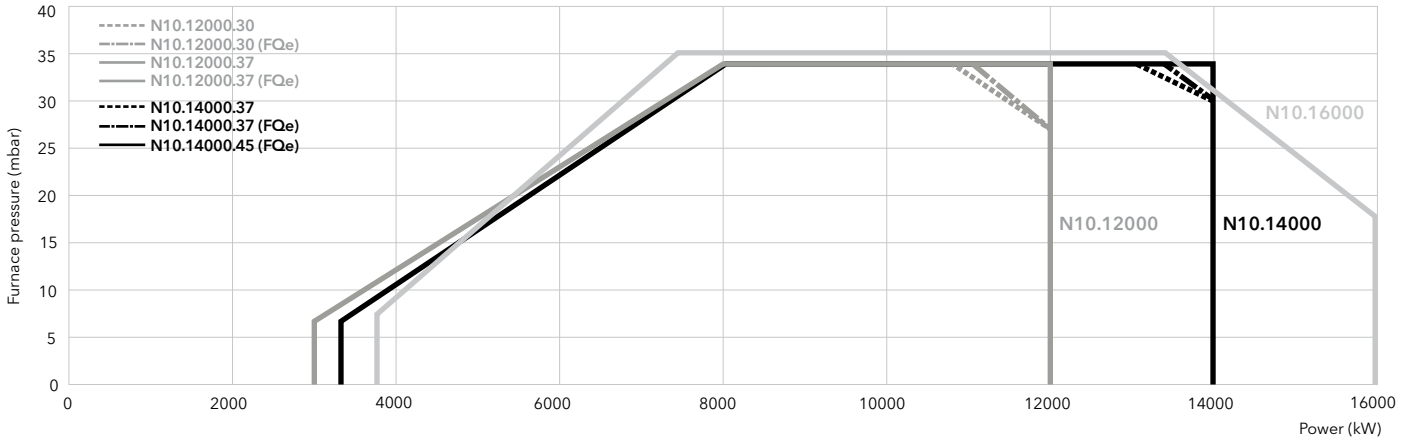
Models	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
N10 L-E	1505	2125	1545	650 (+100 transport rack)

N10 L-EUF

3000 ... 16000 kW
2 stage progressive/modulating electronic (Low NOx class 3)

- **Fuels:** light oil, viscosity 6 mm²/s at 20°C, Hi = 11,86 kWh/kg
- **Emission class:** Low NOx class 3 (≤120 mg/kWh) according to EN267
- **Protection level:** IP 40 (IP 54 as option)

TECHNICAL DATA

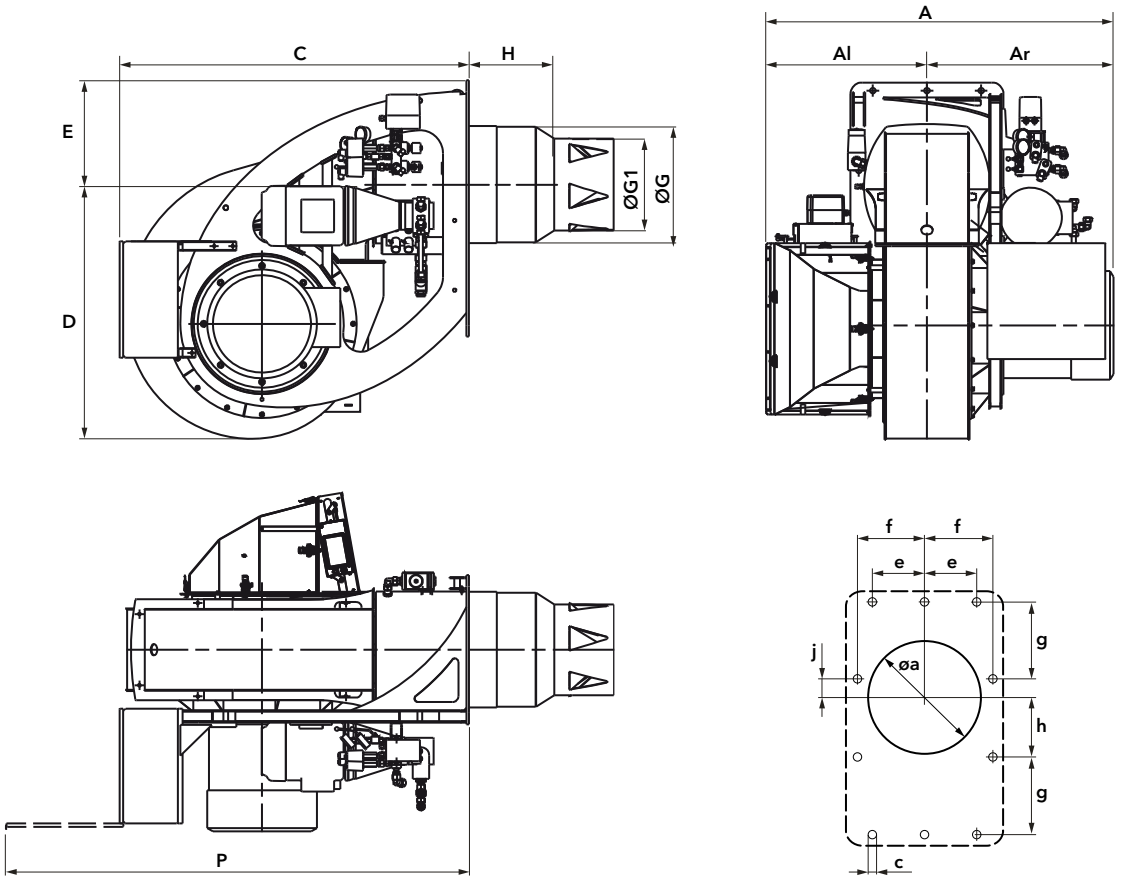


FQe = external frequency converter

	N10.12000.30 L-EUF	N10.12000.37 L-EUF	N10.14000.37 L-EUF	N10.14000.45 L-EUF	N10.16000.45 L-EUF
Operating range	3000 - 12000 kW	3000 - 12000 kW	3300 - 14000 kW	3300 - 14000 kW	3800 - 16000 kW
Fan motor	50/60 Hz - 30 kW	50/60 Hz - 37 kW	50/60 Hz - 37 kW	50/60 Hz - 45 kW	50/60 Hz - 45 kW
Pump	2700 l/h - 4 kW	2700 l/h - 4 kW	2700 l/h - 4 kW	2700 l/h - 4 kW	2700 l/h - 4 kW
Acoustic level	< 97 dB(A)	< 97 dB(A)	< 97 dB(A)	< 97 dB(A)	< 97 dB(A)
Complete burner code	on request	on request	on request	on request	on request

MDE2 GEM Variatron LOW NOx CLASS 3

DIMENSIONS (mm)

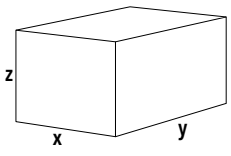


Model	A	Al	Ar	C	D	E	ØG	ØG1	H			P
									KN	KM	KL	
N10 L-EUF	1480	685	795	1500	1095	450	504	390	620	720	820	1980

Øa	c	e	f	g	h	j
525	M20	230	290	345	275	70

PACKAGING

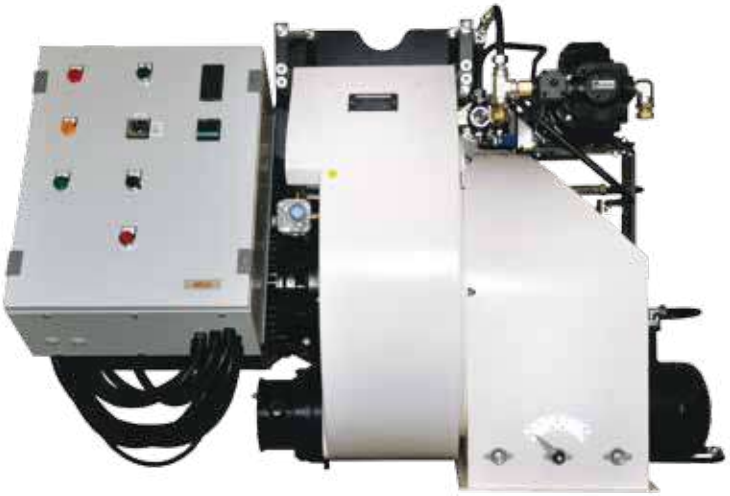
The complete burner is delivered on a pallet with:
- 1 carton box for boiler fixing accessories
- 1 bag with technical documentation



Models	Dimensions (mm)			Gross weight (kg)
	X	Y	Z	
N10 L-EUF	1505	2125	1545	650 (+100 transport rack)

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. All models are suitable to work with heavy oil up to 50°E at 50°C.

HO-TRON range is available in different configurations with a power output covering a range from 68 kW to 17 MW.
Burners are available in the following versions:
- one stage, for HO-TRON 0 and HO-TRON 1, models up to 340 kW;
- two stages, up to the model HO-TRON 4;
- two stage progressive mechanical operation (up to 17 MW).

All burners feature easy access to the combustion component in order to simplify the maintenance operations. The maintenance activities are simplified also thanks to the slide bar system, which allows easy access to the combustion components, available on all models up to HO-TRON 6.

All models are fitted with heavy oil electric heating system on board and integrated electrical panel complete with pre-heater management system.

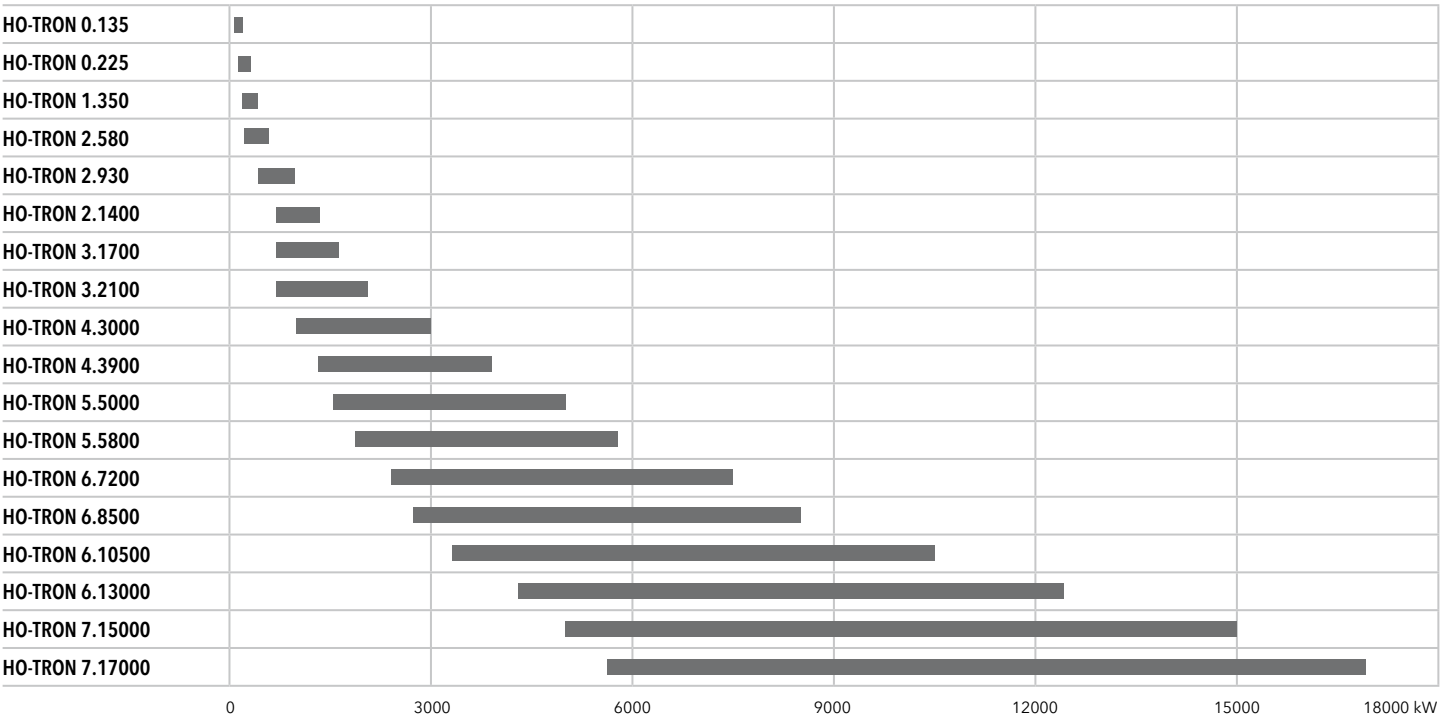
Ring system components for oil preparation can be designed and supply on request.

For a large extent of applications customized solutions can be offered in order to meet plants requirements.

MAIN TECHNICAL FEATURES

- One stage, two stages and two stage progressive/modulating mechanical forced draught burners
- Electronic version available on request
- Fuel: heavy oil, viscosity 50°E at 50°C, Hi = 10,97 kWh/kg
- Two combustion head lengths available
- Pump mounted on the body up to model HO-TRON 6.8500 and separated motor-pump starting from model HO-TRON 6.10500
- Electrical heavy oil heater on board (oil supply to the burner at 80°C and 3 bar)
- Additional heaters on the pipes and the valves, into the pump and the nozzle holder
- Closing of the air flap on burner shut-down
- Complete control panel mounted on the burner with electrical equipment
- Products are in compliance with EN267 European standards and with the following directives:
  - 2014/35/UE Low Voltage Directive
  - 2014/30/UE EMC Directive
  - 2006/42/EC Machinery Directive
  - 2011/65/EU RoHS2 Directive

RANGE OVERVIEW

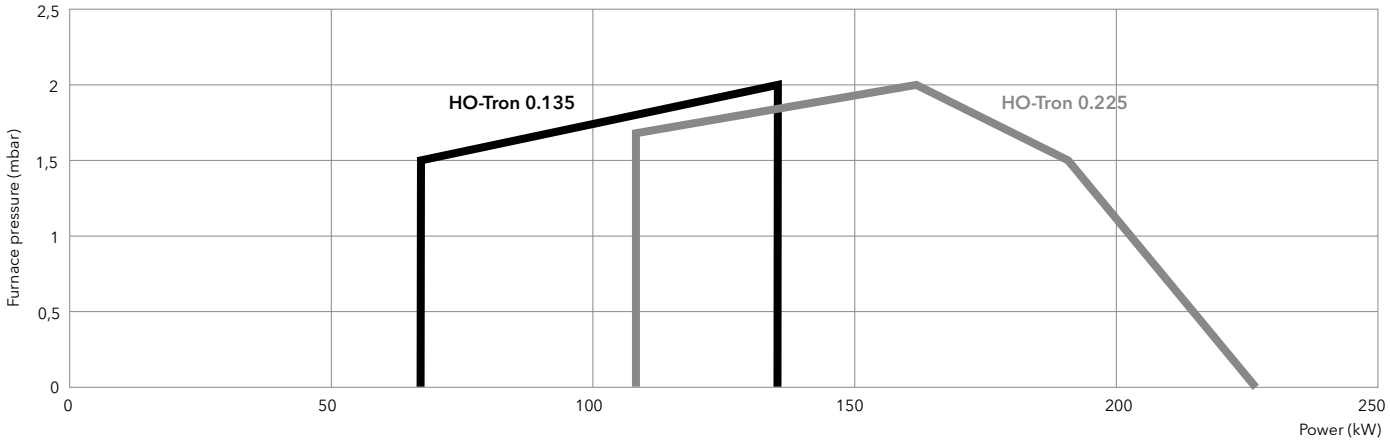


HO-TRON 0

68 ... 227 kW
1 stage

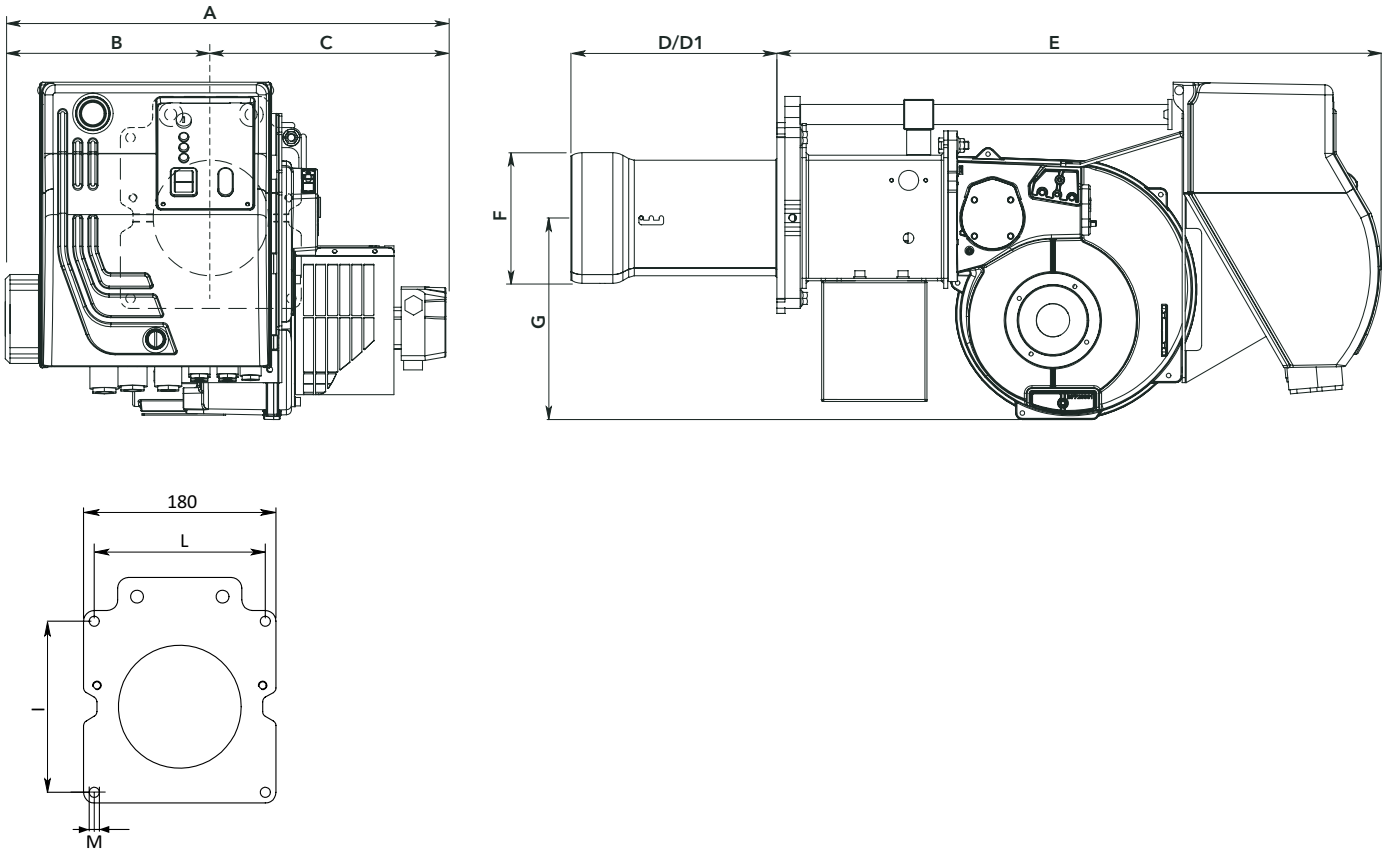
- **Fuel:** heavy oil, viscosity 50°E at 50°C, Hi = 10,5…11,5 kWh/kg
- **Protection level:** IP 42 (IP54 on request)

TECHNICAL DATA



	HO-TRON 0.135		HO-TRON 0.225	
Operating range	68 - 136 kW		108 - 227 kW	
Fuel flow	6 - 12 kg/h		9,5 - 20 kg/h	
Nozzles	according to required power		according to required power	
Control box	LMO 44		LMO 44	
Fan motor	2 800 rpm - 230 V - 50 Hz - 450 W		2 800 rpm - 230 V - 50 Hz - 450 W	
Pump	D67C		D67C	
Resistance on pre-heaters	2 x 650 W		3 x 650 W	
Head lenght	KN	KL	KN	KL
Complete burner code	**3142568**	**3142569**	**3142570**	**3142571**

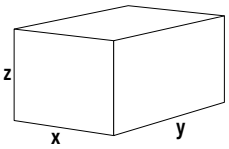
DIMENSIONS (mm)



Model	A	B	C	D	D1	E	F	G	I	L	M
HO-TRON 0	520	290	230	205	325	535	130	201	160	160	M8

PACKAGING

The complete burner with combustion head is delivered in a single carton box with flexible hoses and operating manual including electrical terminal diagram and spare parts list.



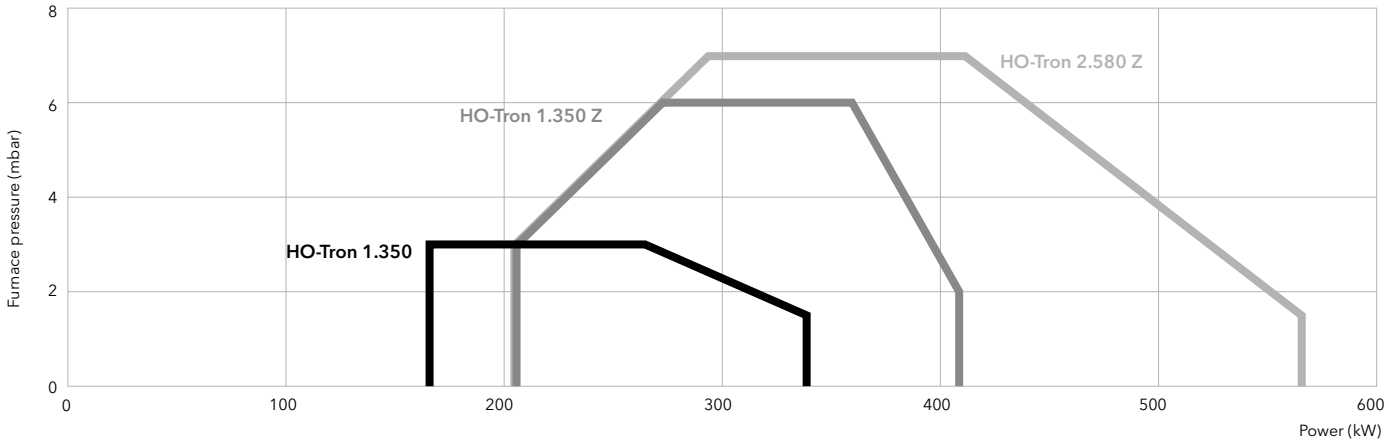
Models	Dimensions (mm)		
	X	Y	Z
HO-TRON 0	900	780	700

HO-TRON 1, HO-TRON 1 Z, HO-TRON 2 Z

170 ... 570 kW
1 and 2 stages

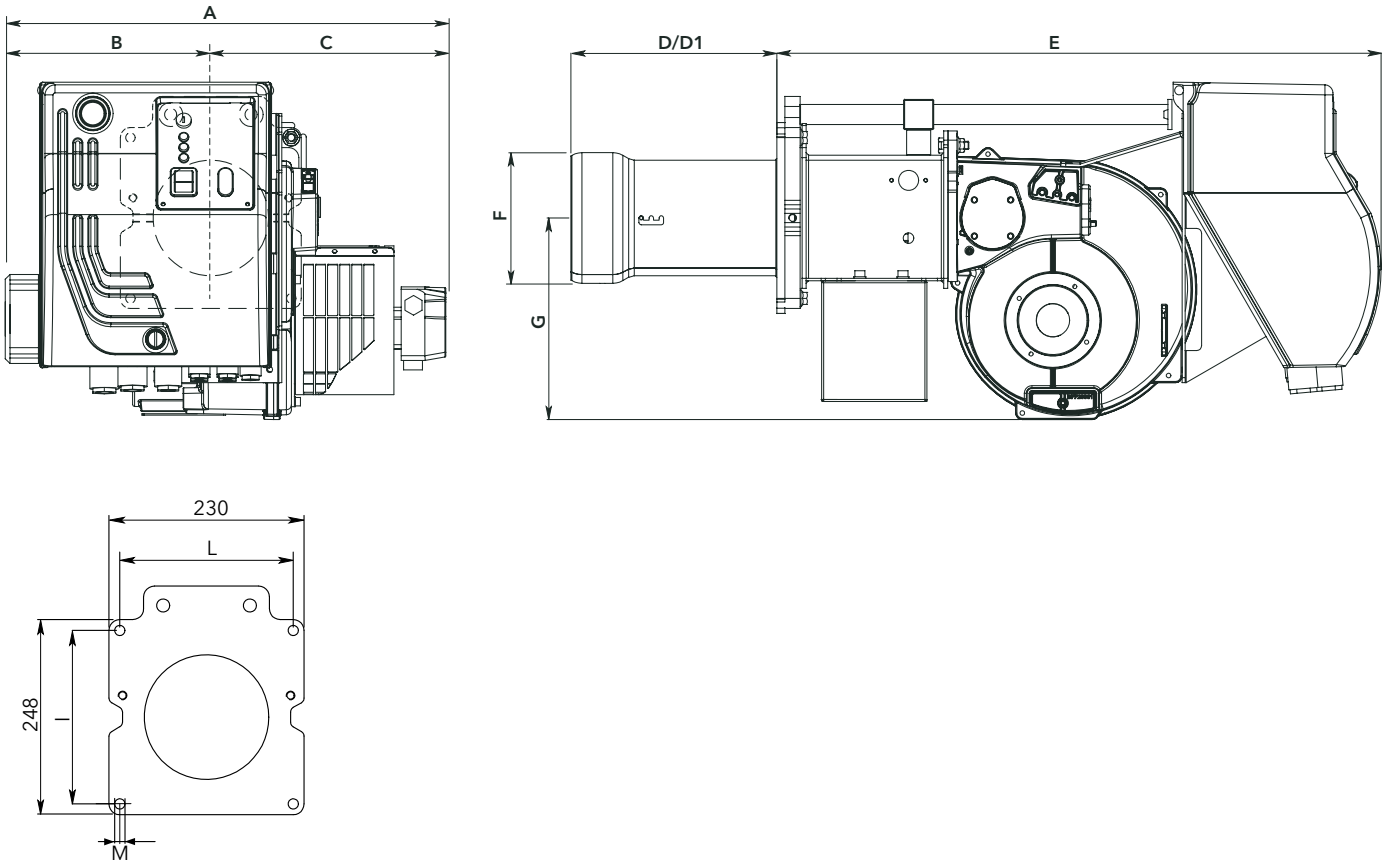
- **Fuel:** heavy oil, viscosity 50°E at 50°C, Hi = 10,5…11,5 kWh/kg
- **Protection level:** IP 40

TECHNICAL DATA



	HO-TRON 1.350		HO-TRON 1.350 Z		HO-TRON 2.580 Z	
Operating range	170 - 340 kW		205 - 410 kW		205 - 570 kW	
Fuel flow	15 - 30 kg/h		18 - 36 kg/h		18 - 50 kg/h	
Nozzles	according to required power		according to required power		according to required power	
Control box	LMO 44		LMO 44		LMO 44	
Fan motor	2 800 rpm - 230/400 V - 50 Hz - 740 W		2 800 rpm - 230/400 V - 50 Hz - 740 W		2 800 rpm - 230/400 V - 50 Hz - 1100 W	
Pump	E4 NC 1069		E4 NC 1069		E4 NC 1069	
Resistance on pre-heaters	3,9 kW		3,9 kW		3,9 kW	
Head lenght	KN	KL	KN	KL	KN	KL
Complete burner code	**on request**	**on request**	**on request**	**on request**	**3142671**	**on request**

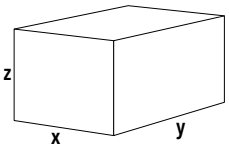
DIMENSIONS (mm)



Model	A	B	C	D	D1	E	F	G	I	L	M
HO-TRON 1-2	562	302	260	205	325	653	160	280	185/200	185/200	M10

PACKAGING

The complete burner with combustion head is delivered in a single carton box with flexible hoses and operating manual including electrical terminal diagram and spare parts list.



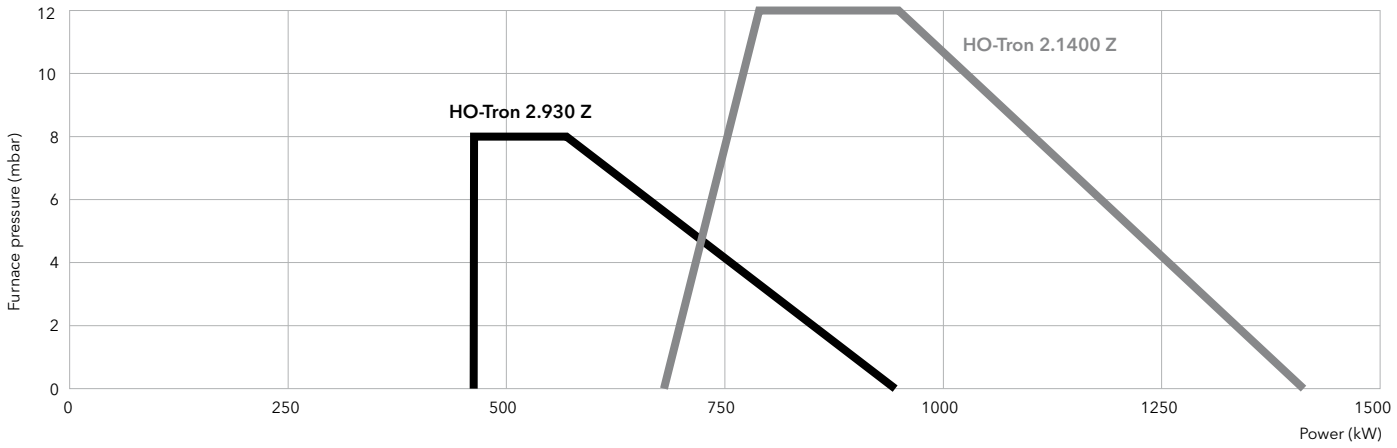
Models	Dimensions (mm)		
	X	Y	Z
HO-TRON 1-2	900	780	700

HO-TRON 2 Z

465 ... 1395 kW
2 stages

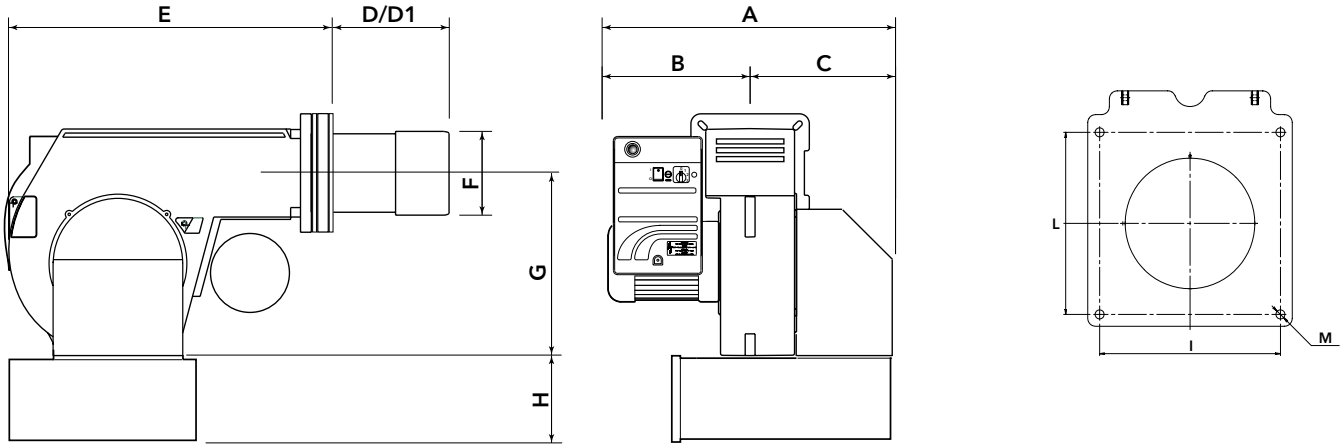
- **Fuel:** heavy oil, viscosity 50°E at 50°C, Hi = 10,5…11,5 kWh/kg
- **Protection level:** IP 42 (IP54 on request)

TECHNICAL DATA



	HO-TRON 2.930 Z		HO-TRON 2.1400 Z	
Operating range	465 - 930 kW		682 - 1395 kW	
Fuel flow	41 - 82 kg/h		60 - 122 kg/h	
Nozzles	according to required power		according to required power	
Control box	LMO 44		LMO 44	
Fan motor	2800 rpm - 230 V - 50 Hz - 1,5 kW		2800 rpm - 230 V - 50 Hz - 2,2 kW	
Pump	E4 NC 1069		E4 NC 1069	
Resistance on pre-heaters	4,65 kW		7,05 kW	
Head lenght	KN	KL	KN	KL
Complete burner code	**3142672**	**3142215**	**3142673**	**3143193**

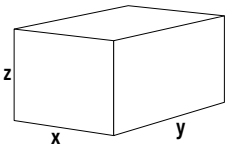
DIMENSIONS (mm)



Model	A	B	C	D	D1	E	F	G	H	I	L	M
HO-TRON 2	758	388	370	170	310	600	185	390	210*	190	190	M10

PACKAGING

The complete burner with combustion head is delivered in a single carton box with flexible hoses and operating manual including electrical terminal diagram and spare parts list.



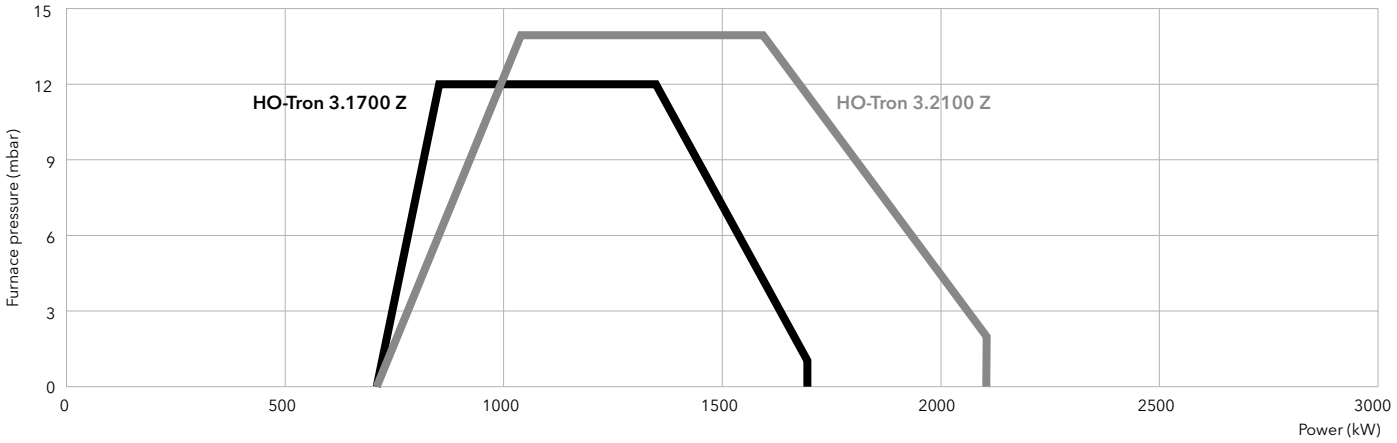
Models	Dimensions (mm)		
	X	Y	Z
HO-TRON 2	1100	780	700

HO-TRON 3 Z

682 ... 2093 kW
2 stages

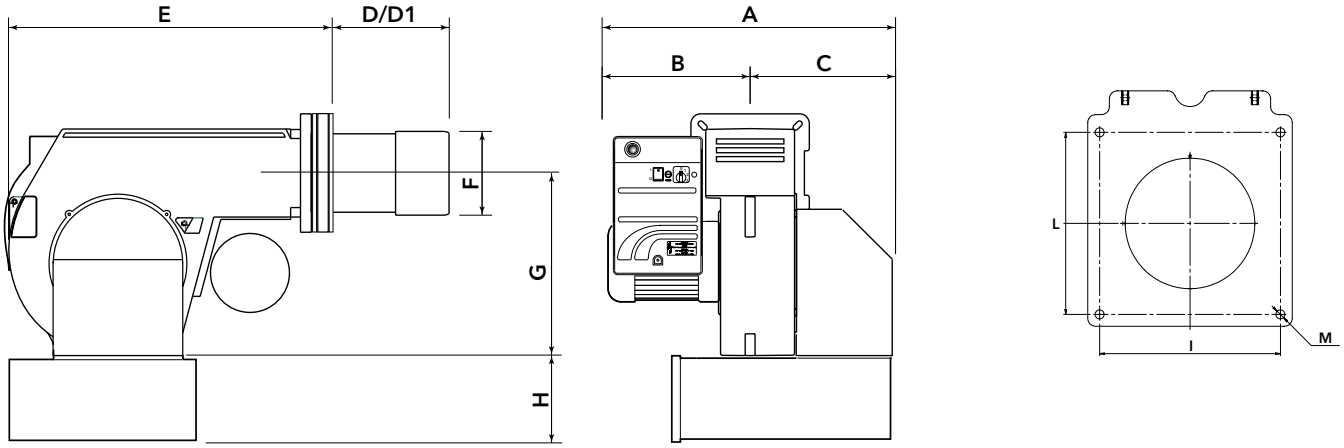
- **Fuel:** heavy oil, viscosity 50°E at 50°C, Hi = 10,5…11,5 kWh/kg
- **Protection level:** IP 42 (IP54 on request)

TECHNICAL DATA



	HO-TRON 3.1700 Z		HO-TRON 3.2100 Z	
Operating range	682 - 1700 kW		682 - 2093 kW	
Fuel flow	60 - 148 kg/h		60 - 184 kg/h	
Nozzles	according to required power		according to required power	
Control box	LMO 44		LMO 44	
Fan motor	2800 rpm - 230/400 V - 50 Hz - 3 kW		2800 rpm - 230/400 V - 50 Hz - 4 kW	
Pump	E6 NC 1069		E6 NC 1069	
Resistance on pre-heaters	9 kW		10,5 kW	
Head lenght	KN	KL	KN	KL
Complete burner code	**3142675**	**3143194**	**3142441**	**3142677**

DIMENSIONS (mm)

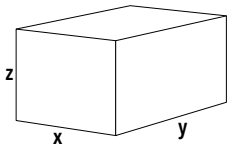


Model	A	B	C	D	D1	E	F	G	H*	I	L	M
HO-TRON 3.1700	920	450	470	280	480	710	250	420	260	315	315	M14
HO-TRON 3.2100	920	450	470	280	480	710	270	420	260	315	315	M14

* optional silencer

PACKAGING

The complete burner with combustion head is delivered in a single carton box with flexible hoses and operating manual including electrical terminal diagram and spare parts list.



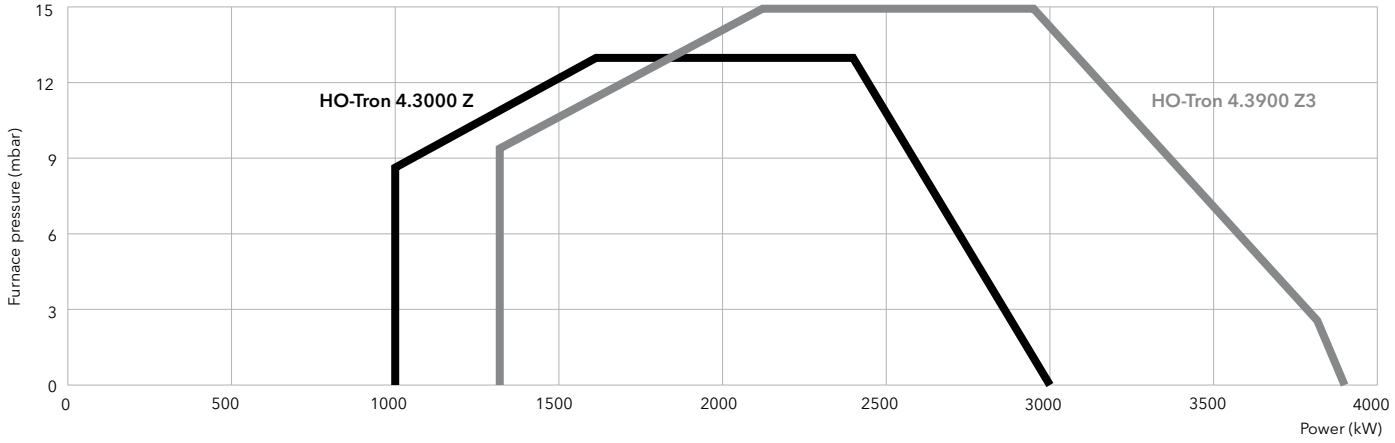
Models	Dimensions (mm)		
	X	Y	Z
HO-TRON 3	1370	1140	950

HO-TRON 4 Z/Z3

1000 ... 3900 kW
2 stages

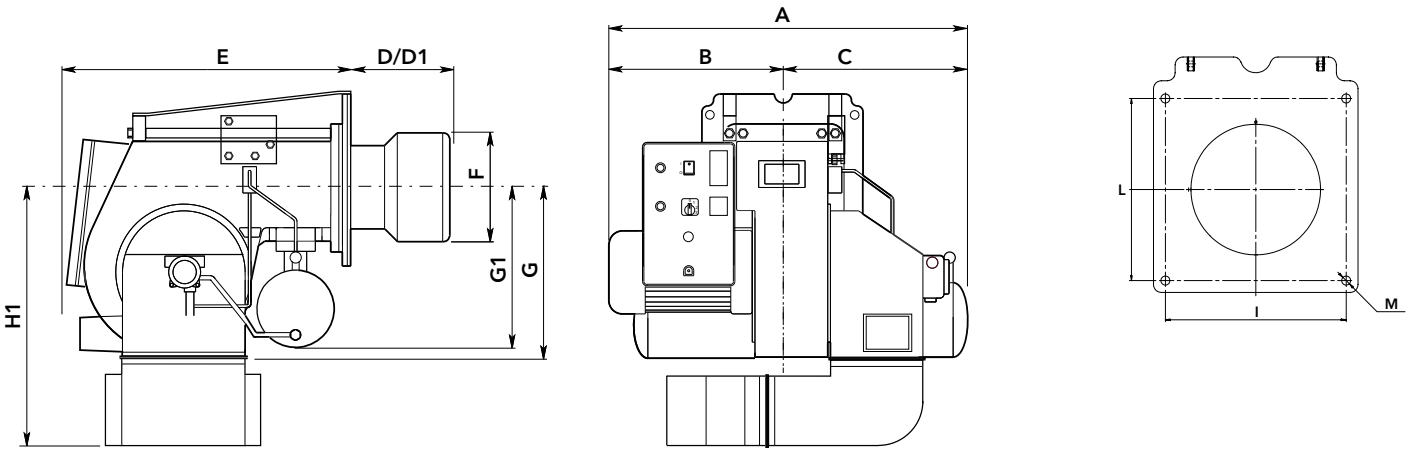
- **Fuel:** heavy oil, viscosity 50°E at 50°C, Hi = 10,5…11,5 kWh/kg
- **Protection level:** IP 42 (IP54 on request)

TECHNICAL DATA



	HO-TRON 4.3000 Z		HO-TRON 4.3900 Z3	
Operating range	1000 - 3000 kW		1300 - 3900 kW	
Fuel flow	88,5 - 264 kg/h		115 - 343 kg/h	
Nozzles	according to required power		according to required power	
Control box	LMO 44		LMO 44	
Fan motor	2800 rpm - 230/400 V - 50 Hz - 7,5 kW		2800 rpm - 230/400 V - 50 Hz - 9 kW	
Pump	E7 NC 1069		E7 NC 1069	
Resistance on pre-heaters	18 kW		21 kW	
Head lenght	KN	KL	KN	KL
Complete burner code	**3142678**	**3142679**	**3142680**	**3142681**

DIMENSIONS (mm)

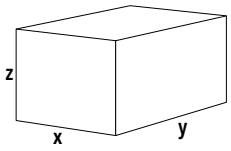


Model	A	B	C	D	D1	E	F	G	G1	H1*	I	L	M
HO-TRON 4.3000	1205	603	602	350	600	925	290	470	430	746	400	400	M16
HO-TRON 4.3900	1205	603	602	350	600	925	320	470	430	746	400	400	M16

* optional silencer

PACKAGING

The complete burner with combustion head is delivered in a single wooden box with flexible hoses and operating manual including electrical terminal diagram and spare parts list.



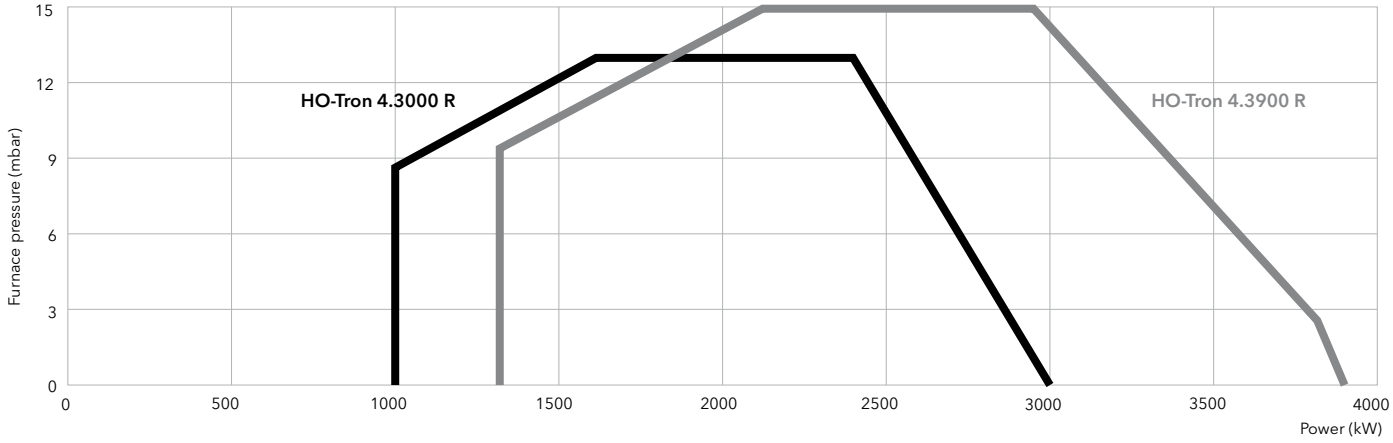
Models	Dimensions (mm)		
	X	Y	Z
HO-TRON 4	1580	1580	1050

HO-TRON 4 R

1000 ... 3900 kW
2 stage progressive/modulating mechanical

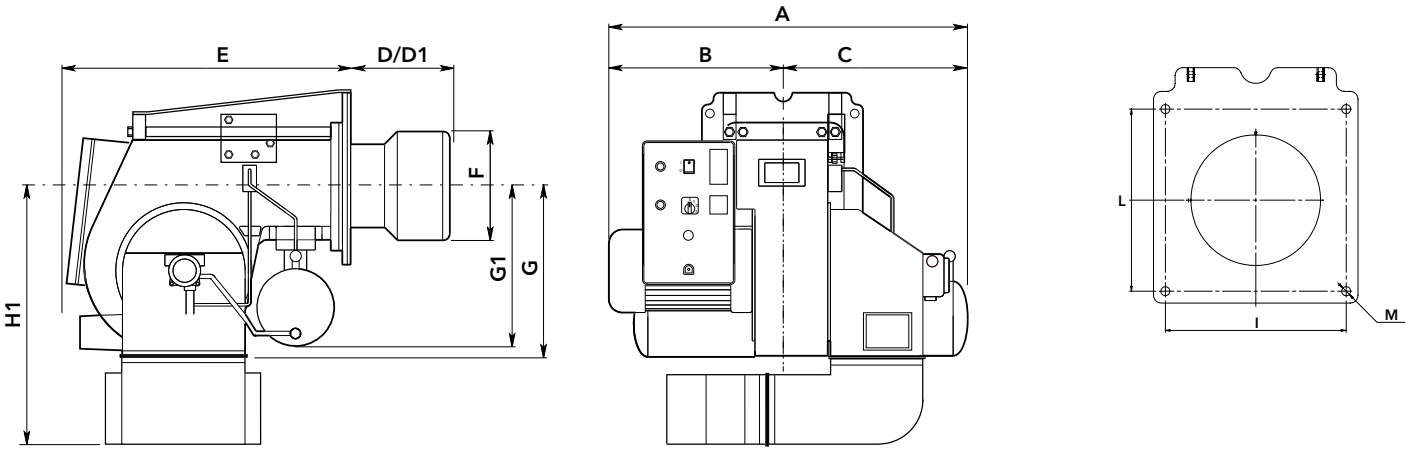
- **Fuel:** heavy oil, viscosity 50°E at 50°C, Hi = 10,5…11,5 kWh/kg
- **Protection level:** IP 42 (IP54 on request)

TECHNICAL DATA



	HO-TRON 4.3000 R		HO-TRON 4.3900 R	
Operating range	1000 - 3000 kW		1300 - 3900 kW	
Fuel flow	88,5 - 264 kg/h		115 - 343 kg/h	
Nozzles	according to required power		according to required power	
Control box	LAL 1.25		LAL 1.25	
Fan motor	2800 rpm - 230/400 V - 50 Hz - 7,5 kW		2800 rpm - 230/400 V - 50 Hz - 9 kW	
Pump	TA 3C		TA 3C	
Resistance on pre-heaters	18 kW		21 kW	
Head lenght	KN	KL	KN	KL
Complete burner code	**on request**	**on request**	**on request**	**on request**

DIMENSIONS (mm)

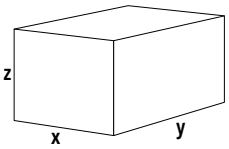


Model	A	B	C	D	D1	E	F	G	G1	H1*	I	L	M
HO-TRON 4.3000	1205	603	602	350	600	925	290	470	430	746	400	400	M16
HO-TRON 4.3900	1205	603	602	350	600	925	320	470	430	746	400	400	M16

* optional silencer

PACKAGING

The complete burner with combustion head is delivered in a single wooden box with flexible hoses and operating manual including electrical terminal diagram and spare parts list.



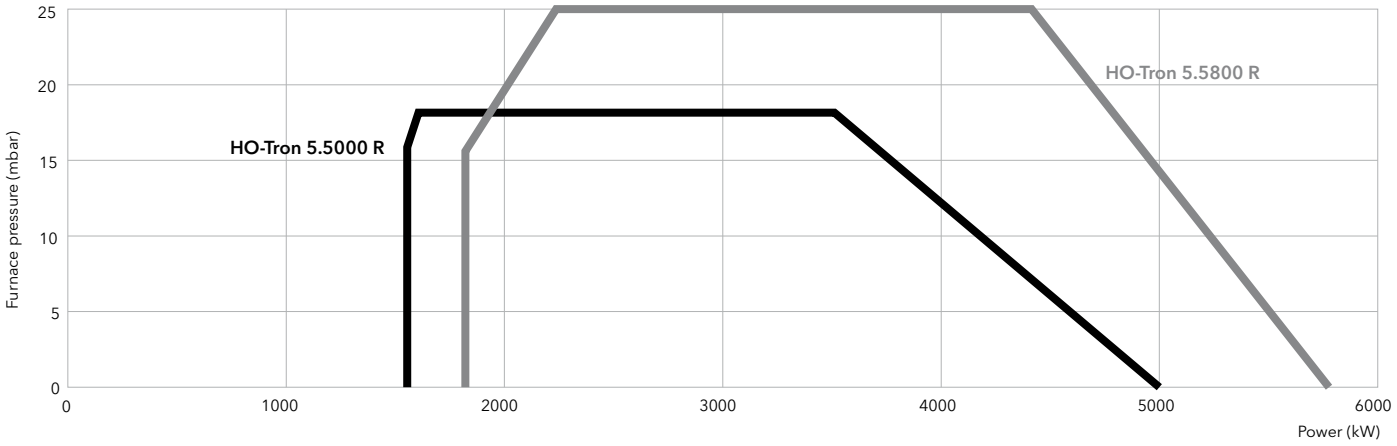
Models	Dimensions (mm)		
	X	Y	Z
HO-TRON 4 R	1580	1580	1050

HO-TRON 5 R

1578 ... 5800 kW
2 stage progressive/modulating mechanical

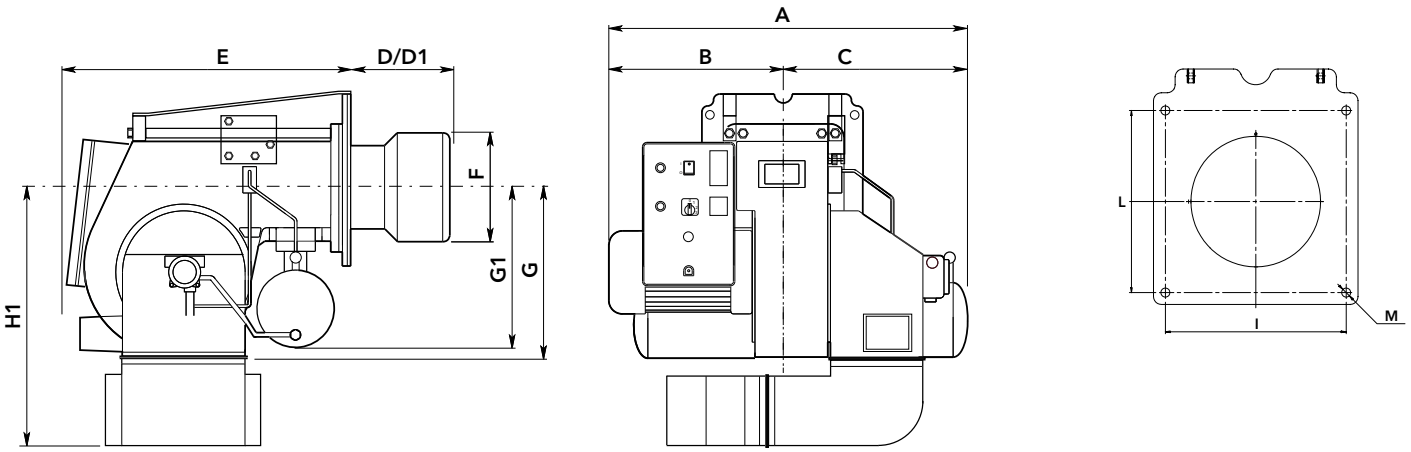
- **Fuel:** heavy oil, viscosity 50°E at 50°C, Hi = 10,5…11,5 kWh/kg
- **Protection level:** IP 42 (IP54 on request)

TECHNICAL DATA



	HO-TRON 5.5000 R		HO-TRON 5.5800 R	
Operating range	1578 - 5000 kW		1795 - 5800 kW	
Fuel flow	140 - 440 kg/h		159 - 510 kg/h	
Nozzles	according to required power		according to required power	
Control box	LAL 1.25		LAL 1.25	
Fan motor	2800 rpm - 230/400 V - 50 Hz - 11 kW		2800 rpm - 230/400 V - 50 Hz - 15 kW	
Pump	TA 4C		TA 4C	
Resistance on pre-heaters	24 kW		24 kW	
Head lenght	KN	KL	KN	KL
Complete burner code	**3143183**	**on request**	**on request**	**on request**

DIMENSIONS (mm)

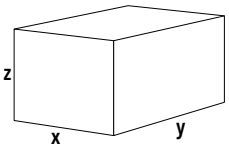


Model	A	B	C	D	D1	E	F	G	G1	H1	I	L	M
HO-TRON 5	1300	610	690	370	670	990	320	570	480	965	460	460	M16

* optional silencer

PACKAGING

The complete burner with combustion head is delivered in a single wooden box with flexible hoses and operating manual including electrical terminal diagram and spare parts list.



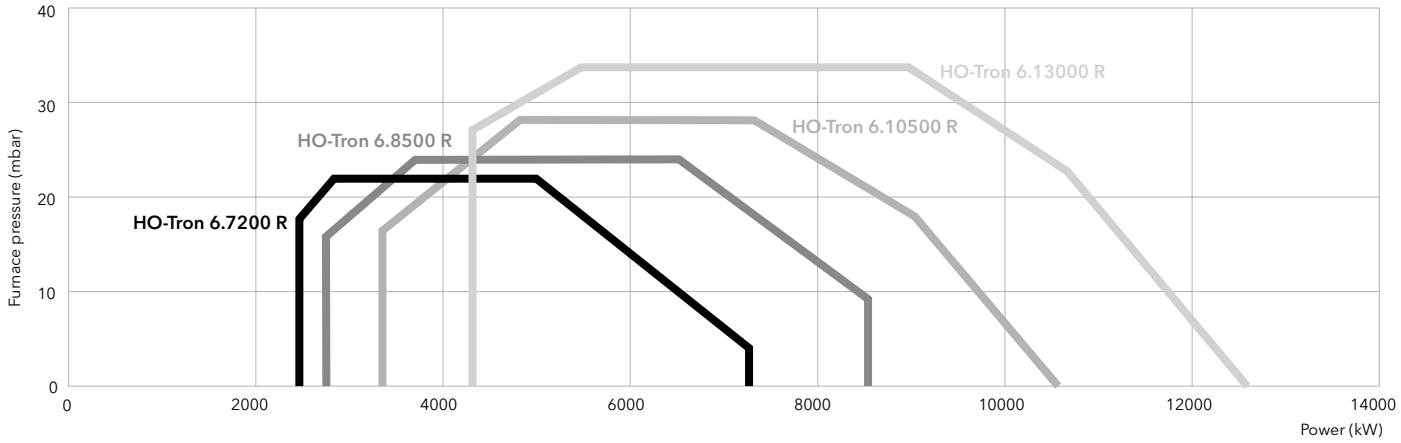
Models	Dimensions (mm)		
	X	Y	Z
HO-TRON 5 R	1580	1580	1050

HO-TRON 6 R

2417 ... 12500 kW
2 stage progressive/modulating mechanical

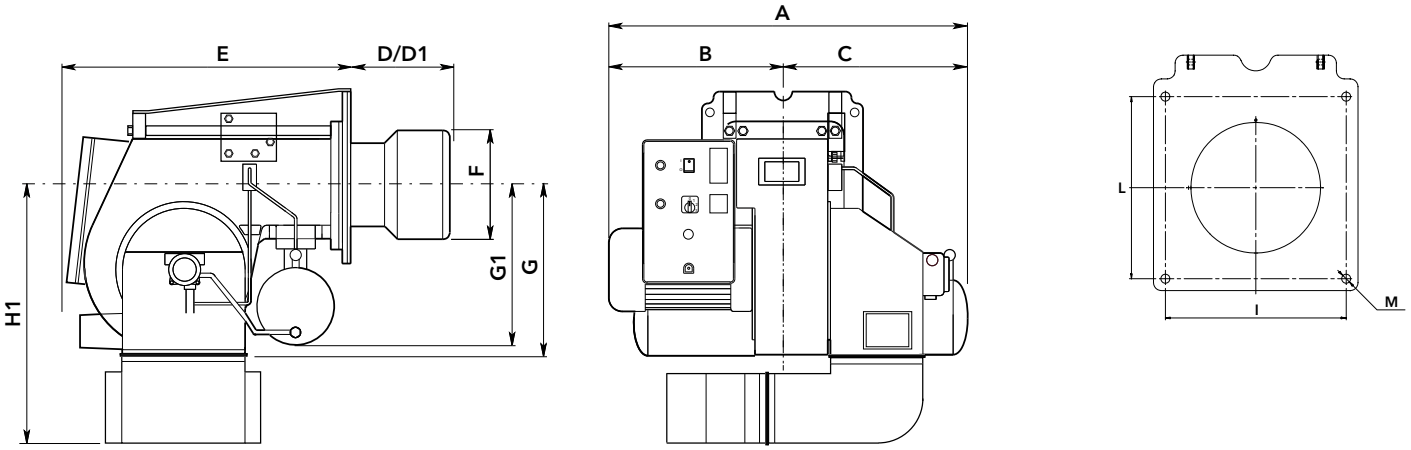
- **Fuel:** heavy oil, viscosity 50°E at 50°C, Hi = 10,5…11,5 kWh/kg
- **Protection level:** IP 42 (IP54 on request)

TECHNICAL DATA



	HO-TRON 6.7200 R		HO-TRON 6.8500 R		HO-TRON 6.10500 R		HO-TRON 6.13000 R	
Operating range	2417 - 7500 kW		2750 - 8500 kW		3300 - 10500 kW		4367 - 12500 kW	
Fuel flow	214 - 660 kg/h		243 - 748 kg/h		292 - 924 kg/h		386 - 1099 kg/h	
Nozzles	according to required power		according to required power		according to required power		according to required power	
Control box	LAL 2.25		LAL 2.25		LAL 2.25		LAL 2.25	
Fan motor	2800 rpm - 230/400 V 50 Hz - 15 kW		2800 rpm - 230/400 V 50 Hz - 18,5 kW		2800 rpm - 230/400 V 50 Hz - 22 kW		2800 rpm - 230/400 V 50 Hz - 37 kW	
Pump	TA 5C		TA 5C		T5 + TV		T5 + TV	
Resistance on pre-heaters	30 kW		30 kW		44 kW		60 kW	
Head lenght	KN	KL	KN	KL	KN	KL	KN	KL
Complete burner code	**on request**	**on request**	**3143166**	**on request**	**on request**	**on request**	**3142911**	**on request**

DIMENSIONS (mm)

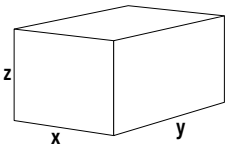


Model	A	B	C	D	E	F	G	G1	H1*	I	L	M
HO-TRON 6.7200	1390	660	730	525	1240	385	775	520	1270	460	460	M20
HO-TRON 6.8500	1480	660	820	535	1240	430	775	520	1270	460	460	M20
HO-TRON 6.10500	1505	685	820	535	1240	460	775	520	1270	460	460	M20
HO-TRON 6.13000	1750	800	950	535	1410	460	775	900	1270	460	460	M20

* optional silencer

PACKAGING

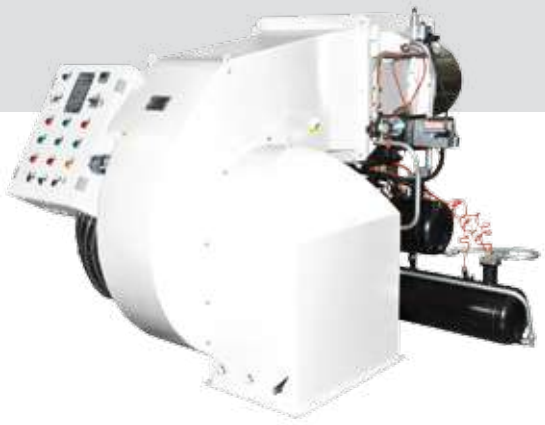
The complete burner with combustion head is delivered in a single wooden box with flexible hoses and operating manual including electrical terminal diagram and spare parts list.



Models	Dimensions (mm)		
	X	Y	Z
HO-TRON 6 R	2400	1800	1600

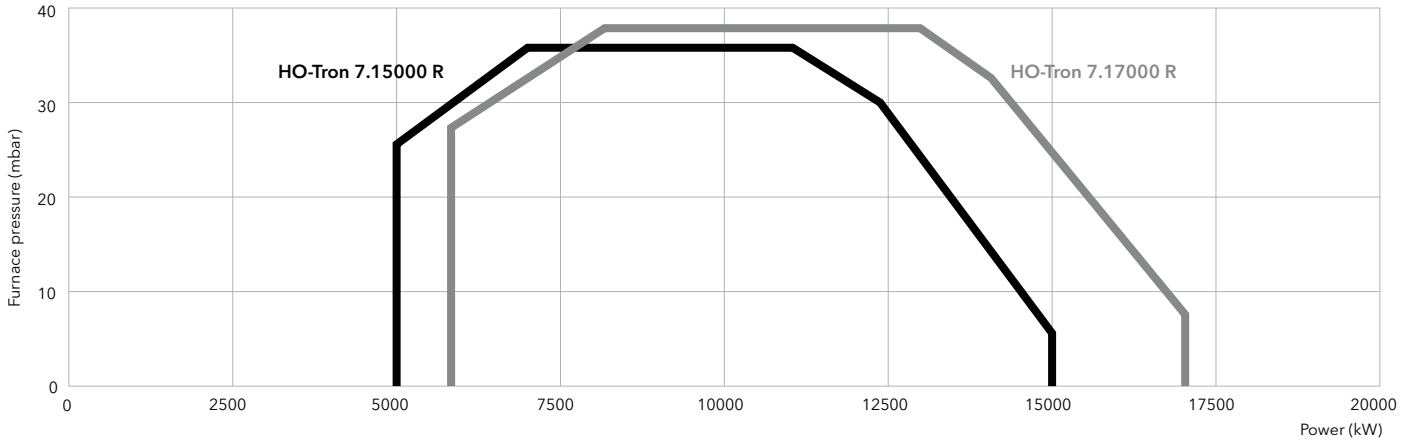
HO-TRON 7 R

5000 ... 17000 kW
2 stage progressive/modulating mechanical



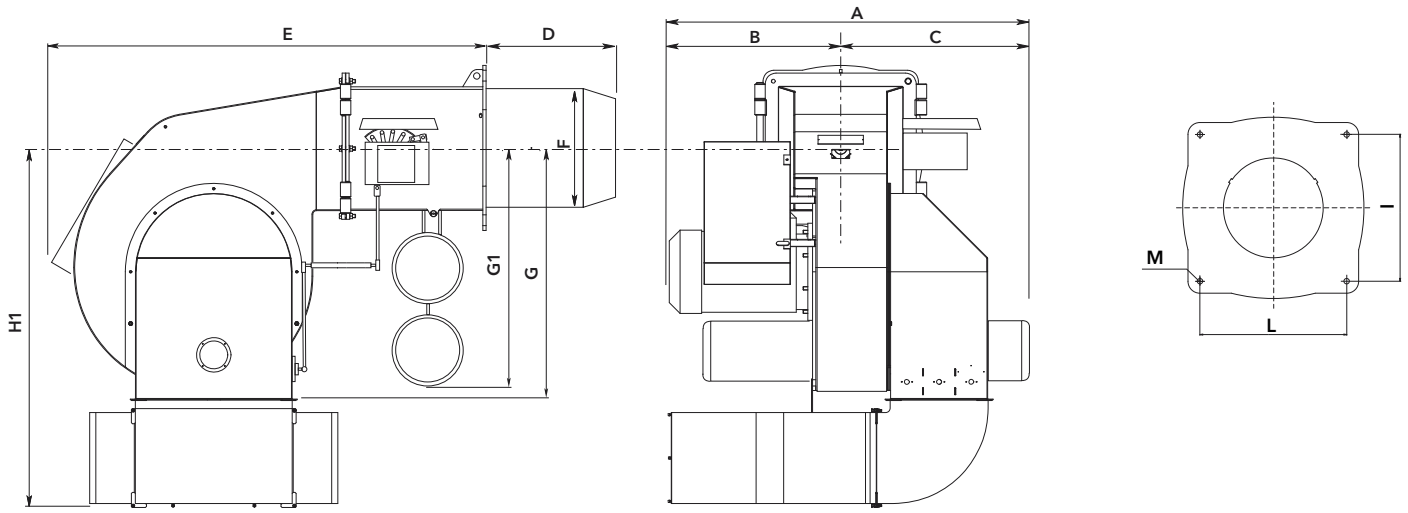
- **Fuel:** heavy oil, viscosity 50°E at 50°C, Hi = 10,5…11,5 kWh/kg
- **Protection level:** IP 42 (IP54 on request)

TECHNICAL DATA



	HO-TRON 7.15000 R		HO-TRON 7.17000 R	
Operating range	5000 - 15000 kW		5700 - 17000 kW	
Fuel flow	440 - 1319 kg/h		500 - 1495 kg/h	
Nozzles	according to required power		according to required power	
Control box	LAL 1.25		LAL 1.25	
Fan motor	2800 rpm - 230/400 V - 50 Hz - 45 kW		2800 rpm - 230/400 V - 50 Hz - 55 kW	
Pump	T5 + TV		T5 + TV	
Resistance on pre-heaters	75 kW		75 kW	
Head lenght	KN	KL	KN	KL
Complete burner code	**on request**	**on request**	**on request**	**on request**

DIMENSIONS (mm)

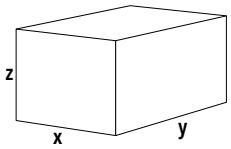


Model	A	B	C	D	E	F	G	G1	H1*	I	L	M
HO-TRON 7.15000	1700	800	900	590	1910	550	1320	1220	1670	620	620	M20
HO-TRON 7.17000	1770	870	900	590	1910	550	1320	1220	1670	620	620	M20

* optional silencer

PACKAGING

The complete burner with combustion head is delivered in a single wooden box with flexible hoses and operating manual including electrical terminal diagram and spare parts list.



Models	Dimensions (mm)		
	X	Y	Z
HO-TRON 7 R	2800	2100	2000

GHO-TRON

Monoblock burners from 414 to 17000 kW
Dual fuel (gas/heavy oil)

GHO-TRON burners are suitable to work with natural gas or heavy oil up to 50°E at 50°C.

This dual fuel range is available in two different configurations:
- two stage version with electric servomotor and integrated system for the regulation of air and fuel for the model GHO-TRON 3
- two stage progressive version with electrical servomotor and double adjustable mechanical cam that allows air and fuel fine tuning (for models up to 17 MW).

GHO-TRON burners feature an adjustable combustion head for easy regulation and matching with different combustion chambers.
All burners are characterized by easy access to the combustion component in order to simplify the maintenance operations.

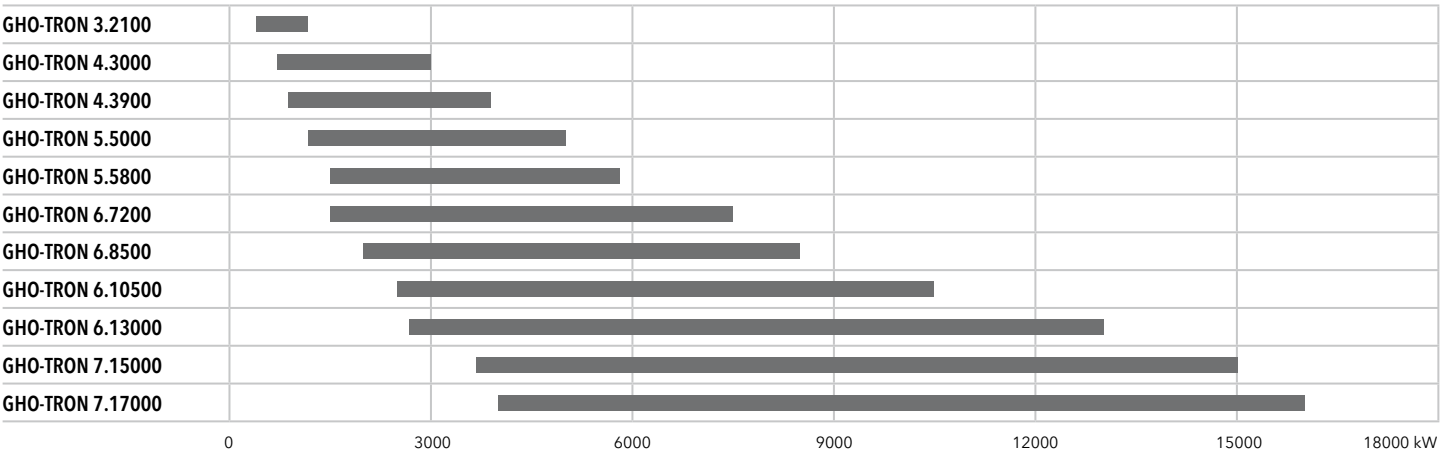
All the models are fitted with special components for heavy oil combustion.
Models starting from GHO-TRON 3 are equipped with digital thermoregulator integrated on the front panel to grant temperature stability of the fuel. All the burners of the series have an heavy oil electric heating system on board and, startin from GHO-TRON 6, gas pilot included with separate supply line.

Configurated and special version on request for selected type of applications and fuel characteristics.

MAIN TECHNICAL FEATURES

- Two stages and two stage progressive/modulating mechanical forced draught burners
- Electronic version available on request
- Fuels:
  – natural gas, Hi = 6,99 … 11,39 kWh/Nm^3
  – heavy oil, viscosity 50°E at 50°C, net calorific value 10,97 kWh/kg
- Two combustion head lengths available
- Gun type architecture:
  – separated forced draught fan;
  – optimal accessibility;
  – easy maintenance;
  – secured burner head adjustments;
  – closing of the air flap on burner shut-down
- Separated motor-pump on board
- Electrical heavy oil heater (oil supply to the burner at 80°C and 3 bar)
- Additional heating on the pipes and the valves, into the pump and the nozzle holder
- Closing of the air flap on burner shut-down
- Complete electrical equipment in a switch cabinet mounted on the burner with control panel
- Products are in compliance with EN267 and 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

RANGE OVERVIEW

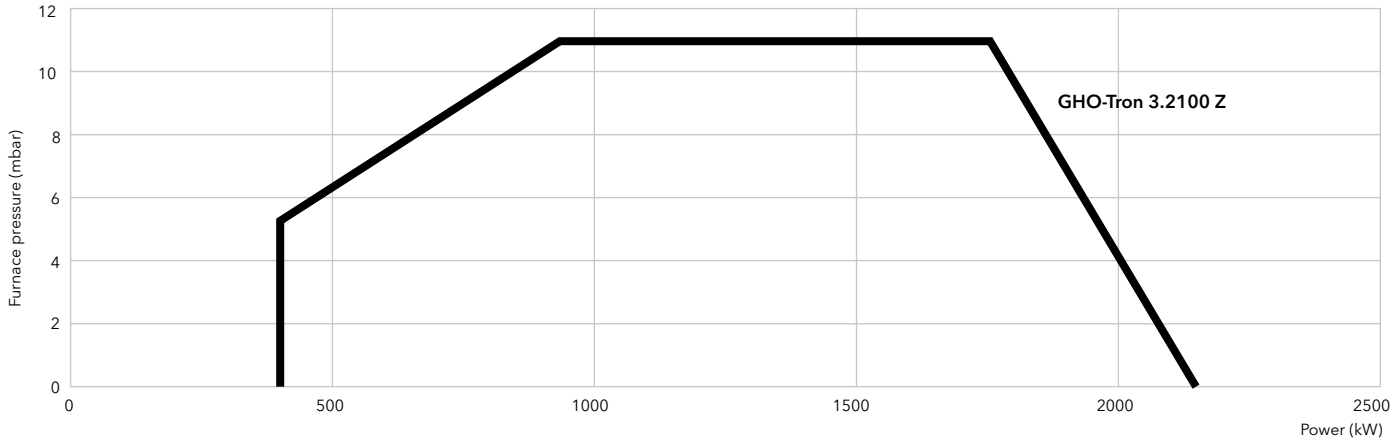


GHO-TRON 3 Z

414 ... 2150 kW
2 stages

- **Fuels:** natural gas, Hi = 6,99 … 11,39 kWh/Nm³;
  heavy oil, viscosity 50°E at 50°C, Hi = 10,5…11,5 kWh/kg
- **Emission class:** Low NOx class 2 (≤120 mg/kWh) according to EN676 in gas
- **Protection level:** IP 42 (IP54 on request)

TECHNICAL DATA

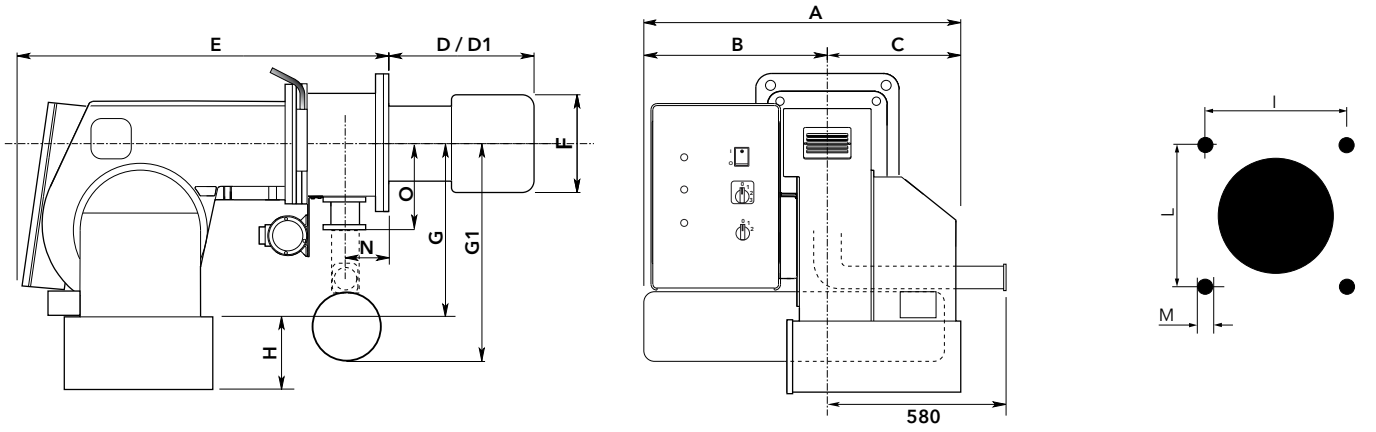


	GHO-TRON 3.2100 Z	
Operating range	414 - 2150 kW	
Fuel flow	36 - 189 kg/h	
Nozzles	according to required power	
Control box	LGB 22	
Fan motor	2800 rpm - 230/400 V - 50 Hz - 4 kW	
Pump	E7 NC	
Resistance on pre-heaters	10,5 kW	
Head lenght	KN	KL
Complete burner code	**on request**	**on request**

Dimensions of gas trains and gas filters: see pag. 210

Heavy Oil

DIMENSIONS (mm)

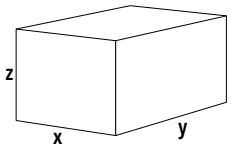


Model	A	B	C	D	D1	E	F	G	G1	H	N	O	I	L	M
GHO-TRON 3 Z	848	530	318	295	455	1150	270	395	600	283	125	250	315	315	M16

* optional silencer

PACKAGING

The complete burner with combustion head is delivered in a single carton box with flexible hoses and operating manual including electrical terminal diagram and spare parts list.



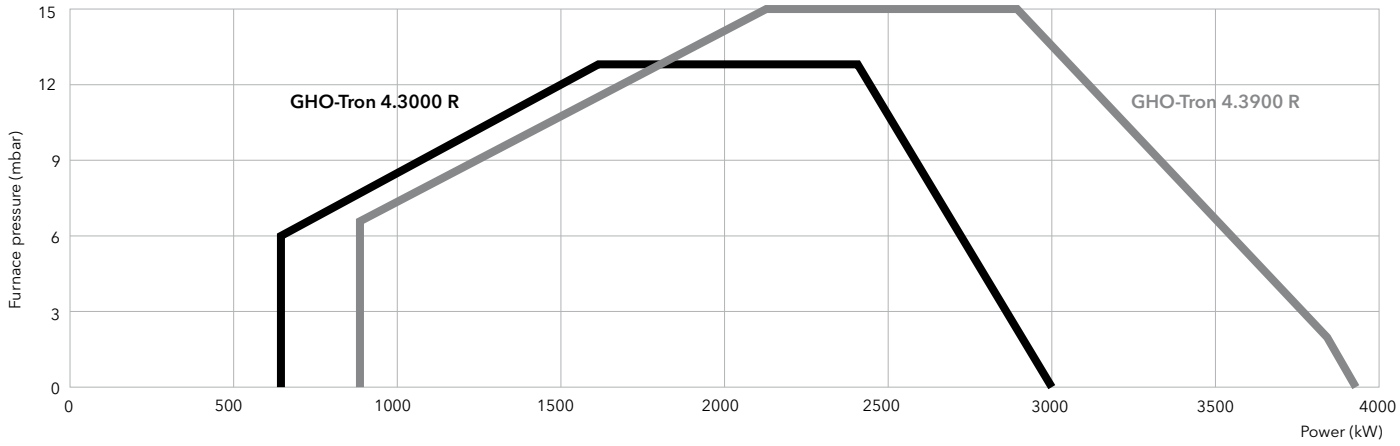
Models	Dimensions (mm)		
	X	Y	Z
GHO-TRON 3 Z	1370	1140	950

GHO-TRON 4 R

650 ... 3900 kW
2 stage progressive/modulating mechanical

- **Fuels:** natural gas, Hi = 6,99 … 11,39 kWh/Nm³;
  heavy oil, viscosity 50°E at 50°C, Hi = 10,5…11,5 kWh/kg
- **Emission class:** Low NOx class 2 (≤120 mg/kWh) according to EN676 in gas
- **Protection level:** IP 42 (IP54 on request)

TECHNICAL DATA

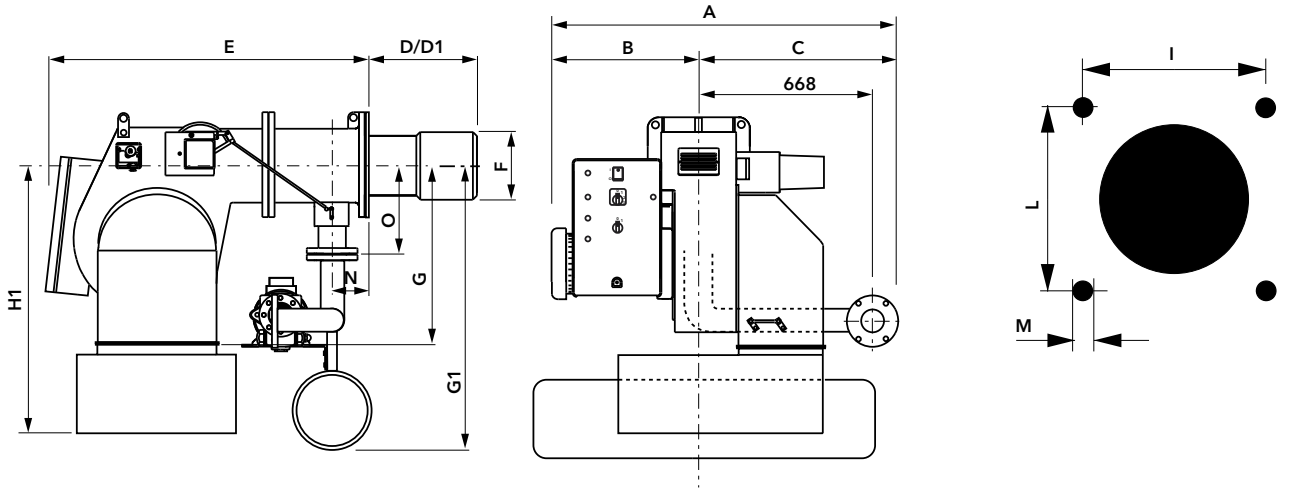


	GHO-TRON 4.3000 R		GHO-TRON 4.3900 R	
Operating range	650 - 3000 kW		875 - 3900 kW	
Fuel flow	57 - 264 kg/h		77 - 343 kg/h	
Nozzles	according to required power		according to required power	
Control box	LFL 1.333		LFL 1.333	
Fan motor	2800 rpm - 230/400 V - 50 Hz - 7,5 kW		2800 rpm - 230/400 V - 50 Hz - 9 kW	
Pump	TA 3C		TA 3C	
Resistance on pre-heaters	18 kW		21 kW	
Head lenght	KN	KL	KN	KL
Complete burner code	**on request**	**on request**	**on request**	**on request**

Dimensions of gas trains and gas filters: see pag. 210

Heavy Oil

DIMENSIONS (mm)

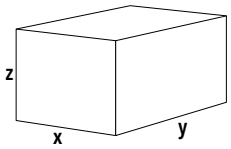


Model	A	B	C	D	D1	E	F	G	G1	H1*	N	O	I	L	M
GHO-TRON 4.3000 R	1288	610	678	330	530	1130	290	471	750	746	195	250	315	315	M16
GHO-TRON 4.3900 R	1288	610	678	345	545	1130	320	471	750	746	195	250	315	315	M16

* optional silencer

PACKAGING

The complete burner with combustion head is delivered in a single wooden box with flexible hoses and operating manual including electrical terminal diagram and spare parts list.



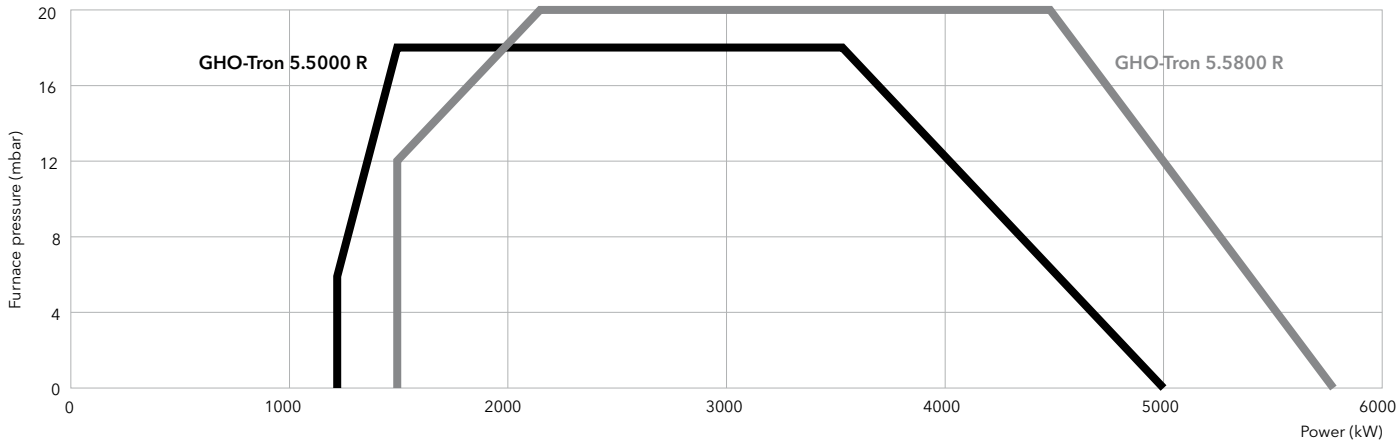
Models	Dimensions (mm)		
	X	Y	Z
GHO-TRON 4 R	1580	1580	1050

GHO-TRON 5 R

1200 ... 5800 kW
2 stage progressive/modulating mechanical

- **Fuels:** natural gas, Hi = 6,99 … 11,39 kWh/Nm^3;
  heavy oil, viscosity 50°E at 50°C, Hi = 10,5…11,5 kWh/kg
- **Emission class:** Low NOx class 2 (≤120 mg/kWh) according to EN676 in gas
- **Protection level:** IP 42 (IP54 on request)

TECHNICAL DATA

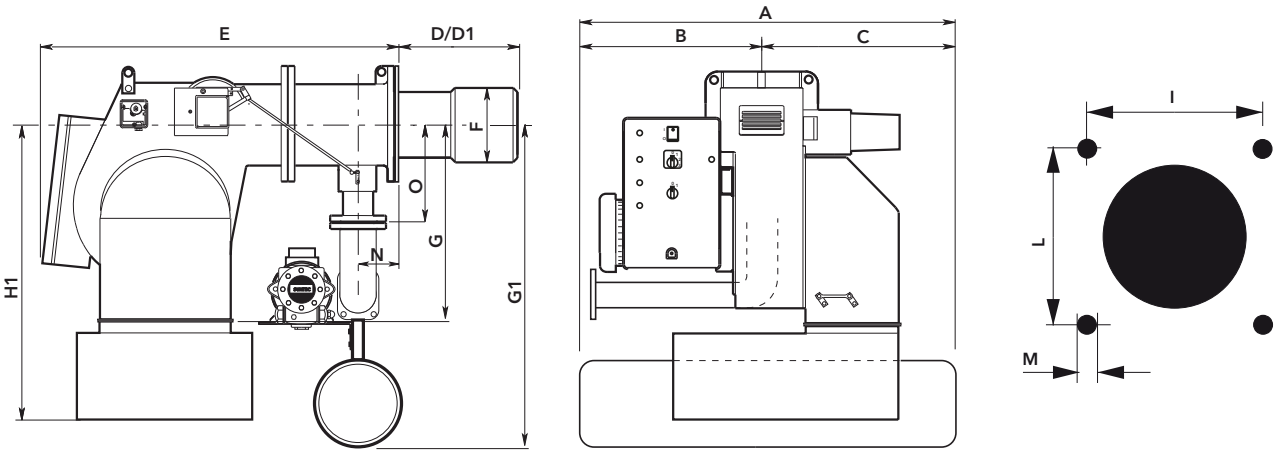


	GHO-TRON 5.5000 R		GHO-TRON 5.5800 R	
Operating range	1200 - 5000 kW		1500 - 5800 kW	
Fuel flow	106 - 440 kg/h		132 - 510 kg/h	
Nozzles	according to required power		according to required power	
Control box	LFL 1.333		LFL 1.333	
Fan motor	2800 rpm - 230/400 V - 50 Hz - 11 kW		2800 rpm - 230/400 V - 50 Hz - 15 kW	
Pump	TA 4C		TA 4C	
Resistance on pre-heaters	24 kW		24 kW	
Head lenght	KN	KL	KN	KL
Complete burner code	**on request**	**on request**	**on request**	**on request**

Dimensions of gas trains and gas filters: see pag. 210

Heavy Oil

DIMENSIONS (mm)

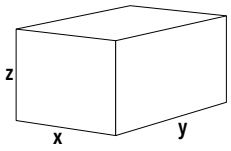


Model	A	B	C	D	D1	E	F	G	G1	H1*	N	O	I	L	M
GHO-TRON 5 R	1358	680	678	354	554	1230	320	570	775	965	195	250	330	330	M16

* optional silencer

PACKAGING

The complete burner with combustion head is delivered in a single wooden box with flexible hoses and operating manual including electrical terminal diagram and spare parts list.



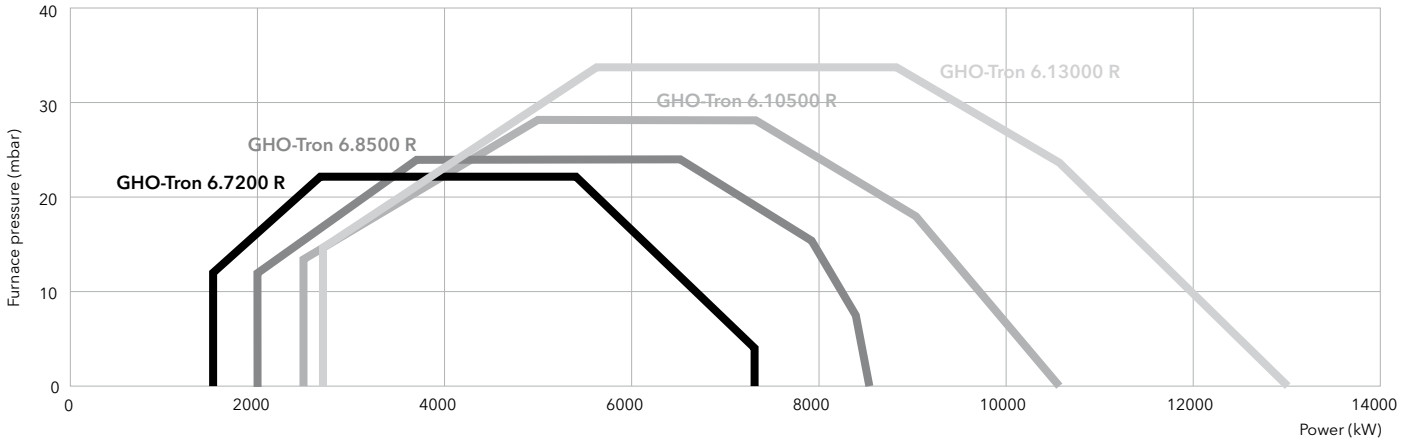
Models	Dimensions (mm)		
	X	Y	Z
GHO-TRON 5 R	1580	1580	1050

GHO-TRON 6 R

1500 ... 13000 kW
2 stage progressive/modulating mechanical

- **Fuels:** natural gas, Hi = 6,99 … 11,39 kWh/Nm³;
  heavy oil, viscosity 50°E at 50°C, Hi = 10,5…11,5 kWh/kg
- **Emission class:** Low NOx class 2 (≤120 mg/kWh) according to EN676 in gas
- **Protection level:** IP 42 (IP54 on request)

TECHNICAL DATA

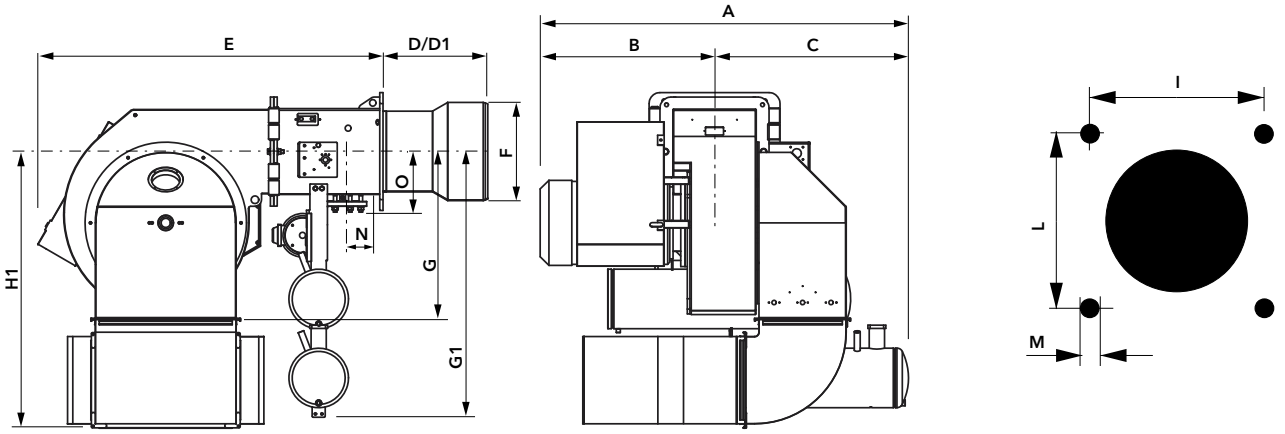


	GHO-TRON 6.7200 R		GHO-TRON 6.8500 R		GHO-TRON 6.10500 R		GHO-TRON 6.13000 R	
Operating range	1500 - 7500 kW		2000 - 8500 kW		2500 - 10500 kW		2700 - 13000 kW	
Fuel flow	132 - 660 kg/h		176 - 750 kg/h		220 - 920 kg/h		240 - 1100 kg/h	
Nozzles	according to required power		according to required power		according to required power		according to required power	
Control box	LFL 1.333		LFL 1.333		LFL 1.333		LFL 1.333	
Fan motor	2800 rpm - 230/400 V 50 Hz - 15 kW		2800 rpm - 230/400 V 50 Hz - 18,5 kW		2800 rpm - 230/400 V 50 Hz - 22 kW		2800 rpm - 230/400 V 50 Hz - 37 kW	
Pump	TA 5C		TA 5C		T5 + TV		T5 + TV	
Resistance on pre-heaters	30 kW		30 kW		44 kW		60 kW	
Head lenght	KN	KL	KN	KL	KN	KL	KN	KL
Complete burner code	**on request**	**on request**	**on request**	**on request**	**on request**	**on request**	**on request**	**on request**

Dimensions of gas trains and gas filters: see pag. 210

Heavy Oil

DIMENSIONS (mm)

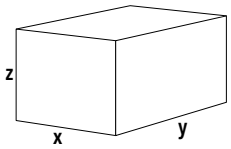


Model	A	B	C	D	E	F	G	G1	H1*	N	O	I	L	M
GHO-TRON 6.7200 R	1370	740	630	470	1640	420	775	850	1270	195	232	460	460	M20
GHO-TRON 6.8500 R	1370	740	630	470	1640	420	775	850	1270	195	232	460	460	M20
GHO-TRON 6.10500 R	1500	740	760	470	1640	420	775	850	1270	195	232	460	460	M20
GHO-TRON 6.13000 R	1700	800	900	470	1640	450	775	1200	1270	195	232	460	460	M20

* optional silencer

PACKAGING

The complete burner with combustion head is delivered in a single wooden box with flexible hoses and operating manual including electrical terminal diagram and spare parts list.



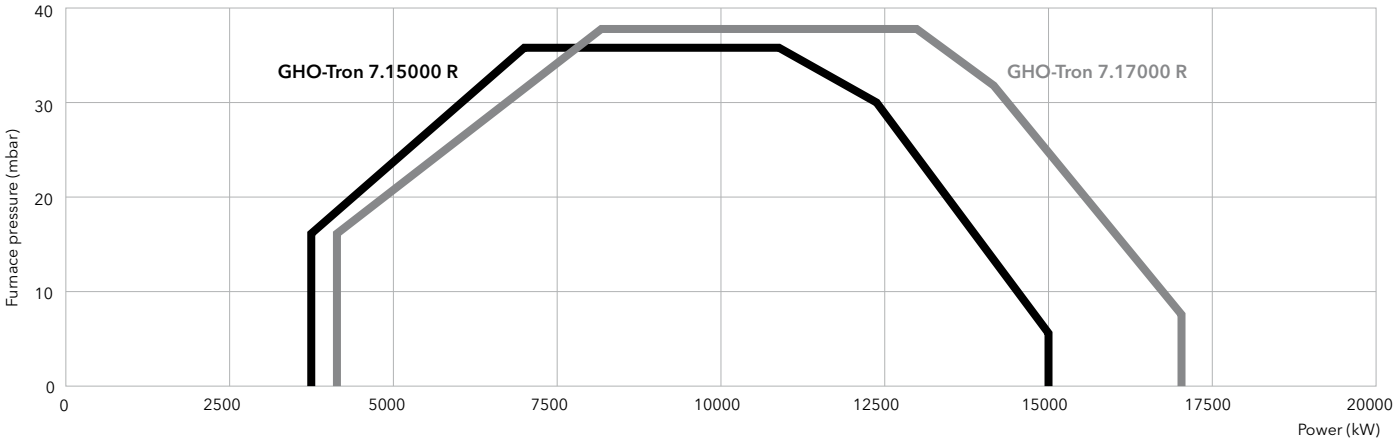
Models	Dimensions (mm)		
	X	Y	Z
GHO-TRON 6 R	2400	1800	1600

GHO-TRON 7 R

3690 ... 17000 kW
2 stage progressive/modulating mechanical

- **Fuels:** natural gas, Hi = 6,99 … 11,39 kWh/Nm³;
  heavy oil, viscosity 50°E at 50°C, Hi = 10,5…11,5 kWh/kg
- **Emission class:** Low NOx class 2 (≤120 mg/kWh) according to EN676 in gas
- **Protection level:** IP 42 (IP54 on request)

TECHNICAL DATA

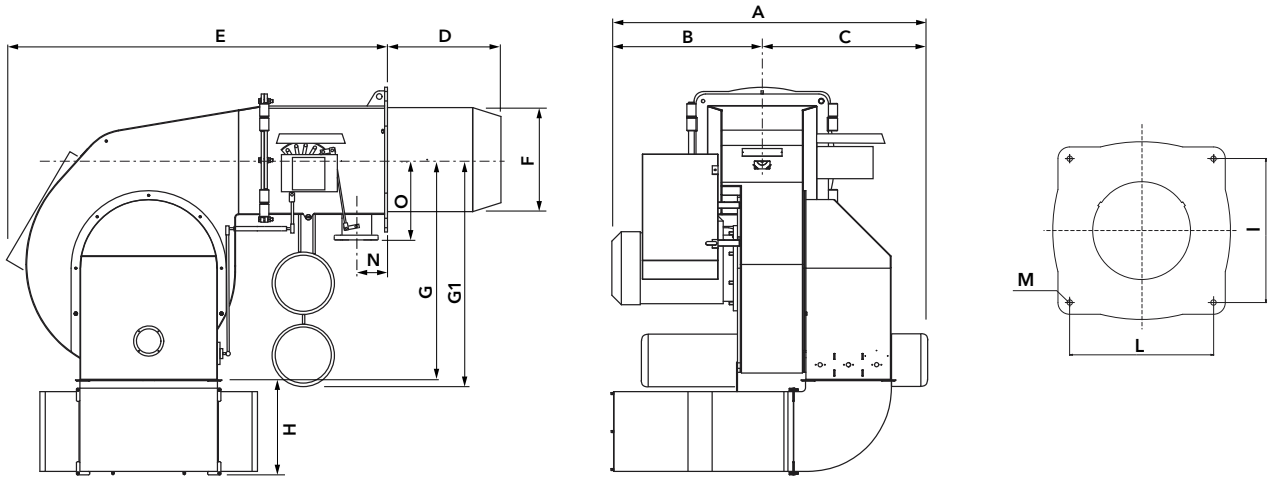


	GHO-TRON 7.15000 R		GHO-TRON 7.17000 R	
Operating range	3690 - 15000 kW		4000 - 17000 kW	
Fuel flow	325 - 1320 kg/h		350 - 1495 kg/h	
Nozzles	according to required power		according to required power	
Control box	LFL 1.333		LFL 1.333	
Fan motor	2800 rpm - 230/400 V - 50 Hz - 45 kW		2800 rpm - 230/400 V - 50 Hz - 55 kW	
Pump	T5 + TV		T5 + TV	
Resistance on pre-heaters	75 kW		75 kW	
Head lenght	KN	KL	KN	KL
Complete burner code	**on request**	**on request**	**on request**	**on request**

Dimensions of gas trains and gas filters: see pag. 210

Heavy Oil

DIMENSIONS (mm)

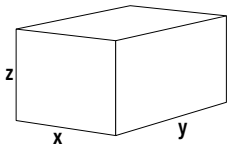


Model	A	B	C	D	E	F	G	G1	H*	N	O	I	L	M
GHO-TRON 7 R	1948	860	1088	590	1910	550	1167	1220	530	210	320	620	620	M20

* optional silencer

PACKAGING

The complete burner with combustion head is delivered in a single wooden box with flexible hoses and operating manual including electrical terminal diagram and spare parts list.



Models	Dimensions (mm)		
	X	Y	Z
GHO-TRON 7 R	2800	2100	2000

DUOBLOCK RANGE

Duoblock burners from 230 to 80000 kW

Gas, light oil, heavy oil and dual fuel operation

All the benefits of the separate ventilation

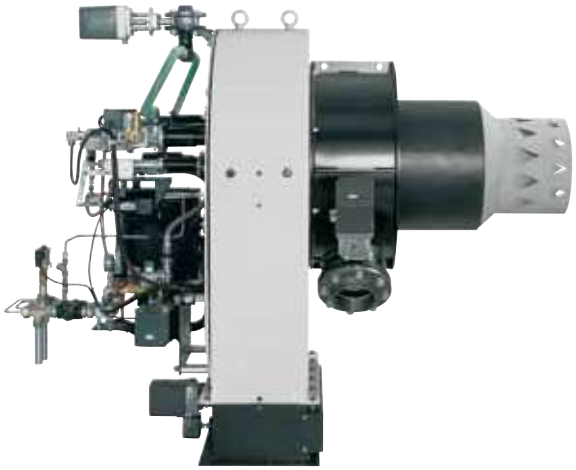
In contrast to monoblock burners, duoblock burners are made up of two units, or blocks, as the name implies: the burner head with the air inlet, and the separately-installed fan; the two units are connected via an air duct.

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.

ELCO duoblock burners are designed to satisfy the widest range of needs and can be applied to the most various type of civil and industrial solutions like fire-tube boilers, water-tube boilers, dryers and melting furnaces.

These burners enable installation to realize a modular and flexible combustion solution with a high degree of personalization. This resultes in a high performance installations at the lowest running cost.
The burners are built to be connected to an external air supply and can be supplied together with built-in or separate control panel, electronic or mechanical adjustment, flue gas recirculation, heavy oil pump unit and heating unit.



ELCO is able to offer an extremely wide range of industrial duoblock burners thanks to three different series, EK-DUO, RPD and D-TRON, covering a power range from 230 kW up to 80 MW.

This range of burners is able to fulfill high capacity and high turndown needs and allows installation in very high pressurized combustion chambers.

All duoblock models can work with pre-heated combustion air up to 200°C and can be used in order to achieve greater values of efficiency.

D-TRON

MAIN TECHNICAL FEATURES

- Two stages and progressive/modulating forced draught burners, designed to be connected to an external air supply
- Fuels:
  – natural gas, Hi = 6,99 … 11,39 kWh/Nm^3;
  – light oil, viscosity 6 mm^2/s at 20°C, Hi = 11,86 kWh/kg;
  – heavy oil, viscosity 20…350 mm^2/s at 50°C;
  – other fuels on request;
- Electrical switch cabinet manufactured in different configurations assembled on the burner or delivered separately and includes the burner control:
  – control box for burner operation sequences;
  – contactors and remote overload cut-out for control of the fan unit;
  – fuse to protect the auxiliary equipment;
  – switches, warning and information lights, manual power control;
  – ready to accept PID power regulator (option)
- Gas train factory assembled and tested for tightness and electrical security
- Electronic version available on request
- Products are in compliance with EN 267 and EN 676 European standards

EK-DUO

MAIN TECHNICAL FEATURES

- Progressive/modulating forced draught burners, designed to be connected to an external air supply
- Fuels:
  – natural gas, Hi = 6,99 … 11,39 kWh/Nm^3
  – light oil, viscosity 6 mm^2/s at 20°C, Hi = 11,86 kWh/kg
  – other fuels on request
- Flame tube length according to installation
- Secured burner head adjustments during maintenance
- Closing of the air damper on burner shutdown
- Control box: built-in or external according to customer requirements
- Gas train factory assembled and tested for tightness and electrical security
- Products are in compliance with EN 267 and EN 676 European standards

RPD

MAIN TECHNICAL FEATURES

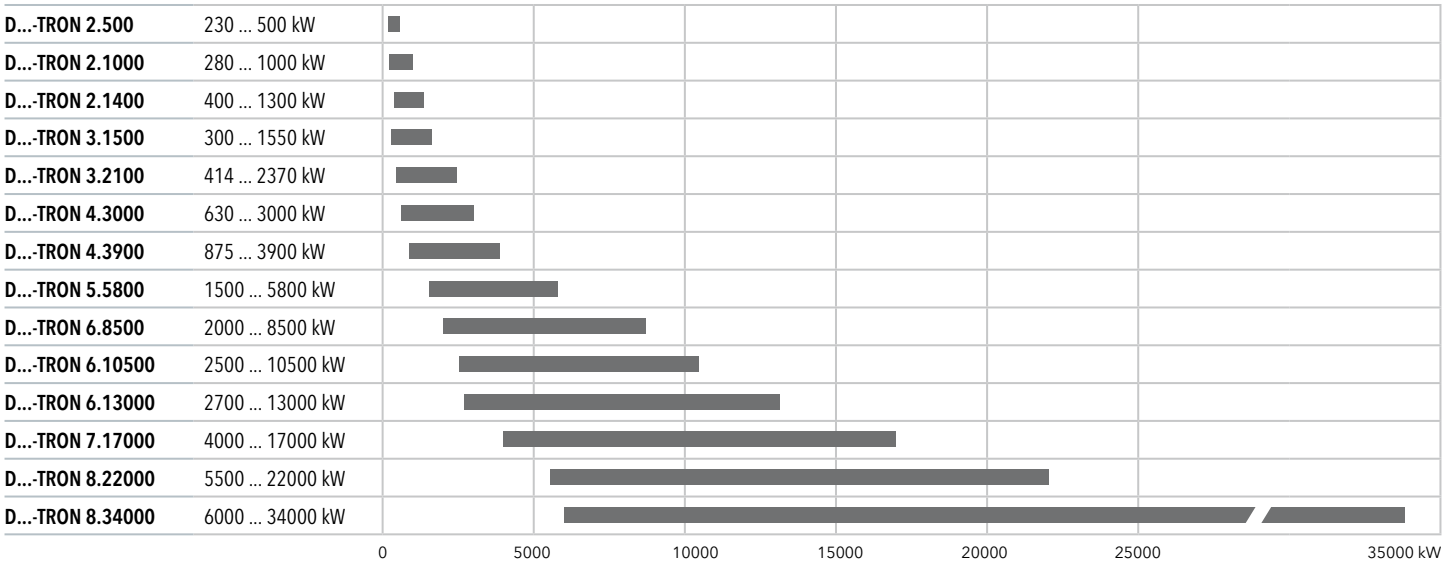
- Progressive/modulating forced draught burner with register, designed to be connected to an external air supply
- Fuels:
  – natural gas, Hi = 6,99 … 11,39 kWh/Nm^3;
  – light oil, viscosity 6 mm^2/s at 20°C, Hi = 11,86 kWh/kg;
  – heavy oil, viscosity 20…350 mm^2/s at 50°C;
  – other fuels on request;
  – co-combustion of various fuels or to eliminate liquid waste on request
- Air/gas ratio with Etamatic digital control box or with mechanical compound
- Adjustable flame length with air registers
- Flame tube length according to installation
- Closing of the air damper on burner shutdown
- Control box: built-in or external according to customer requirements
- Gas train factory assembled and tested for tightness and electrical security
- Products are in compliance with EN267 and EN676 European standards

D-TRON

230 ... 34000 kW
2 stages and 2 stage progressive/modulating mechanical or electronic

- **Fuels:** – natural gas, Hi = 6,99 … 11,39 kWh/Nm³;
  – light oil, viscosity 6 mm²/s at 20°C, Hi = 11,86 kWh/kg;
  – heavy oil, viscosity 20…350 mm²/s at 50°C;
  – other fuels on request;
- **Protection level:** IP 41 (IP 54 and IP 65 on request)

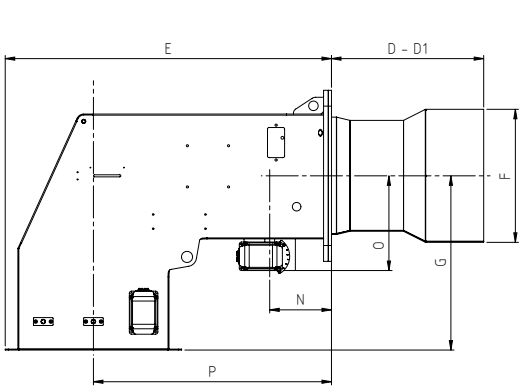
RANGE OVERVIEW

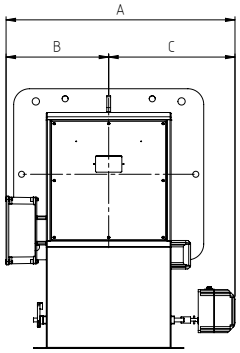


AVAILABLE CONFIGURATIONS

Model	Fuel					Operation		
	Gas DG-TRON	Gas/light oil DGL-TRON	Light oil DL-TRON	Heavy oil DO-TRON	Gas/heavy oil DGO-TRON	2 stages	Mechanical	Electronic
D...-TRON 2.500	●					●	●	
D...-TRON 2.1000	●	●				●	●	●
D...-TRON 2.1400		●				●		
D...-TRON 3.1500	●						●	
D...-TRON 3.2100	●	●	●	●		●	●	●
D...-TRON 4.3000	●	●	●	●	●		●	●
D...-TRON 4.3900	●	●	●	●	●		●	●
D...-TRON 5.5800	●	●	●	●	●		●	●
D...-TRON 6.8500	●	●	●	●	●		●	●
D...-TRON 6.10500	●	●	●	●	●		●	●
D...-TRON 6.13000	●	●	●	●	●		●	●
D...-TRON 7.17000	●	●	●	●	●		●	●
D...-TRON 8.22000	●	●	●	●	●		●	●
D...-TRON 8.34000	●	●	●	●	●		●	●

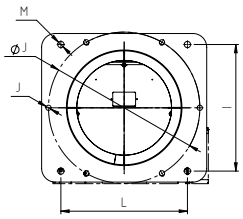
DIMENSIONS (mm)



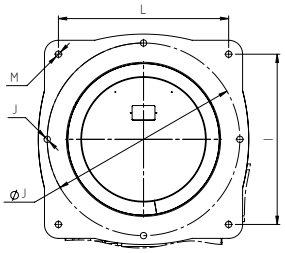


Connecting flange

D...-TRON 2...6



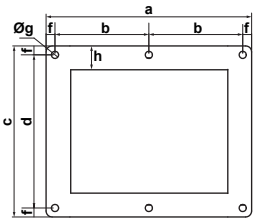
D...-TRON 7-8



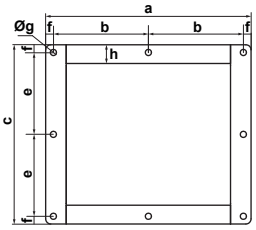
Model	A	B	C	D	D1	E	F	G	I	L	M	Ø J	J	N	O	P
D...-TRON 2.500	523	216	307	174	394	556	160	290	190	190	4xM10	-	-	139	175*	405
D...-TRON 2.1000	523	216	307	174	394	556	190	290	190	190	4xM10	-	-	139	175*	405
D...-TRON 2.1400	523	216	307	342	492	556	200	290	190	190	4xM10	-	-	139	175*	405
D...-TRON 3.1500	523	216	307	342	492	556	200	290	190	190	4xM10	-	-	139	175*	405
D...-TRON 3.2100	543	234	309	348	548	620	270	375	270	270	4xM16	-	-	125	250	448
D...-TRON 4.3000	605	265	340	330	530	728	290	392	315	315	4xM16	-	-	188	250	528
D...-TRON 4.3900	605	265	340	365	565	728	320	392	315	315	4xM16	-	-	188	250	528
D...-TRON 5.5800	617	271	346	373	573	810	360	404	330	330	4xM16	-	-	195	250	575
D...-TRON 6.8500	723	324	399	470	-	1030	420	550	460	460	4xM20	550	4xM16	195	299	752
D...-TRON 6.10500	723	324	399	470	-	1030	420	550	460	460	4xM20	550	4xM16	195	299	752
D...-TRON 6.13000	723	324	399	470	-	1030	450	550	460	460	4xM20	550	4xM16	195	299	752
D...-TRON 7.17000	899	412	487	590	-	1480	551	670	619	619	4xM20	700	4xM20	200	390	1115
D...-TRON 8.22000	1080	501	579	530	-	1549	626	760	800	800	4xM20	1130	4xM20	210	412	1084
D...-TRON 8.34000	1080	501	579	530	-	1549	626	760	800	800	4xM20	1130	4xM20	210	412	1084

Air duct

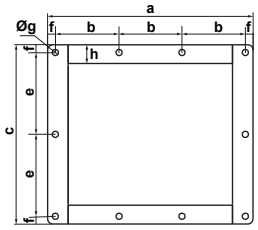
D...-TRON 2-3



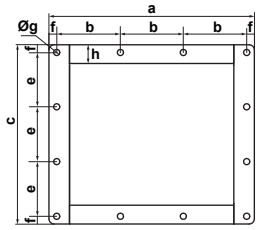
D...-TRON 4-5



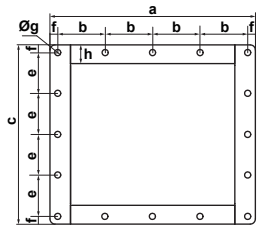
D...-TRON 6



D...-TRON 7



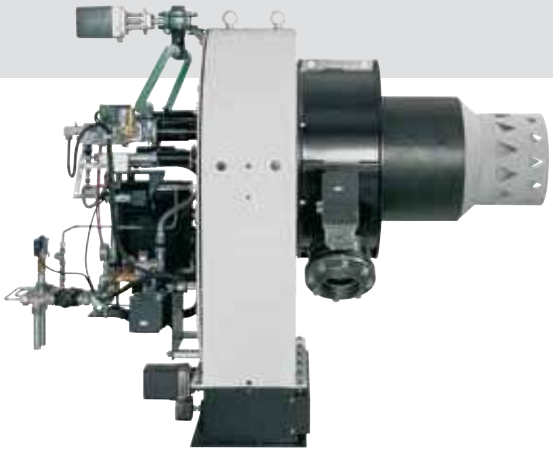
D...-TRON 8



Model	a	b	c	d	e	f	Øg	h
D...-TRON 2.500	303	136,5	252	222	-	15	6x R12	40
D...-TRON 2.1000	303	136,5	252	222	-	15	6x R12	40
D...-TRON 2.1400	303	136,5	252	222	-	15	6x R12	40
D...-TRON 3.1500	303	136,5	252	222	-	15	6x R12	40
D...-TRON 3.2100	345	157,5	287	257	-	15	6x R12	40
D...-TRON 4.3000	400	185	349	-	159,5	15	8x R12	40
D...-TRON 4.3900	400	185	349	-	159,5	15	8x R12	40
D...-TRON 5.5800	470	220	361	-	165,5	15	8x R12	40
D...-TRON 6.8500	557	173	474	-	218	19	10x R14	43
D...-TRON 6.10500	557	173	474	-	218	19	10x R14	43
D...-TRON 6.13000	557	173	474	-	218	19	10x R14	43
D...-TRON 7.17000	730	230,7	650	-	204	19	12x R14	43
D...-TRON 8.22000	930	223	828	-	197,5	19	16x R14	40
D...-TRON 8.34000	930	223	828	-	197,5	19	16x R14	40

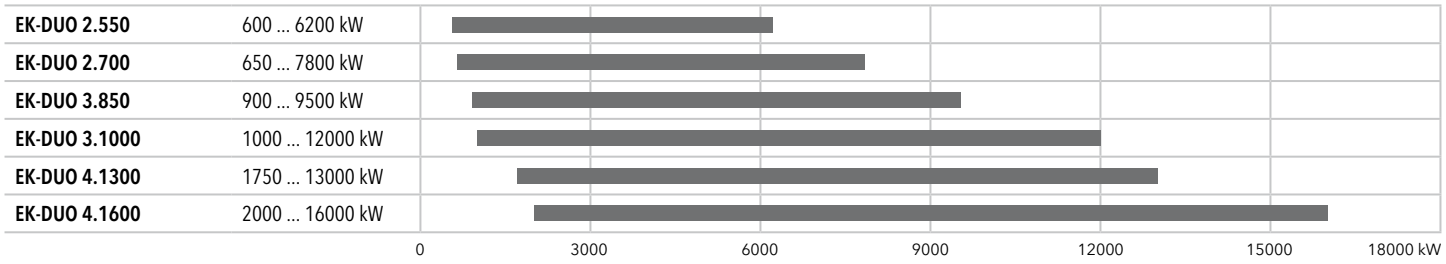
EK-DUO

600 ... 16000 kW
2 stage progressive/modulating electronic



- **Fuels:** – natural gas, Hi = 6,99 … 11,39 kWh/Nm³;
  – light oil, viscosity 6 mm²/s at 20°C, Hi = 11,86 kWh/kg;
  – other fuels on request
- **Emission class:** – Low NOx class 3 (≤80 mg/kWh) according to EN676 in gas and
  – Low NOx class 3 (≤120 mg/kWh) according to EN267 in light oil
- **Protection level:** IP 41 (IP 54 and IP 65 on request)

RANGE OVERVIEW

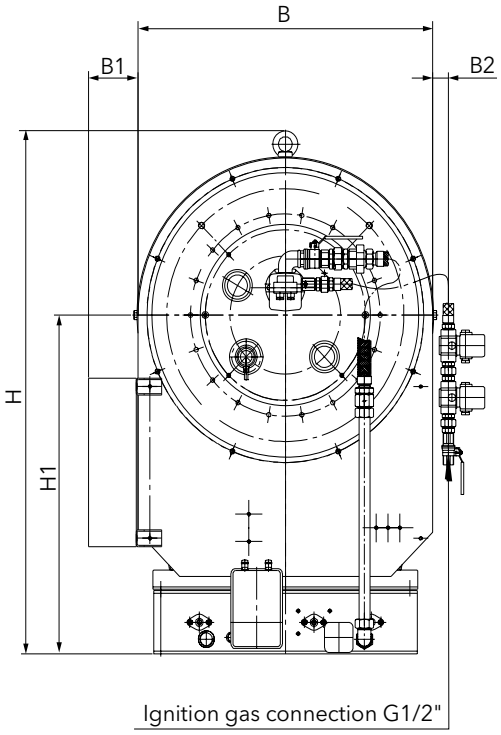


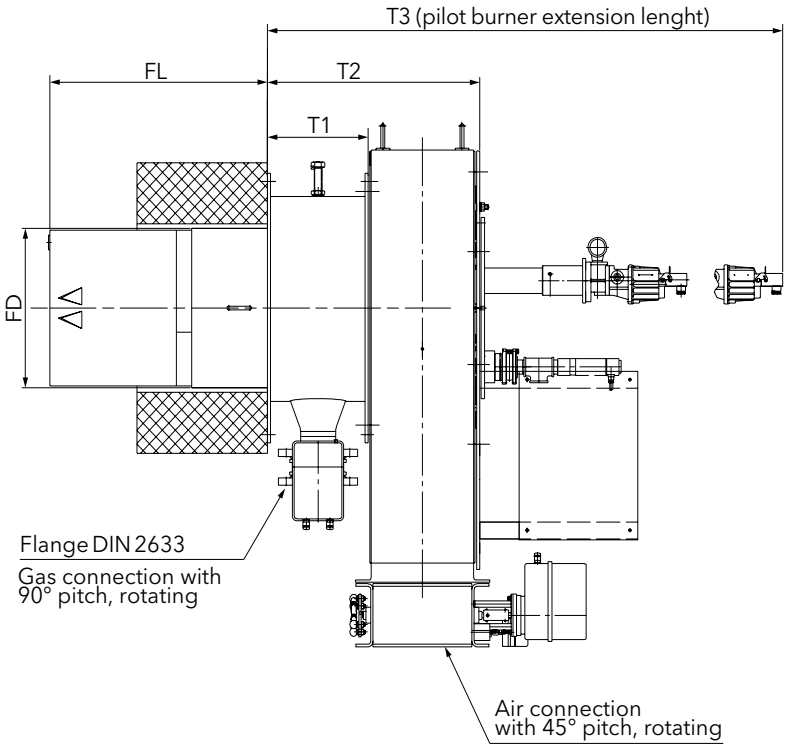
AVAILABLE CONFIGURATIONS

Model	Fuel					Operation	
	Gas	Gas/Light oil	Light oil	Heavy oil	Gas/Heavy oil	Mechanical	Electronic
EK-DUO 2.550	•	•	•				•
EK-DUO 2.700	•	•	•				•
EK-DUO 3.850	•	•	•				•
EK-DUO 3.1000	•	•	•				•
EK-DUO 4.1300	•	•	•				•
EK-DUO 4.1600	•	•	•				•

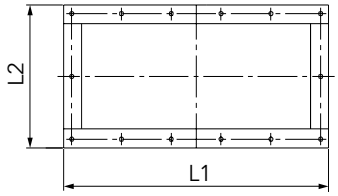
GEM | Variatron | LOW NOx CLASS 3 | FGR

DIMENSIONS (mm)

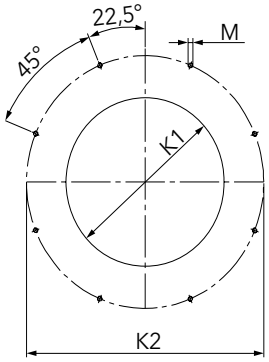




Air connection flange



Details of boiler front plate



Model	Weight (kg)	Gas connection	H	H1	B	B1	B2*	T1	T2	T3*	FL*	FD*	L1	L2	K1	K2	M
EK-DUO 2.550	320 ... 400	DN80	1241	804	750	125	40	255	537	2005 ... 2150	320 ... 570	378	670	340	400	600	M12
EK-DUO 2.700	320 ... 400	DN80	1241	804	750	125	40	255	537	2005 ... 2150	320 ... 570	378	670	340	400	600	M12
EK-DUO 3.850	400 ... 470	DN80	1481	944	950	120	40	290	622	1810 ... 2390	350 ... 590	441 ... 456	827	386	480	690	M12
EK-DUO 3.1000	400 ... 470	DN80	1481	944	950	120	40	290	622	1810 ... 2390	350 ... 590	441 ... 456	827	386	480	690	M12
EK-DUO 4.1300	400 ... 420	DN100	1491	929	1000	122	40	420	802	2600 ... 2770	350 ... 620	506	840	440	525	725	M20
EK-DUO 4.1600	400 ... 420	DN100	1491	929	1000	122	40	420	802	2600 ... 2770	350 ... 620	506	840	440	525	725	M20

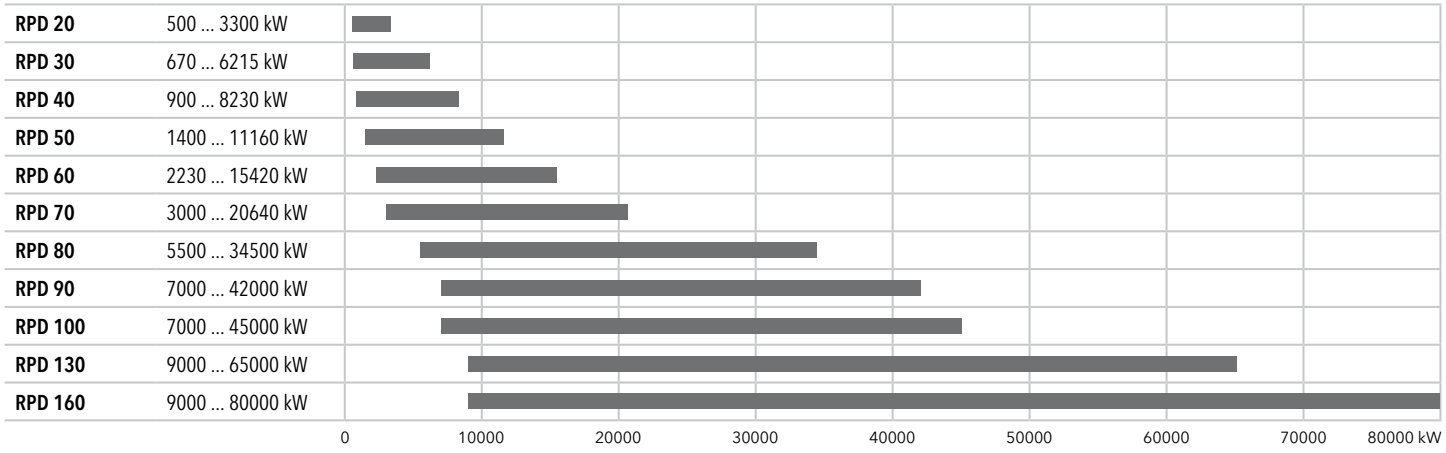
*: value dependent on design variant

RPD

500 ... 80000 kW
2 stage progressive/modulating mechanical or electronic

- **Fuels:** – natural gas, Hi = 6,99 … 11,39 kWh/Nm³;
  – light oil, viscosity 6 mm²/s at 20°C, Hi = 11,86 kWh/kg;
  – heavy oil, viscosity 20…350 mm²/s at 50°C;
  – other fuels on request;
  – co-combustion of various fuels or to eliminate liquid waste on request
- **Emission class:** – Low NOx class 3 (≤80 mg/kWh) or class 2 (≤120 mg/kWh) according to EN676 in gas;
  – Low NOx class 3 (≤120 mg/kWh) or class 2 (≤185 mg/kWh) according to EN267 in light oil
- **Protection level:** IP 41 (IP 54 and IP 65 on request)

RANGE OVERVIEW

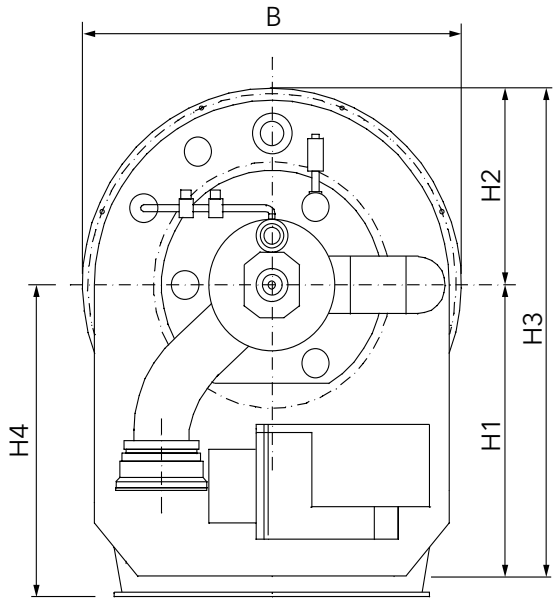


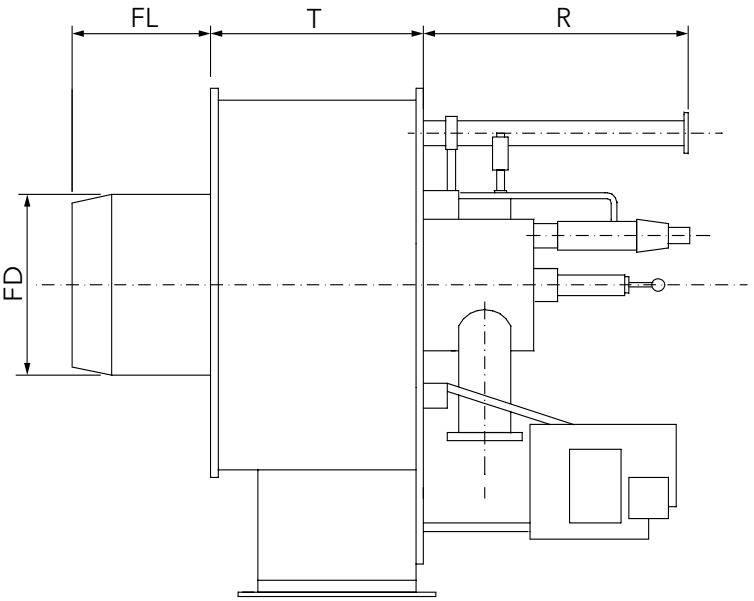
AVAILABLE CONFIGURATIONS

Model	Fuel					Operation	
	Gas	Gas/Light oil	Light oil	Heavy oil	Gas/Heavy oil	Mechanical	Electronic
RPD 20	•	•	•	•	•	•	•
RPD 30	•	•	•	•	•	•	•
RPD 40	•	•	•	•	•	•	•
RPD 50	•	•	•	•	•	•	•
RPD 60	•	•	•	•	•	•	•
RPD 70	•	•	•	•	•	•	•
RPD 80	•	•	•	•	•	•	•
RPD 90	•	•	•	•	•	•	•
RPD 100	•	•	•	•	•	•	•
RPD 130	•	•	•	•	•	•	•
RPD 160	•	•	•	•	•	•	•

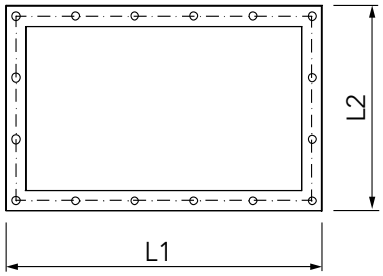
GEM | Variatron | LOW NOx CLASS 3 | FGR

DIMENSIONS (mm)

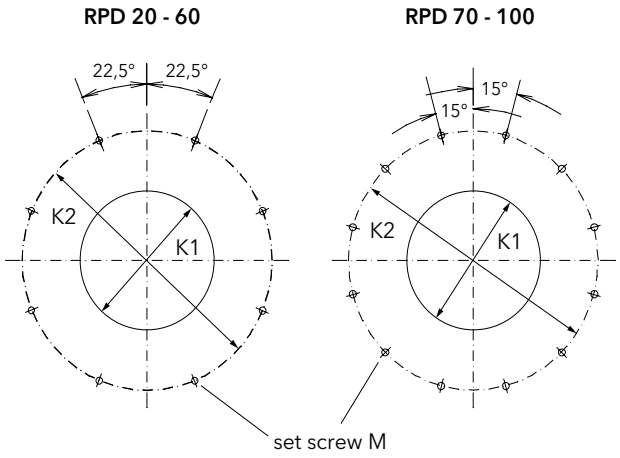




Air connection flange



Details of boiler front plate

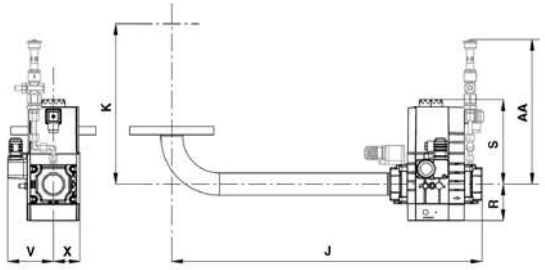


Model	Weight (kg)	Gas connection	H1	H2	H3	H4	B	T	R	FL	FD	L1	L2	K1	K2	M
RPD 20	300 ... 430	Rp2"	385	265	650	425	530	325	-	250	260	510	316	270	500	M10
RPD 30	300 ... 430	Rp3"	620	373	993	650	830	416	1265	317	371	670	410	385	790	M12
RPD 40	350 ... 450	Rp3"	620	373	993	650	830	416	1265	442	409	670	410	423	790	M12
RPD 50	450 ... 600	Rp5"	675	475	1150	740	1030	535	1743	370	456	830	506	470	990	M12
RPD 60	500 ... 640	Rp5"	700	497	1197	825	1080	622	1760	312	506	840	560	520	1040	M12
RPD 70	700 ... 900	Rp5"	780	580	1360	900	1240	731	2010	469	626	1026	690	640	1200	M12
RPD 80	900 ... 1200	Rp8"	820	675	1495	1000	1450	860	2320	600	710	1192	790	740	1400	M12
RPD 90	1100 ... 1400	Rp8"	905	850	1755	1100	1800	890	2720	810	870	1390	832	883	1750	M12
RPD 100	1150 ... 1450	Rp8"	905	850	1755	1100	1800	890	2720	810	920	1390	832	935	1750	M12
RPD 130	value dependent on design variant															
RPD 160	value dependent on design variant															

*: value dependent on design variant

Gas train for EK EVO 6/7 and NEXTRON N6/N7 (EN676 configuration)

DUNGS



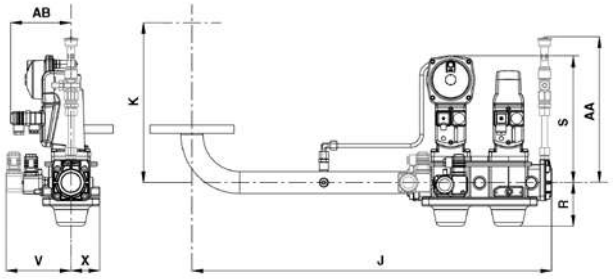
DUNGS basic gas trains delivery scope and description:
- gas compact unit MBC
- minimum gas pressure switch
- fittings between burner and gas train

DUNGS gas trains		
Designation	**Type**	**Code**
GT-d452-1"1/2 (1)	Threaded design Basic version	**3750510**
GT-d453-2" (1)		**3750511**
GT-d454-65	Flanged design Basic version	**3750512**
GT-d455-80		**3750513**
GT-d456-100		**3750514**

(1): model with integrated filter
(2): in PED configuration

Dimensions	J	K		R	S	V	X	AA(2)
		EK6/N6	EK7/N7					
d1"1/2-Rp1"1/2	685	375	405	80	190	100	60	320
d2"-Rp2"	760	405	435	100	330	125	115	385
d65-DN65	795	355	385	185	250	110	100	385
d80-DN80	815	375	405	210	295	155	110	275
d100-DN100	875	375	405	250	330	165	115	275

SIEMENS



SIEMENS basic gas trains delivery scope and description:
- gas compact unit VGD20/40 including actuators SKP15 and SKP25
- minimum gas pressure switch
- fittings between burner and gas train

SIEMENS gas trains		
Designation	**Type**	**Code**
GT-s451-1"1/2	Threaded design Basic version	**3750525**
GT-s452-2"		**3750526**
GT-s453-65	Flanged design Basic version	**3750527**
GT-s454-80		**3750528**
GT-s455-100		**3750529**
GT-s456-125		**3750530**

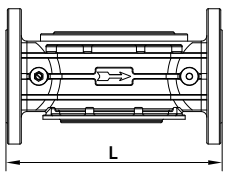
(2): in PED configuration

Dimensions	J	K		R	S	V		X	AA(2)	AB
		EK6/N6	EK7/N7				(2)			
s1"1/2-Rp1"1/2	795	375	405	100	285	105	145	65	320	135
s2"-Rp2"	805	405	435	105	285	105	145	100	325	140
s65-DN65	795	355	385	120	305	125	125	110	365	135
s80-dN80	815	375	405	135	315	125	125	110	375	135
s100-DN100	855	375	405	145	335	145	145	125	385	135
s125-DN125	905	375	405	180	350	160	160	140	400	135

Gas trains are fully mounted, electrical connected and tested (electrical, hydraulic, leakage)
Additional components (filter and other options) in order to comply to the local regulation and codes of practise must be ordered separately

FILTERS

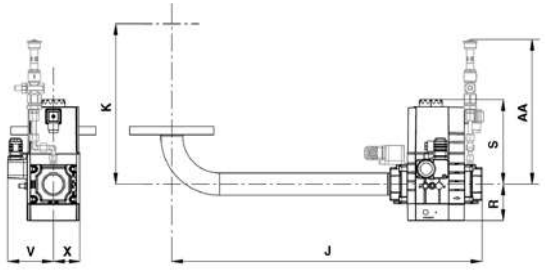
Gas filter with flange PN 16, with non-ferrous metal, max. working pressure 2 bar



DN40	L = 160 mm	**3757196**
DN50	L = 160 mm	**3757197**
DN65	L = 290 mm	**3757198**
DN80	L = 310 mm	**3757201**
DN100	L = 350 mm	**3757195**
DN125	L = 480 mm	**3757209**
DN150	L = 480 mm	**3757210**

Gas train for EK EVO 8/9 and NEXTRON N8/N9 (EN676 configuration)

DUNGS



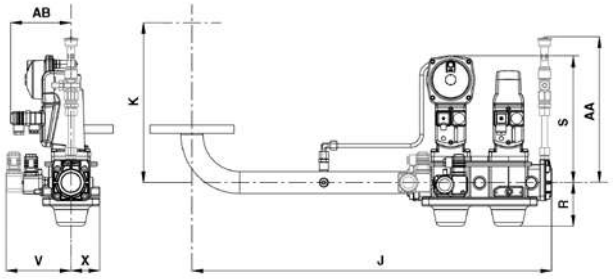
DUNGS basic gas trains delivery scope and description:
- gas compact unit MBC
- minimum gas pressure switch
- fittings between burner and gas train

DUNGS gas trains		
Designation	**Type**	**Code**
GT-d457-2" (1)	Threaded design	**3750515**
GT-d458-65	Flanged design Basic version	**3750516**
GT-d459-80		**3750517**
GT-d460-100		**3750518**

(1): model with integrated filter
(2): in PED configuration

Dimensions	J	K		R	S	V	X	AA(2)
		EK8/N8	EK9/N9					
d2"-Rp2"	760	598	623	100	330	125	115	385
d65-DN65	795	598	623	185	250	110	100	385
d80-DN80	815	598	623	210	295	155	110	275
d100-DN100	875	598	623	250	330	165	115	275

SIEMENS



SIEMENS basic gas trains delivery scope and description:
- gas compact unit VGD20/40 including actuators SKP15 and SKP25
- minimum gas pressure switch
- fittings between burner and gas train

SIEMENS gas trains		
Designation	**Type**	**Code**
GT-s457-2"	Threaded design	**3750537**
GT-s458-65	Flanged design Basic version	**3750538**
GT-s459-80		**3750539**
GT-s460-100		**3750540**
GT-s461-125		**3750541**

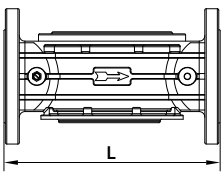
(2): in PED configuration

Dimensions	J	K		R	S	V		X	AA(2)	AB
		EK8/N8	EK9/N9				(2)			
s2"-Rp2"	805	598	623	105	285	105	145	100	325	135
s65-DN65	795	598	623	120	305	125	125	110	365	135
s80-dN80	815	598	623	135	315	125	125	110	375	135
s100-DN100	855	598	623	145	335	145	145	125	385	135
s125-DN125	905	598	623	180	350	160	160	140	400	135

Gas trains are fully mounted, electrical connected and tested (electrical, hydraulic, leakage)
Additional components (filter and other options) in order to comply to the local regulation and codes of practise must be ordered separately

FILTERS

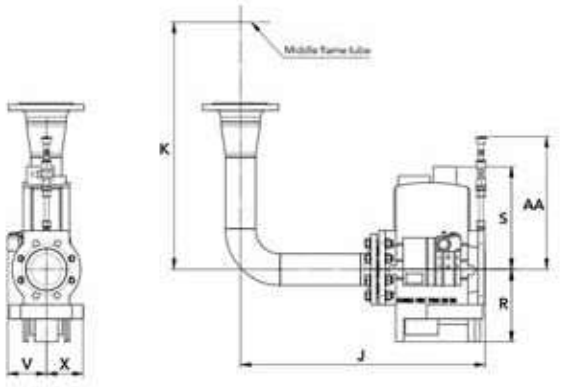
Gas filter with flange PN 16, with non-ferrous metal, max. working pressure 2 bar



DN40	L = 160 mm	**3757196**
DN50	L = 160 mm	**3757197**
DN65	L = 290 mm	**3757198**
DN80	L = 310 mm	**3757201**
DN100	L = 350 mm	**3757195**
DN125	L = 480 mm	**3757209**
DN150	L = 480 mm	**3757210**

Gas train for N10 (EN676 configuration)

DUNGS



DUNGS basic gas trains delivery scope and description:
- gas compact unit MBC
- minimum gas pressure switch
- connecting piece between burner and gas train

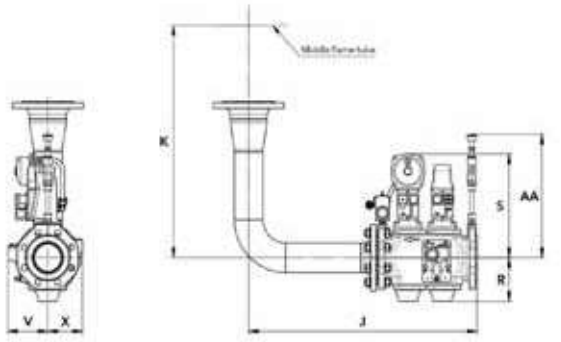
Other configurations: available on request

DUNGS gas trains		
Designation	**Type**	**Code**
d80	Flanged design Basic version	**on request**
d100		**on request**
d125		**on request**

Dimensions	J	K	R	S	V	X	AA(1)
d80	710	912	205	292	113	107	376
d100	754	912	250	329	124	125	395
d125	800	912	250	415	137	125	395

(1): in PED configuration

SIEMENS



SIEMENS basic gas trains delivery scope and description:
- gas compact unit VGD20/40 including actuators SKP15 and SKP25
- minimum gas pressure switch
- connecting piece between burner and gas train

Other configurations: available on request

SIEMENS gas trains		
Designation	**Type**	**Code**
s80	Basic configuration valve + connection pipe	**3757394**
s100		**3757395**
s125		**3757396**
s150		**3757397**

Dimensions	J	K	R	S	V	X	AA(1)
s80	710	912	132	312	125	108	372
s100	750	912	145	335	141	124	356
s125	800	912	175	348	155	138	392
s150	880	912	188	365	176	159	409

(1): in PED configuration

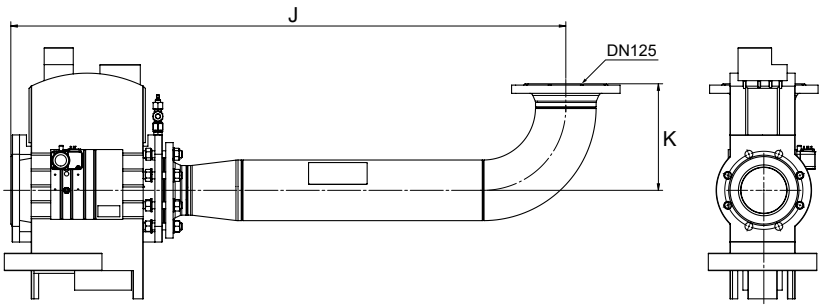
Gas trains are fully mounted, electrical connected and tested (electrical, hydraulic, leakage)
Additional components (filter and other options) in order to comply to the local regulation and codes of practise must be ordered separately

FILTERS

Gas filter with flange PN 16, with non-ferrous metal, max. working pressure 2 bar	DN80	L = 310 mm	**3757201**
	DN100	L = 350 mm	**3757195**
	DN125	L = 480 mm	**3757209**
	DN150	L = 480 mm	**3757210**

Gas train for N11 (EN676 configuration)

DUNGS



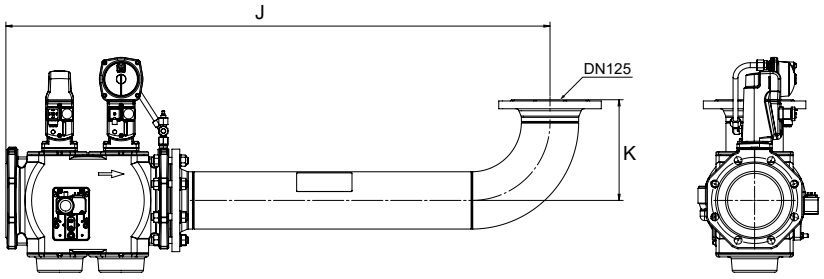
DUNGS basic gas trains description:
- gas train in standard configuration is mounted on the left side
- a support for the gas train is required additionally (code 3752216, see page 220)

Other configurations: available on request

DUNGS gas trains		
Designation	**Type**	**Code**
d100	Flanged design Basic version	**3758179**
d125		**3758180**

Dimensions	**J**	**K**
d100	1279	245,5
d125	1330	245,5

SIEMENS



SIEMENS basic gas trains description:
- gas train in standard configuration is mounted on the left side
- a support for the gas train is required additionally (code 3752216, see page 220)

Other configurations: available on request

SIEMENS gas trains		
Designation	**Type**	**Code**
s100	Basic configuration valve + connection pipe	**3758176**
s125		**3758177**
s150		**3758178**

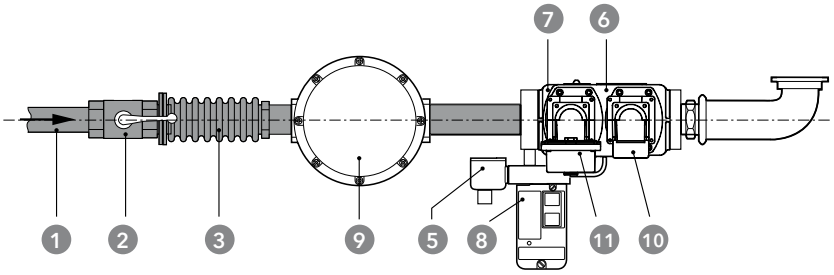
Dimensions	**J**	**K**
s100	1277	245,5
s125	1327	245,5
s150	1407	245,5

Gas trains are fully mounted, electrical connected and tested (electrical, hydraulic, leakage)
Additional components (filter and other options) in order to comply to the local regulation and codes of practise must be ordered separately

FILTERS

Gas filter with flange PN 16, with non-ferrous metal, max. working pressure 2 bar	DN80	L = 310 mm	**3757201**
	DN100	L = 350 mm	**3757195**
	DN125	L = 480 mm	**3757209**
	DN150	L = 480 mm	**3757210**

Gas train for GHO-TRON (EN676 configuration)



1. main gas pipe
2. ball valve*
3. anti-vibration coupling*
5. minimum gas pressure switch
6. safety gas valve
7. main gas valve
8. leakage control device*
9. gas filter* (governor included in the valve)
10. actuator SKP 15
11. actuator SKP 75

*: additional components to be ordered separately, e.g.: maximum gas pressure switch and other gas options in order to comply to the local regulation and codes of practise

Designation	Description	Code
GT-2"	VGD20.503	on request
GT-DN65	VGD40.065	on request
GT-DN80	VGD40.080	on request
GT-DN100	VGD40.100	on request
GT-DN125	VGD40.125	on request

GHO-TRON configuration:
gas ignition unit is included in the body of the burner, the price is included in the burner price.

Gas trains are fully mounted, electrical connected and tested (electrical, hydraulic, leakage)
Additional components (filter and other options) in order to comply to the local regulation and codes of practise must be ordered separately

FILTERS

2"	on request
DN65 - 2"1/2	on request
DN80 - 3"	on request
DN100 - 4"	on request
DN125 - 5"	on request

GAS TRAIN CONNECTION PIPE

GTCP RP50 platform 2-3-4	GHO-TRON 2-3-4 with GT-2"	on request
GTCP reducer from DN80 to DN65 platform 2-3-4	GHO-TRON 2-3-4 with GT-DN65	on request
GTCP reducer from DN100 to DN80 platform 4-5	GHO-TRON 4-5 with GT-DN100	on request
GTCP reducer from DN125 to DN80 platform 5	GHO-TRON 5 with GT-DN125	on request

BT3

The device is composed of a control box for safety and for programming the parameters of mono- and dual fuel burners with intermittent or continuous operation through a step by step servomotor up to 10 Nm.
The BT300 combines the benefits of an electronic fuel-air ratio control system with up to three motorised actuating devices and an optional modules like an analogue output for speed control of the combustion air fan with an electronic burner control unit.

The device is equippable with the following modules:
- fan speed regulation;
- burner power regulation;
- control of combustion air excess;
- CO control (through simple or combined probe);
- communication via Bus system.

The BT300 is available in three designs with the following specific functions:
- **BT320** for single fuel burner and intermittent operation, with an output 0...10 V, 0/4...20 mA and the management of two servomotors;
- **BT330** for single fuel burner and continuous operation, using suitable flame detectors, with an output 0...10 V, 0/4...20 mA and the management of three servomotors;
- **BT340** for dual fuel burner and continuous operation, using suitable flame detectors, with an output 0...10 V, 0/4...20 mA and the management of three servomotors.

Main characteristics of the control box:
- power supply: 230 V -15…+10%, 50 Hz;
- servomotors from 1,2 to 10 Nm.

COMMUNICATION MODULE

BT300 module for electronic burners mounted in the switch cabinet of the burner (Note: one LCM module is required)	ModBus/BT3	**3754081**
	ProfiBus/BT3	**3750142**
	Ethernet/BT3	**on request**

LCM MODULE

Module required for O_2 control, Variatron and communication buses connections	**3752286**

Note: only one LCM module is necessary for these 3 options; the module is already included on dual fuel burners

REMOTE SOFTWARE

Kit to connect a PC laptop to the BT300 for its parametrization	LSA100 + USB/CAN + CD-Rom	**3751130**

ETAMATIC AND ETAMATIC OEM

The Etamatic control units are available on request according to the configuration of the burner selected.

Electronic control **Etamatic** with 4 DPS-adjusting outputs for servodrives up to 50 mA of direct current with:
- incorporated tightness control of the valves;
- incorporated regulator of power;
- incorporated counter of working hours with pulse transducer;
- incorporated relay of flame;
- incorporated program of O2 regulation, including the system Lamtec with connecting bus.

Electronic control **Etamatic S** with a steady adjusting output for the regulation of the number of revolutions of the fan supplying the air of nurning and 4 DPS-adjusting outputs for the servodrives up to 50 mA of direct current with:
- incorporated tightness control of the valves;
- incorporated regulator of power;
- incorporated counter of working hours with pulse transducer;
- incorporated relay of flame;
- incorporated program of O2 regulation, including the system Lamtec with connecting bus.

For the control of the number of revolutions it is required additionally:
- Static frequency converter;
- Switch Namur.

ACCESSORIES FOR ETAMATIC OEM

Software for remote PC connection for Lamtec Etamatic OEM with all its accessories for the connection (available languages: English, German and French)	**3753366**
Customer interface (DISPLAY) for ETAMATIC OEM	**3751683**
Hand held programming unit for Etamatic OEM (languages: German and English) - Alternative to software 3753366 when PC is not available	**1718850339**
Hand held programming unit for Etamatic OEM (language: Russian) - Alternative to software 3753366 when PC is not available	**3754519**
Profibus module for ETA-OEM with 2 m cable	**3752995**

Note: either customer interface or operation and display unit has to be included

O_2 TRIM FOR BT300, ETAMATIC AND ETAMATIC OEM

This device optimizes the combustion in order to keep the air excess as much stable as possible irrespective of the changings that can occur during operations, for instance slight calorific value variations, combustion air temperature and pressure. This improves the seasonal efficiency and therefore reduces the fuel consumption.
The kit includes all the fittings for the installation. Main components are:
- control unit with display;
- probe;
- intake pipe to be fixed to the stack (choose the proper length).

The control unit has to be installed close to the probe (max 20 m of cable)
The probe needs a calibration but no reference gas is necessary.
The display shows the O_2 content.
Maximum distance between the control unit and the burner control panel is 500 m.

	Output	Probe length	Code
Kit for O_2 trim (LT3 + LS2) - Flue temp max 300 °C - display for O_2 visualization (Note: for models equipped with BT3xx this kit needs a LCM module installed in the burner control panel)	1 x 4-20 mA	150 mm	**3757433**
	1 x 4-20 mA	300 mm	**3757137**
	1 x 4-20 mA	450 mm	**3757138**

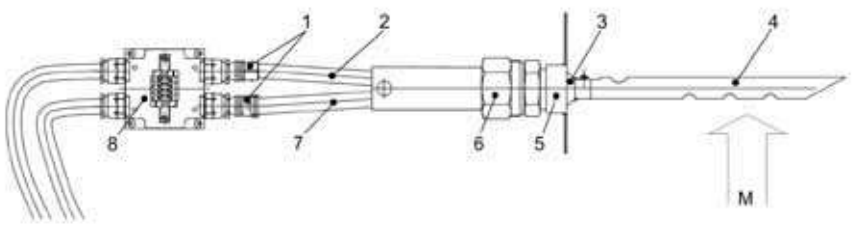
O_2 TRIM WITH CO MEASURE FOR BT300, ETAMATIC AND ETAMATIC OEM

This device optimizes the combustion in order to keep the air excess as low as possible in order to maximize the seasonal efficiency and therefore minimize the fuel consumption.
In addition to the features of the O_2 trim only, this kit reduces the air excess to its minimum because this system continuously measures the CO content in the flue: should the air excess be reduced too much, the CO raises and the system reacts by increasing the air excess in order to keep firing in safe conditions.
The kit includes all the fittings for the installation. Main components are:
- control unit with display;
- probe;
- intake pipe to be fixed to the stack (choose the proper length).

The control unit has to be installed close to the probe (max 20 m of cable).
The probe needs a calibration but no reference gas is necessary.
The display shows the O_2 content.
Maximum distance between the control unit and the burner control panel is 500 m.

Note: this system is not suitable for GL-EUF and L-EUF burners

	Output	Probe length	Code
Kit for O_2 trim and CO control (LT3-F + KS1D) - Flue temp max 300 °C (Note: for models equipped with BT3xx this kit needs a LCM module installed in the burner control panel)	None	150 mm	**3758001**
	None	300 mm	**3755046**
	None	450 mm	**3756533**
	4 x 0/4-20mA	300 mm	**3754549**
	4 x 0/4-20mA	450 mm	**3754550**
	4 x 0/4-20mA & 4 x digital	300 mm	**3754551**
	4 x 0/4-20mA & 4 x digital	450 mm	**3754552**



M - measuring gas 300°C max
1 - plug
2 - probe signal
3 - Lambda Probe
4 - gas extraction device (GED)
5 - half-collar R1"1/4
6 - probe installation fitting (PIF)
7 - probe heater
8 - probe connection box (PCB)

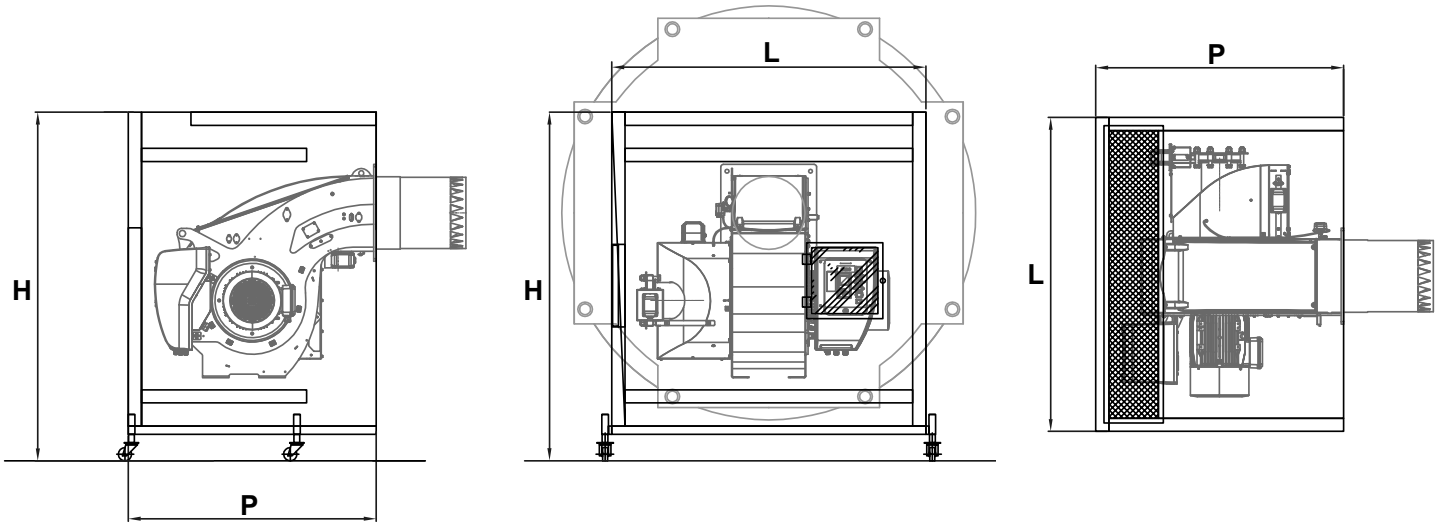
FREQUENCY CONVERTER ABB FOR EXTERNAL INSTALLATION

IP21 with: • EMC filter • Inductor • Control panel	3 kW	**3757054**
	4 kW	**3757055**
	5,5 kW	**3757056**
	7,5 kW	**3757057**
	11 kW	**3757058**
	15 kW	**3757059**
	18,5 kW	**3757060**
	22 kW	**3757061**
	30 kW	**3757062**
	37 kW	**3757063**
	45 kW	**3757064**
	55 kW	**3757065**
	75 kW	**3757066**
IP55 with: • EMC filter • Inductor • Control panel	3 kW	**3757067**
	4 kW	**3757068**
	5,5 kW	**3757069**
	7,5 kW	**3757070**
	11 kW	**3757071**
	15 kW	**3757072**
	18,5 kW	**3757073**
	22 kW	**3757074**
	30 kW	**3757075**
	37 kW	**3757076**
	45 kW	**3757077**
	55 kW	**3757078**
	75 kW	**3757079**

ACOUSTIC SHROUDS FOR EK EVO AND N10

Product description:

- sound level reduction (sound pressure level): ca. 20 ... 30 dB(A)
- sheet metal casing, structured coating, isolation with temperature resistant mineral wool
- noise absorption material acc. DIN 4102, covered with a glass fibre layer, covered with perforated sheet metal, galvanised
- easily disassembled into elements: base plate, side covers, top cover, air inlet section
- all elements easily connected via quick locks
- height of noise reduction casing adjustable on wheels
- feed through for gas-, oil- and electrical connections integrated in side covers following the requirements
- air inlet via noise reduction line
- if required, an oil recuperation tub can be integrated on the base plate
- for some boiler types a supporting frame for the casing may be necessary, due to the height of the burner tube over the floor



MODELS FOR EK EVO

Designation	L (mm)	P (mm)	H (mm)	Weigth (kg)	Code
EKEVO 6.2400/2900 G-...	1450	1350	1200	200	**3757453**
EKEVO 7.3600/4500 G-...	1550	1400	1300	246	**3757455**
EKEVO 7.5800 G-...	1570	1850	1300	246	**3757457**
EKEVO 8.5800/7100 G-...	1760	1630	1580	325	**3757458**
EKEVO 9.8700/10400 G-...	1750	1630	1750	368	**3757460**
EKEVO 9.13000 G-...	1850	1750	1750	396	**3757462**
EKEVO 6.2400/2900 GL-.../L-...	1450	1350	1200	200	**3757454**
EKEVO 7.3600/4500 GL-.../L-...	1450	1350	1400	256	**3757456**
EKEVO 8.5800/7100 GL-.../L-...	1760	1630	1580	335	**3757459**
EKEVO 9.6500...10400 GL-.../L-...	1760	1630	1750	378	**3757461**

MODELS FOR N10

Designation	L (mm)	P (mm)	H (mm)	Weigth (kg)	Code
N10 G-...	1900	1780	1900	478	**3757463**
N10 GL-...	1900	1780	1900	488	**3757464**
N10 L-...	1900	1780	1900	488	**3757464**

NOTE: Before submitting your order please provide information on the boiler model and the type of installation: floor standing boiler or boiler mounted on a base.

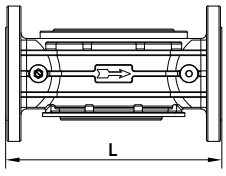
BALL VALVE

Female threaded ball valve, max. working gas pressure: 1 bar	FRp1/2"	**3751028**
	FRp3/4"	**3751029**
	FRp1"	**3751030**
	FRp1"1/2	**3751031**
	FRp2"	**3751032**
Flanged ball valve, max. working gas pressure: 16 bar	DN40	**3751033**
	DN50	**3751034**
	DN65	**3751035**
	DN80	**3751036**
	DN100	**3751037**
	DN125r	**3751038**
	DN150	**3751039**

ANTI-VIBRATION COUPLING (COMPENSATOR)

Male-threaded anti-vibration coupling	MRp1"	**3751018**
	MRp1"1/2	**3751019**
	MRp2"	**3751020**
Flanged anti-vibration coupling, max. working gas pressure: 10 bar	DN40	**3751021**
	DN50	**3751022**
	DN65	**3751023**
	DN80	**3751024**
	DN100	**3751025**
	DN125	**3751026**
	DN150	**3751027**

GAS FILTER

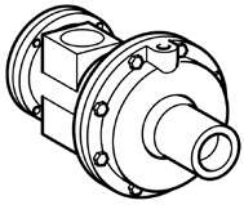


Filter with non-ferrous metal, max. working pressure: 2 bar	Rp1"1/2	L = 160 mm	**3757199**
	Rp2"	L = 160 mm	**3757200**
Filter with flange PN16, non-ferrous metal, max. working pressure: 2 bar	DN40	L = 230 mm	**3757196**
	DN50	L = 230 mm	**3757197**
	DN65	L = 290 mm	**3757198**
	DN80	L = 310 mm	**3757201**
	DN100	L = 350 mm	**3757195**
	DN125	L = 480 mm	**3757209**
	DN150	L = 480 mm	**3757210**
Filter with flange PN16, non-ferrous metal, max. working pressure: 6 bar	DN40	L = 230 mm	**3757205**
	DN50	L = 230 mm	**3757206**
	DN65	L = 290 mm	**3757207**
	DN80	L = 310 mm	**3757208**
	DN100	L = 350 mm	**3757202**
	DN125	L = 480 mm	**3757203**
	DN150	L = 480 mm	**3757204**

PRESSURE REGULATOR

Gas pressure regulator GDJ **Max. working pressure 0,4 bar, non-ferrous metal** 	GDJ Rp1/2" x 100 mm	with spring 16 ... 28 mbar	**3333123399**
		spring for 10 … 20 mbar	**1478682742**
		spring for 22 … 40 mbar	**1478781122**
		spring for 40 … 55 mbar	**12001218**
	GDJ Rp3/4" x 125 mm	with spring 12,5 … 25 mbar	**3333123400**
		spring for 22,5 … 35 mbar	**3753834**
		spring for 30 … 50 mbar	**3753835**
	GDJ Rp1" x 125 mm	with spring 12,5 … 25 mbar	**3333123401**
		spring for 22,5 … 35 mbar	**3753834**
		spring for 30 … 50 mbar	**3753835**
	GDJ Rp1"1/2 x 155 mm	with spring 12,5 … 25 mbar	**3333123402**
		spring for 22,5 … 35 mbar	**3753840**
		spring for 30 … 50 mbar	**3753841**
	GDJ Rp2" x 200 mm	with spring 12,5 … 25 mbar	**3333123403**
		spring for 22,5 … 35 mbar	**3753847**
		spring for 30 … 50 mbar	**3753848**
Gas pressure regulator FRS **Max. working pressure 0,4 bar, non-ferrous metal** 	FRS s40-DN40 x 200 mm	with spring 10 … 30 mbar	**1478490702**
		red spring for 25 … 55 mbar	**1478435327**
		yellow spring for 30 … 70 mbar	**1478435338**
		black spring for 60 … 110 mbar	**1478435349**
	FRS s50-DN50 x 230 mm	with spring 10 … 30 mbar	**1478490713**
		red spring for 25 … 55 mbar	**1478435372**
		yellow spring for 30 … 70 mbar	**1478435383**
		black spring for 60 … 110 mbar	**1478435394**
	FRS s65-DN65 x 290 mm	with spring 10 … 30 mbar	**1478490724**
		red spring for 25 … 55 mbar	**1478435429**
		yellow spring for 30 … 70 mbar	**1478435430**
		black spring for 60 … 110 mbar	**1478435441**
		pink spring for 100 ... 150 mbar	**1478494328**
	FRS s80-DN80 x 310 mm	with spring 10 … 30 mbar	**3750211**
		red spring for 25 … 55 mbar	**1478435429**
		yellow spring for 30 … 70 mbar	**1478435430**
		black spring for 60 … 110 mbar	**1478435441**
		pink spring for 100 ... 150 mbar	**1478494328**
	FRS s100-DN100 x 350 mm	with spring 10 … 30 mbar	**12001097**
		red spring for 25 … 55 mbar	**1478435474**
		yellow spring for 30 … 70 mbar	**1478435485**
		black spring for 60 … 110 mbar	**1478435496**
		pink spring for 100 ... 150 mbar	**1478781519**
	FRS s125-DN125 x 400 mm	with spring 10 … 30 mbar	**12001098**
		red spring for 25 … 55 mbar	**1478434982**
		yellow spring for 30 … 70 mbar	**1478434993**
		black spring for 60 … 110 mbar	**1478435009**
		pink spring for 100 ... 150 mbar	**1478740474**
	FRS s150-DN150 x 480 mm	with spring 10 … 30 mbar	**12001099**
		red spring for 25 … 55 mbar	**1478435032**
		yellow spring for 30 … 70 mbar	**1478435043**
		black spring for 60 … 110 mbar	**1478435054**
		pink spring for 100 ... 150 mbar	**1478781484**

PRESSURE REGULATOR

Gas pressure regulator RS 250	with safety valve and flange PN16, max. working pressure 6 bar	RS250 DN25 x 230 mm	**1478541586**
		RS250 DN50 x 230 mm	**1478541597**
		RS250 DN80 x 310 mm	**1478541600**
		RS250 DN100 x 350 mm	**1478541611**
		RS250 DN150 x 480 mm	**1478541622**
Gas pressure regulator RS 251	with safety valve and flange PN16, max. working pressure 4 bar	RS251 DN50 x 310 mm	**1478548747**
		RS251 DN80 x 410 mm	**1478548758**
Safety blow-off valve S10 	with internal thread Rp1", max. working pressure 1 bar	discharge pressure 80 mbar	**1478687054**
		discharge pressure 100 mbar	**1478687065**
		discharge pressure 120 mbar	**1478687076**
		discharge pressure 140 mbar	**1478687087**
		discharge pressure 160 mbar	**1478687098**
		discharge pressure 180 mbar	**1478687101**
		discharge pressure 200 mbar	**1478687112**
		discharge pressure 220 mbar	**1478687123**
		discharge pressure 240 mbar	**1478687134**
		discharge pressure 260 mbar	**1478687145**
		discharge pressure 280 mbar	**1478687156**
		discharge pressure 300 mbar	**1478687167**

GAS PRESSURE SWITCH

	For installation on double electromagnetic valves, max. working pressure 0,5 bar	GW50A5	**3751554**
		GW150A5	**3751555**
		GW500A5	**3752190**
	For installation on electromagnetic/motorized valves, max. working pressure 0,5 bar	GW50A6	**3752189**
		GW150A6	**3751556**
		GW500A6	**3751557**

MANOMETER

	**Gas manometers with push-button valve, Rp1/2"**	0 - 60 mbar	**3751627**
		0 - 100 mbar	**3751546**
		0 - 160 mbar	**3751550**
		0 - 250 mbar	**3751551**
		0 - 600 mbar	**3751552**
		0 - 1,6 bar	**3751545**
		0 - 6 bar	**3751544**

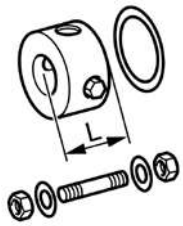
TEST BURNER

Test burner with push-button valve, Rp1/2"	max pressure 0,5 bar	**3751553**

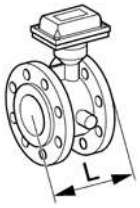
SEALS AND CONNECTING KIT

	**Screwing set:** **1 seal,** **4 bolts,** **4 nuts,** **4 washers**	DN25	**3751547**
		DN40	**3751040**
		DN50	**3751041**
		DN65	**3751042**
		DN80	**3751043**
		DN100	**3751044**
		DN125	**3751045**
		DN150	**3751046**

INSERT RING

	**Insert ring with connections Rp1/2" and Rp3/4" for manometer and test burner**	DN40 x 50 mm	**3752194**
		DN50 x 50 mm	**3752195**
		DN65 x 50 mm	**3752196**
		DN80 x 50 mm	**3752197**
		DN100 x 50 mm	**3752198**
		DN125 x 50 mm	**3752199**
		DN150 x 50 mm	**3752200**

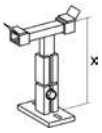
FLOW COUNTER

	**TERZ 94** **max pressure 10 bar**	6 - 100 m^3/h - DN50 x 150 mm	**12001361**
		10 - 250 m^3/h - DN80 x 120 mm	**12001362**
		25 - 400 m^3/h - DN80 x 120 mm	**12001363**
		25 - 400 m^3/h - DN100 x 150 mm	**12001364**
		40 - 650 m^3/h - DN100 x 150 mm	**12001365**
		85 - 1000 m^3/h - DN150 x 175 mm	**12001366**
		100 - 1600 m^3/h - DN150 x 175 mm	**12001367**

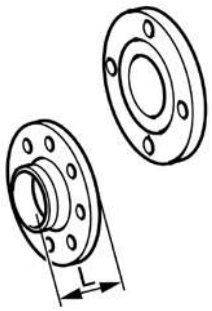
FLEXIBLE HOSE

	**Stainless steel,** **max pressure 4 bar**	Rp1/2" x 500 mm	**4488681772**
		Rp1/2" x 1000 mm	**4488681783**
		Rp3/4" x 500 mm	**4488681794**
		Rp3/4" x 1000 mm	**4488682708**
		Rp1" x 500 mm	**4488682719**
		Rp1" x 1000 mm	**4488682720**
	Stainless steel, **max pressure 1 bar**	Rp3/8"-Rp1/2" x 500 mm	**4488696511**
		Rp3/8"-Rp1/2" x 1000 mm	**4488696522**
		d2"-Rp2" x 500 mm	**4488696533**
		d2"-Rp2" x 1000 mm	**4488696544**

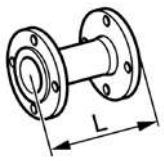
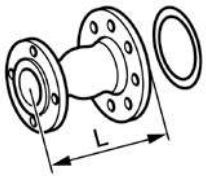
HOLDER

	**Holder for gas train**	For gas train DN40...DN150 Support height: x = 545…935 mm	**3752216**

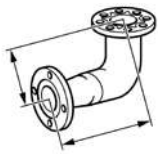
FLANGES

	**Threaded flange PN16**	Rp3/4"	**3333109195**
		1"	**3333109196**
		Rp1"1/2	**3333109197**
		Rp2"	**3333109198**
	Welded flange PN16	DN40 x 42 mm	**5318353048**
		DN50 x 45 mm	**5318428082**
		DN65 x 45 mm	**5318428093**
		DN80 x 50 mm	**5318428106**
		DN100 x 52 mm	**5318428117**
		DN125 x 55 mm	**5318428128**
		DN150 x 55 mm	**5318428139**

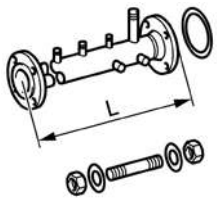
STRAIGHT PIPE

	**Flanged, PN16**	DN40 x 500 mm	**3752235**
		DN50 x 250 mm	**3752236**
		DN50 x 500 mm	**3752237**
		DN65 x 250 mm	**3752238**
		DN65 x 500 mm	**3752239**
		DN80 x 250 mm	**13019834**
		DN80 x 500 mm	**1688421230**
		DN100 x 250 mm	**3752240**
		DN100 x 500 mm	**1688421252**
		DN125 x 250 mm	**1688421525**
		DN125 x 500 mm	**1688421274**
		DN150 x 250 mm	**1688421536**
		DN150 x 500 mm	**1688421296**
	**Adapting, flanged PN16**	DN25 - DN40 x 144 mm	**1688541804**
		DN25 - DN50 x 159 mm	**1688586714**
		DN25 - DN65 x 173 mm	**1688590469**
		DN25 - DN80 x 254 mm	**1688653209**
		DN40 - DN50 x 163 mm	**3752223**
		DN40 - DN65 x 177 mm	**3752224**
		DN40 - DN80 x 182 mm	**3752226**
		DN50 - DN65 x 180 mm	**3752225**
		DN50 - DN80 x 185 mm	**3752227**
		DN50 - DN100 x 197 mm	**1688590458**
		DN65 - DN80 x 197 mm	**1688421401**
		DN65 - DN100 x 197 mm	**1688421412**
		DN80 - DN100 x 202 mm	**1688421423**
		DN80 - DN125 x 232 mm	**1688421434**
		DN80 - DN150 x 245 mm	**1688602591**
		DN100 - DN125 x 234 mm	**1688421445**
		DN100 - DN150 x 247 mm	**1688421456**
		DN125 - DN150 x 250 mm	**1688421467**

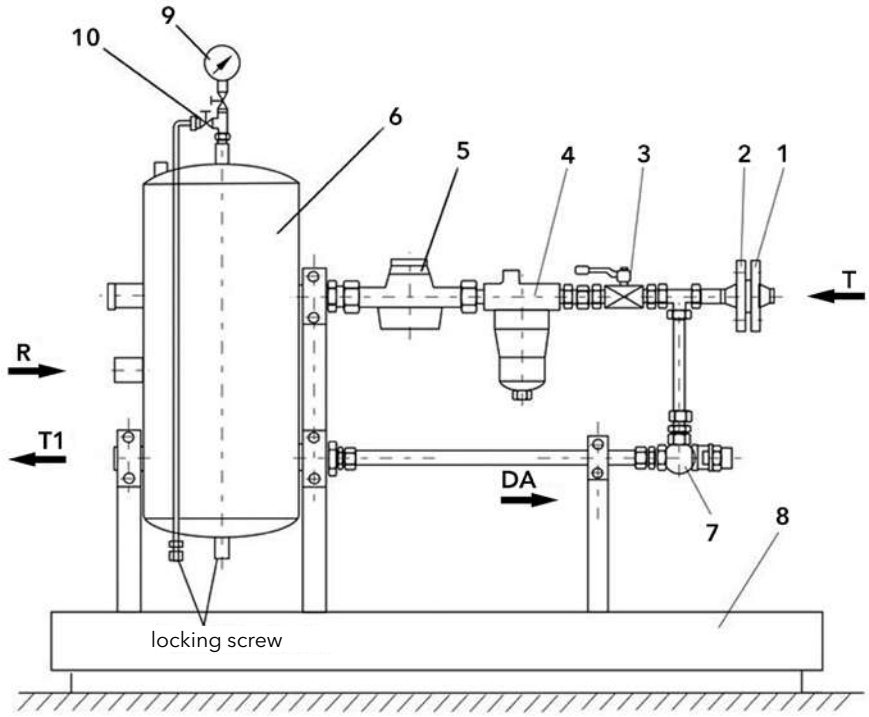
ELBOW PIPE

Angle 	90°, male/female	Rp3/4"	**3333109257**
		Rp1"	**3333103790**
		Rp1"1/4	**3333116894**
		Rp1"1/2	**3333103791**
		Rp2"	**3333103792**
	90°, female/female	Rp1"	**3333109311**
		Rp1"1/2	**3333110711**
		Rp2"	**3333110712**
Elbow 	PN16, connection Rp1/2"	DN40 x 99 mm	**3752182**
		DN50 x 121 mm	**3752183**
		DN65 x 140 mm	**3752184**
		DN80 x 164,5 mm	**3752185**
		DN100 x 204,5 mm	**1688421354**
		DN125 x 245,5 mm	**1688421365**
		DN125 x 283,5 mm	**1688421376**
Connection piece 	90°, flanged PN16	DN65 - DN40 x 235 mm	**1688551557**
		DN65 - DN50 x 235 mm	**1688551568**
		DN80 - DN40 x 246,5 mm	**1688421092**
		DN80 - DN50 x 249,5 mm	**1688421105**
		DN80 - DN65 x 249,5 mm	**1688421116**
		DN80 - DN80 x 264,5 mm	**1688421127**
		DN80 - DN100 x 266,5 mm	**1688590481**
		DN100 - DN65 x 297,5 mm	**3755875**
		DN100 - DN80 x 302,5 mm	**1688551615**
		DN150 - DN65 x 503,5 mm	**1688666166**
		DN150 - DN80 x 418,5 mm	**1688421138**
		DN150 - DN100 x 420,5 mm	**1688421149**
		DN150 - DN125 x 423,5 mm	**1688421150**
		DN150 - DN150 x 423,5 mm	**1688421161**

GAS PIPE

Connections	h3/8"-Rp1/2"x300 mm with two connections 1/2" and one connection 1/4" for DMV SE 512		**3333212374**
	d2"-Rp2"x300 mm with two connections 1/2" and one connection 1/4" for DMV SE 520		**3333212375**
	Connections for test burner, pressure switch, pressure valve, pressure release valve, ignition valve, safety valve	DN40 x 900 mm	**14030405**
		DN50 x 900 mm	**14030449**
		DN65 x 950 mm	**code on request**
		DN80 x 1100 mm	**14030504**
		DN100 x 1300 mm	**14030537**
		DN125 x 1550 mm	**code on request**
		DN150 x 1800 mm	**14030570**

VALVES GROUP, TYPE LBA...A



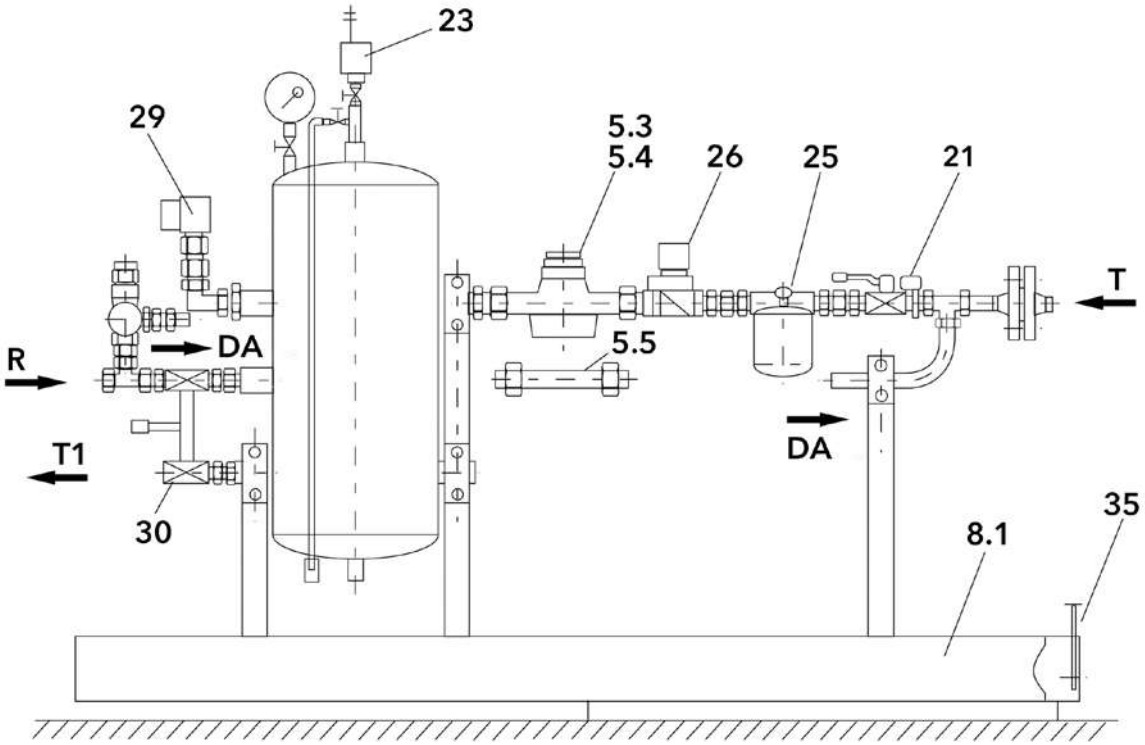
Base equipment

1. Welded flange PN16
2. Connecting flange PN16
3. Ball valve PN16
4. Fuel filter
5. Fuel rate counter with roller counter
6. Pressure tank
7. Relief valve
8. Fuel collector with holding
9. Glycerol manometer 0...10 bar
10. Air valve

		LBA 600 A	LBA 1200 A	LBA 2400 A	LBA 3000 A
Burner pump capacity	l/h	600	1200	2400	3000
Fuel rate for burner capacity "T"	l/h	10 … 200	10 … 400	30 … 1000	75 … 2000
Flange connection "T" on feed line	PN16	DN15	DN15	DN20	DN25
Burner connection "R" and "T1" (feed + return pipe)		Rp1/2"	Rp3/4"	Rp1"	Rp1"
Delivery pressure (depending on air venting way)	manual	min 1 bar / max 2,5 bar			
	automatic	1 bar			
Volume pressure tank	dm³	6	12	22	22
Dimension L x B	mm	1050 x 360	1300 x 400	1300 x 400	1300 x 400
Code		**on request**	**on request**	**on request**	**on request**

Notes:

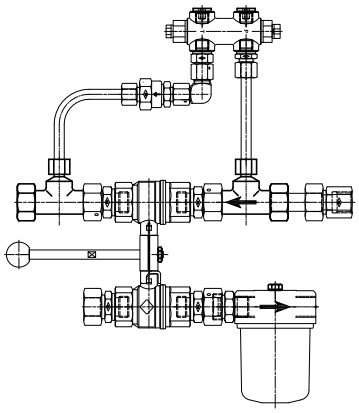
- oil supply pressure (pressure range) is created by separate force pump in ring pipeline or by lift of tank to greater height;
- for oil feed line of monoblock burners, operating with oil EL and L (heavy oil M and S on request);
- suits for equipment in accordance with DIN 4755/2, TRD 411, TRD 604.



Ref.	Description	LBA 600 A	LBA 1200 A	LBA 2400 A	LBA 3000 A
5.3	Fuel rate counter with pulse transducer (Reed)	0,1 l / Imp	0,1 l / Imp	1 l / Imp	1 l / Imp
5.4	Fuel rate counter with inductive pulse transducer	0,01 l / Imp	0,01 l / Imp	0,01 l / Imp	0,1 l / Imp
5.5	Fitting for fuel rate counter (during maintenance)	Rp3/4"	Rp3/4"	Rp1"	Rp1"1/4
8.1	Extended fuel collector for options M, DM, DK	This option needs when choice od options M and/or DK			
21	Limit switch for ball valve (position 1)	230 V / 50 Hz / IP65, mounted onto ball valve. Tested at installation.			
23	Automatic air valve	Rp3/8", PN16, 150°C	Rp3/8", PN16, 150°C	Rp3/8", PN16, 150°C	Rp3/8", PN16, 150°C
25	Fuel filter	Rp1/2"	Rp1/2"	Rp3/4"	Rp1"
26	Safety electromagnetic valve	Rp1/2"	Rp1/2"	Rp3/4"	Rp1"
29	Oil pressure switch	Rp1/2", 230 V / 50 Hz / IP54, setting range 0,2...2,5 bar			
30	Two ball valves combination	Rp1/2"	Rp3/4"	Rp1"	Rp1"
35	Leakage control built in fuel collector	230 V / 50 Hz / IP65	230 V / 50 Hz / IP65	230 V / 50 Hz / IP65	230 V / 50 Hz / IP65

Codes on request.

OIL CONNECTION UNIT



Unit consists of:
- double ball valve (with or without limit switch);
- oil filter
- safety valve with relief valve, non return valve
- pipes, theaded connections, seals

Unit with double ball valve with limit switch	Rp 1/2"	**3755291**
	Rp 3/4"	**3754259**
	Rp 1"	**3755292**
Unit with double ball valve without limit switch	Rp 1/2"	**14037863**
	Rp 3/4"	**14037874**
	Rp 1"	**14037885**

MANOMETER

	Manometer/vacuometer glycerine-filled Connection Rp1/2" A radial	-1...+3 bar	**1098748467**
		-1...+5 bar	**1098748478**
		0...4 bar	**1098748489**
		0...6 bar	**3333116345**
		0...10 bar	**1098748490**
		0...16 bar	**1098585471**
		0...25 bar	**3333261128**
		0...40 bar	**1090160374**
		0...60 bar	**1098114290**
	Kit manometer hydraulic block N6/N7		**3755398**

LEAKAGE CONTROL DEVICE

	Signal device for oil for wall mounting LMW with 1 optoelectronic detector, signal part in housing HxBxT=140x85x60mm 230 V / 50-60 Hz / IP40	
	with cable 1,5 m	**3755932**
	with cable 15 m	**3755933**
	with cable 30 m	**3755934**

AIR VALVE

Automatic air valve with ball valve Rp3/8"	**1478812577**

RELIEF/PRESSURE MAINTAINING VALVE

		Connection (DN)	Fuel rate (l/h)	Pressure degree (bar)	
	Threaded design, directly adjustable, with spring load for keeping adjusted working and max pressure, viscosity range 2,8...480 cSt	1/4"	6...120	0,5...1,5	**1478812044**
				1...4	**1478730083**
				2...9	**1478731940**
		3/8"	15...160	0,5...1,5	**1478812055**
				1...4	**1478812066**
				2...9	**1478812077**
		1/2"	30... 600	0,5...1,5	**1478812088**
				1...4	**1478720874**
				2...9	**1478812099**
		3/4"	100...2000	0,5...3,5	**1478812102**
				2...9	**1478812113**
		1"	300...6000	0,5...1,5	**1478812124**
				1...4	**1478812135**
				2...9	**1478812146**
		1"1/4	500...10000	0,5...1,5	**1478812157**
				1...4	**12001314**
				2...9	**1478812168**
	Flanged design, directly adjustable, with spring load for keeping adjusted working and max pressure, viscosity range 2,8...480 cSt	DN15	30...600	0,5...1,5	**1478812179**
				1...4	**1478729973**
				2...9	**1478812180**
		DN20	100...2000	0,5...3,5	**1478812191**
				2...9	**1478812204**
		DN25	300...6000	0,5...1,5	**1478812215**
				1...4	**1478785851**
				2...9	**1478812226**
		DN32	500...10000	0,5...1,5	**1478812237**
				1...4	**1478812248**
				2...9	**1478812259**

WELDED FLANGE

	Welded flange PN 16 according to DIN 2633, form C from RSt 37-2 as external flange for oil mounting PN16	DN15	**5318675203**
		DN20	**3333101876**
		DN25	**5318353059**
		DN32	**5318704652**
		DN40 x 42 mm	**5318353048**
		DN50 x 45 mm	**5318428082**
	Welded flange PN40 according to DIN 2635, form C from C22 as external flange for oil mounting PN40	DN15	**5318557486**
		DN20	**3333101916**
		DN25	**5318556494**
		DN32	**5318556507**
		DN40 x 42 mm	**5318556518**
		DN50 x 45 mm	**5318575308**

SEALS AND CONNECTING KIT

Screwing set: 1 seal, pin screws, hexagon nuts, lining washer	DN15 PN16 / PN40	**3752201**
	DN20 PN16 / PN40	**3752202**
	DN25 PN16 / PN40	**3752203**

BALL VALVE

0...60°C for 64 bar, 0...120°C for 40 bar, 20...150°C for 30 bar	1/4"	**1478736157**
	1/2"	**1478736168**
	3/4"	**1478736179**
	1"	**1478736180**
-20...150°C for 16 bar	DN25	**1478732910**
	DN32	**1478732921**
	DN40	**1478732932**
	DN50	**1478732943**
	DN65	**1478732954**
	DN80	**1478732965**
-20...120°C for 40 bar, -20...150°C for 30 bar	DN15	**1478734938**
	DN20	**1478734949**
	DN25	**1478734950**
	DN32	**1478734961**
	DN40	**1478734972**
	DN50	**1478734983**

LIGHT OIL FILTER

100 ... 500 l/h	Rp3/8" male (burner side) / female - 70 µm - one pipe	**3333110172**
100 ... 500 l/h	Rp3/8" male (burner side) / female - 75 µm - one pipe	**3333115482**
200 ... 700 l/h	Rp1/2" male (burner side) / female - 75 µm - one pipe	**3333115483**
100 ... 500 l/h	Rp3/8" male (burner side) / female - 70 µm - two pipes	**3333110175**
100 ... 500 l/h	Rp3/8" male (burner side) / female - 75 µm - two pipes	**3333110176**
200 ... 700 l/h	Rp1/2" male (burner side) / female - 75 µm - two pipes	**3333110174**

OIL FILTER FD FOR SUCTION AND PRESSURE OPERATION

Oil pressure max. 2 bar	**Rp 1/2" - 700 l/h**	**3754100**
	Rp 3/4" - 1700 l/h	**3754101**
	Rp 1" - 2000 l/h	**3754102**

LIGHT OIL FLOW COUNTER

Without pulse transducer	10 ... 400 l/h - 16 bar - Rp1/2"	**1368746803**
	10 ... 400 l/h - 16 bar - DN15	**1368746892**
	30 ... 1000 l/h - 16 bar - Rp3/4"	**1368746836**
	30 ... 1000 l/h - 16 bar - DN20	**1368746927**
	75 ... 2000 l/h - 16 bar - Rp1"	**1368746869**
	75 ... 2000 l/h - 16 bar - DN25	**1368746950**
With pulse transducer RV 0,1 (Reed)	10 ... 400 l/h - 16 bar - Rp1/2"	**1368746814**
	10 ... 400 l/h - 16 bar - DN15	**1368746905**
	30 ... 1000 l/h - 16 bar - Rp3/4"	**1368746847**
	30 ... 1000 l/h - 16 bar - DN20	**1368746938**
	75 ... 2000 l/h - 16 bar - Rp1"	**1368746870**
	75 ... 2000 l/h - 16 bar - DN25	**1368746961**
With pulse transducer IN 0,01 (Inductive)	10 ... 400 l/h - 16 bar - Rp1/2"	**1368746825**
	10 ... 400 l/h - 16 bar - DN15	**1368746916**
	30 ... 1000 l/h - 16 bar - Rp3/4"	**1368746858**
	30 ... 1000 l/h - 16 bar - DN20	**1368746949**
	75 ... 2000 l/h - 16 bar - Rp1"	**1368746881**
	75 ... 2000 l/h - 16 bar - DN25	**1368746972**
Threaded connection	VSR - Rp1/2"	**3753933**
	VSR - Rp3/4"	**3754536**
	VSR - Rp1"	**3755097**

NOTES

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